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Conceptualizing Oral Documents

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Abstract

Conceptualizing Oral Documents

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This dissertation proposes and explicates the concept of an *oral document* as a way to ground an exploratory discussion on orality and information behavior. This study isolates and focuses on information conveyed orally. A review of information behavior and allied literatures is used to explain what orality is and why it is important to information science. The meta-theory of social constructionism is used as a framework for defining and exploring the concept of an oral document. The concept of context additionally informs this effort. A field study methodology is used to gather observational data that demonstrate how utterances fit the definition for a *document* and incorporate properties of a document. Data analysis results in expanding the initial description of the concept under investigation. Results determine that the conceptualization of an oral document introduced is consistent with the concept of document and provides information researchers with extended capabilities for the study and analysis of information and knowledge that is created and conveyed orally. The dissertation provides recommendations for theory, practice, and future research.

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DEDICATION

I dedicate this work to my six grandparents and to my great grandmother.
Your stories live through me.

1. Overview

This dissertation introduces and explicates the concept of an oral document. It begins with a discussion of orality, or word-of-mouth transactions. The study explores the importance of orality and its particular significance for information science. The themes explored include how current applications of social constructionism make this study necessary, how orality provides a bridge between the past and the present, and how it makes complex communication possible. A review of information behavior and allied literatures explains how this exploration of oral documents fits into existing work. An empirical investigation that included collecting observational data and testing the conceptualization of oral documents is described. This study demonstrates that a selected subset of professionals within a specific organizational context create and use one kind of oral document. Additionally, the results provide a description of that kind of oral document.

The results of this exploratory study add to the body of information science knowledge by:

- establishing a definition for the concept of oral document,
- establishing a method to operationalize and study it,
- showing the value of using the concept to study orally-based information,
- furthering our understanding of the properties of documents,

- providing insight into the interdependency between context and orality,
- demonstrating the practical application of this definition in a study of information conveyed orally, and
- adopting the meta-theory of social constructionism.

1.1. Introduction

People interact with information (a definition of *information* is provided in 1.5.). Workers in organizations share it to accomplish tasks. Government officials manage it to maintain national safety, security, and sovereignty. Members of cultures share identity and values by exchanging it. It is passed on to young people and others as they prepare for their futures. Sharing and transmitting information is essential to nearly every aspect of our lives. Much of this sharing is done orally.

The proliferation of technology provides both challenges and opportunities for librarians and information professionals who collect, organize, retrieve, archive, design systems for, and otherwise manage information. Traditionally, collections held by libraries and other information institutions consisted of text in books and other paper-based documents.[1] Now, collections also contain electronic files,

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[1] *Information institutions* refers to organizations which provide information products or services (e.g., libraries, museums, information systems design companies, and the like; discussed further in 3.7.1.).

sounds recordings, video footage, and artifacts in a variety of other formats (an *artifact* is discussed in 1.5.). For example, up until the relatively recent past, the only option for recording a speech was to transcribe it. Today, it is possible to capture the speech, the speaker, and the audience on video or via streaming digital equipment. Information technology also makes it possible to record the content of voice mail, electronic chats, blogs, and asynchronous video conferences, and to store it alongside content made available in more traditional formats such as articles, books, and newspapers. Further, it is increasingly possible for information institutions to obtain the resources (e.g., funds for acquiring, space for storing, and equipment for accessing and maintaining) required to make these and other emerging kinds of artifacts available. It is interesting that the newer formats for information exchange more resemble information in oral modes rather than in traditional ones. Moreover, sharing information while speaking face-to-face persists (Meehan, 2000; Sole & Edmondson, 2002). Library and information professionals often do not have a clear sense of the differences between the three modes, traditional, emerging, and oral, through which information is made available.

We have a rich vocabulary to describe how we talk. We articulate, blab, brag, chitchat, comment on, converse, gossip, inform, interview, lecture, narrate, orate, preach, pronounce, retort, sass, smooth talk, tell, testify, utter, and verbalize. Most

of us know instinctively how to evaluate information shared in these manners. Unfortunately, very little research has been done on the different ways of sharing information by talking. A few studies, however, do address it directly (Fidel & Green, 2004; Solomon, 1997), and a number of studies have produced findings about it (Auster & Choo, 1993; Case, 2002, 2007; Fidel & Green, 2004; Huotari & Chatman, 2001; Ikoja-Odongo & Ocholla, 2004; Leckie, Pettigrew, & Sylvan, 1996; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991; Wilkinson, 2001). Some studies place it in a category with other modes used to access informal information, for example, sending information via electronic mail, mailing news via a postal carrier, printing information in an advertisement, and producing stories in a newsletter (Auster & Choo, 1993; Case, 2002, 2007; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991; Wilkinson, 2001; Zach, 2005). No studies consider it as a tool for documenting information.

In recent years, however, information science scholars have increasingly relied on a new theoretical perspective, social constructionism. According to this meta-theory, knowledge becomes available through contributions to dialog that can be made by writing, through actions or practices, or by talking (*knowledge* is discussed in 1.5.; Holland, 2005; McKenzie, 2003; Talja, Keso, & Pietilainen, 1999; Talja, Tuominen, & Savolainen, 2005; Tuominen, Talja, & Savolainen, 2002). The emergence of the meta-theoretical framework of social constructionism means that

information science is no longer limited to focusing on information made available via electronic, visual, or written modes.[2] The discipline may also focus on information made available in oral modes.

An example of how social constructionism helps to explain a phenomenon lies in how library and information professionals approach and provid+e access to information. We collect, organize, preserve, and facilitate access to information contained in or conveyed by artifacts. Examples of artifacts include books, databases, photographs, websites, and more. Focusing on artifacts enables us to study the information they convey and to develop ways to apply professional practices to them. We know, for example, that information stored on a compact disc requires the use of certain equipment. Books, magazines, and newspapers need physical storage space. Photographs, diaries, letters, and other memorabilia need special handling to ensure their longevity. Web sites incorporate certain design specifications that make them easy to use. Finally, citations in bibliographic databases are descriptions that help us retrieve the information they represent. In other words, our understanding of how information is made available through physical artifacts enables us to apply professional practices to them. We do not develop these practices until the nature of the artifact becomes clear. Moreover, according to social constructionism these practices are actions that make up

[2] *Format* and *mode* are used interchangeably to refer to the form in which information can be presented. In some areas of information science, the term *media* also refers to the form. The terms *mode* and *modality* will be mainly used throughout this dissertation.

contributions to the library and information science professional dialog about the modes through which information can become available. That is, the existence of these practices represents and perpetuates knowledge about what constitutes a legitimate source for information.

One area of information science research that accounts for informational artifacts, specifically how people interact with them, is information behavior. Like library and information professionals, information behavior researchers focus on what people interact with when they interact with information. Information behavior research consistently finds that people most prefer orally-based information. These findings mean that orally-based information also constitutes a legitimate source for information, but only a limited amount of information science research explains this information. We do not know whether talking can systemically convey information. We do not fully understand how obtaining information orally differs from obtaining it via a newspaper, an electronic mail message, a database, streaming video, or other modes used to transmit information. We do not understand why people are regularly and persistently motivated to talk with one another to share information in their daily lives and from generation to generation. Finally, we lack an understanding of what people interact with when they use orality to inform. One way to begin applying social constructionism principles regarding orality, along with research findings that confirm preferences for orally-

based information, is to identify an oral artifact. Such an investigation would reflect accepting how an oral artifact, like artifacts in traditional formats, also constitutes a legitimate source for information and is a prerequisite for someday developing practices that can be used to manage orally-based information.

I begin this exploration with the assumption that oral artifacts exist and that some of them provide information systematically such that they can be considered documents. In this dissertation, I propose that oral documents exist and that they can be studied by observing how people interact with information orally.

In this study, I demonstrate that the concept of an *oral document* helps ground current and future discussions of orally-based information. The concept builds on research findings in information behavior and document studies. I anticipate that this study will enable library and information scientists to understand and find ways to manage information conveyed by oral documents in a manner comparable to how we understand and manage information conveyed by informational artifacts in other formats.

1.2. Study Objectives

In this dissertation, I aim to enhance what we know about information that is made available and conveyed orally. I pursue this goal by reviewing relevant literature to conceptualize an oral document and by conducting an observational field study. I analyze data gathered to identify whether any utterances empirically observed incorporate properties present in an artifact considered to be a document. This analysis establishes that utterances which incorporate these properties are oral documents, and it provides a description of them.

The literatures reviewed focus first on social constructionism. This meta-theory explains how orality can create reality and establishes that orality has a role in information behavior. The literature review continues with an investigation into information behavior and allied literatures—anthropology, communication, history, linguistics, legal studies, literary theory, and organizational behavior. Selective findings demonstrate how orality renders past information current; helps define *context* in a way that facilitates an exploration of the interdependencies between orality and context; and provides additional insights into orality and information.

Next, I review literature that shows why orality is important for information science. This section explains that orality makes complex communication possible

and that people use it when they need, seek, and use information. I review information behavior literature that focuses on information needs, seeking, and use—specifically findings that address information in oral modes. This review identifies what we know about information interactions that involve orality (Auster & Choo, 1993; Case, 2002, 2007; Fidel & Green, 2004; Ikoja-Odongo & Ocholla, 2004; Leckie et al., 1996; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991; Wilkinson, 2001) and helps identify potential sources for oral documents. Many of the cited studies focus on managers and professionals in organizational contexts (Auster & Choo, 1993; Ikoja-Odongo & Ocholla, 2004; Leckie et al., 1996; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991). A small number of studies reveal how information made available by professionals differs from that made available by non-professionals (Case, 2002, 2007; Leckie et al., 1996; see 2.2.2.1.) in a way that is of particular interest to this dissertation. Therefore, I explore what we know about the information behavior of professions and about context in order to better understand orally-based information.

I conclude the literature survey by reviewing the document literature, which contributes to the dissertation in three ways. First, the document literature shows how the concept of a document accommodates the numerous modes in which a document can become available (Buckland, 1991; Briet, 2006; Frohmann, 2007;

Otlet in Day, 1997; *Oxford English Dictionary,* 1989). Information science literature defines the term *document* in one of two ways: by relying on formal definitions or by noting practices that influence this type of artifact (Buckland, 1991; Briet, 2006; Day, 1997; Frohmann, 2004). Frohmann (2004) asserts that practices can be identified in terms of how a document incorporates properties. Second, this review of the document literature informs a proposed working definition of an *oral document* (introduced in 2.3.1.). Finally, reviewing the document literature informs the design of the field study methodology used (see 3.3.). Specifically, I review Frohmann's properties (2004) and operationalize them to study how certain utterances can be considered a document.

A field study allows me to empirically observe people who are located in the same place while they talk face-to-face and interact with oral information. Conducting the study makes it possible to observe that they use one kind of oral document and how they use them. Data gathered include descriptions of what was uttered, how it was uttered (e.g., in phrases, through the structure, or in words incorporated into speech), and responses to those utterances. Analyzing the oral data helps identify how certain utterances incorporate the properties of a document and therefore make it possible to extend document status to them. Additionally, the analysis results in identifying how oral documents can be described in other ways.

Finally, the results provide an opportunity to reflect upon the working definition of an *oral document* presented and on the kind of oral document identified in this study. The results also demonstrate that this study can serve as a basis for future research that refines and extends the effort to increase our understanding of orally-based information.

This dissertation explores orality and information behavior by investigating one type of artifact, oral documents. Study objectives include: (1) articulating a definition for, (2) identifying attributes of, (3) articulating a research method for, and (4) implementing a method to empirically observe, an oral document. Successfully completing the fourth objective results in developing and operationalizing the concept of an oral document in a way that allows future scholars to replicate and extend this investigation. The first chapter of this dissertation explains the need for this research, clarifies the problem it begins to resolve, identifies questions to which it responds, outlines its objectives, articulates definitions for terms being used, and describes anticipated contributions.

1.3. Problem Statement

Library and information science concerns itself with all aspects of information. One of the ways that information becomes available is orally. This assertion is substantiated in three ways. First, the discipline increasingly relies on social constructionism which states that using orality—along with acting and writing—is one of three ways to contribute to dialog, which results in knowledge. Next, library and information science researchers have for some time produced findings about the importance of information conveyed orally. Information behavior research, for example, has consistently found that people prefer orally-based information to satisfy their information needs. And third, information professionals and others create, maintain, and improve newer formats used to exchange information by making more use of oral, rather than non-oral, modes.

Despite knowing that information becomes available orally, the discipline knows little about this oral information in comparison to how much it knows about information made available in other modes. For example, library and information professionals maintain practices for approaching and treating electronic, visual, and written information in articles, books, databases, documents, manuscripts, web sites, and more. Such professionals do not extend these or similar practices to oral information. Although the findings of information behavior research demonstrate

that oral information exists, few studies focus on and investigate it from the onset. This persistent lack of attention to oral information means that the discipline cannot accomplish its goal to increase knowledge about all aspects of information.

This minimal understanding of oral information presents challenges in deciding how to approach and study it. We already know how to approach and study information in non-oral by collecting, describing, organizing, retrieving, archiving, designing systems for, and otherwise managing informational artifacts. When information behavior researchers describe a type of information with which people interact, they frequently place an informational artifact into one of four categories: formal information, informal information, formal information source, or informal information source. Oral information can also be categorized in this manner even though researchers do not consider it an artifact like written information. On the other hand, one could argue that this way of categorizing means that no artifact is needed for approaching or studying oral information. However, the basis for such an argument is informed by practice, not by scholarly investigation.

The foregoing points demonstrate a precedent: Professionals and researchers approach and investigate information by engaging with informational artifacts that result from the mode through which they become available. Moreover, this discussion suggests that established professional and research practices may be

applied to any informational artifact, including an oral informational artifact should one be identified.

No prior study has identified an oral informational artifact. However, information science scholars have studied and learned to identify one type of artifact, a document, which occurs in numerous, non-oral modes. Given how a document can emerge in numerous modes and given the precedent for approaching and studying informational artifacts, it is plausible to assert that a document can be oral. This assertion also provides a useful strategy for approaching the complex goal of increasing disciplinary knowledge about oral information.

Information scientists can leverage what is known about approaches to informational artifacts in non-oral modes to learn more about orality and information behavior. A study investigating oral informational artifacts will need to respond to a number of questions. What informational evidence does an oral document convey? How can that evidence be deciphered or interpreted (*evidence* is discussed in 1.5.)? What attributes does an oral document have? Numerous studies that investigate the information behavior of professionals working in organizational contexts have found that they interact with information orally. Therefore, developing a response to the preceding questions is essential and requires exploring the role of context in orality.

Research that explains the concept of an *oral document* will lead to understanding interactions with orally-based information in general. The insights gained will also increase our comprehension of why people persistently rely on orality when interacting with information.

1.4. Research Questions

This dissertation will respond to the following research questions:

RQ1: How can an oral document be defined?

RQ2: What informational evidence does an oral document convey?

RQ3: Can an oral document be empirically observed?

1.5. Terms and Scope

This dissertation introduces and uses many terms in specific ways. Some of these terms include *oral document*, *information behavior*, *document*, *information*, *knowledge*, *evidence*, *orality*, and *artifact*. This section explains the way in which

these terms are used, while definitions for other terms are presented when they first appear within the text.

I propose the following working definition of an *oral document*:

> An *oral document* is an artifact conveying evidence or information: 1) about specific content and 2) that is embedded in the action(s) of furnishing that content through orality.

Defining and studying this concept draws on two distinct areas of information science, information behavior and document studies (see 2.3.). First, research into *information behavior* focuses on peoples' thoughts, feelings, and actions when seeking, giving, and using information in different contexts (Pettigrew, Fidel, & Bruce, 2001, 44). Second, information science literature defines the concept of a document by relying on a formal definition of the term or by describing practices influencing this type of artifact. I discuss both approaches to defining documents but rely more heavily on the latter.

Buckland (1991, 355) refers to a *document* as being anything that is informative. This definition accommodates documents that occur in any number of modes. It also suggests that one needs to consider how a document can be informative (Buckland, 1991; Frohmann, 2004). Buckland (1991, 359) states that there is a need for more study of the range of ways in which people become informed—by

objects, events, and intentional communication. Buckland's definition of document (1991) departs from and broadens other definitions of the term.

Frohmann (2004) introduces an additional way to identify a document by articulating how documents incorporate properties. The properties reflect practices which ensure that a document can provide informational evidence (see 2.3.1.). Information scientists (Briet, 2006; Buckland, 1991; Frohmann, 2004, 2007) explain how a document systemically conveys or transmits information. Buckland's definition of document (1991) and Frohmann's articulation of properties of documents provide structure to this exploration of oral documents.

Information in this study refers to Buckland's third category of information (1991), information-as-thing. *Information* is tangible and has the potential to become knowledge. *Knowledge* involves information that has been perceived, cognized, or intuited (see Buckland, 1991, 352). It involves an increasing awareness or other actions of becoming informed, whether it involves direct experience, description, or other kinds of information. *Evidence* refers to proof. The discipline of information science and its related professions are concerned with certain kinds of evidence that are informative and provide proof of a contribution to knowledge. Although *evidence* may be considered a synonym for information (Buckland, 1991, 353), using the phrase *informational evidence* helps distinguish the types of evidence that

are of interest to library and information science professionals and researchers. Informational evidence is therefore used to recognize, in part, the non-traditional perspective this study has of the physical nature of voice.

In proposing a working definition of oral document, I also assume a definition of *orality* as being the quality or state of some *thing* that is:

> delivered or transmitted… [via] spoken word; transacted by word-of-mouth; conducted by speech rather than in writing; using ordinary speech or lip-reading… (*Oxford English Dictionary*, 2008).[3]

Orality is one of many modes through which information can be made available. In order to increase our understanding of orally-based information, I will focus on orality as the face-to-face transmission of information. Focusing on face-to-face communication could include, for example, speeches, monologs, conversations, and even dialogic interactions between a large audience and a speaker addressing it. Conversation, dialog, and similar terms refer as much to an oral conversation as to a printed publication, even one published years earlier. The terms accommodate how information that emerges while communicating—in oral and other modes—can originate from more than one individual or can change in the course of a conversation or dialog. The scope of the research here will account for how more

[3] References made to the *Oxford English Dictionary* (1989, 2008; Winchester, 1998) rely on its method of researching the history of word usage in developing its definitions. It is especially considered a useful starting point when terms used do not have an information science research tradition or are being used in a different way than that tradition.

than one individual can shape orally-based information by focusing on how an utterance made by a single person can be influenced by others.

This scope excludes audio recordings, cell phone conversations, text messaging, transcriptions, video recordings, and the like because they involve technologically supported orality. Describing face-to-face orality may inform future investigations of technologically supported orality, as well as highlight the differences between information made available in these two ways.

Finally in proposing the concept of an oral document, this dissertation grapples with an emerging understanding of the term *artifact*. An *artifact* can be a non-material human construct or any thing crafted by human artistry or skill (*Oxford English Dictionary*, 2009). Artifacts occur in a variety of formats such as databases, newspapers, electronic mail, photographs, blog entries, and more. Recent usages of the term reflect how artifacts also occur in mental forms (*Oxford English Dictionary*, 2009). In reviewing the literature, I demonstrate how an utterance, which represents a mental artifact, is constructed (see 2.1.). All artifacts, despite their format, provide evidence about the circumstances and context under which they are created and used. I focus on how an oral artifact conveys information. Like the phrase informational evidence, the phrase informational artifact helps

distinguish artifacts that are of interest to library and information science professionals and researchers.

1.6. Anticipated Contributions

The purpose of this dissertation is to increase our understanding of oral contributions to knowledge. The study accomplishes this goal by addressing how orally-based information can occur in the form of an artifact. Its theoretical and practical contributions include the following.

Theoretical contributions include establishing a robust conceptualization of an *oral document* that has been substantiated through empirical observation. Specifically, this investigation defines and operationalizes the concept of *oral document*.

Next, according to research in genre theory, a *genre* is a term used in information management and in certain disciplines, particularly in communication, linguistics, and rhetoric (Yates & Orlikowski, 1992, 299-301). A g*enre* refers to a communicative action that has substance and form and is used to respond to a recurrent situation (Yates & Orlikowski, 1992, 299-301). Identifying how orality as

a tool conveys information will provide insight into current understandings of genre.

Practical contributions include acting on the social constructionism principle that orality contributes to knowledge production. This investigation extends methods of scholarship that previously have been applied to non-oral informational artifacts and applies them to orally-based information. This research strategy makes it possible to define, identify, and describe oral documents. It also provides a model for future investigations aimed at identifying oral documents in natural settings and increasing knowledge of information conveyed orally.

This investigation provides insight into how specific parts of a context provide resources for information shared orally. Different sub-contexts contribute to oral information in different ways. This study increases our understanding of the interplay between orality and context. It provides a way to articulate more precisely what parts of context influence orally-based information and how.

Next, information behavior literature tends to categorize information based in orality as being from an *informal information source*. This research demonstrates that orally-based information can also originate from a *formal information source*.

The results identify a need for increased understanding and more consistent interpretation and use of *formal* and *informal* categories of information sources.

The practical contributions of this dissertation include the creation of a preliminary vocabulary for discussing oral information. Such a vocabulary defines oral artifacts, what information each conveys, what practices influence them, and when one may be considered an oral document. In research on organizations, scholars like Pondy (1978, 1983) demonstrate how leaders use orally-based information strategically to remain responsive to multiple areas of responsibility and numerous entities simultaneously. In the absence of a vocabulary to distinguish more from less significant utterances, analyzing and describing oral strategies and the information they convey proves challenging. However with this preliminary vocabulary, professionals may develop different ways to identify what information conveyed orally requires additional access beyond it being initially uttered. Having a vocabulary may also inform a new perspective: professionals may use orality to document information. That is, the results can lead to articulating a set of instructions or developing practices for approaching the task of managing information orally.

Having a vocabulary to describe orally-based information can also lead to practical contributions for library and information professionals. They may consider whether

and how to apply traditional library and information science practices, that they apply to information in non-oral formats, to the information in oral ones. For example, library and information professionals may use the results of this study to develop metadata that describe how an artifact that can appear in an institution's collection (e.g., a secondary sound recording or tertiary transcription of a speech) differs from information provided by the original oral document from which it derives. In another example, library and information professionals may determine ways to develop information management systems that identify how information to which it provides access relates to information that system users interact with orally.

Overall, the anticipated contributions of this dissertation lie in how it begins to offer a scholarly explanation for distinguishing between various types of utterances such as a narration, sermon, pronouncement, testimony, and an oral document. This research provides a strategy for augmenting, with rigorous study, how we now intuit differences between a deposition, lecture, sermon, and an oral document.

1.7. Outline for the Proposal

The first chapter of this dissertation provides an overview and background for this research. The next chapter discusses social constructionism, information behavior, document studies, and allied literatures. Specifically, the second chapter discusses what orality is and how it is important for information science. The method used to study and address the research questions concerning oral documents is presented in the third chapter. The fourth chapter presents the results, discusses them, and evaluates the research design. Finally, the last chapter of this dissertation presents its conclusions and recommendations.

2. Literature Review

While this research sets out to identify an oral informational artifact, no similar research effort precedes this investigation. This presents challenges for determining which literatures assist in conveying existing knowledge and ideas relevant to oral informational artifacts or orally-based information in general. However, reviewing information science—especially information behavior, social constructionism, document studies, and allied literatures facilitate a conceptualization of an oral document on which empirical research can be conducted. The information behavior literature reviewed provides an orientation to how people interact—seek, find, and use—with information. Social constructionism literature indicates from where knowledge emerges. These two literatures address orality in ways that are relevant to this study. By contrast, document studies literature does not address orality. Still, it discusses how to determine when information is conveyed in a distinctive enough manner that it can be recognized as providing a documentary function.

2.1. Introduction - What Is Orality?

Orality is discussed in information science literature from a number of perspectives. It is also a focus of attention in allied literatures such as anthropology,

applied linguistics, legal studies, linguistics, literary theory, organizational behavior, and philosophy. These writings describe how orality is used to multiple ends including transmitting information. Reviewing these literatures helps explain orality's importance and its relationship with social constructionism. A number of themes emerge: (1) how orality creates social reality, (2) how it makes the past present, and (3) how it makes it possible to derive meaning from context.

2.1.1. Orality Creates Meaning and Social Reality

According to the metatheory of social constructionism, orality creates meaning and social reality. Social reality is knowledge that has been agreed upon socially. Tuominen, Talja, and Savolainen (2002, 272) explain that adopting a metatheory allows certain entities to come into focus. Social constructionism focuses on the entity of dialog as work accomplished through linguistic processes. Compared with constructivist theories, it marks a point of departure from those theories that focus on cognition (Tuominen, Talja, & Savolainen, 2002, 273)—the entity of thought—or on actions made by individuals (Holland, 2005, 95, 97). Instead, social constructionism builds on the claim that individuals are influenced by others in society and by society itself (Holland, 2005, 95, 97).

Engaging in dialog with others results in propositions or social agreements (Wittengenstein, 2001). Constructivist theories like social constructionism are based upon Wittengenstein's early investigations of how truth can occur when variables combine to form values (Glock, 1996, 140). This occurs whether those values are true propositions or true social agreements (Glock, 1996, 140). In other words, truth can be born from social realities because all agree to that truth. Further, all recognize that truth contributes to dialog.

Social constructionism holds that contributions to dialog can be made via a number of modes (Tuominen et al., 2002; Wittengenstein, 2001). For example, an organization's employee manual may state that any staff member may call for and lead a meeting. Yet in the organization's daily reality, meetings only occur when the supervisor calls for and leads one. This contradicts what is written in the employee manual. In this case, the fact that only supervisors call and lead meetings is a social agreement which must be honored as truth. Social agreements like this lead to the construction of meaning (Wittgenstein, 2001, 75[e]). This sort of meaning is the knowledge of which social reality consists.

Continuing with this example helps to explain another feature of social constructionism. A new supervisor who has read the employee manual about meetings may still be unfamiliar with how work is done. As such, she may wait for

another to call and lead a meeting. When none is called, she assumes no meeting is needed. The meanings that might be created from the dialogic interactions involved in meetings would, therefore, not come to fruition and this lack of emerging meanings could impact the workplace reality. The new supervisor, in this case, understands what has been written about meetings, but she has not gained access to additional information about meetings made available through other modes.

In the example, social agreements regarding meetings are negotiated through written, oral, and action-based (or practice based) contributions to dialog (Frohmann, 2004; Wittgenstein, 2001). Specifically, actions reinforce meaning derived from the oral contributions and contradict the meaning derived from written contributions. Social constructionism asserts that the different types of contributions when considered collectively reveal a different truth than when any contribution is considered singly (Tuominen et al., 2002, 278). That cumulative truth must be honored (Tuominen et al., 2002, 278). In the example, oral contributions have a greater influence in creating the workplace social reality. Information science scholars find that knowledge incorporates oral contributions to dialog, and they call for investigations into how this happens (Huotari & Chatman, 2001; Solomon, 1997). Discussing how language is used assists in continuing this exploration of how contributions to dialog create meaning and reality.

Making a contribution to knowledge involves using language, as a tool or as an activity, in a certain mode. That is, language can be used to create objective things like this sentence or the localized meaning of jargon or slang (Berger & Luckmann, 1966; Talja, Tuominen, & Savolainen, 2005, 89; Wittgenstein, 2001). In some contexts, the word *bad* is actually used to refer to something good. Language can also be used to create social reality, which is something less tangible, for example, like a culture or a mood. In order to use language in a way that results in a sentence or a culture, those who use the language must be in agreement. If no one agrees that 'this is a sentence' or that referring to hot dogs and apple pie perpetuates American culture, then there would be no sentence and no reference to culture. Since agreement exists, both 'this is a sentence' and the cultural reference not only reflect that an agreement has been made, but they are also evidence of that agreement. Wittgenstein (2001) argues that using language in ways explained in these examples are methods for forming meaning and social agreements. Berger and Luckmann (1966, 36-41) list a number of ways that language can be used, as:

> [1] a system of signs replete with objective qualities; [2] signals that represent objective reality; [3] a repository of objective reality; [4] tools for the interpretation of subjective reality; [5] tools to create understanding between different parts of reality or different contexts; and [6] both a tool and supplier of ingredients for creating accumulations of shared or common knowledge.

This diverse list of ways to use language shows how using language leads to a number of different outcomes, including producing different kinds of artifacts or symbols of socially agreed upon meanings. They provide evidence of social agreements made by engaging in dialogic processes (Wittgenstein, 2001, 75[e]). As demonstrated in the examples being discussed, the evidence occurs in two forms—objective things, like slang, and categories of social reality, like culture (Berger & Luckmann, 1966; Talja, Tuominen & Savolainen, 2005, 89; Wittgenstein, 2001).

Objective things differ from categories of social reality according to how language is used. To explain, the theoretical framework of social constructionism holds that language can be used either as a tool or as an activity in which to engage (Wittgenstein, 2001). The examples of meetings described in the employee manual and a call to meet reflect using language as a tool. The first is a written statement, the second a notification. Both are objective things that have been constructed. Information scientists focus on objective *things* that can be considered informational artifacts.

Engaging in an activity that depends on language involves using information conveyed through the meanings of words to create some form of reality. For instance, leading a meeting involves numerous activities (e.g., setting an agenda, calling the meeting to order, resolving each agenda item, or disseminating work

assignments). These activities may entail uttering phrases like, “I call this meeting to order” or “ok, that concludes this agenda item, next we have…” Phrases such as these do not create an objective *thing*, but they do create a *social reality*—one that those present agree to refer to as a *meeting*. Another meeting activity that depends on language involves referring to some department, person, procedure, situation, or process by using a title, a name, or a brief phrase. These types of references become a type of shorthand. They help a speaker convey related information without having to provide detail using original language. For instance, someone may comment, “it’s in *Chris’* area,” “*marketing* will handle that,” or “it’ll be like another *orientation* event, but for seasoned managers.” *Chris*, *marketing*, and *orientation* are signals. They supply the dialog with shared knowledge of *social realities*, although again, no objective *thing* is created. So, information conveyed by language may be considered a kind of shorthand for referring to some larger concept, event, idea, phase, or the like. Put more generally, words convey information because they reflect social agreement. Meanings created from activities such as these contribute to dialog. The example demonstrates how the meanings assist in creating the social reality of meetings in an organization.

This discussion has shown the different ways in which language is used. Each way contributes to dialog regardless of the mode of the contribution. A written contribution may involve using language as a tool (to create an employee manual)

or engaging with it as an activity (to create the social reality referred to as a meeting or an organizational culture). The same is true of an oral or an action-based contribution. Deciphering the meaning of a contribution involves considering the context in which it is made (Berger & Luckmann, 1966; Wittgenstein, 2001).

The example we are following involves social agreements made within a single organization. Different social agreements may be honored in different contexts (Berger & Luckmann, 1966; Wittgenstein, 2001). That is, dialog not only depends on using language, it also depends on context. In one example from above, saying, "it's in *Chris'* area," means that someone named Chris works in some area of an organizational context. The speaker assumes that others are familiar with the context enough to know whether *Chris' area* is a department, a physical location, or steps in some procedure. Using the linguistic phrase, *Chris' area*, within the organizational context makes it possible to create and decipher meaning.

Talja, Keso, and Pietilainen (1999, 752) describe how social constructionism involves an interpretive approach to language use that frames context as a carrier of meaning and explains that it is not distinct. Instead, context is integrated with, and carries meaning about cultural, historical, and social entities (Talja et al., 1999, 752). When people use language to communicate, the words, structures, and meanings are context dependent (Solomon, 1997; Talja et al., 1999; Tuominen et

al., 2002, 277). In fact, context not only influences and informs how language is used, language also informs context (Solomon, 1997; Wittgenstein, 2001). For instance, a coin can mean currency in a market place, while in a children's play room it can serve as a substitute game piece (Goodwin & Duranti, 1992, 16-17). Actions and utterances within these two contexts will establish and reinforce these different meanings. Context is discussed to a greater extent later in this chapter (see 2.1.3. and 2.3.3.). The point that is important to make here is that context and the ways in which language is used (e.g., in writing, in orality, and in actions or practices) contribute to the creation of meaning. This meaning creates social reality.

To summarize, social constructionism explains how knowledge is formed (Berger & Luckmann, 1966; Wittgenstein, 2001). Knowledge comes from the meanings and social agreements that result from dialog (Berger & Luckmann, 1966; Holland, 2005; Talja et al., 2005; Wittgenstein, 2001). Dialog involves people using language as a tool or as an activity. People also contribute to dialog by using language in their actions or practices (Berger & Luckmann, 1966; Frohmann, 2004; Wittgenstein, 2001). Knowledge consists of the combination of these types of contributions (Tuominen et al., 2002, 278). Knowledge is also context specific (Berger & Luckmann, 1966; Solomon, 1997; Talja et al., 1999; Tuominen et al., 2002; Wittgenstein, 2001). Context informs and is informed by dialog. From this section of the literature review, it is possible to conclude that orality is important

because it combines with writing, practices, and context to result in those meanings that lead to the creation of social reality.

2.1.2. Orality Makes the Past Present

In addition to having an important role in creating social reality, orality is important because it makes the past present. Vansina asserts that orality, in the form of the oral tradition, functions to represent both the past and the present (Vansina, 1985). The oral tradition refers to verbal messages passed over at least one generation by word-of-mouth (Vansina, 1985). Examples and research findings from cultures that primarily depend on orality, and not on writing and its influences, explain how this occurs.

Native peoples living off the southeastern coast of the Indonesian archipelago on the Andaman and Nicobar islands rarely have contact with outsiders—indeed they actively rebuff visits from outsiders (Bhaumik, 2005). Despite having no modern communication system, nearly all their members survived the December 2004 tsunami by moving to higher ground before the giant waves came ashore (Bhaumik, 2005). This can be explained by their oral culture (e.g., reliance on the oral tradition). Before the tsunami reached their shores, a story was told of a:

> huge shaking of ground followed by a high wall of water
> (Bhaumik, 2005).

This story helped these islanders recall events that had occurred after a historical earthquake. They used knowledge of those past events to evaluate their present situation in which an earthquake had just occurred. The knowledge captured in the story was formed in the past, but it was recognized as being relevant to the present. It explained when and why the indigenous people would need to move to higher ground. They heeded its lesson. Put another way, knowledge about the past was used to generate new knowledge about present weather and oceanic conditions and about strategies to negotiate them.

In another example, scientists had no source for historical information about the ice shelf prior to 1978 when orbiting satellites were first put in place (Lindsay & Smith, 2005). To obtain this information, they began to listen to stories from the oral tradition told by the native peoples living in the region (Lindsay & Smith, 2005). Like the people on the Indonesian archipelago, these scientists used native knowledge from the past to generate the contemporary knowledge they needed about the ice shelf. Where the tsunami example involving past and current knowledge is fully based in an oral culture, this example demonstrates how past knowledge from an oral culture is used to create current knowledge in a contemporary, oral cultural setting.

Two similar examples demonstrate how this also occurs in multi-national contexts. The World Intellectual Property Organization (WIPO, 2006) is working to codify international standards for treating evidence captured in orality that concerns intellectual property rights, involved for example in how native peoples' knowledge of herbs are used to create pharmaceuticals. And, the Native American Graves Protection and Repatriation Act (NAGPRA; 1990) allows claims for the return of Native American remains and artifacts to tribes from which they historically originated to be made on the basis of oral evidence. Oral evidence acceptable for protections offered through WIPO and NAGPRA (1990) primarily stems from the oral tradition. Native populations in oral cultures recognize this evidence as historical and as new knowledge; these examples demonstrate how those in contemporary settings now do as well.

Research points to contemporary examples of how orality can bring knowledge about the past into the present. One example occurs in Brown and Duguid's reconsideration (1991) of Orr's ethnography of photocopier repair workers. The workers use past knowledge based on experience they had gained from fixing broken copiers to create organizational stories (Brown & Duguid, 1991). They later repeat the stories on multiple occasions to resolve to diagnose and resolve new problems that emerge (Brown & Duguid, 1991). In other words, Brown and Duguid

(1991) demonstrate how the workers use past knowledge to generate new knowledge.

When orality captures past knowledge to generate new knowledge relevant to the contemporary setting, Brown and Duguid (1991) find that orality helps generate knowledge about more than one thing. This knowledge can be used to help resolve problems as well as to provide information about the organizational context (Brown & Duguid, 1991, 47, 55). Each retelling provides photocopier repair workers with knowledge about what constitutes a problem and socially acceptable ways to approach and resolve it (Brown & Duguid, 1991, 43). The oral retelling of these stories reconstitutes past knowledge and reminds all that values held in the past continue to be held in the present (Brown & Duguid, 1991, 47, 55).

Weick (1979), who finds a more conceptual way to distinguish between the past and the present, would disagree. He does so by differentiating between *enacted* and *perceived* experiences (Weick, 1979). Weick (1979, 164) categorizes engaging in orality as an *enacted* experience because an utterance helps establish, or enact, a context (Weick, 1979, 164). Self-reflective thoughts, or *perceived* experiences, precede actions to establish a context (Weick, 1979). Perceptions may influence how a context becomes established, but perceived and enacted, or established, contexts differ (Weick, 1979, 164). For one, establishing a context is an action that

takes place in the present; perceiving an experience involves information about the past (Weick, 1979, 164). The point of this discussion is that establishing or constructing a context is an action—accomplished for instance by engaging in orality—that may be influenced by past perceptions, but involves using contemporary, not past, knowledge.

Sole and Edmundson (2002) also support the claim that orality emphasizes the present, not the past. They additionally find that context plays a significant role in generating knowledge. Sole and Edmundson (2002) studied teams of people responsible for resolving site-specific problems. While most team members were located at that site, others had been located in different geographical locations, away from the problem site (Sole & Edmundson, 2002, S27). Teams did not consider the knowledge held by the off-site team members as a resource for resolving the problem because they were located away from the problem site (Sole & Edmundson, 2002, S31). Face-to-face oral interactions helped change this perception (Sole & Edmundson, 2002, S31-S32). The off-site team members were relocated to the problem site (Sole & Edmundson, 2002, S31-S32). Once the whole team became co-located, they talked together to form new knowledge. Contributions to that dialog included the previously off-site members' past knowledge and their problem site-specific knowledge (Sole & Edmundson, 2002, S19, S30). The team continued to talk, which led to the discovery of new

knowledge needed to resolve the site-specific problem (Sole & Edmundson, 2002, S30).

According to Sole and Edmundson (2002, S19, S30) having past knowledge from the same specific setting within some context makes dialog—with its focus on generating new and current knowledge—possible. The team members used orality to convert past knowledge from different settings within their organizational context (e.g., from the problem site and wherever site[s] from which the formerly off-site team members had gained knowledge) into new, problem site-specific knowledge (Sole & Edmundson, 2002, S17, S20, S31). Once it had been converted, the co-located team members could all share this knowledge and use it. The team could talk about the now shared knowledge to generate new knowledge about the unresolved problem (Sole & Edmundson, 2002, S20-22, S30-32). In effect, the team used orality to generate new knowledge about two things: resources available for resolving the problem and the resolution itself. Sole and Edmundson (2002) focus on how orality is used in support of current knowledge generation. However, their research also reveals that orality is used to contextualize and insert past knowledge into a new context where that new knowledge is needed.

Jan Vansina's works (1961, 1985) support the idea that past knowledge must first be contextualized before it can contribute to contemporary knowledge. The book,

Oral Tradition as History (Vansina, 1961), explains how historians can use knowledge from an oral cultural context in an academic one, which in part demonstrates Vansina's support of this idea. Sole and Edmundson (2002) conduct their research in a contemporary, business environment. They do not specify in what mode past knowledge must occur for it to aid in generating new knowledge (Sole & Edmundson, 2002). They explicitly state however that face-to-face orality and co-location are needed to contextualize past knowledge (Sole & Edmundson, 2002) in order to create new knowledge.

By contrast, Vansina (1985) specifically examines past knowledge in oral modes. He articulates a method for deciphering past knowledge that is situated within orality. He describes a way to introduce or represent past knowledge in ways consistent with current scholarly research standards (Vansina, 1985). Past knowledge is essentially *re*-presented and used in contemporary academic contexts. Although orality is used in academic contexts, written documents tend to be relied on when generating new knowledge (see Taylor, 1991, 228).

The different views of these three researchers suggest that context influences what new knowledge is generated from past knowledge and how that knowledge is shaped before it is used in the present. Hall (1993, 149-156) identifies what resources play a role within orality and how they relate to context. These resources

include informational content, linguistic formulas, structures for participation, social and cognitive purposes, and setting—the latter gives physical, spatial, and temporal conditions (Hall, 1993, 153-155). These resources provide orality with structure (Hall, 1993, 153). The resources and the resulting structure originate from and are specific to a context (Hall, 1993). The structure aids continuity within that context because it helps in interpreting and negotiating meaning within orality (Hall, 1993, 155-156). For example, addressing someone by saying, "give me a call, Honey," reveals past knowledge. The statement could be interpreted as confirming continued intimate relations, initiating more than casual contact, or ending all contact depending on the particular context in which it is uttered.

Engaging in orality incorporates resources or existing knowledge about a particular context (Hall, 1993). Knowledge may be used in the same way it had been used in the past or it may be used differently. Using it differently introduces new knowledge into that context (Hall, 1993, 147-148). The statement in the previous example could have been frequently uttered in private to ensure intimacy between two people. The first time the statement is uttered in public would introduce new knowledge into the context of that relationship. In other words, the past knowledge would be purposefully reconstituted to signal that the relationship has become public or more serious. Hall (1993, 147-148) refers to this as tension because it introduces change. Tension exists between how orality can create a new social

reality or re-create or maintain an existing one (Hall, 1993, 147-148). The point that is important to this discussion is that Hall's (1993, 147-148), along with Sole and Edmundson's (2002, S20-22, S30-32), findings infer that using orality generates resources that later may be used within or to refer to some context. This point and the preceding discussion show that orality can make past knowledge current in part because it uses resources that had been generated previously in or about some context to create additional resources within or regarding that context.

To summarize, those who engage in orality *re*-present past knowledge. Doing so inserts that knowledge into the present, which renders it current or new. In this way, some scholars believe orality acts as a repository that helps maintain and perpetuate both past and present knowledge (Brown & Duguid, 1991, 45, 48-49). Three scholars, Sole and Edmundson (2002) and Weick (1979), hold that orality supports present not past knowledge; others, Brown and Duguid (1991), Hall (1993), and Vansina (1985), note how orality simultaneously supports both past and present knowledge. Engaging in orality by using past knowledge in a specified manner not only creates new knowledge, it also aids in creating or maintaining some social context (Hall, 1993; Sole & Edmundson, 2002). Put more generally, specific instances of orality provide evidence of the past; help perpetuate it in creating the present; create and perpetuate context by providing information about that context; and create resources for current and future use. Finally, the fact that

context plays this important role in how orality makes the past present serves to introduce the next section.

2.1.3. Orality Makes It Possible to Derive Meaning from Context

Orality is important because it makes the past present and creates social reality. The fact that both of these functions also rely on context makes it necessary to consider the relationship between orality and context. It also makes it necessary to define *context*. Berger and Luckmann (1966, 25-26) define *context* as confined subdivisions of reality. They describe how context is maintained in part by placing limits on the broader reality (Berger & Luckmann, 1966, 25-26). These limits are placed by using language in dialog (Berger & Luckmann, 1966, 25-26). Context is instrumental in how social constructionism frames dialog and meanings that emerge from it. In addition, information behavior and allied literatures, mainly linguistics and anthropology, offer a number of different working definitions for *context*. The following section describes how the term is discussed in these literatures and introduces the definition of the term used within this dissertation.

2.1.3.1. Context

In linguistics, Hall (1993) examines resources used in oral practices in a way that demonstrates how orality makes it possible to derive meaning from context. Oral practices are face-to-face, culturally-mediated interactions (Hall, 1993, 145). They involve individuals within a group who together build and rebuild their everyday social lives (Hall, 1993, 145). Oral practices influence individuals because they incorporate the social, spatial, and temporal resources of that social group (Hall, 1993, 149). Oral practices reflect the way that groups and individuals shape each other, which makes the practices more powerful socialization agents than pedagogy (Hall, 1993, 149). This social knowledge, transmitted orally, is essential to maintaining and perpetuating group context. Hall's (1993) findings clarify how orality and the knowledge it transmits shape and are shaped by context.

Like Hall (1993), Solomon (1997) helps explain the relationship between orality and context. Increasingly, information science researchers, including Solomon (1997), are considering context more seriously (see also Boje, 1991; Cheuk & Dervin, 1999; Clark, 1996; Havemen, 2000; Katzer & Fletcher, 1992; Taylor, 1991; Williamson, 1998). This may reflect an increase in studies that incorporate social constructionism or rely on user-centered approaches (Dervin & Nilan, 1986; Holland, 2005; Pettigrew, Fidel, & Bruce, 2001). Solomon (1997) uses linguistics

and sociolinguistics to investigate orality and information-seeking behavior in different contexts. Using conversation analysis, he finds that engaging in orality leads to the creation of substantive intellectual ideas and linguistic material—textuality (Solomon, 1997, 223). Such engagement also leads to other ideas and materials with social and psychological substance (Solomon, 1997, 223). All of these ideas and materials, or textuality, then become resources that are used to create context (Solomon, 1997).

Talja et al. (1999, 752) similarly show that context is not an isolated entity. They claim that it is broader and not distinct from resources such as cultural, historical, and social factors (Talja et al., 1999, 752). It carries meaning that is subjectively interpreted (Talja et al., 1999, 752). Talja et al. (1999, 761) define *context* as frames of reference containing relevant elements. Referring to context as having more than one frame is similar to how Berger and Luckmann (1966, 25-26) define it as having multiple parts, or subdivisions. These definitions allow multiple phenomena to come into view (Talja et al., 1999, 752). They note that it would be useful to have additional information about the parts of context (Talja et al., 1999).

Recognizing the complexity of context has had a gradual onset. Cheuk and Dervin (1999) describe historical investigations into context. They focus on how users interact with context when engaging in information seeking and in information use

behaviors (Cheuk & Dervin, 1999). They introduce their empirical study with an observation about an historical interpretation of context. In workplace studies of the 1950's, the term *workplace* was synonymous with the term *domain* (Cheuk & Dervin, 1999, 2). Also during that time, a domain in which professionals worked was characterized as having a level of constancy with regards to time, space, or other circumstances (Cheuk & Dervin, 1999, 2). The researchers additionally note how the term *contextual* has been used interchangeably with the terms *situational* and *dynamic* (Cheuk & Dervin, 1999, 2). Even when context has been viewed uniformly, recognition has been given to how context also involved active or changing circumstances.

In their 1990s empirical studies, Cheuk and Dervin (1999, 2) note that even within a single context, numerous factors influence information seeking and use. These factors include situation, task, age, education, personality, and cognitive style (Cheuk & Dervin, 1999, 2). Cheuk and Dervin (1999, 23-26) interview professionals in three different professions and generalize findings across the professions (Cheuk & Dervin, 1999, 23-26). In doing so, the researchers suggest a more expansive definition of context—one which recognizes that people's information seeking and use behaviors differ at different times (Cheuk & Dervin, 1999, 26). The differences stem from negotiating unique situations and/or contexts

(Cheuk & Dervin, 1999, 26). Despite these differences, however, a consensus emerges.

Cheuk and Dervin (1999, 7) operationalize sense-making by measuring micro-moments. A micro-moment is a single information seeking activity (Cheuk & Dervin, 1999, 7). Each research participant engages in a certain number of these activities. According to their critical incident method, each set of micro-moments involves a different workplace situation or context. Yet, each set also takes place within a single organization in which the participant works. So, all the different workplace situations and contexts are similarly contextualized because they are a part of a single, larger organizational context. Cheuk and Dervin's (1999) findings suggest that an organizational context contains smaller, more localized contexts or sub-contexts within the larger whole. As such, each of these smaller sub-contexts situates information that is relevant to the larger one. Although not the focus of their research, Cheuk and Dervin's findings (1999) incorporate how context has multiple, related parts. This reading of their work demonstrates how it supports Berger and Luckmann's (1966) and Talja and colleagues' (1999) suggestion that context has multiple parts.

Like Cheuk and Dervin (1999), Day (2005) also acknowledges that context may be described as having sub-contexts or parts. The parts incorporate Harré's social

psychology of philosophizing (Day, 2005). According to Day (2005, 632), context is internal and external. Someone's internal knowledge about a context is considered as having potential (Day, 2005, 632). The potential becomes actualized or realized when someone publicly expresses their internal thoughts in a recognizable manner (Day, 2005, 632). Context makes it possible for that knowledge to be recognized (Day, 2005, 632). The reverse is also true. Being recognized makes it possible for that knowledge to take on an external or social form (Day, 2005, 632). Or, expressing internal knowledge about context also perpetuates (the external) context (Day, 2005, 632). Given this, Day (2005) suggests that the nature of context is dualistic and interactive. It lends itself to the creation of meaning through both its potentiality and its realization (Day, 2005, 632). Day's (2005) work is relevant to this discussion because it lends support to the idea that context has more than one part—specifically, internal and external ones.

Day's (2005) conceptualization of internal and external contexts to some extent resembles Weick's (1979) conceptualization of perceived and enacted contexts (see 2.1.2.). That is, internal (Day, 2005) and perceived (Weick, 1979) contexts involve mental representations. Meanwhile, external (Day, 2005) and enacted (Weick, 1979) contexts involve realizations of those representations. Both observe that mental contributions to context are notable. However whereas Weick (1979) uses a

temporal distinction, Day (2005) relies on a social-psychological one. Both researchers, while approaching context differently, assert that context has more than one part.

To summarize, a number of themes about context emerge within information science and allied literatures. First, context has a reflexive relationship with orality in which orality influences context and vice versa. Next, using the lens of social constructionism, information science literature sees context as being active, as facilitating the public expression and transmission of meaning, whether of itself or of other phenomena. Finally, context has more than one part. It may have one or more sub-contexts embedded within it. Although these themes emerge, researchers have arrived at no consensus for defining *context*. A brief consideration of context from literatures in other disciplines is therefore helpful in articulating a working definition suitable for this larger discussion of the importance of orality.

2.1.3.2. Defining Context

Like Talja et al. (1999), Goodwin and Duranti (a linguist and an anthropologist; 1992) rely on the concept of a frame in their definition of context. They consider context to be a frame that surrounds an event being examined (Goodwin & Duranti,

1992, 3). This frame provides resources that are necessary to interpret that event (Goodwin & Duranti, 1992, 3).

Goodwin and Duranti (1992, 7) see context as having more than one part consisting of a main event, or focal event, and the frame around it, the background. A *focal event* refers to some contextualized fact, occurrence, or circumstance, which includes both non-verbal and verbal activity (Goodwin & Duranti, 1992, 3). The focal event compares to the main figure in a visual art piece (see Figure 1; Goodwin & Duranti, 1992, 9). *Background* is akin to a field, or the portion of human interaction that embeds the focal event (Goodwin & Duranti, 1992, 3). Essentially, the background is in view, but not the primary focus of the context. Setting, behavior, environment, and talk itself are all attributes of context (Goodwin & Duranti, 1992, 3).

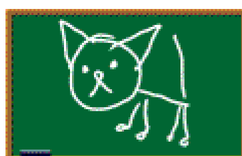

Figure 1. A Representation of Context
The figure of the cat represents the focal event. The background consists of all that appears between the image of the cat and the boundary of the chalk board, including the frame itself.

This view of context is supported by Cicourel (in applied linguistics; 1992, 304-305) for whom context is expressed as the combination of language use and social

interaction. Language use involves knowledge that is both systematic and codified (Cicourel, 1992, 304-305). Cicourel's empirical findings (1992, 296) reveal how context can be discussed empirically and conceptually by examining the following: local, sociocultural, and institutional aspects of a situation or an organization; a person(s) along with their role and title; and recent and historical activities. For instance, addressing or referring to individuals with higher level medical training and decision-making authority by using the title *doctor* perpetuates the structure within a health care organizational context and results in a specific kind of attention (Cicourel, 1992, 294-295, 298-299).

Cicourel (1992) researches communication in a medical context—a complex setting replete with internal and external sub-contexts including hierarchical relationships, commitments to professional associations and labor unions, relationships with distributors and suppliers, the provision of patient services, and more. A focal event has the potential to emerge from any of these sub-texts, and it would be related to the background of the health care organizational context.

In conducting his research, Cicourel (1992, 303) comments on having ignored some aspects of context. His having done so is consistent with how Goodwin and Duranti (1992) distinguish between a focal event which is of primary focus and some related background which is not. Cicourel's findings (1992; see also

Tuominen et al., 2002, 278) reinforce the idea that language use and interactions which are social combine to produce context. What can be gleaned from Cicourel's (1992) research is how information about context can be mined from interactions involving language use.

When looking to allied literatures for help in augmenting information science understandings of *context*, one notes how both Goodwin and Duranti (1992) and Talja et al. (2005) incorporate the concept of frames into their respective definitions. Yet, Goodwin and Duranti (1992) approach the term in a way that more directly addresses how the different parts of context are interrelated. I propose the following working definition of *context* that combines these two definitions:

> frames of reference, incorporating a focal event and a background, which support the study of relevant elements.

This proposed working definition reflects how context has parts, or *frames* of reference, that help explain how knowledge can be incorporated into one or more parts of a context (e.g., *focal event* or *background*). Deciphering meaning with regards to a focal event may involve knowledge that is contained within the background of some context. Katzer and Fletcher's (1992) research into dynamic problem situations and how they are resolved helps explain how.

Katzer and Fletcher (1992, 249-250) assert that managers must assume that all problem situations are dynamic. *Dynamic problem situations* are replete with information overload, social constraints, and politics (Katzer & Fletcher, 1992, 249). And, they can be ill-defined, stable, or independent (Katzer & Fletcher, 1992, 249). Examples of dynamic problem situations include hiring staff and preparing a periodic budget (Katzer & Fletcher, 1992, 231). When managers work to resolve a hiring situation (a focal event), they consider what knowledge exists about that situation and how it would be formed and influenced by roles and activities within the background of that context. These sorts of influences may include human resources procedures, budget matters, and professional standards for training and education. Dynamic problem situations are shaped by activities and roles, which:

> are often defined or constrained by the legal requirements of a society, the standards of a profession, or, the normative practices of a work group (Katzer & Fletcher, 1992, 230, 231, 249-250).

The way that Katzer and Fletcher (1992) characterize influential activities and roles suggests that dynamic problem situations are embedded within different frames of reference. As such, the frames contain information that may be relevant to a given situation, or focal event. Katzer and Fletcher (1992, 249-250) assert that resolving dynamic problem situations must incorporate knowledge of context. That is, knowledge of the background of the context is needed to resolve dynamic problem situations.

To review, using the concept of frames to define context is consistent with definitions of the concept presented in the literature (Goodwin & Duranti, 1992; Talja et al., 1999). The literature addresses how context has more than one part (Berger & Luckmann, 1966; Cheuk & Dervin, 1999; Cicourel, 1992; Day, 2005; Goodwin & Duranti, 1992; Katzer & Fletcher, 1992; Solomon, 1997; Talja et al., 1999; Weick, 1979), including the frame embedding some event, identified as the background and a focal event (Goodwin & Duranti, 1992), which have been incorporated into the working definition of context proposed herein. This working definition is useful for this exploration of orality because context and orality are interdependent (Cicourel, 1992; Hall, 1993; Solomon, 1997).

2.1.4. Summary

To summarize, orality is important for a number of reasons. First, it creates meanings and social agreements. This is revealed through the lens of social constructionism which explains that orality, along with other ways to contribute to dialog, result in knowledge that creates social reality (Frohmann, 2004; Wittengenstein, 2001). Second, orality makes it possible to *re*-present knowledge from the past in a way that renders it current. It makes the past present (Vansina,

1985). And, finally orality makes it possible to derive meaning from context (Berger & Luckmann, 1966; Goodwin & Duranti, 1992; Hall, 1993; Solomon, 1997; Talja et al., 1999). Knowledge is context specific. Meanings can change depending on the context in which they are interpreted and used (Goodwin & Duranti, 1992). Information about context is essential to interpreting meanings and social agreements within orality (Berger & Luckmann, 1966; Day, 2005; Talja et al., 1999). Moreover, context has more than one part (Berger & Luckmann, 1966; Cheuk & Dervin, 1999; Goodwin & Duranti, 1992; Talja et al., 1999). Engaging in orality facilitates the recognition and perpetuation of those parts. Understanding the parts of context that are reflected within orality requires a more nuanced definition of context. The working definition of context proposed is: “frames of reference, incorporating a focal event and a background, which support the study of relevant elements.” Having this definition of context and an understanding of the importance of orality provide a way to consider how orality has been discussed in information science literature.

2.2. Why is Orality Important for Information Science?

2.2.1. Orality Makes Complex Communication Possible

Maintaining a society involves resolving complex matters with regards to governance, ownership and use of resources, legalities, and more. To accomplish this, people communicate in ways that transmit information across and between contexts. This sort of communication is complex. Orality facilitates it. As with the discussion on context, explaining how orality makes complex communication possible requires an exploration of literature within and outside of information science. This section describes how literature in anthropology, history, legal studies, literary theory, and information systems help explain how orality plays a key role in facilitating complex communication.

In the legal field, the oral argument demonstrates how orality facilitates complex communication. Metzger (2004) provides insight into how historical Roman legal practices have influenced the use of orality throughout time up to modern legal procedures. He traces the origins back to the Principle of Orality and the Principle of Immediacy which guided the development of legal practices (Metzger, 2004). Although he recasts a widely accepted interpretation of the principles as being

biased to contemporary ends (Metzger, 2004), the long standing persistence of that interpretation makes it relevant to this discussion.

The Principle of Orality stipulates the use of face-to-face interactions in conveying legal case information. It has been interpreted in this way since at least the late 1800s. Around that time, the Principle was identified as having mitigated a complex procedure; that procedure had been dominated and rendered secretive by relying on writing (Metzger, 2004, 262). The Principle of Immediacy (also controversially interpreted as the *sunset* or the *one day rule*) ensures minimal mediation by stipulating that a judge hear important legal information in the most direct manner possible (Metzger, 2004, 265-268).

An interpretation that prevailed for decades holds that the Principle of Orality together with the Principle of Immediacy merged to ensure integrity (Metzger, 2004, 265). They minimize delay—caused for instance by writing processes or by a third party relaying information—in pleading, providing proof for, arguing against, and judging a case (Metzger, 2004, 265). It assumes,

> that a judge… will have a vivid picture of the case in mind and thereby be less liable to make a mistake (Metzger, 2004, 266).

Another interpretation attributes support for the Principles to the nature of recording options available at that time in history (Metzger, 2004, 264). In a tone reminiscent of a classics study, Metzger (2004, 267-269) provides other perspectives on how and why orality became essential to legal procedure. And, he explains that these modern interpretations of the principles may not match their historical roots because so much Roman history has been lost (Metzger, 2004, 267-269).

Yet, oral arguments persist as a significant component of legal procedure. The modern understanding behind this significance that has prevailed for some time states that at least three representations of experience exist: 1) mental—Metzger's (2004, 266) "picture… in mind", 2) oral, and 3) written. Because some historical interpretations have likened the mental representation to the oral one, it is important to discuss the idea of a mental state. Discussing the mental representation is not to debate whether it, like orality, may result in an artifact. Instead, it is useful to discuss it as one of the "raw ingredients" or components that inform orality and to discuss how social and other dynamics shape this primary resource of orality—along with language and sound—before speech is uttered.

An information systems scholar, Boland (1995, 355) asserts that individuals' thoughts are neither isolated nor born from autonomous sources of knowledge.

Similarly, Fentress and Wickham, an anthropologist and a historian (1992, 72), make a strong case that the nature of memory is social not individual. They explain how memory is regulated by language, formal pedagogy, informal learning, and interactions that lead to shared ideas and experiences (Fentress & Wickham, 1992, 7). They also explain how memory holds both objective fact and subjective interpretation (Fentress & Wickham, 1992, 7). While the latter refers to feelings and personal experience, the prior stems directly from collectively held ideas that emanate from Durkheim's notion of *social facts*. *Social facts* are the result of social and historical forces (Fentress & Wickham, 1992, 5-7). This means that along with subjective interpretation, the more objective *social fact* is a form of information categorized as such because social agreement has been reached to do so. Fentress and Wickham (1992, 7) assert that not subjective memory, but

> Objective memory is simply the better vehicle for the conveyance of information: it is the aspect of our memory most easily available to others.

Social aspects of collectively held ideas stored in memory make it possible to hold the ideas and information within our minds (Metzger, 2004, 266). They also make it possible for individuals to use, articulate, and relate to ourselves and to others (Fentress & Wickham, 1992, 5-7).

When combined with Metzger's findings (2004), Fentress and Wickham's findings (1992) show how the content (separate from the action), which helps constitute orality, is shaped by the same social influences that shape and structure thought and memory. Or, put differently, social reality informs memory, which makes it social; social memory informs language; and language in turn informs social reality. I also depict this in a figure (see Figure 2).

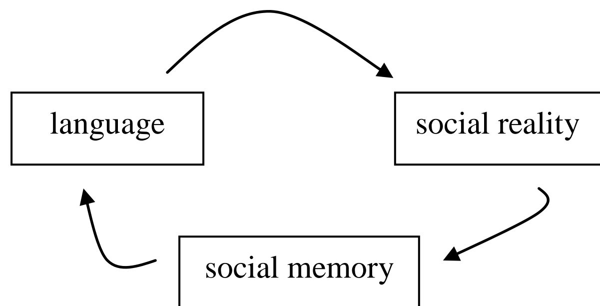

Figure 2. Three of the "Raw Ingredients" of orality
A depiction of the reflexive relationship between some of the components that constitute orality, other components include vocal register, thought, tone, words uttered, etc.

This discussion about the social nature of objective *facts* in memory can help explain an assertion made by Taylor (1991). He discusses how personal sources are used to gain access to formal information—or, information that is relevant to some problem (Taylor, 1991, 220, 228). The sources are used to acquire reliable information and filter unwanted information (Taylor, 1991, 229; see also Auster & Choo, 1993, 250). Information made available via personal, or informal, sources

comes from friends, colleagues, family members, and also from personal memory (Taylor, 1991, 228). Fentress and Wickham's (1992) findings can be applied to Taylor's (1991, 228) assertion that informal sources include memory. Basically, memory, with its socially constructed agreements (Fentress & Wickham, 1992), captures or mentally archives information in the form of *social facts* and subjective interpretations. Still, a mode is needed to transmit informal information captured in social memory beyond the individual who holds the memories.

Zumthor (1990), a literary theorist who focuses on Western orality, can also be viewed as exploring the raw ingredients of orality. He asserts that speech externalizes what experiences and understandings a speaker holds internally (Zumthor, 1990). His assertion extends Berger and Luckmann's (1966, 51-52) claim that people externalize needs and thoughts for a reason; human survival dictates that people engage in these sorts of activities to produce social order and prevent chaos. It also supports Day's (2005) and Weick's (1979) claims that context has components, internal thoughts, and external realities. Zumthor (1990, 7-8) asserts the phrase *exteriorized interiority* as a way to describe what is produced by speech. The phrase introduces another level of reflexivity into the relationship between social memory, language, and social reality. Mainly, *exteriorized interiority* reflects in part how thought relates to orality (Zumthor, 1990, 7-8). Thought, in addition to memory—which again is social in nature

(Fentress & Wickham, 1992), precedes and informs orality. Social memory shapes thought. And, both in turn shape information made available orally.

Externalizing one's internal experience of thought, social memory, social reality, and language—the components of orality discussed up to this point—requires action. The actions necessary for creating orality likewise make complex communication possible because they convey information (Zumthor, 1990). Zumthor asserts that one can describe the material qualities of voice—including register, timbre, tone, and volume—and how each of those qualities has symbolic value (Zumthor, 1990, 5). For example, a tenor tends to be associated with masculinity; a soprano, femininity. He further explains that these social interpretations help bind and solidify a society (Zumthor, 1990, 5). In other words, just as meaning is conveyed by words uttered, information situated within oral actions also conveys meaning.

Social constructionism asserts the need to consider different types of contributions to knowledge en masse (Tuominen et al., 2002, 278). With oral contributions, meaning generated from oral actions combines with meaning generated from actual words uttered. Again, the actual words uttered can reflect any combination of the raw ingredients of orality, including collectively held ideas (Metzger, 2004), or the actions necessary to exteriorize them (Zumthor, 1990). An oral contribution to

knowledge consists of meaning generated from words uttered, oral actions, or the combination of the two. Oral modalities make complex communication possible by facilitating the transmission of meaning or information from some combination of these different sources.

An example lies in how leaders are encouraged to deliver bad news by talking directly to those affected in the organization and in a calm manner. This strategy can be described as introducing or generating new knowledge with the information conveyed by words uttered (i.e., bad news), while *re*-presenting past knowledge in the information conveyed by oral actions (i.e., voice of the person who has been in charge, caring tone of voice, organizational value of providing timely access to information affecting staff, etc.). The tension caused by the introduction of new knowledge (Hall, 1993, 147-148) is tempered by familiar knowledge also being conveyed. Upon hearing the leader, individuals can interpret that although some things are changing, other things will remain the same.

To summarize, orality makes complex communication possible by facilitating access to internal experiences of language, social reality, and social memory. This access assumes that social memory consists of subjective interpretation, mainly feelings and personal experience, and *social facts* informed by collectively held ideas and influenced by thought (Berger & Luckmann, 1966; Boland, 1995; Day,

2005; Fentress & Wickham, 1992; Metzger, 2004; Taylor, 1991; Weick, 1979; Zumthor, 1990). It provides a vehicle for those internal experiences of a number of the "raw ingredients" of orality to emerge (Day, 2005; Metzger, 2004; Weick, 1979; Zumthor, 1990). Information is conveyed via words uttered, oral actions, or a combination of both (Zumthor, 1990). Identifying the raw ingredients of orality, how they are interrelated, and how they inform orality is important in exploring how people rely on orality when they interact with information.

2.2.2. Orality in Information Needs, Seeking, and Use

This discussion regarding the importance of orality can be extended to information science. Research findings reveal that people rely on orality when they need, seek, and use information (Auster & Choo, 1993; Case, 2002, 2007; Huotari & Chatman, 2001; Ikoja-Ondongo & Ocholla, 2004; Leckie, Pettigrew, & Sylvain, 1996; Mackenzie, 2005; Pezeshi-Rad & Zamani, 2005; Taylor, 1991; Wilkinson, 2001). A review of information behavior literature reveals how orality fits into two prominent categories of information: formal and informal. It also reveals two dimensions of information: informational content and the mode through which that content is made available. Content and mode influence how informational artifacts become available as well as how information is used. This section explores how

information artifacts are categorized, how they are perceived, and the role that context plays in information use by discussing information behavior that involves or relates to orality.

2.2.2.1. Formal versus Informal

Scholars place information that is used into one of four categories: formal information, informal information, information from a formal source, or information from an informal source. Although they rely on the categories consistently, the ways in which they use the categories varies as much as the information is placed into each one.

Case (2002, 8, 289; Case, 2007, 8, 12-13) discusses how people interact with information that comes from formal and informal information sources. Formal refers mainly to information from print sources—e.g., a textbook, encyclopedia, or daily newspaper (Case, 2002, 12; Case, 2007, 12). It also refers to information made available through a subject expert (Case, 2002, 12; Case, 2007, 12). Information from an expert may become available in print or other modes, including electronic and oral ones. Informal includes information that comes from other people—like friends, colleagues, and family (Case, 2002, 12, 289; Case,

2007, 12-13). They also come from popular media items—e.g., television, radio, electronic discussion boards, etc. (Case, 2002, 12; Case, 2007, 12-13). Like formal sources, informal ones involve information made available in any number of modes—e.g., electronic, oral, or written (Case, 2002, 12, 289; Case, 2007, 12-13).

Like Case (2002, 2007), Taylor (1991, 220) relies on the categories of formal and informal information sources. He not only categorizes information sources, but also information itself (Taylor, 1991). Specifically, Taylor (1991, 220) limits his study to *formal information*, which he defines as being relevant to some problem.[4] Formal or relevant information is made available from a formal or an informal information source. Taylor (1991, 228) refers to *formal information sources* as information packages that originate from formal channels like libraries, systems used to manage information, and informational centers. By contrast, *informal information sources* involve modes in which people either turn to other people within their community for information, rely on their own memory, or use popular communication tools (Taylor, 1991, 229).

Two themes emerge from these studies. First, although neither Case (2002, 2007) nor Taylor (1991) set out to articulate definitions for the categories of *formal information source* and *informal information source*, both rely on these two categories in similar ways. Each describes information from formal sources as

[4] Note: Taylor (1991) neither defines nor uses the term *informal information*.

originating from publishing or other institutionalized processes (see Case, 2002, 12; Case, 2007, 12; Taylor, 1991, 228). And, they describe information from informal sources as being part of a social activity (see Case, 2002, 8; Case, 2007, 12-13; Fentress & Wickham, 1991; see also 2.2.2.1). Second, Case's (2002, 289; 2007, 12-13) and Taylor's (1991, 228-229) research shows that the various modes used to make information available are flexible enough to facilitate the transmission of formal or informal information via the same set of modes—electronic, oral, and written.

These two emerging themes indicate that information conveyed in an oral mode can be placed into either category of formal or informal information source. Or, orally-based information can emerge from both institutionalized processes and social activities. This review of literature that provides a broad overview of information behavior research reveals variation in how scholars place information into the categories of formal and informal information sources. Although accounting for the full array of approaches to using these categories is beyond the scope of this study (additional approaches are discussed in 2.2.2.5.), these observations suggest that criteria for categorizing information involve understanding both informational content and the mode used to make that content available.

2.2.2.2. The Influence of Mode

In addition to discussing formal and informal sources, Case (2002, 8, 289; Case, 2007, 8-9) and Taylor (1991, 228) discuss the influence of content and mode when one selects and uses information from a formal or an informal source. They find that informal sources are used more frequently than formal ones (Case, 2002, 8, 289; 2007, 8-9; Taylor, 1991, 228). Moreover, Taylor (1991, 228) finds that formal information—which, again, he explains as meaning relevant—is used more when it is made available through informal sources, not through formal ones.

Case (2002, 8) explains the preference for informal sources—for example, text messaging, calling by cell phone, using electronic mail, etc.—by noting that seeking information is social. It is enjoyable to turn to someone else for information (Case, 2002, 8). Taylor (1991, 228) similarly attributes this difference in use to the perception that informal information sources are accessible. He discusses how accessibility refers to the ease of:

> physical access… [provide] validity and utility of information and, perhaps above all …a sense that personal dialog will help to clarify both need and response, and hence to provide more useful information (Taylor, 1991, 228).

Perceiving that information is accessible involves considering the content, the format, and the physical and psychological dimensions of information (Taylor,

1991, 228). This sort of perceiving also involves considering whether information sources provide easy access to additional information (Taylor, 1991, 228). Taylor (1991, 229) explains that because information from informal sources is perceived as accessible it is used as a filter to help manage informational content received from other sources (and through other modes). Informal sources help minimize access to unwanted information (Taylor, 1991, 229) and maximize access to specific and reliable information (Taylor, 1991, 229). For example, an oral statement can convey as much relevant information as an electronic report (Taylor, 1991, 220). Oral statements also provide subsequent opportunities to convey clarifying or additional information that can be more useful than information provided by that electronic report (Taylor, 1991, 228). One may simply ask a question regarding the information made orally available and receive an immediate response. The point here is that content and mode together influence whether and how information is used.

The distinction between content and mode is described by Leckie, Pettigrew, and Sylvain (1996). Their findings are informed by both existing research and their own empirical study of the information-seeking behavior of engineers, physicians, and lawyers (Leckie et al., 1996). Similar to Taylor's findings (1991), Leckie et al.'s (1996) findings show that informal sources of information are among the top three

sources, and are most frequently the first choice of all three sets of professionals they studied.

Leckie and colleagues (1996, 165, 172, 183-184) refer to *informal sources* as information made available by relying on other colleagues via conversation or by way of reflection on personal knowledge and experience. They characterize information as being formal or informal in part by noting differences in the types of channels or modes (e.g., oral and mental) through which that information is made available (Leckie et al., 1996, 184). In doing so, they consider mode as distinct from content (Leckie et al., 1996, 185). For example, they explain that informational content made available orally from a professional differs from that of a non-professional worker (Leckie et al., 1996, 184).

Leckie et al. (1996, 183-184) and Taylor (1991, 229) report that a professional may access information from memory via self reflection. Leckie et al. (1996, 183-184) refer to this as a factor affecting information seeking. Taylor (1991, 229) describes it as obtaining formal information from an informal source. But, this sort of information may actually be considered as being derived from a formal source regardless of the mode subsequently used to exteriorize (Zumthor's [1990] term) or transmit it to others. Information that a professional makes available, including via orality, is formal because it is shaped by institutionalized process(es) that she

undergoes to master the knowledge necessary to become an expert (Leckie et al., 1996, 184). By the same token, the same information—whether oral or written—if made available from someone who is not a professional would be considered as deriving from an informal source. It is important to note, however, that categorizing a professional's oral report as formal does not change how it is perceived as accessible (see 2.2.2.5.).

Leckie and colleagues' (1996, 184) explanation of a professional's information as reflecting their having developed an expertise echoes Case's (2002, 2007) and Taylor's (1991) description of a *formal information source* as originating from institutionalized processes, as opposed to social activities (Case, 2002, 2007; Taylor, 1991). Also, placing knowledge uttered by a professional into the category of formal information sources further demonstrates how the two categories are flexible enough to hold information in any mode (Case, 2002, 2007; Taylor, 1991). This finding moreover suggests that the mode in which information is made available holds as much or relatively more weight than the content when determining how to categorize information as a formal or informal source and when selecting information for use.

To summarize, informal information sources are used more frequently because information they provide is perceived as being more accessible (Case, 2002, 2007;

Taylor, 1991). This perception results because informal information sources provide access to additional, specific, and reliable information (Taylor, 1991, 228). One exception lies in information obtained orally from a professional. Like information from informal sources, a profession's oral information is frequently preferred (Case, 2002, 2007; Leckie et al., 1996) and it is accessible. A professional's oral information has been categorized as information from an informal source (Auster & Choo, 1993; Ikoja-Odongo & Ocholla, 2004; Pezeshki-Rad & Zamani, 2005; Taylor, 1991). But, research shows that it more closely fits the description of a formal source because it stems from institutionalized processes (Leckie et al., 1996)). This review of the research suggests that the mode in which information is made available is as or more important than the content when categorizing information and selecting it for use.

2.2.2.3. Perceptions and Information Use

A number of information behavior studies finds that a source for information is selected because the information that it makes available can be used in some specific manner (Auster & Choo, 1993; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Wilkinson, 2001; Zach, 2005). These findings suggest awareness of these options when selecting from among

informational artifacts, something crafted by human artistry or skill regardless of its format (see 1.5.), for use.

Wilkinson (2001, 272) finds that lawyers use formal sources to disseminate formal, legal information. When they do so, they engage in roles and tasks that involve producing or presenting information, not seeking it (Wilkinson, 2001, 272). Meanwhile, lawyers prefer informal sources when they need and seek information for problem solving activities (Wilkinson, 2001, 271). She also reports that ministers above all rely on formal information sources in their preaching responsibilities (Wilkinson, 2001, 259). They use informal sources for their administrative duties (Wilkinson, 2001, 259).

Like Wilkinson's (2001) findings, Auster and Choo (1993) suggest that people select information sources based in part on the use of anticipated information. Auster and Choo (1993) focus on critical incidents, during which chief executives need to acquire and use information (Auster & Choo, 1993, 247). A need to acquire information implies that these are incidents in which chief executives lack and need new information. Auster and Choo (1993, 246) find that on these occasions executives use multiple sources. Formal sources are used when an information need involves stabilized or well-formed information. By scanning print sources, they are able to access a broad range of formal information efficiently (Auster & Choo,

1993, 251). For instance, executives may scan multiple newspapers to learn about their existing business environment (Auster & Choo, 1993, 251). Consistent with Wilkinson's (2001) findings, Auster and Choo (1993) find that formal information sources are used to transmit or update existing information or knowledge. On the other hand, personal—or informal—information sources are used when information is anticipated to be less stable—for example, in decision making activities (Auster & Choo, 1993, 250; Wilkinson, 2001, 271).

These findings about the selection of information for use show that information sources and artifacts are perceived differently. Wilkinson (2001, 267-268) reports that professionals are aware that when they use information, they may select it from more than one information source. And, professionals use information from more than one source for their various information needs (Auster & Choo, 1993; Case, 2002, 2007; Leckie et al., 1996; Taylor, 1991).

2.2.2.4. Approaches to Studying Orality

While numerous studies report that professionals prefer to obtain information from informal sources (Case, 2002, 2007; Leckie et al., 1996; Taylor, 1991), findings infrequently focus on specific modes used when accessing these sources.

Approaches to studying orality that emerge from the literature typically study it in aggregate with other modes through which information becomes available. That is, informal information sources include information made available via electronic and written modes along with oral ones (Auster & Choo, 1993; Case, 2002, 2007; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991; Wilkinson, 2001; Zach, 2005). The same is true about formal, internal, and external sources—the latter two refer to how information relates to a context (Leckie et al., 1996; Wilkinson, 2001). Relying on orality when seeking and using information does share characteristics with relying on other modalities. Yet, this research practice of discussing different modes in aggregate makes it challenging to describe in more detail how and why oral information that originates from professionals differs from oral information that originates from non-professionals (Case, 2002, 12; Case, 2007, 12-13; Taylor, 1991, 220; Leckie et al., 1996, 183-184).

Huotari and Chatman's (2001) findings result from another approach. They focus in part on the mode, not the source, through which information becomes available (Huotari & Chatman, 2001). In an effort to develop a strategic information management theory, they suggest that face-to-face orality has a role in the creation of new knowledge (Huotari & Chatman, 2001, 362-363). They also express the need to better understand the role of face-to-face communication activities (Huotari

& Chatman, 2001, 362-363). At the very least, Huotari and Chatman's (2001) findings provide evidence that information interactions involving oral modes are complex. Continued examination of the information behavior literature reveals what is known about orally-based information.

2.2.2.5. Perceptions of Oral Informational Artifacts

A number of studies do isolate and explore information made available via a specific mode (Auster & Choo, 1993; Huotari & Chatman, 2001; Mackenzie, 2005; Sole & Edmundson, 2002). They consider whether specific modes in which information is made available are associated with certain activities (Auster & Choo, 1993; Huotari & Chatman, 2001; Sole & Edmundson, 2002). Others consider whether the mode in which the information occurs contributes to it being used (Huotari & Chatman, 2001; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005). Specifically, while a number of researchers report that people have specific reasons for selecting information from a certain type of source (Wilkinson, 2001, 271), others report that people have specific reasons for selecting information made available in oral modes (Auster & Choo, 1993; Huotari & Chatman, 2005; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; and

Zach, 2005). These findings suggest differences in the way that informational artifacts are perceived.

Mackenzie (2005) observes how managers' turn to others for information. She also asserts that classic management research has revealed that managers prefer oral communication (Mackenzie, 2005, 2). She focuses on how managers reach out to individuals as information sources (Mackenzie, 2005), for example by obtaining access to informational content made available through a number of modes (e.g., electronic, oral, or written). She finds that for-profit business line managers use specific criteria when selecting someone as a source for information (Mackenzie, 2005, 16-17). They typically rely on subject experts who they know, like, or trust (Mackenzie, 2005, 16-17). In other words, managers select or are selected as sources of information based primarily on having a relationship with someone and secondarily on that person's expertise (Mackenzie, 2005, 16-17).

Mackenzie (2005, 17) finds that additional criteria used in selecting a person as an information source include that person's knowledge, usefulness, communication style, and communication behaviors. Communication behavior involves perceiving that an individual is approachable and willing to listen (Mackenzie, 2005, 9). It also involves screening out sources not considered useful (Mackenzie, 2005).

Mackenzie's study (2005) provides clues about how informational artifacts obtained from specific sources are perceived. She describes reports made available in a written mode as expected or stale (Mackenzie, 2005, 2). On the other hand, she describes the information flow resulting from personal contact as current (Mackenzie, 2005, 2). Even though Mackenzie (2005) compares a mode through which information can be made available to a source for information, her findings add support to the idea that people judge information in part by considering the mode through which it is accessed. Her findings also suggest that people perceive information which they obtain through a specific mode may lead to certain outcomes—for example, obtaining up-to-date information, perpetuating a business relationship, etc. (Mackenzie, 2005, 2, 16-17).

Pezeshki-Rad and Zamani (2005, Findings section, para. 5-6) identify how extensively managers and specialists in Iran use *information sources* and particular *communication channels*. Inherent in the creation of these categories is the assumption that informational content, from whatever source or through whatever channel, will differ depending on the mode in which it is made available. Pezeshki-Rad and Zamani (2005) juxtapose the categories of information sources and communication channels in a way that resembles the juxtaposition, by other researchers, of formal and informal information sources. The top three *information sources* are Persian books, scientific magazines, and scientific-technical reports

(Pezeshki-Rad & Zamani, 2005, Findings section, para. 5-6). Talking with colleagues, training courses, and scientific-technical conventions are the top three *communication channels* (Pezeshki-Rad & Zamani, 2005, Findings section, para. 5-6). The authors note differences in how frequently participants use information sources and communication channels to augment what they already knew, yet the authors do not comment on the nature of these differences (Pezeshki-Rad & Zamani, 2005, Findings section, para. 8). Respondents to their survey most frequently indicate that they are motivated to consult information sources in order to obtain new, job-related information (Pezeshki-Rad & Zamani, 2005, Findings section, para. 3-4).

Ikoja-Odongo and Ocholla (2004) focus on Ugandan entrepreneurs' information needs and seeking. They distinguish between informational content and the mode through which the entrepreneurs access that content (Ikoja-Odongo & Ocholla, 2004, 59). The needed content is made available and used orally (Ikoja-Odongo & Ocholla, 2004, 59, 62). Although Ikoja-Odongo and Ocholla (2004) describe this as a *communication process*, they use the phrase in much the same way that other scholars use *informal information*. They find that more formal sources of information have minimal impact on the developing nation population they study (Ikoja-Odongo & Ocholla, 2004, 54).

Ikoja-Odongo and Ocholla (2004, 58) report that the top three information needs of entrepreneurs that they study involve training or gaining new skills, marketing products, and learning about sources for and prices of supplies. Accessing the information needed is depicted as social (Ikoja-Odongo & Ocholla, 2004, 58-59). Entrepreneurial participants in Ikoja-Odongo and Ocholla's study (2004, 59, 62) specify a strong preference for seeking information from people who are readily available. The researchers deduce that information is mostly obtained from within the same environment in which the entrepreneurs they study conduct their business (Ikoja-Odongo & Ocholla, 2004, 59). These observations are consistent with how other scholars' describe information from informal sources as originating from social processes (see Case, 2002, 2007; Leckie et al., 1996; Taylor, 1991).

Wilkinson (2001, 167) finds that lawyers consider information sources they use as necessary and that sources not selected can be discounted. Informal sources are more highly preferred (Wilkinson, 2001, 268). Wilkinson (2001, 259-260, 264-265) also finds that lawyers consider validation as criteria for distinguishing between information sources. *Formal information sources* have been made public or official (Wilkinson, 2001, 264) or have been validated through some external means (Wilkinson, 2001, 264). *Informal information sources* have not been made public or been officially mandated in any way (Wilkinson, 2001, 265). Where formal sources mainly refer to published materials, informal sources incorporate

informational content made available through people—including colleagues, judges, and police. Although not explicitly stated, Wilkinson's findings (2001, 264-265) reflect how accessing informal information sources can involve relying on multiple modes—including electronic, oral, or written.

Wilkinson's (2001) description of formal and informal information sources bolsters the argument made by Case (2002, 12; Case, 2007, 12-13), Leckie et al. (1996, 184) and Taylor (1991, 229) that information originating from institutionalized processes is formal, and that originating from social activities is informal (see 2.2.2.1 and 2.2.2.2.). An examination of the type of sources placed in each category reveals that informal sources tend to be experts in law or in areas related to the problem at hand (Wilkinson, 2001, 263-264). An argument can be made that the knowledge of such experts has been validated by some external agency and that experts are actually sources for formal information. Even if information obtained from these experts is considered to be from formal sources, lawyers select and use one of these sources from among other sources because they perceive it will assist in the resolution of some problem (Wilkinson, 2001, 267-268). In this way, Wilkinson' findings (2001) are similar to how Mackenzie (2005) finds that usefulness is among the criteria considered when selecting and using a specific source for information.

Zach (2005, 27-28) reports that most senior arts administrators in her study describe initiating information seeking activities by accessing information made available in small group discussions. Although she does not focus further on the mode in which informational content becomes available, Zach (2005, 29) finds her participants to be very capable of determining the type of data that they need and how they want it presented. Administrators most frequently select *personal contacts* as sources of information and only infrequently choose *formal* information seeking *processes* (Zach, 2005, 29). Zach's (2005) *personal contacts* vis-à-vis *formal processes* resembles other scholars' approaches to informal and formal information sources, which both include information made available through multiple modalities.

Zach (2005) examines criteria used by senior arts administrators to determine when to end their information seeking activities. Because Zach's (2005, 24-26) research concerns *stopping* an effort to access needed information, it implies that some change occurs between beginning and ending. Examples of change include making sense out of confusion (i.e., a change in one's state of mind), finding a resolution for a problem, or making a decision (i.e., a change of situation in some context). Mainly, one who seeks information becomes *satisficed*, or obtains enough information to fulfill a need (Zach, 2005, 24; Case, 2007, 34) and ceases information seeking. Zach (2005, 24) reports that although administrators poorly

define when they obtain “enough” becoming *satisficed* is closely linked with trusting that a source is both credible and reliable (Zach, 2005, 29). Zach (2005, 29) explains that it is important to know the source of the information regardless of whether it is from a person or a process. Zach’s participants also expressed knowing in what specific mode they want informal informational content (Zach, 2005, 29). This suggests some level of consciousness about the type of informational artifact professionals anticipate using in a given situation.

Huotari and Chatman (2001, 362-363) consider how the use of selected modes for transmitting information may coincide with specific stages in the process of creating knowledge. They find that managers use information in oral modes when the most current information is desired (Huotari & Chatman, 2001, 362). This includes using it during activities to generate new knowledge about external business environments (Huotari & Chatman, 2001, 362).

Just as Huotari and Chatman (2001) describe how oral modes are used when forming new information, Sole and Edmundson (2002, S20-22, S30-32) also find that professionals use orality to generate new knowledge. Specifically, they generate new knowledge about resources available for resolving problems and to determine the solution itself (Sole & Edmundson, 2002, S20-22, S30-32); their research also helps explain why orality is important (similar to the discussion in

2.1.2.). Pezeshki-Rad and Zamani's (2005, Findings section, para. 3-4) and Ikoja-Odongo and Ocholla's (2004, 58) findings echo this assertion regarding new information. Neither Huotari and Chatman (2001) nor Sole and Edmundson (2002) discuss categories of information sources. Yet, their descriptions of how information in oral modes resembles how other scholars (Auster & Choo, 1993; Mackenzie, 2005; Wilkinson, 2001) characterize using informal sources when information is new or less stable.

In addition to helping explain the relationship between information use and source selection, Auster and Choo (1993) describe why chief executives use informal information sources that involve oral modes.

> Personal sources are considered rich because they transmit their information through rich media, such as face-to-face meetings and telephone conversations, that allow chief executives to observe additional information cues, seek clarification immediately, probe more deeply, and in general, to make better sense of an unclear situation (Auster & Choo, 1993, 250).

Auster and Choo (1993, 250) use the concept *rich media* to refer to how individuals communicate orally with those they consider informal information sources. *Rich media* is a type of mode which provides, either simultaneously or in close succession, multiple dimensions of oral information (Auster & Choo, 1993, 250). Such orality is *rich* because it facilitates interactions that involve complex

information (Auster & Choo, 1993, 250). This immediate access to additional resources can help reduce uncertainty or make sense of a given situation (Auster & Choo, 1993). This sort of access (Auster & Choo, 1993) further supports Mackenzie's finding (2005) that managers select others as informal sources because they anticipate that the informational artifacts that stem from such sources will be accessible and useful in bringing about desired outcomes. Finally, this immediate access to additional resources (Auster & Choo, 1993) also provides insight into Taylor's assertions (1991) about physical and psychological dimensions of accessibility. He asserts that information made available from informal sources may be perceived as valid and useful (Taylor, 1991, 228), but his research shows that less may be known about, 1) the reasons someone utilizes a particular mode when relying on an informal information source, and 2) how perceptions of accessibility differ with each mode.

The information behavior literature reviewed demonstrates that information seeking involves informational content made available in a specific mode. These are essentially informational artifacts—like informational content from written words via a published document, from electronic data via a text message, and from an oral report resulting from self-reflection. Professionals select specific informational artifacts to fulfill their informational needs. Research indicates professionals are aware that they may choose from among a selection of information artifacts (Zach,

2005; see also Auster & Choo, 1993; Case, 2002, 2007; Leckie et al., 1996; Taylor, 1991). They select artifacts to assist in creating some desired outcome (Auster & Choo, 1993; Huotari & Chatman, 2001; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Sole & Edmundson, 2002; Wilkinson, 2001; Zach, 2005). And once selected, each artifact is used to a different end (Auster & Choo, 1993; Huotari & Chatman, 2005; Sole & Edmundson, 2002; and Wilkinson, 2001). In this way, the literature suggests that patterns exist regarding what types of informational artifacts are routinely matched to fill specific kinds of informational needs. The patterns reveal that different informational artifacts are consistently used for the same information needs. The patterns indicate that informational content may be perceived differently depending on whether it is made available through a formal or an informal source. It may also be perceived differently depending on how it is made available, via a written or an oral mode. If this is indeed the case, then the perception of the different types of artifacts means that oral artifacts exist along with those of informational content made available through other modes.

To summarize, professionals are aware of and use formal and informal sources to access information in a variety of modes (Auster & Choo, 1993; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Wilkinson, 2001; Zach, 2005). They determine what type of source and mode to use in part by

considering how the information will be used—for example, to update existing information, affect one's context (e.g., to provide a customer with needed information, draw on an existing relationship, etc.), or become satisfied (i.e., to obtain additional informational content to clarify confusion about content previously received; Auster & Choo, 1993; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Wilkinson, 2001; Zach, 2005). The findings discussed reflect that formal information sources are used to transmit or update existing information (Auster & Choo, 1993; Wilkinson, 2001). Several scholars note that accessing information from informal sources and in oral modes results in gaining access to new or less stable information (Auster & Choo, 1993; Huotari & Chatman, 2001; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Sole & Edmundson, 2002; Wilkinson, 2001). The findings moreover indicate that professionals perceive differences in the types of informational artifacts available for fulfilling their information needs when they select which information source to use (Zach, 2005; see also Auster & Choo, 1993; Case, 2002, 2007; Leckie et al., 1996; Taylor, 1991). It is important to note their perceptions because numerous findings reveal preferences for informal sources, many of which may involve oral modes. It suggests that orally-based information is perceived as being among the informational artifacts that may best assist a professional in bringing about certain desired outcomes. Finally, the findings discussed in this section also indicate that context may influence information use.

2.2.2.6. Context and Information Use

Numerous scholars report that informal information sources are preferred over formal ones (Case, 2002, 2007; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Taylor, 1991; Wilkinson, 2001). Several scholars who find that professionals prefer informal information sources also note that the informal sources preferred tend to be within their organization or surrounding context (Ikoja-Odongo & Ocholla, 2004; Leckie et al., 1996; Mackenzie, 2005; Wilkinson, 2001; Zach, 2005, 29).

Leckie et al. (1996, 184) note that the decision to use an information source is influenced by whether it originates internally or externally in some context. Wilkinson (2001, 265) confirms that sources she observes are similarly influenced. In fact, she qualifies two information sources by categorizing them according to proximity. Information from *internal sources* come from various parts of the organization within which a lawyer works—e.g., listed as clients served by the organization, professionals, committees, and procedures within the organization (Wilkinson, 2001, 265). *External sources* come from outside of the organization (Wilkinson, 2001, 265). Wilkinson (2001, 269) finds that lawyers, especially those in large firms, prefer to use internal sources for information. Given that lawyers

prefer informal sources (Wilkinson, 2001, 268), it is also likely that these preferred internal sources are also informal and social in nature (Case, 2002, 2007; Ikoja-Odongo & Ocholla, 2004; Leckie et al., 1996; Taylor, 1991; Wilkinson, 2001).

Wilkinson's (2001) research is based on a study about information interactions in the legal context. She builds on and repeats Leckie et al.'s investigation (1996) but analyzes data to different ends. She verifies and substantiates her data, about problems lawyers identify as motivating them to seek information, using similar data obtained independently by a legal society (Wilkinson, 2001, 267). Her findings differ from Leckie et al.'s (1996) in that she demonstrates a more complex understanding of the nature of legal work (Wilkinson, 2001). This difference demonstrates how an understanding of context can lead to different interpretations. For instance, where Leckie et al. (1996, 181) describe lawyers as having five roles—researcher, educator, student, service provider, and administrator or manager, Wilkinson (2001, 259-261) finds that lawyers have only have the latter two. She explains that the first three roles articulated by Leckie et al. (1996) are subsumed by other roles, as occurs when lawyers act as researchers in order to provide services.

Zach's (2005, 29) findings support how familiarity with an organization, and with the organization's context, as well as knowledge of its people and processes most

frequently results in the choice to use inside rather than outside sources. Mackenzie (2005, 16-17) also stresses that having a relationship with someone—in part by being located in the same place—plays a role in determining what information source is selected for use.

Pezeshki-Rad and Zamani (2005, Conclusions and recommendations section, para. 1) suggest that information obtained by managers and specialists is used for making effective business decisions and for satisfying business customers' information needs. The process used by these professionals to seek their needed information is therefore influenced by context (Pezeshki-Rad & Zamani, 2005, Findings section, para. 3-4).

Two additional findings are highly significant. Pezeshki-Rad and Zamani (2005, Findings section, para. 9) find that the longer managers have been in a position, the less they tend to seek information. And, when professionals are more satisfied with their jobs, they seek more information (Pezeshki-Rad & Zamani, 2005, Findings section, para. 9). These findings suggest that having a certain relationship within a context, or expectations of that context, may affect the degree to which a manager seeks information. For instance, if professionals expect to make improvements within a context, they may be more moved to seek information than if they believe such an outcome is not possible.

Knowing what informational content is available, how to evaluate it, and the mode through which it is accessed require a knowledge of context. Such knowledge confirms reliability and trust, and leads to stronger personal relationships (Auster & Choo, 1993; Leckie et al., 1996; Zach, 2005). Research indicates that all these elements must exist before a professional decides to use information from an informal source (Auster & Choo, 1993; Mackenzie, 2005; Zach, 2005).

These findings demonstrate how selecting and using information sources can contribute to maintaining or perpetuating context. Ikoja-Odongo and Ocholla (2004, 59, 62) find that professionals prefer to obtain information from people who are readily available within their organization. This involves knowing which people in their context are available, how to contact them, and how to obtain from them the desired information. Other scholars describe similar examples (Mackenzie, 2005, 16-17; Pezeshki-Rad & Zamani, 2005, Conclusions and recommendations section, para. 1; Wilkinson, 2001, 269; Zach, 2005, 29).

Related to this issue of context and information use, information scientists have begun to study how orality incorporates references to context. These references are regarded as cues and formulaic devices embedded in the information being conveyed (Cole & Kuhlthau, 2000; Solomon, 2002). A number of scholars find that when professionals share information—whether oral or written—cues that provide

evidence useful for interpreting its meaning are embedded within it (Auster & Choo, 1993, 250; Hall, 1993; Leckie et al., 1996; Pondy, 1978, 93, 95, 97; Solomon, 1997; Solomon, 2002, 240). These cues make the professionals' training, background, and context evident (Leckie et al., 1996). Cole and Kuhlthau (2000, 112) note how this occurs: addressing a judge as "your honor" and making requests such as "may I approach the bench?" signal that this utterance demonstrates proof of legal training and involves a courtroom context. In fact, it provides proof that informational content with which these kinds of phrases are associated will also be associated with and reinforce that legal context and the various roles—i.e., the court's, the judge's, the legal counsels', etc.—within it. In another example from the legal field, specific "formulaic devices" signal that an opening or closing (oral) statement is being provided (Cole & Kuhlthau, 2000, 112). A scholar in organizational behavior, Pondy (1978, 93, 95, 97) supports these examples in pointing out that different leadership roles call for the use of different linguistic cues, rules, and norms. Solomon (2002, 240) explains how orally-based information incorporates *cues* for discovering information just as written documents do (see also Cicourel, 1992; Clark, 1996; Clark & Brennan, 1991; Hall, 1993; Solomon, 1997). Cues and devices like the ones discussed are specific to a given context and make it possible for orality to incorporate linguistic norms that reflect and perpetuate that context.

The definition of context used in this dissertation recognizes that context has parts, focal event and background (see 2.1.3.2.; Goodwin & Duranti, 1992). To apply this definition to the information behavior findings discussed requires that the information must occur within the focal event of some context (Goodwin & Duranti, 1992). Informal and internal information sources are located in the background of that context (Goodwin & Duranti, 1992). For instance, when a lawyer identifies an information need involving a case (focal event), she may obtain the needed information by talking with a colleague in her firm (background). Hall (1993) finds that the resources, within the focal event and the background of a context, are utilized within orality (for a more complete discussion, see 2.1.2.). Information scientists have begun to study how these kinds of resources can include references to context incorporated into what they say (Auster & Choo, 1993, 250; Cicourel, 1992; Cole & Kuhlthau, 2000; Hall, 1993; Leckie et al., 1996; Pondy, 1978, 93, 95, 97; Solomon, 1997; Solomon, 2002, 240; see also Cicourel, 1992; Clark, 1996; Clark & Brennan, 1991). The literature discussed shows that context provides resources for information regardless of the mode in which it is made available and whether it is used in support of a formal or an informal source.

2.3. What Is Missing From the Literature?

Up until this point, this chapter has focused on what we can learn from the literature. This final section assesses what has been learned to further inform this effort to describe and empirically observe an oral document. The first two parts of this chapter have addressed what orality is and why it is important for information science. This third section considers the question, "what is a document?", and demonstrates how responses to that question can be extended to certain utterances. The literature does not address how to approach oral artifacts. However, findings in the literature do contain insights that help inform this dissertation's effort to conceptualize an oral document.

First, a working definition of oral document is presented and justified with a discussion of document literature. Next appears a discussion of what is involved when oral language is used. The literature reveals an increased recognition of how the metatheory of social constructionism renders dialog significant (Berger & Luckmann, 1966; Frohmann, 2004; Glock, 1996; Holland, 2005; Tuominen, Talja, & Savolainen, 2002; Wittengenstein, 2001). But, information behavior literature does not explain how the metatheory can be used to explicate approaches to orally-based interactions with information. With a deeper analysis of the literature, I map information behavior to social constructionism research findings. This section ends

by addressing concerns about context. The literature acknowledges that context has multiple dimensions. Yet in order to find ways to approach oral artifacts, a more complex understanding of context may be needed.

2.3.1. Defining *Oral Document*

I present a working definition of *oral document* before discussing existing approaches to and understandings of the terms *orality* and *document*. Approaches to the latter that appear in the literature include definitions of and practices surrounding documents. Discussing each of the approaches helps reveal how and why the concept of a document can apply to information made available orally.

I propose a working definition for *oral document*:

> An *oral document* is an artifact conveying evidence or information: 1) about specific content and 2) that is embedded in the action(s) of furnishing that content through orality.

This working definition integrates the definition of *orality* with what is understood of *document*, as explained in the information science literature. One half of the proposed working definition concerns orality. From the literature reviewed, orality is important because it creates meanings and social agreements (Berger &

Luckmann, 1966; Wittgenstein, 2001), *re*-presents the past in the present (Vansina, 1985), and makes it possible to understand context (Berger & Luckmann, 1966; Hall, 1993; Solomon, 1997; Talja et al., 1999; see 2.1.). Additionally, orality refers to word-of-mouth transactions that involve content and action, i.e., information is delivered, transmitted, or transacted orally (see 1.5.; *Oxford English Dictionary*, 2008).

Orally-based information conveys evidence in a number of ways. It conveys information captured in the words uttered and in the sounds necessary to create the utterance (Zumthor, 1990, 5; see 2.2.1.). Evidence may be gleaned from either source of information or from the combination of the two. Context also influences the creation and interpretation of an oral utterance (Goodwin & Duranti, 1992; Talja et al., 1999; see 2.1.3.) because orality provides evidence about the context in or about which it is uttered. It incorporates contextual references, draws on meanings within a context and makes it possible to derive meaning from context (Berger & Luckmann, 1966; Hall, 1993; Solomon, 1997; Talja et al., 1999).

The other half of the proposed working definition concerns documents. Information science literature defines *document* by either relying on a formal definition of the term or by describing practices surrounding this sort of artifact. Briet (2006, 10), for example, defines a *document* as,

> any concrete or symbolic indexical sign [indice], preserved or recorded toward the ends of representing, of reconstituting, or of providing a physical or intellectual phenomenon.

In an early consideration of the forms that may constitute a document, Briet (2006, 10) gives many examples that include animals, like an antelope, and orality—specifically, a professor discussing subject matter while teaching. Her examples demonstrate how her definition accommodates artifacts that occur in any number of different modalities including an oral discussion.

Like Briet's (2006) use of the term *concrete* in her definition of document, Buckland (1991) notes how the category of *information-as-thing* is typically reserved for tangible objects. However, he refers to a *document* as being anything that is informative (Buckland, 1991, 355). This definition accommodates documents that occur in any number of modes. It also suggests that one needs to consider *how* anything referred to as a document can be informative. Buckland (1991, 359) states that further study of the wide array of ways in which people are informed is important. Examples he provides not only include ways in which people are informed by objects and events, but also by intentional communication (Buckland, 1991, 359). The latter does not limit the types of modes through which such communiqué may occur.

Other definitions of the term document similarly accommodate the numerous modes in which documents become available. A *document* is denoted as "something written, inscribed, etc. that furnishes evidence or information about a subject…" (*Oxford English Dictionary*, 1989). In other words, documents may be produced by a number of different means including writing or inscribing as long as that means of production results in *something* that provides evidence. Since the definition of *artifact* being used incorporates human constructs like an utterance (see 1.5.), this suggests that orality provides another example of a means used to produce a document.

Unlike its original meaning, to teach—from the Latin word *docere* (in the entry for *document*, *Oxford English Dictionary*, 1989), the term *document* implies substantiation; it vouches for the existence of some *thing* or for evidence of that *thing*. This evolution in its meaning suggests that how some *thing* is documented has significance along with what is being documented.

Although Otlet (in Day, 1997) does not focus on the mode in which a document becomes available, his discussion of the term *document* likewise entails looking beyond the contents of artifacts when determining whether it is a document. Day (1997, 315) offers in-depth translations and interpretations of Otlet's work. He explains how, using the book as an example, Otlet notes that documents have limits

(Day, 1997). That is, a book is limited by the grammatical, linguistic, and other knowledge generating strategies used to create it (Day, 1997, 315). As such, a book cannot construct or re-create a reality depicted within it, but it can represent or provide evidence of that reality (Day, 1997, 315). This book example, Day explains (1997, 315), demonstrates how Otlet's pragmatic approach to understanding *document* calls for continually examining both the limits and the allowances of a document. Otlet (in Day, 1997, 315) argues that doing so allows one to decipher the nature of a document and the meanings contained within that document. He bases his approach on how human experience, existence, intellect, and understanding—when each is taken singly—cannot re-create reality; yet, each can be used to create a representation of reality (Day, 1997, 315). Otlet, Day writes (1997, 315), also asserts that the same is true of documents; they can not re-create, but only represent reality. Similar to the discussion above about how Buckland (1991, 359) explains the concept of a *document,* Otlet's discussion (in Day, 1997) of the concept also suggests the need to consider how strategies are used—i.e., what practices are involved in a mode used—to make a document available. A closer investigation of the *Oxford English Dictionary* (1989) definition of the term also suggests insight can be gleaned from taking into account how a document *furnishes evidence* or *information* or, stated more generally, from how a document is used.

This discussion of *document* focuses on a tension emerging with regard to the physical nature of documents. This dissertation explores this tension in how it frames a document as one type of *artifact*. Contemporary usage of the term—that has emerged at the same time as the research discussed herein—reflects how artifacts include mental constructs (Oxford English Dictionary, 2009), which have a different kind of physicality. For example, constructing an utterance involves mental and social efforts (see 2.1.). Oral constructs reflect meanings, social agreements, *re*-presentations of the past, and substantiations of context (see 2.1.; Berger & Luckmann, 1966; Hall, 1993; Solomon, 1997; Talja et al., 1999; Vansina, 1985; Wittgenstein, 2001). They also manifest sonorously. Their sonorous nature differs from others types of artifacts, or specifically more traditional documents, which incorporate visual characteristics and can be touched. By comparison, oral documents lack these characteristics and are considered less stable than traditional documents. However, their sonorous nature is comprehendible (Zumthor, 1990), corporal, tangible, and even reproducible in ways that differ from approaches used to interact with artifacts that have not been constructed orally. Detecting oral constructs, like those in other modes, lies in understanding how they are constructed. Frohmann's insights (2004) into documentary practices lay the groundwork for discovering what mental and social constructs inform oral documents.

Frohmann (2004, 396) asserts that

> the Wittengensteinian perspective heralds a shift from *theories* of *information* to *descriptions* of *documentary practices*.

This shift reflects how social constructionism places importance on understanding practices. Frohmann (2007) later reconsiders Buckland's classic 1991 paper, titled "Information as thing," and considers how a working definition of the term *document* can accommodate what is done in practice. In other words, a working definition, for example of something being used as a document, is sufficient for referring to that *thing* as being a document (Frohmann, 2007). These findings place an increased level of importance on usages of and practices surrounding documents.

Frohmann (2004) explains that evidence of practices surrounding documents emerge in the form of properties. He also articulates four properties of documents and explains why a property facilitates a document's provision of informational evidence (Frohmann, 2004). Materiality, the first property, refers in part to a document's physicality (Frohmann, 2004) and tangible nature. Part of the materiality of talking lies in the sound of voice (Zumthor, 1990). Materiality also lies in how a document holds weight or has significance within some context (Frohmann, 2007; *Oxford English Dictionary*, 2008). For instance, not just any staff member's, but a manager's oral encouragement at the start of a meeting can

lead to all becoming quiet so that the meeting can actually begin (Mirivel & Tracy, 2005, 15, 16).

Next, institutionalization refers to how documents adhere to institutional norms and influence institutional processes in ways that perpetuate or reinforce an organizational context (Frohmann, 2004, 396-397; see also Taylor, 1991, 228). For example, referring to a judge as, "your honor," calls attention to a person with a particular role, helps ensure information is transmitted to an intended audience, and provides evidence of (and perpetuates) the rules and norms of the legal context in which such language use occurs.

The third property, social discipline, ensures documents can be perpetuated given changes in context over time (Frohmann, 2004, 397). It involves training about and oversight of processes surrounding documents (Frohmann, 2004, 397). Finally, historicity regards how documentary practices are changed and adapted to ensure that a document continues to hold weight over time (Frohmann, 2004, 396-397). Properties shape and configure the informative nature of documents as much as they describe documentary practices (Frohmann, 2004, 396, 405).

Ensuring that practices surrounding some artifact make it possible for that artifact to incorporate properties of documents facilitates extending document status to it

(Frohmann, 2004). These properties augment definitions and conceptualizations of a document. However, the literature addresses neither whether nor how specific instances of orality can incorporate the properties Frohmann articulates (2004).

The working definition of *oral document* introduced builds on and reflects understandings of *orality* and *document*. Information conveyed via orality provides evidence in multiple ways. An oral document conveys evidence or information in words uttered and in the actions necessary to create an utterance. This study asserts that, like with all documents, oral documents additionally make it possible to access information derived from practices used to create and sustain them. Specifically, information within an oral document is derived from how they can incorporate evidence of 1) having materiality, 2) being institutionalized, 3) being supported by social discipline, and 4) having historicity (Frohmann, 2004, 396-397). Having proved this assertion correct, these practices help show how orality also provides evidence about the context in which it is uttered or to which it pertains.

Despite how oral documents rely on orality to convey information, understanding how information is conveyed given the physicality of an *oral document* proves more elusive. Along with addressing tension in how we view documents, this dissertation introduces tension involved with defining *artifact*, of which a

document is one example. To date, discussions of an artifact's physicality note that it is *fixed*, or stable in how it is made manifest. For an oral document to be regarded as fixed, there must be a way to use—refer to, reproduce—it given the same conditions. Taking into account that I rely on a social constructionism as a meta-theoretical framework, a definition of fixity for this dissertation must accommodate for how an oral document is used in practice. For instance, Briet's definition (2006, 10) vis-à-vis this theoretical framework leads to asking for what is a concrete sign being preserved. And similarly, Buckland's definition (1991, 355) leads to asking for what is the category of information-as-thing typically reserved. However, research has yet to provide insight into how orally-based information is used. A number of researchers do suggest orality is used to interact with new information (Auster & Choo, 1993; Daft & Lengel, 1983; Huotari & Chatman, 2001; Mackenzie, 2005; Turner, 2007; Wilkinson, 2001). If their suggestions can be substantiated, than the fixity of an oral document would need to provide stable access to information long enough for new information to be formed and used. For example, an oral document may announce a new role for a specific staff member. The fixity of that oral document would need to remain in place until the news could emerge in other modes, e.g., the announcement later appears in an electronic mail message, the administrator who makes the announcement signs some document reflecting it, or the staff member makes a decision about organizational resources as is expected of her or his new role. These examples show how the same

information subsequently becomes available via an electronic, written, or action-based means. Overall, this study contributes to a dialog about how oral documents are used and how such usage fits into the current understanding of fixity. Increasing our understanding of orally-based information will help facilitate eventually finding responses to questions about oral documents and fixity.

Having a working definition of the concept of an *oral document* and information about practices supporting documents makes it possible to design an empirical observation to study the concept (see Chapter 3).

2.3.2. Using Oral Language

From the literature reviewed, a suggestion emerges. The selection and use of information from formal and informal information sources has been linked to how professionals anticipate using the information they access (Auster & Choo, 1993; Wilkinson, 2001). I suggest that such selection and use may also be explained by noting expectations of how language, which incorporates information, will be used.

Information behavior research describes rather than defines *formal* and *informal information sources* by listing specific types of sources that fit into each category

(Auster & Choo, 1993; Case, 2002, 2007; Ikoja-Odongo & Ocholla, 2004; Pezeshki-Rad & Zamani, 2005; Leckie et al., 1996; Taylor, 1991; Wilkinson, 2001; Zach, 2005). Although I suggest previously that *informal sources* are social in nature and *formal ones* are institutionalized, I identify no definition of *formal* and *informal information sources* in the literature (see 2.2.2.1.). It is as if these terms are used as tools to help explore or explain other phenomena. Moreover, each scholar approaches each category differently, with regards to what they place in each. As a result, there is no emerging consensus of what constitutes each category which could inform an emerging definition or predict how information is categorized.

In addition to observing that there is no definition for the two categories of information sources and despite the increasing reliance on social constructionism, the literature does not identify how the meta-theory might explain the categories of information sources. Social constructionism asserts that language can be used as a tool and as an activity (Berger & Luckmann, 1966; Wittgenstein, 2001). I suggest that the two types of information sources reflect these meta-theoretical categories of how language can be used. That is, when information from formal and informal sources is used, they involve using language as a tool or as an activity, respectively (as explained by social constructionism).

I characterize *formal information sources* as making use of information derived from institutional processes (see 2.2.2.1. and 2.2.2.2.). The information accessed has been constructed and made into some objective *thing*. Examples of such things are employee manuals, legal briefs, or biblical scriptures (Leckie et al., 1996; Mackenzie, 2005). These sorts of artifacts reflect having used language as a tool. Artifacts are a type of objective thing produced when language is used in this manner.

Additionally, I characterize information from *informal sources* as being derived from social activity (see 2.2.2.1. and 2.2.2.2.). The information accessed has emerged from social interaction and helps to perpetuate social reality (Berger & Luckmann, 1966; Talja, Tuominen & Savolainen, 2005, 89; Wittgenstein, 2001). Making use of information from informal sources involves, for instance, obtaining information from another person or from popular media (Auster & Choo, 1993; Case, 2002, 8, 12, 289; Case, 2007, 12-13; Huotari & Chatman, 2005; Ikoja-Odongo & Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991, 229; Zach, 2005). In another example, watching American television—and thereby acquiring information it makes accessible—positions someone to become knowledgeable about and help perpetuate American culture. This reflects using language as an activity in which to engage. Informal information sources perpetuate context without necessarily creating objective *things*.

Distinctions between how formal sources involve using language as a tool and how informal sources involve using language as an activity are depicted visually (see Table 1). This is an important distinction because it identifies the origins of informational artifacts. I assert that one is more likely to access objective *things*, like artifacts or documents, when one obtains information from a formal source. It also means that oral documents may best be identified when they are accessed from a formal information source.

Language can be used in two ways…	…using language leads to the production of…	…examples of what is produced include…	Types of information sources suggest a specific use of language
Using language as a tool…	…produces objective things…	…books, databases, web sites, documents, artifacts, a professional's oral statement, word connotations, word denotations, parts of speech, grammatical structures, structured sentences, social facts, formatted writings, etc. (Berger & Luckmann, 1966; Holland, 2005, 92; Wittgenstein, 2001)	Information from formal sources is described in ways that using language as a tool is described
Using language as an activity in which to engage…	…produces reality, or more specifically, categories of social reality	…processes, practices, standards, culture (including organizational culture), emotions, identity, the social world itself, uses for language, relationships, etc. (Berger & Luckmann, 1966; Holland, 2005, 92; Wittgenstein, 2001)	Information from informal sources is described in ways that using language as an activity is described

Table 1. Distinguishing Further Between Information Sources

The distinction between formal and informal sources becomes less clear when professionals make information available orally (see 2.2.2.1.) and helps explain why they are the anticipated source for oral documents examined within this study.

Professionals, given their background and training, can be sources for formal information (Leckie et al., 1996, see 2.2.2.2.). The specialized training they undergo (Leckie et al., 1996, 165, 172, 183-184) is an institutionalized process that influences and shapes both the professionals and their information. Recognizing how information that professionals make orally available is institutionalized challenges us in two ways (again, see 2.2.2.1.)

First, oral information from professionals challenges us to consider how it matches descriptions of information derived from *formal information sources* (Case, 2002, 12; Case, 2007, 12; Taylor, 1991, 228). It suggests that when professionals use language to access information from memory and subsequently share it with others they make informational artifacts, or objective *things*, available to others. Professionals' informational artifacts compare to information made available in formal publications, official documentation, and the like. This suggestion holds regardless of what mode is used to make that information available. Digital or written information from a professional is readily accepted as being an artifact. But, social constructionism explains that oral contributions to dialog can produce objective *things*, which represent objective reality, just as written contributions do (Berger & Luckmann, 1966; Wittgenstein, 2001). When viewed through the lens of social constructionism and consistent with the proposed description of formal information sources, professional's oral language produces an artifact that is oral.

Second, when professionals make information available, it also demonstrates that the two ways in which oral language can be used are interdependent. That is, when professionals make information available orally, they use language as a tool and as an activity simultaneously. Talking with a professional to obtain information is a social activity. He will use contextual references that are meaningful within some relationship or context. Doing so will perpetuate that relationship or that context—both of which are categories of social reality. Yet, he not only uses oral language as an activity, he also uses it as a tool. His oral language shapes information in a fashion consistent with whatever institution(s) rendered him an expert. With his orality, he socially makes available informational artifacts that bear evidence of that or those institution(s).

To summarize, I suggest that using information from formal and informal sources involves using language as a tool and an activity, respectively. However, formal sources include information from professionals regardless of what mode is used. This exception makes it possible to recognize how professionals' oral information presents a special case. It suggests that oral language use involves interdependency between the two distinct ways that language can be used. It reflects how oral language can be used as a tool to enable the creation of institutionalized oral artifacts (objective *things*) not unlike institutionalized digital or written artifacts.

While institutionalized oral artifacts are produced by using oral language as a tool, they also involve using oral language as an activity, mainly to perpetuate context. This discussion means that the special case involving professionals' oral information includes how professionals are a source for formal information. This observation is important. It implies that oral artifacts may be discovered by observing how professionals, who rely at least on self reflection or memory (Leckie et al., 1996), use orality to make their information available to others in some context in which they are considered an expert.

2.3.3. Context and Oral Language

As discussed above (see 2.1.3.2.), context has multiple dimensions (Berger & Luckmann, 1966; Cheuk & Dervin; 1999; Cicourel, 1992; Day, 2005; Katzer & Fletcher, 1992; Talja et al., 1999; Weick, 1979). Two sets of scholars define *context* in a way that incorporates this observation. Tuominen et al. (2002) describe how context has frames of reference. Goodwin and Duranti (1992) name the dimensions of context, *focal event* and *background*. The working definition of context being used is derived from both of these definitions and also identifies the two dimensions: "frames of reference, incorporating a focal event and a background, which support the study of relevant elements" (see 2.1.3.2.). In

exploring oral documents, it may become necessary to identify and articulate more dimensions of context.

Context and language use are interdependent (see 2.1.3.; Berger & Luckmann, 1966; Cheuk & Dervin, 1999; Hall, 1993; Pondy, 1983; Pondy, 1987; Sole & Edmundson, 2002; Solomon, 1997; Talja et al., 1999; Tuominen et al., 2002). Information captured within artifacts and from an institutional process (which would be considered information from a formal source) can originate from multiple parts of one or more contexts. For example, orally-based information from a professional reflects how it has been influenced by the various sub-texts in which a professional works and by whatever institution from which she received professional training. If she utters an oral document about the organizational department that she manages, the working definition of context would hold that it originates from her department as a *focal event*. The remainder of the organization and the institution which trained her would all be referred to using the same term, *background* of the context. Yet, some parts of the background may be more relevant to the utterance than others. At times, it may be necessary to distinguish between parts of the background that influence a particular utterance. An oral document may go undetected if the contextual cues within it could not be as readily identified and associated with the context from which the document originates or to which it is destined.

Methods for deciphering the origin of or destination for a document based on these sorts of contextual references have been developed for documents made available in digital or written modes. The same claim can not be made for documents made available in oral modes (see Cicourel, 1992; Clark, 1996; Clark & Brennan, 1991; Cole & Kuhlthau, 2000; Hall, 1993; Mirivel & Tracy, 2005; Pondy, 1978; Solomon, 1997; Solomon, 2002). As this exploration continues, I will note how orality interacts with context in order to determine whether the proposed working definition of the term will suffice and, if not, how it may be altered to accommodate these concerns.

2.4. Summary of the Literature Review

The literature explains not only why orality is important and why it is important to information science, but also what constitutes a document. First, the research into social constructionism shows how knowledge is social and that orality plays a key role in creating and maintaining it. The process involves *re*-presenting images from the past to help manifest the present (Brown & Duguid, 1991; Hall, 1993; Sole & Edmundson, 2002; Vansina, 1985; Weick, 1979). Images and ideas from the past are examples of social agreements held in memory (Fentress & Wickham, 1992).

Next, orality makes complex communication possible because it facilitates the use of mentally archived information. Specifically, orality facilitates formulating, remembering and sharing social agreements and transmitting them across and between contexts. Orality also makes it possible to understand context—including its immediate focal event and related background sub-texts (Berger & Luckmann, 1996; Boje, 1991; Cheuk & Dervin, 1999; Clark, 1996; Hall, 1993; Havemen, 2000; Katzer & Fletcher, 1992; Solomon, 1997; Taylor, 1991; Williamson, 1998). Additionally, people rely on orality to seek, transmit, and use information. Indeed, people prefer to interact with information from informal sources (Case, 2002, 2007; Leckie et al., 1996).

Information behavior literature identifies how information that people seek and use originates from formal or informal sources and has two dimensions, informational content and the mode through which that content is made available. Orality, along with numerous other modes, is flexible enough to be used in support of information derived from formal or informal sources (Auster & Choo, 1993; Case, 2002, 2007; Leckie et al., 1996; Mackenzie, 2005; Taylor, 1991; Wilkinson, 2001). Orality is generally categorized as an informal source (Auster & Choo, 1993; Case, 2002, 2007; Ikoja-Odongo & Ocholla, 2004; Pezeshki-Rad & Zamani, 2005; Taylor, 1991), yet the literature indicates it can be categorized as a formal source when it

originates from a professional (Leckie et al., 1996). The review of the literature suggests that increasing our understanding of modes through which information is conveyed, including orality, can: 1) clarify how modes and content together inform the category into which information is placed; and 2) increase our understanding of how modes and content together influence use.

Resources used for information based in oral and other modes originate from a given context (Hall, 1993). Such resources are social in nature (like references to shared history, temporal divisions, relationships, and agreed upon practices). Using resources involves acknowledging context by using information from sources both within and outside of a context. In addition, using information from these sources reveals the multiple parts of context. Context is central to information sources. It influences informational content and mode. Content and mode, in turn, influence how the information is used.

Findings regarding the way that informal information, made available from oral and other modes, is used provide insight into the nature of information artifacts. Before using an artifact to aid some outcome, professionals select from a range of possible artifacts relying on their perceptions when deciding. Research findings demonstrate informational artifacts made available from informal sources and in oral modes are frequently preferred over artifacts from other sources and modes

(Auster & Choo, 1993; Case, 2002, 2007; Ikoja-Ondongo & Ocholla, 2004; Leckie et al., 1996; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Taylor, 1991; Wilkinson, 2001). This means that professionals perceive, select (from among the various modalities), and use artifacts consisting of informational content made available orally.

In reviewing information behavior and allied literatures, it becomes apparent that information behavior involving orality has only been indirectly addressed. Mainly, it has been considered in aggregate with other modes in which information is made available. The idea that interacting with orally-based information may produce an artifact that is different from one produced by interacting with information in other modes has not been discussed. Similarly, the idea that interacting with orally-based information may require more precise ways of referring to the multiple dimensions of context has not been addressed in the literature. Continuing to explore the idea of an oral document raises a number of questions. Do approaches to the term *document* provide clues for how it can be extended to an utterance? What information is made available when orality is used? How is that information made available? Answering these and related questions will build on this review of the literature, the conceptualization of oral document that it introduces, and increase our understanding of how to identify an oral document.

3. Method

The work of conceptualizing an oral document involves determining what information or evidence it makes available and how. Because there has been limited research on information conveyed orally, we do not understand how orality systematically transmits information. We do not know why people persistently chose to interact with orally-based information, and we do not know how to recognize an oral document.

This study determines in part how to empirically observe an oral document by investigating whether and how emerging leaders—a subset of managers in information institutions (see also 3.6.)—use information made available orally. Because members of this population are professionally trained and regarded as experts in some context (Leckie et al., 1996), the information they convey orally is considered a source of formal information (as discussed in 2.2.2.1 and 2.3.2). Their orality is observed and examined to determine whether it produces any oral documents.

This chapter begins with a brief review of the research questions and the proposed working definition of *oral document* (see also 2.3.1). An overview of the

observational field study conducted is presented next. A justification for using this particular research design follows.

The remainder of this chapter addresses the unit of analysis, research population, and the observation setting. It includes a discussion of the data gathering techniques used, audio recording and field notes. This chapter closes with a description of how data were analyzed, a discussion of the research design, and a list of steps taken to mitigate weaknesses within it.

3.1. Research Questions

This study explicates the concept of an oral document and identifies what evidence or information oral documents convey. The research method used is designed to collect observation data and analyze them in order to respond to the following research questions:

RQ1: What is an oral document?

RQ2: What informational evidence does an oral document convey?

RQ3: Can an oral document be empirically observed?

3.2. Review of the Definition for Oral Document

Before describing the method, I recount the proposed working definition of *oral document* (see 2.3.1.):

> An *oral document* is an artifact conveying evidence or information: 1) about specific content and 2) that is embedded in the action(s) of furnishing that content through orality.

This working definition reflects how oral documents make up some portion of all orality uttered. It also assumes that information made available orally can result in artifacts just as information made available in other modes. Data gathered from the method utilized had been anticipated to inform amendments to the proposed working definition.

3.3. An Overview of the Method Used

Most of the literature reviewed in Chapter 2 that focuses on or reports findings concerning orality and information behavior directly or indirectly incorporate a field study method (Auster & Choo, 1993; Boje, 1991; Boland, 1995; Brown & Duguid, 1991; Case, 2002, 2007; Cheuk & Dervin, 1999; Cicourel, 1992; Clark & Brennan, 1991; Cole & Kuhlthau, 2000; Hall, 1993; Huotari & Chatman, 2001;

Ikoja-Odongo & Ocholla, 2004; Katzer & Fletcher, 1992; Leckie et al., 1996; Mackenzie, 2005; Mirivel & Tracy, 2005; Mutch, 2000; Pettigrew, 2000; Pezeshki-Rad & Zamani, 2005; Sole & Edmondson, 2002; Taylor, 1991; Wilkinson, 2001; Williamson, 1998; Zach, 2005). It was decided that using a field study research method for this study similarly provides the best way to hear and see the phenomena of an oral document as it occurs.

To respond to the research questions articulated, three participants were observed twice as they engaged in face-to-face orality during business meetings. Three cases were constructed based on Leonard-Burton's description of a case study (1990, 249) which refers to a case as being evidence from multiple sources examined to determine the history of some phenomena. Organizing data into cases provides multiple opportunities to analyze data that can be helpful for inducting a concept (Eisenhardt, 1989, 25). Having a variety of data sources also facilitates the comparison of data within and between cases (Eisenhardt, 1989, 539-541).

Each case reported in this dissertation involves two observations of one manager, or primary participant, talking face-to-face with colleagues who working in the same organization. The orality of the primary participant and not the colleagues, or secondary participants, is the main focus (see also 3.6.). In order to ensure sufficient oral data and not to overwhelm each participant with logistics, the

meetings observed consisted of up to five secondary participants (see also 3.7.3. and 3.7.4.). The primary participants assisted with scheduling the observations. Each second observation was scheduled to occur between one and four weeks after the first.

Having multiple pairs of observations from three organizational contexts within one industry provides a way to detect patterns that emerge when comparing data within cases (consisting of two observations with each primary participant) and across them (the three pairs of observations each involving one primary participant). Identifying patterns helps to determine the usefulness of the proposed working definition of oral document (see Leonard-Burton, 1990, 250).

The chances of finding patterns were increased by considering what meeting agenda items observed. The agenda items discussed by the primary participants were unknown until each potential primary participant had been contacted and screened. Examples of discussion topics included changes in services, collection, budget, and human resource matters (e.g., evaluating, hiring, and recruiting). Where possible, the observations were scheduled so that the primary participants could discuss at least one topic or meeting agenda item in each of the two observations that make up a case. For instance, one participant discussed a budget matter with branch staff who report directly to her and later with branch supervisors

whom she helped manage. Observing how each primary participant discussed at least one business topic during two different meetings provided an opportunity to consider how information about a topic changes over time. Specifically, I had anticipated tracking: 1) how new information became incorporated into knowledge that already exists, and 2) how known information was presented to those receiving it as new knowledge. Research suggests that this sort of data would reflect how orality is used more to track new as opposed to stabilized information (Auster & Choo, 1993; Brown & Duguid, 1991; Huotari & Chatman, 2001; Ikoja-Odongo &Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Turner, 2007; Wilkinson, 2001).

The observation activities outlined result in six observations or three cases. Gathering data from multiple cases strengthens the validity of the findings because they derive from a variety of situations that, according to the literature, are likely to result in the concept being explored (Baker, 2006, 186; Eisenhardt, 1989, 547). Conducting observations involving multiple cases also increases opportunities to capture multiple iterations of the concept being studied, helps minimize observer bias, prevents claims that exaggerate findings from any single observation or case, and bolsters external validity (Leonard-Burton, 1990, 249). Further, the observation technique used results in evidence of the attributes of the concept under

investigation that can be operationalized and tested in subsequent studies (Eisenhardt, 1989, 547).

3.4. Justification for the Study Design

The focus of this initial investigation is to increase what is known about oral information in the form of oral documents and determine whether the descriptions of orality based on the literature reviewed reflect the attributes of oral documents. Minimal information science research isolates and studies orality. Therefore, the study is designed to explore orality. Findings are culled from literature that relate to orality to develop the concept of an oral document (see 2.3.1.). Additionally, a field study method incorporating observation techniques made it possible to obtain naturalistic, oral data (Patton, 1990) and to increase our understanding of how information behavior can involve oral artifacts.

An exploratory study is considered most appropriate when minimal previous research exists and a complex topic is being investigated (Krathwohl, 1998, 673). This exploratory study is informed by findings obtained from the orality, information behavior, and document literatures reviewed in the previous chapter. The latter two areas of the literature have tended to comment on, but not to isolate

and study orally-based information. Neither addresses the concept of an oral artifact. Data yielded via observation is thought best when new phenomena are initially being considered (Baker, 2006, 174-175; Eisenhardt, 1989, 541, 546; Krathwohl, 1998, 260-262). By using this technique and applying it in naturalistic settings, the data derived stem from observable behavior. Professionals were watched and listened to as they created and used oral documents (Baker, 2006, 173; Krathwohl, 1998, 48).

This exploratory study utilizes the direct observation technique. This technique can be implemented to involve the researcher acting in a range of roles from participatory to non-participatory (Baker, 2006; Glesne, 1999, 49). Researchers who use *participant observation* techniques become involved for some period of time in a field setting such as an organization, while remaining only somewhat detached from the setting (Krathwohl, 1998, 252). By contrast, I assumed a *non-participant*—or *direct—observation* role by positioning myself aside as an uninvolved reporter or a member of an audience (Krathwohl, 1998, 252). Direct observation is appropriate for this study because it is based on objective data, utterances, in an effort to describe orality and oral documents (Glesne, 1999, 50). Conducting a non-participant observation for this study minimizes interactions with those being observed and provides the advantage of maximizing opportunities to concentrate on the observation process (Glasne, 1999, 50; Krathwohl, 1998, 252).

One disadvantage of using the non-participant observation technique is that it is considered the most obtrusive (Krathwohl, 1998, 50). Precautions taken to counteract obtrusiveness involved asking each primary participant a few partially structured questions immediately after each observation (Baker, 2006, 175-176, 186). Responses to the questions helped interpret the behavior and orality observed, explain contextual references, and provide information about whether the orality observed was typical. Seeking participant input to help explain phenomena and interpret phenomena observed has at least two advantages. First, it mitigates possible misconceptions to which a non-participant observation can lead (Baker, 2006, 176). Second, asking a participant to assist with interpreting observation data decreases the potential discomfort of being observed and contributes to the participants' collegial perspective of the research activities (Baker, 2006, 176).

I remained cognizant that interactions involving the follow-up observation questions may influence the second observation with a primary participant (Baker, 2006, 175-176). To counteract the possibility of any misconception that can arise from asking follow-up questions, the research method incorporates a variety of other observation circumstances (Baker, 2006, 186): 1) each primary participant is observed twice and, where possible, 2) with two different sets of up to five individuals. Comparing data within pairs of observations that make up a case and

across cases provides opportunities to recognize any influence that asking brief follow-up questions may have had. Partially structured questions asked of primary participants after each observation appear in Appendix B (secondary participants were not asked any follow-up questions).

Observing each primary participant two times additionally builds on relevant research findings in two ways. First, in a discussion regarding the relationship between the source of information selected and information use (see 2.2.2.5.), the literature reviewed indicates that patterns exist. Certain types of informational artifacts are routinely matched to fill specific kinds of information needs. The existing literature suggests that orally-based information is used when the informational content being accessed is new or is being used in a new way within some context. This is demonstrated in a number of findings two of which, Auster and Choo's (1993) as well as Huotari and Chatman's (2001), discuss this explicitly while others questions whether it may be a pattern (Pezeshki-Rad & Zamani, 2005; Sole & Edmundson, 2002; Turner, 2007; Wilkinson, 2001).

The second way that observing each primary participant twice builds on relevant findings in the literature reviewed involves how information becomes a part of some context (also discussed in 2.1.2.). Sole and Edmundson (2002) describe how information is first contextualized, only by being accessed while face-to-face and

co-located, and then used. Vansina (1961, 1985) similarly describes how each telling of an oral tradition incorporates evidence about its creator, origins, circumstances of the telling, and other insights into practices that facilitate the telling (again, see 2.1.2.). Each telling provides this additional contextual information along with the information in the form of a story that the oral tradition conveys (Vansina, 1961, 1985). Their research indicates that each subsequent time a topic is discussed in some context, utterances *re*-present contextual information in addition to the contents of an utterance, which may be new knowledge. Observing two different discussions about one topic allows an opportunity to note changes in the informational content and additional evidence incorporated into utterances regarding that topic.

Finally, data are gathered from multiple sources and organized into cases, similar to using the formal case study method (Leonard-Burton, 1990, 249). In addition to relying on existing research findings, multiple sources of data used in each case include two observations and responses to post observation follow-up questions at one research site. Moreover, I compare the oral documents empirically observed, by relying on the literature reviewed, to others uttered by that primary participant and to others observed at different research sites. Eisenhardt (1989) asserts that studying cases in nascent explorations of phenomena is beneficial because it can contribute to the development of theory. Others assert that using relevant research

findings to determine what to observe helps ground and strengthen the findings (Baker, 2006, 179-180; Eisenhardt, 1989, 536). It is also recognized that unforeseen constructs can emerge from observational data and can augment or replace findings identified from the literature (Eisenhardt, 1989, 536). This study design provides opportunities to rigorously study and introduce the concept of an oral document.

To summarize, the exploratory study design utilizes a non-participant observation technique. The design of the study makes it possible to describe oral documents and to determine the utility of the proposed working definition of *oral document*.

3.5. Unit of Analysis

A unit of analysis provides useful limits around what is being studied (Patton, 2002). Units of analysis direct the primary focus of data collection (Patton, 2002, 228-229). There is little precedent in information behavior literature for selecting a unit of analysis that focuses solely on oral data. Therefore, the unit of analysis selected for this investigation of oral documents reflects the properties of a document articulated by Frohmann (2004).

The unit of analysis for this study is an instantiation in which each of the four properties of a document identified is present in a face-to-face utterance. The four properties are materiality, institutionalization, social discipline, and historicity (Frohmann, 2004; see also 2.3.1. and 3.5.1.). This unit of analysis provides flexibility in identifying additional characteristics of oral documents and locating their temporal boundaries. The unit selected additionally facilitates the exclusion of utterances that do not meet criteria being used to identify oral document.

3.5.1. Properties as Criteria of Oral Document Status

It is necessary to address how this unit of analysis departs from Frohmann's articulation of documents. This departure involves the issue of fixity, or physicality, and orality (see 2.3.1.) and it informs what is considered data for this study. Fixity assumes consistency. A greater level of consistency is assumed to emerge where the same sub-set of practices converge to produce an artifact. This articulation of the concept of an oral document builds on these assumptions. Therefore, the approach used to gather data diverges from the original articulation of the properties of a document:

> These four constraining properties of documentary practices are only analytical notions; full descriptions of such practices will feature

> interactions between some or all of them. Nor is this short list meant to be exhaustive (Frohmann, 2004, 397).

Frohmann (2004, 397) clarifies that he articulates general ideas, however well-informed, of practices that likely need to be in place in order for a document to be produced (the lack of said practice[s] would reflect a situation without that document). He adds that additional practices—beyond four that he identifies—and the ways in which the practices interact have yet to be identified (Frohmann, 2004, 397). Characterizing properties of documents as “analytical notions” (Frohmann, 2004, 397) provides flexibility with regards to which and how many properties are incorporated into any given document.

This dissertation, although exploratory, embodies a more specific objective. It aims to identify one type of document, an oral document. It introduces a point of departure from Frohmann’s flexible approach (2004, 297) by specifying a definitive number of practices involved in producing an oral document: oral documents incorporate each of the properties identified. As such, this approach to data collection takes into account how all documents have fixity; it focuses on utterances that reflect a greater level of consistency by emerging from a consistent set of practices.

In essence, utterances considered data rely on both the properties that Frohmann articulates (2004) as well as on the working definition of oral documents. This more strict approach differs from how a document can be identified by articulating the practices that inform it or by defining it (see 2.3.1.). This approach excludes utterances that could be considered documents when relying on the properties in the way that Frohmann (2004) outlines, which does not posit them as criteria. This approach does not claim that such an approach can not be used to identify other types of documents or oral documents in the future. Instead, this approach provides a level of rigor necessary for this initial effort to identify a document in the oral and not in a traditional mode.

Given this approach to the unit of analysis, references to oral documents in the remaining text refer to utterances that incorporate the properties of documents, which are identified as criteria for oral document status, unless stated otherwise. Due to the exploratory nature of this study, the unit of analysis is informed further through analysis of the data.

3.6. Research Population

To study oral documents, it makes sense to begin by examining the oral information behavior of individuals who have access to volumes of information and who provide formal information within and about a given context. According to the information behavior and allied literatures reviewed for this study, professionals, and more specifically managers, meet these criteria. Managers are a subset of professionals; emerging leaders are a subset of managers who the researcher defines as those positioned to or who have expressed a desire to transition into the executive or top level of the work force. Often, they have managerial or administrative positions or they assume leadership responsibilities in other capacities (e.g., they head administrative committees, lead professional organization initiatives, and more).

Andersen (2004) examines the LIS concept of knowledge organization by tracing its historicity through the socio-cultural transitions from orality to written to print-based communication modes. He asserts that the information systems of oral cultures are the social groupings of persons (Andersen, 2004, 88). To this end, occupational roles of selected persons are crucial to determining what can be thought and known; to shaping what kind of knowledge is to be stored; and to documenting and remembering knowledge (Andersen, 2004). Emerging leaders are

active in tracking information about their own organization, other organizations within their industry, and their professional field in part because they are motivated to achieve goals that extend beyond their immediate responsibilities within their employing organization. These goals include securing new positions and professional opportunities.

Several researchers note how leaders of information institutions (discussed below in 3.7.1.) turnover more frequently than in the past (Lynch, Murray-Rust, Parker, Turner, Walker, Wilkinson, & Zimmerman, 2006; McAnally & Downs, 1973; Veaner, 1990). Career moves, whether lateral or upwards, necessitate that the emerging leader remain qualified by earning advanced degrees, remain active in industry-wide professional activities, and achieve a certain amount of mobility by gaining experience in different settings (Moran, 1989, 279). Other findings suggest that, for library leaders, knowledge and news are synonymous (Mittmeyer & Houser, 1979; Moran, 1989). And, a speaker's training and experience shapes their utterances (Leckie et al., 1996; Vansina, 1961). Given these findings, emerging leader's orality reflects complex knowledge about multiple dimensions of specific organizations and the broader library and information profession. Differently put, the observational data gathered reveal how emerging leaders routinely incorporate contextual references to multiple parts of a single context and to multiple contexts when they speak and utter oral documents.

Finally, supervisors initially contacted to obtain necessary permissions (see 3.7.2.) were also asked to identify two to three professionals who met the following study criteria:

> 1) Potential primary participants are employed by the information institution in which they supervise.
>
> 2) Each potential primary participant is considered an emerging leader. That is, each holds a middle management or higher position—as defined within the context of their institutional hierarchy. Or, they have assumed higher level responsibilities akin to administrative duties. Or, they have expressed interest in someday attaining an executive level position.
>
> 3) Each potential primary participant has individuals who directly and indirectly report to them within their organizational hierarchy.
>
> 4) Each potential primary participant agrees to being observed as they interact with other members of their organization.

Supervisors and others typically responsible for evaluating the work of administrators and managers have knowledge of their employee's skills, knowledge, and potential for career growth. Although up to three potential research participants were contacted per site, only one emerging leader was selected per site. Locating the primary participants in this manner incorporated the supervisor's knowledge about who they considered to be an emerging leader.

3.7. Field Research Preliminaries

This section explains the numerous steps taken prior to each observation including obtaining and managing the necessary approvals from supervisors, the initial contact with potential primary participants, and coordination with secondary participants. Finally, the data gathering techniques and data collection activities are described.

3.7.1. Setting for the Observations

The context of any orality contributes resources that are used to produce an oral document (see 2.1.3.; Hall, 1993; see also Frohmann, 2004; Vansina, 1961). The definition of context adopted for this exploration recognizes the two dimensions of context—focal event and background (see 2.1.3.2.). Information conveyed orally addresses one or both of these dimensions of context. Choosing research sites that incorporate multiple sub-texts in each dimension of context assists in gathering useful data. Conducting observations in the participants' natural work environments also increases the likelihood that the data gathered will reflect the complex nature of context. The research settings selected also facilitate more

accurate interpretation of the contextual references that participants make to the numerous sub-texts in which they work.

The research sites selected for this study are information institutions, specifically an academic library, a public library, and a museum. Information institutions are defined as organizations that provide information based products or services for example libraries, museums, information system design companies, and so on. These types of institutions incorporate multiple sub-texts in each of the two dimensions of context, in part because they reside in and serve the needs of a parent institution—like a campus, municipality, or a corporation. Leaders of information institutions routinely make references to the parent institution. Leaders also actively interact with and maintain affiliations with multiple entities in other professional contexts including internal departments, professional associations, alumni organizations, institutional member organization in which they represent their employing organization, professional development settings, vendor-client contexts, external organizations, funding agencies, and any number of other contexts that can range from local to international in scope. The orality observed incorporates references to any number of these and other related contexts.

3.7.2. Securing Permissions and Identifying Participants

Supervisors within a number of information institutions were contacted to ask for: 1) approval to involve their organization in a research study, and 2) names of one to three individuals who met the criteria outlined for primary participants (see 3.6.). Approvals granted made it possible for staff member volunteers to participate and for me to conduct the observations.

The nature of permission sought and primary participant criteria are outlined in a formal business letter that was used when making initial contact with supervisors (see Appendix D). However, subsequent contact relied on electronic mail messages or phone calls. Supervisors were not asked to contact potential primary participants who they had identified. I made initial contact with potential primary participants directly.

3.7.3. Recruitment

Once a supervisor's approval was obtained and referral(s) to potential primary participants was received, potential primary participants were contacted via electronic or surface mail. A recruitment letter was sent to each potential primary participant (see Appendix E). It contained information about the study topic, the University of Washington Human Subjects Division confidentiality procedures, and ways to contact me. Follow-up phone calls and electronic mail messages were used to ensure that each potential primary participant met the study criteria, to respond to any questions about participating in the study, and to further clarify information conveyed via the recruitment letter.

Once an individual agreed to participate, they were asked additional questions to ensure they met the selection criteria. If they met study criteria, each primary participant assisted with determining: 1) what meetings in which they are involved meet the study criteria; 2) when best to schedule one or two observations, and 3) which potential secondary participants to involve and the best ways to contact those individuals.

As when recruiting primary participants, I, not the primary participant nor the supervisor, initiated contact with secondary participants and responded to their

questions and concerns. Secondary participants were contacted in advance of the scheduled observations.

I initiated contact with all potential participants in order to ensure that individuals received accurate and consistent information about the study. I also informed supervisors and potential participants about how this study focuses on strategies emerging leaders use to manage information in their working lives. No observation began until permissions had been obtained, including letters of cooperation from supervisors and signed consent forms from participants (copies of consent forms for primary and secondary participants appear in Appendices F and G).

3.7.4. Secondary Participants

Each emerging leader was observed as he or she talked during business meetings. The individuals with whom they spoke are considered *secondary participants* because they influence the primary participants' orality and oral documents (Pondy, 1978; Vansina, 1961; Vansina, 1985), but their uses of orality are not the main focus of the observations. Secondary participants could have included administrators to whom the primary participants report, staff members who directly or indirectly report to the primary participants (e.g., support staff or department

heads), and peer staff members who hold similar positions. However, the observations involved no primary participant's supervisor. Stakeholders that have some interest in the success of the organization (e.g., an advisory board member, a colleague at an affiliated institution, or an individual who helps fund the organization), but do not work for the organization were excluded from this study. Secondary participants and others requesting additional information about the study were provided with an information sheet (see Appendix A).

3.8. Conducting the Observations

Conducting the observations involved scheduling, determining what to observe, deciding upon which data gathering techniques to utilize, and determining what data to gather.

3.8.1. Scheduling

Observations were scheduled when primary and secondary participants engaged in a business meeting. Informal preparation time or socializing frequently precede or follow business meetings (Holmes, 2003; Mirivel and Tracy, 2005). All such

interactions were considered data when appropriate (e.g., ensuring that they only involved study participants). This type of data was recorded while remaining sensitive to the nature of the situation and the goals of non-participant observation. However, it proved challenging to use an audio recorder to capture informal orality expressed before and after meetings. It was possible to record these sorts of observations in a field notebook of the activities immediately following the scheduled observations.

3.8.2. Data Gathering Techniques

At the start of each observation, I asked the primary participant where best to sit and was subsequently able to sit near the primary participant. If the meeting involved a computer or other information communication technology (ICT), I tried to determine how information accessed in this manner was incorporated into meeting discussions. However, the data gathered primarily consisted of information shared via face-to-face orality.

Given that this study focuses on oral communication, my ears and eyes were important resources for gathering data. Additionally, audio recording equipment and field notebooks were used. An audio recorder was placed in close proximity to

the participants. Recording began when meeting participants arrived for the scheduled meeting and continued until after the secondary participants left and the primary participant had responded to the follow-up questions. Recording orality throughout this entire period helped capture oral data uttered before, during, and after the scheduled meetings—all of which were considered to be a part of an observation. Audio recordings, transcriptions made from the recordings, and hand written field notes are considered replicas of original oral data.

Field notebooks were used to record (Pettigrew, 2000): 1) observations made while in the field; 2) patterns of and strategies for using orality to make information available; 3) my reflections between scheduled observations; and 4) notes comparing observations within and across cases. Field notes were taken throughout each observation to the extent possible. Even though participants were told about data gathering techniques in advance, I remained sensitive to how note taking can cause discomfort. Upon observing signs of concern (e.g., one or more participants staring at or referring to my field notebook), I took notes immediately after the observation instead of during it. Codes based on the literature reviewed (see 2.3.1.) guided data gathering and analysis activities (see Appendix H).

Consistent with the non-participant observer technique, I neither engaged in nor interrupted activities being observed (Krathwohl, 1998, 252). The observation

follow-up questions were used as opportunities to ask primary participants about background information to better understand the context, whether or not the interactions observed were typical, and questions that arose from what had been observed (see Appendix B).

3.8.3. Observing on Site

I observed primary participants using orality to interact with secondary participants in a business meeting. Observation activities focused on the words that participants uttered, soundings used (e.g., timber, tone, and register) to create the utterances, topics discussed, secondary participants' reactions to utterances, contextual references incorporated in the utterances, and to a limited extent gestures that accentuated the utterances. I also observed informal discussions that occurred before and after a scheduled meeting.

To summarize, I observed the following:

1. what participants said and how they said it;
2. how participants utilized what was said (e.g., took notes or minutes, repeated phrases uttered or oral strategies used, etc.);
3. whether a participant used a gesture when making or responding to information being shared orally;

4. what phrasings and oral strategies were used repeatedly;
5. oral language that reflected unique or unusual phrasings or strategies; and,
6. natural and spontaneous interactions with and reactions to utterances.

3.8.4. Observation Data

The data gathered throughout each observation mainly consisted of utterances made by the primary participant during the face-to-face meetings observed. The data for this dissertation consist of information conveyed orally and evidence of additional information incorporated into those utterances. Additional data, mainly responses to post-observation follow-up questions, was gathered to assist in deciphering the evidence within or the meaning of an utterance.

According to the working definition of oral document, orality incorporates information in both what is uttered and in the actions necessary to utter it (see 2.3.1.). The information conveyed orally includes information related to meeting agenda items and evidence about context.

I had expected to be unfamiliar with contextual information incorporated into utterances at each research site. Therefore, additional data gathered included

information about each context and participant. To facilitate understanding, hand written field notes taken before each observation included data like the following that had not been expected to emerge during the observations:

a. the position or role of the secondary participants within the organizational structure of her or his information institution,

b. the relationship between primary and secondary participants (see Appendix L),

c. contextual information about the meeting space,

d. the seating arrangement of participants,

e. contextual information about participant work areas, especially any aspect of the physical location that facilitated or obstructed oral communication,

f. anticipated meeting topics that were to be discussed (if possible), and

g. the tone or climate of the meeting (e.g., collegial, collaborative, sociable, task oriented, etc.).

In addition to gathering the above data prior at the start of each observation, additional data were gathered throughout each observation including oral strategies used to interact with information that was transmitted orally, e.g., vocal qualities utilized, questions asked, interruptions made, and more. An observation protocol guided data gathering during each observation (see Appendix C).

Observation follow-up questions were asked to increase comprehension of the observation data. The follow-up questions are partially structured and additionally shaped by the nature of the data gathered during their corresponding observation. The questions prompted each primary participant to describe whether the meeting observed had been typical. The questions also prompted primary participants to provide additional background information about a specific topic or situation that he or she had talked about during an observation. One question gave the primary participants an opportunity to describe how they interpreted information conveyed by secondary participants during the meetings observed. A subsequent question provided a chance to discuss the agenda item that was common to both meetings. Questions asked of primary participants at the end of each observation appear in Appendix B.

Additional data gathered include my comments, questions, and reflections that emerged throughout the data collection period. Notes made during early observations can help in determining whether a research design needs to be altered to ensure that useful data can be obtained during later observations (Eisenhardt, 1989, 539). This sort of alteration is consistent with the iterative nature of forming conceptualizations from case research (Eisenhardt, 1989, 539). In recognition of this iterative approach, analysis of the data began when the research activities began. However, the research design did not need to be changed.

3.9. Data Analysis

Analysis involved data in three formats, occurred in three stages, and utilized codes derived from the literature (a coding tool appears in Appendix H). Once the data had been gathered, the audio recordings and portions of the field notes were transcribed. The transcriptions from each observation were then coded by drawing in data from the audio recordings and field notes. The coded transcripts facilitate the identification of instances of orality that incorporate the four properties of documents identified in the literature review (see Frohmann, 2004). In other words, this initial analysis identifies what oral documents had been observed. After identifying oral documents within each of the observations, the oral documents observed within and then across the three cases were compared. The latter two stages of data analysis made it possible to find attributes and additional descriptions of oral documents that emerge from organizing the data in different ways.

When analyzing data from an observation, I first examined whether any utterances incorporate evidence of the materiality property because it is relatively easy for someone unfamiliar with a context to observe. The audio recording, field notes, and transcripts were also reviewed to determine which utterances generated relatively

more activity than others. Activities include oral strategies which incorporate a quality of voice that stand out (e.g., a primary participants speaks with more volume or using a deeper tone) or statements that make a reference to a primary participant's authority to make the statement (Frohmann, 2004). For example, if a secondary participant takes notes on or repeats phrases that the primary participant had uttered, it indicates that the primary participant had created a resource for one of these subsequent uses or transmissions of information. Evidence of subsequent activity indicates that an utterance had physicality or held weight, which are ways in which the materiality property occurs (Frohmann, 2004, 2006). An utterance must incorporate the materiality property in order for it to be considered a document (Frohmann, 2004).

Having identified and coded all utterances from one observation that incorporate the materiality property, I examined the data from that same observation to determine which utterances incorporate references to context and how those references are used. If an utterance adheres to institutional expectations and norms, it influences institutional processes in ways that perpetuate or reinforce the organizational context (Frohmann, 2004, 396-397). This analysis helps determine whether an utterance incorporates evidence of the institutionalization property (Frohmann, 2004). References to context include those related to meeting agenda items discussed (focal event of the context), peripheral parts of the organization

(background of the context), and external entities related to the organization (also the background). I also coded less direct references to context. Several participants indirectly explained having used a particular mode or a specific informational artifact to share information because using it had been expected. Explanations that one did not use a particular mode or artifact because of expectations and norms were also coded. These kinds of explanations make it possible to understand contextual norms surrounding the role of orality and information sharing. Statements like these are identified and coded according to how they provide evidence of the institutionalization property that had been incorporated into some utterance.

Still working with data from the same observation, I determined whether the coded utterances also incorporate evidence of the social discipline property. This property involves training to ensure that documents can be supported and sustained—through adaptation to changing circumstance—over time (Frohmann, 2004, 397). It also involves oversight of practices used to maintain documents (Frohmann, 2004, 397). Evidence of an utterance incorporating the social discipline property is in data that reveal how participants interact with oral information. For example, secondary participants correcting or trying to otherwise influence a primary participant's utterance is evidence of them ensuring that it conveys useful information. References to a primary participant's training or preparation behind an utterance

also provide evidence of this property. These kinds of references include evidence that a primary participant had accessed her or his memory through self reflection to gain access to information that he or she shares. One last example of evidence of the social discipline property lies in how primary participants use contextualized terms and phrases to convey information. Utterances that reflect this discussion were identified and coded as incorporating evidence of the social discipline property.

Finally, the coded data from that same observation was examined for its evidence of the historicity property (Frohmann, 2004). Evidence of this property emerges in how a participant explains that access to some information had changed over time. Examples of this kind of evidence include how a participant describes needing to obtain information by talking with a different staff member or by using an intranet instead of asking a colleague who had been providing it. The data reveal how having practices in place to ensure access to some information are more likely to result in consistent or accurate information over time. Utterances that incorporate evidence of the historicity property were identified and coded accordingly.

After one transcript from one observation had been coded, the oral documents that had been empirically observed were reviewed. Transcripts from the remaining five observations were analyzed and coded using the same four-stage process. The

initial data analysis stage involved identifying how data gathered matches pre-determined descriptions of a document.

The remaining two stages of data analysis did not involve a priori codes. Instead, they involved noticing what patterns emanated from the oral documents empirically observed. After each of the six observations had been analyzed, the oral documents that had been empirically observed were further analyzed by comparing and contrasting them within and later across each case. Reflecting on the initial results independent of the coding devices facilitated the identification of patterns, characteristics, and anomalies that emerge and describe oral documents. These final stages of analysis demonstrate why it is best to remain flexible when gathering and interpreting data during exploratory studies that are conducted to identify new phenomena (Eisenhardt, 1989, 539-541).

3.10. Weaknesses of the Research Design

The research design has weaknesses in four areas.

Weakness lies in the general anxiety that can result from being observed (Krathwohl, 1998, 249). Typically, a study can compensate for participant reactions

to being observed by conducting observations over an extended period of time (Glesne, 1999, 38; Krathwohl, 1998, 249). The non-participant observation technique is recommended for longitudinal studies during which participants eventually adjust to a researcher's presence and resume natural behavior (Krathwohl, 1998, 252). The short amount of time spent at each research site—i.e., I observed most secondary participants only once—may have prevented gathering data that reflected participants' natural behavior (Krathwohl, 1998, 252). This may have increased secondary participants' anxiety and affected orality used during the observations. To counter these concerns, I worked with each primary participant to schedule observations that involved secondary participants of their choice. The consent of secondary participants' was then obtained in advance of the scheduled observations. Additionally, conducting two observations with each primary participant helped alleviate anxiety about her or him having been observed.

Second given the definitions of orality used in this study, it could be argued that in fact a participant observation data gathering technique was used. That is, as an observer, I did not just witness utterances, but became an audience member. Any audience member may influence orality (Vansina, 1985, 110-111). Given this tension between the roles of audience and researcher, I kept any "participation" during each observation to a minimum. I instead tried to gain acceptance from the supervisor and participants at each research site (Krathwohl, 1998, 255-256);

remained mindful of what impression each primary and secondary participant had of the research; and consciously worked to observe how that impression may have affected participants' orality during data collection activities (Vansina, 1985, 111-113). I recorded evidence of these types of impressions as data in the field notes.

Next during data analysis, design weakness occurs in how the various parts of orality are systematically analyzed instead of the whole of an utterance. I remained cognizant that the various parts of an utterance may not neatly match the articulation of document properties available (Frohmann, 2004; see Appendix H). For example, phrases and terms that are supposed to provide evidence of the social discipline property instead may provide evidence of how an oral document incorporates the institutionalization property. I also remained cognizant that data can seem contradictory, for example just because no participant recorded or repeated a primary participant's utterance during an observation does not mean it incorporates no materiality. Overall, I remained sensitive to information and meanings conveyed by the whole experience of an utterance even as I worked to become familiar with and analyze its parts.

The fourth area of weakness is mitigated in part by remaining cognizant of having analyzed orality in isolation from other contributions to knowledge—those that occurred in writing and through practice (Tuominen et al., 2002, 278; Cicourel,

1992). The data gathered included some mention of how related information exchanged in other modes, but this study is designed purposefully to isolate and focus on orality. I remained sensitive to how this limited focus may provide incomplete information about knowledge held within a context.

3.10.1. Another Research Design Consideration

The goal of this dissertation is discovery. It involves a limited number of cases in a single type of context, information organizations. It also involves a limited number of utterances that incorporate all four properties of a document identified (see 3.5.1). This means findings may not be generalizable to contexts beyond the one studied (Krathwohl, 1998, 136-137). The research design may lead to limited understanding in terms of depth by incorporating two observations involving different sets of people yet involving orality focused on the same topic. This limitation may allow a deeper understanding to emerge about a specific sub-context studied but at the cost of not increasing understanding of how oral documents are used within a broader organizational context (Glesne, 1999, 36). Further, conducting a limited number of observations may have produced more questions than can be answered with the limited amount of data gathered (Glesne, 1999, 36-38). This point is mitigated in part by how this exploratory study rigorously

examines the oral documents found multiple times; every utterance is examined four times for evidence each of the properties and utterances determined to be oral documents are examined two additional times by comparing them to others within the same case and in other cases.

3.10.2. Researcher's Potential Influence on Data

I may have influenced the participants' behavior during the data gathering activities in a number of ways. Participants may have reacted to my status as a doctoral candidate from a top-ranking academic program or as having professional experience in information institutions. For instance, participants may have interpreted this status to mean that an expert was evaluating them. Or, it may have encouraged participants to experience affiliation or connectedness given the shared profession. Throughout the data gathering period, I remained cognizant of impressions participants may have formed and made an effort to track how these impressions may have affected the participants' orality.

3.10.3. Additional Ways to Mitigate Design Weaknesses

In an effort to increase the trustworthiness of anticipated results, additional data analysis strategies are utilized. First, data are analyzed for negative cases (Glesne, 1999, 38). Examples of negative cases are (1) a primary participant deciding not to speak in a situation that closely resembles one in which he or she previously made an utterance that proved to be an oral document, or (2) a primary participant addressing a topic by using orality that incorporates up to three properties, but not the fourth.

Finally, I record iterative data, or detailed field notes throughout the data gathering period as the subject of those notes occurred. Such details include reflections about the observations and about activities in which the participants engaged. Detailed notes recorded also include comparisons of reflections within and across cases. I also reflect on how my own subjectivity as a researcher invested in the outcome of the project, which may have influenced the data gathered (Glesne, 1999, 38). This meant, for example, remaining sensitive to unexpected results that may not support patterns that seemed to or had been expected to emerge as well as indicators of the subjects' comfort or discomfort (Krathwohl, 1998, 274). This type of sensitivity to the data modifies and increases the validity of results (Krathwohl, 1998, 274).

These additional steps taken ensured that research conducted contributes to increasing our understanding of oral documents. The research design responds to

social constructionism principals regarding oral contributions to knowledge and reflects what is known about orality and information behavior. It also builds on current understandings of documents in order to capture data that will test the definition of the concept under investigation. The research design was determined knowing that it may be used to conduct studies of orality in the future.

4. Results and Discussion

4.1. Introduction

This chapter presents and discusses the results. It begins by describing how three utterances, one from each case, incorporate four properties of documents—materiality, institutionalization, social discipline, and historicity. These descriptions make it possible to compare the oral documents empirically observed within and then across the three cases. Responses to the three research questions follow. Next, a discussion of theoretical and practical implications reveals how the results relate to the data. The chapter closes by discussing the strengths and weaknesses of the research design in light of the results.

4.2. Results

The first section contains a presentation of the data gathered, which result from three cases. In each case, two observations of an emerging leader (primary participants) were conducted while he or she talked face-to-face with other staff members who worked within the same information institution (secondary

participants). The section begins with a description of three—one from each case—of the fourteen utterances found to incorporate the four properties of documents that have been identified (see Table 2; the properties are described in Appendix H). An explanation of why each of these utterances is an oral document is offered. Using this initial presentation of results from each observation, the section continues with a comparison of results within and later across the cases.

Case #	**observation 1** number of oral documents observed	**observation 2** number of oral documents observed	*Totals:*
1	2	0	*2*
2	2	3	*5*
3	3	4	*7*
Totals:	*7*	*7*	***14***

Table 2. Oral Documents Empirically Observed

Numerous primary participant utterances incorporated up to three of the properties of documents. The following discussion describes only the utterances that incorporate all four properties. Additionally, a number of utterances that incorporate all four properties of documents duplicate information conveyed via non-oral media. Given the scope of this study, these kinds of utterances are not considered and do not appear in this analysis. Only those utterances that rely solely

on orality and incorporate the four properties of a document that have been identified are examined.

4.2.1. Sample of oral documents empirically observed

4.2.1.1. Case #1 – a Museum

A museum with a large collection of owned artifacts, traveling exhibits, and extensive education and outreach programs served as the first research site. The museum serves a large area and is accountable to two parent organizations. All of its paid staff members, over a hundred, and dozens of volunteers work out of one building. Museum operations involve multiple customer sites including area schools, government agencies, peer institutions, vendors, and multiple sites within their parent institutions.

At the time of the study, the museum staff was organized into seventeen departments led by ten managers including the administration department, which is run by the head of the organization. Chris, the primary participant in this case, holds one of the management positions and reports to the head.[5] Chris' middle management title meets the criteria outlined for this study.

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[5] All participants' names have been changed for confidentiality reasons.

In response to the follow-up observation questions, Chris describes how each museum staff member, managers and staff alike, coordinates a distinct area of responsibility that is interdependent of others' areas of responsibility. Interdependence occurs within and across departments. Chris' cooperative management style reflects this dynamic. For example, even when Chris calls a meeting, peer managers and staff members who directly report to her are just as likely to initiate meeting discussions.

In the first observation, Chris meets with a staff member who reports to her and a peer manager from another department. In the second, she meets with a staff member who reports to her and a peer manager who, like Chris, reports to the head of the organization. While participants in the first meeting focus on an imminent traveling exhibit deadline, those in the second contribute to continued efforts to keep their work compatible with that done by peer institutions. Participants in the second observation plan programs that will accompany a large-scale exhibit co-sponsored by a similar organization.

During the two observations, Chris makes two utterances that incorporate four properties of documents (oral documents #1 and #2). One of these utterances is about the process through which staff produce public information, specifically

educational and marketing materials about exhibits (oral document #2, also see Appendix I). This utterance first appears to deal with an early version of text for public information materials and how they will eventually appear in other modes (i.e., printed and electronic). I describe how the utterance actually addresses the process used to produce this draft and public information in general. The following discussion explains how the situation involving draft materials is used as a tool for adapting a larger organizational process which is documented orally.

The utterance incorporates the materiality property at the onset and throughout. One of the three forms of materiality is physicality, or evidence that the quality of a voice has symbolic values which influence an oral document (Frohmann, 2004). When a secondary participant asks about the status of a work assignment being completed by a third department (neither the secondary participant's nor Chris'), Chris' response incorporates physicality, "we met with them yesterday [pause]." Meaning, she and a different meeting participant (the one who did not ask the question) met with staff from the third department. Chris pauses mid-sentence to indicate that there is additional information (i.e., details about the meeting) with which both she and the participant to whom she refers are familiar. However, Chris uses her voice to assume the lead role before sharing that additional information. Her assuming this role reflects that the participants do not simply talk about something that has occurred. It also symbolizes that organizational values,

including cooperative efforts between departments, are being upheld by an individual designated to do so.

The materiality property in the form of physicality is additionally reflected in how Chris responds to the secondary participants' utterances (oral document #2):

> Chris: So, my sense is that if we can get through the next you know two months of mailing them in the [packaging material], um, that that will probably not stay the same.
>
> Secondary participant #1: I agree. I think the only reason that they started calling us on it was this account that we had.
>
> Chris: Right.
>
> Secondary participant #1: Cause they never did before.
>
> Chris: Right.
>
> Secondary participant #1: Plus, I think part of the thing that's going on here is that the [parent organization #1 {of 2}] has a, a waiver… already…
>
> Chris: Right.
>
> Secondary participant #1: [continues uninterrupted] …and, with us paying for it coming back, we're outside of that waiver.
>
> Chris: Um hum.
>
> Secondary participant #1: So, I think if we could just… get back under that— …umbrella.

> Chris [talks over Secondary participant #1]: Well we just can't do that… Yeah. Either we need to-- I mean there's really no sensible way to set it up…

Her uttering the words, "right," "um hum," and "well we just can't do that" are evidence of her working as a manager. Chris acknowledges, considers, and evaluates the secondary participant's contributions to her utterance. Symbolic values attributed to these sounds include efficient use of staff time and cooperative exploration of work matters, yet routine evaluation reflective of hierarchical leadership.

The utterance also incorporates the materiality property in the form of significance. Significance is an indication that one has been prepared or trained for assuming an organizational role or that an utterance has a function within an organization (Frohmann, 2004). This form of materiality is evident when Chris provides information about work emanating from the third department, for example:

> "So, I think, they got the idea of what we were talking about, plus the graphic style. You know, all the colors and the everything were there so…"

Chris demonstrates knowledge of the process to produce public information and of when to use it. She knows what steps the process involves, including how her department sets criteria for the final draft and the third department uses those

criteria to guide its work. She knows which staff and departments are responsible for each step. This knowledge informs Chris' utterance.

Another way that Chris' utterance incorporates significance relates to how it functions. Significance is incorporated in how Chris' utterance functions to: (1) complete a step—evaluating draft materials—in the public information production process, and (2) facilitate the sharing of information and labor between two departments. Chris responds to a question by taking an opportunity to provide information about an organizational process. Sharing this information reflects the importance of adhering to that process. Chris' response ensures that organizational resources are appropriately used and that organizational products have a certain level of quality. Specifically, her utterance functions to advertise and perpetuate that staff in three different departments' work to produce quality public information.

The materiality property is also reflected in the form of weight, evidence that Chris' utterance will result in subsequent activity. In several instances, Chris directs future work. First, she explains:

> "we won't laminate them right away… But the idea would be that they would be laminated eventually…"

Later, she instructs staff, saying, “We will definitely run everything past you” and “…I definitely need you to do that.”

The weight incorporated into Chris’ utterance also becomes evident during a brief interaction involving the secondary participants. Chris smiling and chuckling humorously refers to a portion of the draft materials as the, “everything-not-to-do information.” At that point, the secondary participants interrupt Chris’ attempts to continue speaking by suggesting alternate, humorous phrases while smiling and laughing. When responding to the follow-up observation questions, Chris later comments that humor helped to facilitate information sharing and diffuse tension caused by people with different skill sets working under tremendous pressures. Materiality in the form of weight is reflected in how the secondary participants mimic Chris’ humorous approach to describing one part of the materials.

In addition to materiality, Chris’s utterance also incorporates the property of institutionalization. This property of documents references how context influences information being conveyed. For example, Chris says, “we met with them yesterday [pauses]… they… are going to produce something fun.” The meeting involves staff members from two museum departments. Chris refers to a third department. She also refers to goals regarding a specific project and to values that

eventually will inform the final draft. Other references to various organizational sub-texts, or institutionalization, become more apparent when Chris adds:

> "…they thought maybe the best thing to do is, come up with something really, like some… grab you but still be kind of funny that says um, you know read this before you take anything out of this [package]. And then, open it up and get the everything-not-to-do… information."

The utterance is constructed in a way that relies on contextual values including hands-on education, community outreach, and positive customer experience. The utterance also reflects how areas of responsibility are assigned in the museum, "…it's not up to them to choose our look. So, I definitely need you to do that." Chris' utterance is shaped by her knowledge of how staff members from multiple departments have different roles in the drafting of educational and marketing materials.

The institutionalization property of documents incorporated into Chris' utterance moreover indicates that a process is in place to ensure that educational and marketing materials have been appropriately contextualized. This property is evident in how Chris describes steps in the process, which steps involve each meeting participant, and how the steps result in a product that eventually represents the museum. The institutionalization property of documents incorporated into this utterance emerges in how Chris addresses whether each step concerning one

particular set of educational and marketing materials was completed. The property also emerges in the way that she describes the overall process by which all public information is produced.

Next, Chris' utterance incorporates social discipline. This means that the accuracy of the information that the utterance conveys is ensured by how it includes specific terms, utilizes professional preparation—including self reflection—and reflects how contributions from secondary participants increase its accuracy. Chris explains the steps involved in the process of reviewing the drafts of educational and marketing materials by using phrases like, "everything-not-to-do… information" and "don't-even-think-about-doing-that icons." Secondary participants recognize that she is referring to the safety and instructional information included in the materials and how challenging it can be to present.

Evidence of the property of social discipline also emerges in Chris's utterance when she expresses her agreement with contributions that secondary participants make to influence her evaluation of draft materials produced by the third department. One encourages the meeting participants to consider the kind of paper used which the third department had not considered. Another says she needs to give the third department a final decision regarding paper size. These contributions indicate that the draft is not as complete as Chris had described. Chris eventually

agrees and reflects on her knowledge of a decision that had been made and of the third department's capabilities:

> "we were thinking… 8-1/2 by 14 or do we go with 11 by 17? [pauses] And, they can design it both ways and let us take a look at it."

The utterance is more accurate as a result of the secondary participants' contributions, which provide evidence of social discipline. Others knowledgeable of the context help the utterance accurately convey that the draft materials adhere to organizational practices. Adhering to organizational practices increases the likelihood that the draft materials will become a useful product. The secondary participants help Chris realize that the draft materials are not yet complete. The social discipline within this utterance also facilitates the incorporation of the final property. It provides information that helps meeting participants understand why Chris introduces a change.

Historicity is the property concerned with evidence that access to some information has changed (Frohmann, 2004). In Chris's utterance, historicity emerges when she says, "We will definitely run everything past you." Moments before, Chris had described how drafts of public information came directly from the third department to hers for review. The secondary participant who is a peer manager had described a step that had not been addressed and then suggested that he be permitted to

review draft materials before staff in Chris' department review them. The historicity property becomes evident when Chris articulates a change in the process to accommodate his request. Chris and staff members in her department will no longer access drafts of public information from the third department where it originates. Instead, they will obtain drafts from the secondary participant who made the suggestion.

Chris' utterance helps the organization adapt. Earlier in the meeting, the secondary participant who made the suggestion had outlined ideas for staffing in his department based on his having just completed his first six months in a new position. Following the observation, Chris similarly describes how the organization faces growth issues. The change she introduces better integrates the secondary participant's relatively new position into an organizational work process. The historicity in Chris' utterance demonstrates how she ensures that the process used to produce public information remains effective as the organization adapts and changes.

Chris' utterance about the museum process used to produce public information incorporates the four properties of a document that have been identified and is therefore an oral document.

4.2.1.2. Case #2 – a Public Library

The second research site is a large public library system with over two million holdings, nearly 700 staff members, and many volunteers. Jesse holds one of over a dozen middle management positions within it. He manages two branch libraries and reports to a senior administrator, which means that he meets criteria outlined for primary participants in this study. Jesse's work involves several of the parent organization's twenty eight buildings and facilities and its mobile outreach program. For example, he meets with peer managers at various branch libraries, works with staff who have responsibilities in multiple branches, and coordinates with vendors working out of numerous facilities. Additionally, Jesse's supervisor does not reside at either branch that he manages.

Two monthly staff meetings were observed at two different branch libraries. Secondary participants included staff members at each branch who report to Jesse (see Appendix L). The second meeting observed was the first for a new staff member. To accommodate this person, Jesse provided orienting explanations of the broader library context, issues, and situations that the staff discussed.[6]

[6] I was a neutral observer also benefited from this effort to orient the new staff member.

Meeting agenda items ranged from operational matters that were technical in nature to information originating from central administration. Items unique to the first observation include discussions to plan a collection project and to relocate tax forms within that branch. During the second observation, time was spent discussing two administrative changes, which had been announced since the completion of the first observation. Both meetings included discussions of staffing news (i.e., recruitments, appointments, etc.), announcements about administrative changes, and safety and security information. It was critical that both meetings ended within sixty (60) minutes to accommodate public service and staffing situations.

During the two observations, five utterances—three in the second observation—incorporate each of four properties of a document. One of these utterances is about the flow of information regarding equipment needs (oral document #5, also see Appendix J). It begins when Jesse responds to a question from a secondary participant:

> Secondary participant #1: Um [pauses], do you know where we are with getting a bar code scanner for the work room computer?
>
> Jesse: Well, you know, ah that was one of those things that, that I've asked several times about and it's fallen into the [name of a central department] black hole every time. Um, their basic answer was that they don't have any. Um, so, ah, a lot of these things are gonna come back up afresh now that we kind of have a semi new management ah structure. Um, so, what I think we should do is ah start making these requests anew and make them, make sure that

> [name of a senior administrator] is aware of them [pauses], and see what happens. [pauses] So…
>
> Secondary participant #2: [interrupting Jesse] And should we be or should I be doing that? Or is that something--
>
> Jesse: [interrupting secondary participant #2] No, I would do it through your [acronym used for title of a branch manager]. So, do it through me, ah [pauses] and I'll, I'll ask again…

The utterance incorporates the materiality property in three ways. First, Jesse's voice gives the utterance one form of the materiality property, physicality or evidence that it incorporates symbolic values. It begins, "Well, you know, ah that was one of those things that, that I've asked several times about...," which acknowledges that a secondary participant asks for information regarding one specific piece of equipment. Jesse shares that he has asked multiple times for the same information. His comment about his inquiries demonstrates that the organization, as represented by the voice of a manager, is investing more than a routine amount of organizational resources (i.e., impact on work for which the equipment is needed, delay on the part of those who have access to the needed information, staff time used to resolve the matter at a manager's versus a staff member's salary) on this matter. Succinctly, Jesse's utterance incorporates physicality in two ways: it incorporates symbolism regarding how the organization values (1) ensuring that staff having needed equipment and (2) having a hierarchical power structure. A manager expressing concern about an unfilled staff

equipment request symbolizes a more serious situation than a staff member doing the same.

Jesse's utterance also incorporates significance, a form of the materiality property that in part indicates how he has training and preparation for assuming his role as branch library manager. Evidence of significance lies in how Jesse says, "and it's fallen into the [name of a central department] black hole every time." Evidence that Jesse's training influences his utterance lies in the way Jesse links an inquiry about a request for one piece of equipment to a larger organizational process. This broader focus indicates that this utterance functions to reinforce how Jesse has been trained to, is expected to, and does evaluate various roles involved in that process. Moreover, Jesse evaluates the situation and realizes that there is not just an absence of information (as reflected in the secondary participant's question), but a problem with the process.

In addition to physicality and significance, the materiality property in the form of weight emerges in Jesse's utterance. Weight refers to how orality leads to subsequent activities. Weight in Jesse's utterance is evident in how he instructs staff, including himself, to submit requests for equipment an additional time and to alert a specific administrator when making the requests.

Second, Jesse's utterance incorporates the property of institutionalization in how it includes references to a context. It refers to numerous parts of the library context. Jesse acts based on knowledge of his branch including work room activities, equipment needed to support them, and the roles of various branch staff. He refers to the library request process and to a central department it involves. He uses knowledge of how to manage problems, e.g., involve higher level staff in working to resolve them. He refers to the library's central administration with its, "semi new management ah structure." These contextual references provide information about what parts of the broader organization are involved in the process through which information about needed equipment becomes available. Incorporating the references provides evidence that each of these parts of context informs and shapes the utterance.

The third property incorporated in Jesse's utterance is social discipline, which refers to evidence that specific social entities influence an utterance. This utterance incorporates the social discipline property in three ways. First, Jesse's utterance reflects how he acts within his organizational role to evaluate and alter a library process. Second, he uses particular language—the acronym used for title of a branch manager, the name of a central department, and the name of a specific senior administrator. Using these titles reflects how Jesse shapes his utterance with context-specific language, which makes it informative. Third, Jesse renders the

change he had just made more accurate by responding to a secondary participant's question about it. The secondary participant's contribution helps ensure the accuracy of Jesse's utterance. Jesse does not speak as a context-free individual, but organizational processes, linguistic resources, and staff guide and influence what he says and how he says it.

Finally, Jesse's utterance incorporates the historicity property. This fourth property refers to how an oral document has evidence that the method used to access some information has changed. Jesse describes a change in the method staff will use to access information about the needed equipment. He acknowledges that a process had been in place by stating, "we should… start making these requests anew…" He continues by introducing two changes to that existing process. Only he, as the branch manager, will make the requests and he will alert a senior administrator when making them. Obtaining the desired information will now involve more of the organizational context. The evidence of the historicity property in Jesse's utterance reflects how he helps the organization correct a process that had become ineffective.

The utterance regarding the equipment request process is an oral document because it incorporates each of the four properties of a document that have been identified.

4.2.1.3. Case #3 – an Academic Library

A large university library serving three campuses located in three different cities served as the third research site. A few hundred library staff members provide research support throughout its twenty libraries, maintain institutional affiliations with a variety of membership organizations, and administer operations throughout the organization. The branch libraries on the largest campus are grouped according to disciplinary area. For example, a middle manager who oversees the chemistry branch library reports to a higher level manager who oversees all branch libraries that support the sciences. Pat is a branch manager and an assistant to one of nearly a dozen of these higher level management positions. She reports to a higher level manager, who is a senior administrator, and she also works directly with the head of the university library on numerous matters. Her middle management status meets criteria outlined for participation in this study.

Pat serves in administrative, managerial, supervisorial, and mentor roles. Her work requires her to interact in multiple contexts. She oversees all staff in one campus branch library and assists in supervising managers of other branches. Pat also works routinely with patrons and vendors. Her responsibilities additionally involve assuming active roles in organizational member and professional associations.

Assuming these areas of responsibility means that Pat routinely participates in meetings.

The two meetings observed reflect Pat's broad range of responsibilities. In the first, Pat meets with other branch managers (see Appendix L). Like Pat, they each oversee a campus branch library. Although everyone in the meeting reports to the same supervisor, Pat serves in a role that resembles an assistant supervisor. For instance, she frequently calls for and conducts the semimonthly staff meetings of these managers. During these routine meetings, she makes certain the managers have the resources they need to assure successful operations of each of their branch libraries, keeps them informed about events and operations in the branch library she oversees, and facilitates their professional development activities. Additionally, she facilitates the sharing of information with and completion of work assignments originating from their supervisor, library wide work groups, and library administration. And, finally, she manages her own professional development.

In the first observation, Pat leads the middle managers through three agenda items. One item is about how the managers had been asked to prepare for a possible budget reduction. They also discuss participation in a research effort conducted by a national association of which their library is a member. To close, each manager

presents individual reports. Pat reports on the status of a librarian recruitment effort and told the secondary participants how they would each become involved in it.

During the second observation, Pat meets mainly with staff members who report to her and work in the campus library that she manages. An additional secondary participant, who reported to the same supervisor as Pat and provided support for digital services throughout the university library, attends the second half of the meeting. The second meeting agenda includes a broader range of items than the first. As in the first observation, Pat reports on potential implications of a possible budget reduction. However, these secondary participants are not asked to take part in any budget planning activities. Pat also reports on the librarian recruitment effort that she discusses in the first observation. She tells the secondary participants at what point they would each become involved. Agenda items unique to the second observation include the coordination of a staff recognition program, the discussion of two different services, and a report on activities of a professional member organization. Also, Pat explains that she typically brings food to encourage staff to attend and reduce tension caused by challenges that pre-date her. This meeting also ends with time for each staff member to report on relevant matters.

Two final notes include how a staff member who was also a graduate student intern learning Pat’s area of specialization is a secondary participant in both observations.

Pat frequently provides the intern with broader explanations of library matters and professional issues. Also at the start of both meetings that were observed, Pat introduces me and I talk briefly about my research.

During the course of the two observations, Pat makes seven utterances—three in the first—that incorporate four properties of a document (oral documents #8 and #10-15). In one, Pat addresses a process involved in a library outreach effort (oral document #13). Staff would need to obtain faculty approval in order to complete a library outreach goal and talk with students who are likely to use a certain library resource. Pat changes the focus of a report that two secondary participants had been giving by asking whether a certain professor is currently teaching. When staff replied positively, Pat speaks in a manner that incorporates the properties of a document (see Appendix K):

> Pat: Um hum… What, what about [name of a professor]? Is he teaching?
>
> Secondary participant: He's not teaching right now.
>
> Pat: Ok.
>
> Secondary participant: He may, he usually teaches summer and fall.
>
> Pat: Ok. Let's make sure that we go into his class. And I, I'll be willing to make the bridge, you know since he's kind of you know, you know what.
>
> Secondary participant: Yeah… Yes. Um, and [laughs] and then you know also…

Pat's utterance incorporates all three forms of the materiality property. The first form, physicality, refers to indications that the quality of voice has symbolic values. In the midst of a report being made by two secondary participants, Pat asks a question that begins with specific sounds—e.g., "Um hum" and a pause in speech. The sounds are consistent with how she begins new agenda items or changes the topic within ongoing agenda items throughout the observations. The combination of these sounds and the timing with which they are uttered symbolizes her organizational authority in part to conduct and facilitate meetings.

Pat's utterance also reflects significance. Significance is a form of the materiality property that indicates one's preparation and training for assuming a given role and function within an organization (Frohmann, 2004). Pat asks about a certain faculty member than assigns additional project tasks that involve reaching out to him. Her utterance provides evidence of understanding how to manage library outreach goals, library resources, and potentials library users. Additionally, she uses knowledge of the curriculums of classes served by her branch library to ask about a class that the secondary participants had not considered. Pat determines that students enrolled in that class would benefit from learning about the library resource. Finally, she demonstrates her knowledge of organizational processes to which they would need to adhere in order to speak with students enrolled in that

class. To summarize, evidence of significance is incorporated into Pat's initial question and her subsequent command, "Let's make sure that we go into his class." Evidence of the significance lies in how the utterance reflects preparation and training needed to manage an academic branch library outreach work.

The materiality property is additionally evident in how Pat's orality has weight. Weight indicates that her utterance will lead to subsequent activity. Weight is incorporated in two ways: (1) Pat will make herself available as a resource to the two librarian staff members (2) who will complete the new tasks that she assigns. Her utterance also influences subsequent language use. Pat uses the term 'bridge.' A secondary participant later uses it suggesting they find a way, "to bridge the, bridge, the gap there," between different ways to refer to a second library service. Pat corrects the secondary participant's language saying, "the language gap." However, the point is that the utterance in which Pat initially uses the term 'bridge' has weight that is made even more evident in how a staff member subsequently uses it to convey information.

In addition to the materiality property, Pat's utterance incorporates the institutionalization property, which involves references to context that influence and shape a document (Frohmann, 2004). Pat refers to people within the organizational context—her staff, one faculty member, and students who are library

customers. She refers to entities—her branch library and a class taught in a campus department it serves. She refers to library goals, a parent organization process, and the relationships among these sub-texts. Each of these sub-texts informs her utterance. Her utterance is about a way to accommodate one faculty member's work style. Pat anticipates that his style will prevent the secondary participants from obtaining approval in the manner they use to obtain it from other faculty. Building on knowledge of the various staff roles, i.e., how faculty and library managers are peers, Pat tells the secondary participants how she will help obtain the approval. More importantly, Pat does not bypass the organizational process for obtaining approval, but uses her knowledge of the organization to describe a different way to complete the process. Pat's contextual knowledge shapes her utterance and reflects the institutionalization property.

Third, the social discipline property emerges in how Pat's utterance incorporates evidence that systematized practices influence it. Evidence of the social discipline property emerges in the way Pat selects and uses specific language. She refers to organizational practices by saying, "his class," "bridge," and the name of the one professor. This language renders her utterance informative because it reflects the staffing structure and divisions of labor in the library and on campus. It also provides evidences that she speaks within her role to make certain organizational activities are consistent with accepted practices.

Evidence of the social discipline property emerges additionally in how Pat combines knowledge from multiple areas of the organizational context while acting in her managerial role. Her use of the term, “bridge,” as a metaphor demonstrates her knowledge of hierarchical divisions between various staff members (i.e., faculty member, library middle manager, librarian, student, etc.), their associated roles, and how they relate to one another. The librarian staff member is not a peer of the faculty member, but Pat—a library middle manager—is. Using the metaphor inherent in the term “bridge” acknowledges the divided structure of the broader organization. It also reinforces Pat’s capacity to manage—i.e., assign tasks, negotiate processes, and connect with parts of the context with which her staff can not. Each of these influences provides evidence that Pat’s utterance is shaped by the various ways that order is maintained in the academic library context.

Finally, Pat’s utterance incorporates the fourth property, historicity which refers to evidence that the method used to access some information has changed. In this utterance, access to information, in the form of an approval, changes. Again, in order for the two secondary participants to complete the outreach project, they will need necessary approvals. Pat explains that instead of being able to obtain the needed approval directly from the one professor, as with all the other classes, the staff members will need to coordinate with Pat to obtain it. She offers an

explanation for her decision, “since he’s kind of you know, you know what,” which further indicates that she has introduced a change. Pat does not adapt the entire process for obtaining approval. Instead, she changes how they will go about obtaining approval for this one situation. Pat’s announcing a different method for accessing the needed approval is an instantiation of the historicity property.

Pat’s utterance incorporates each of the four properties of a document that have been identified. It is an oral document.

4.2.2. Data Within Cases

Results presented in this section compare oral documents observed within each organizational context in an effort to continue exploring what informational evidence they incorporate. Continued analysis facilitates further description of an oral document. Comparing data within cases additionally provides information about the properties of a document. Data presented in this section also reflect an analysis of utterances about meeting discussion topics that were common to both observations within each case.

4.2.2.1. Case #1

Comparing the two oral documents (#1 and #2) empirically observed in the first case reveals information about how they have boundaries and structure. This analysis also reveals information about the four properties of a document that have been identified. Finally, the second observation in this case is the only one which included no oral documents.

Boundaries

Units of analysis provide a focus for and limits around the data. The unit of analysis used for this study is an utterance that incorporates four properties of documents. Examining the data yields additional insight into how the oral documents are bound by time and by the primary participant's vocal characteristics. These boundaries exclude utterances made by secondary participants.

Temporally, both oral documents are bound by the organizational meetings during which they occur. They are additionally bound by time allotted to agenda items within the meeting. While one is bound by a meeting agenda item (oral document #1), the other is bound by a discussion embedded within an agenda item (oral document #2).

The primary participant in this first case, Chris, speaks in particular ways that bind the oral documents. At the start and end of the agenda item or discussions within them, Chris speaks more slowly and incorporates pauses into her speech. She speaks in this same manner at the start and end of the two oral documents (described more below). During an agenda item or a discussion topic within one, Chris does not speak as slowly. The differences in Chris' vocal characteristics at the start, middle, and end of the two oral documents help distinguish them from other utterances within the first case.

Although secondary participants speak within the boundaries of an oral document, their oral contributions remain outside of them. Secondary participants ask questions, offer additional information, and make corrections which all help increase the accuracy of the oral document (evidence of the social discipline property). Chris responds to their contributions by evaluating whether their contributions are relevant and how. For example, when she determines that one contribution is not relevant, Chris explains why (oral document #1):

> Chris: So, my sense is that if we can get through the next you know two months of mailing them in the [packaging material], um, that that will probably not stay the same.
>
> Secondary participant #1: I agree. I think the only reason that they started calling us on it was this account that we had.

Chris: Right.

Secondary participant #1: Cause they never did before.

Chris: Right.

Secondary participant #1: Plus, I think part of the thing that's going on here is that the [parent organization #1] has a, a waiver… already…

Chris: Right.

Secondary participant #1: [continues uninterrupted] …and, with us paying for it coming back, we're outside of that waiver.

Chris: Um hum.

Secondary participant #1: So, I think if we could just… get back under that— …umbrella.

Chris [talks over Secondary participant #1]: Well we just can't do that… Yeah. Either we need to-- I mean there's really no sensible way to set it up…

Chris continues by explaining what other options they could pursue. This and other responses to secondary participants' contributions demonstrate that Chris does not let them stand alone, but instead points out how or whether they are relevant. Responding additionally incorporates properties of a document including how Chris demonstrates her: (1) capacity to manage (the materiality property), (2) training for her management role (the social discipline property), and (3) knowledge of specific parts of the organization (the institutionalization property).

Overall, the contributions influence the oral documents without becoming a part of them.

The two oral documents in the first case are bound by time and vocal characteristics. And, the boundaries exclude secondary participants' voices.

Structure

The above discussion about boundaries points out that openings and closings of the oral documents observed have similar characteristics. Continued analysis reveals that the oral documents have structure. The structure includes two additional segments of background information and a main message. The four segments emerge in a particular order, have a function, and are interrelated.

First, both oral documents begin when Chris responds to a question from a secondary participant and introduces new meeting agenda items. Her responses are slower in pace than in other portions of the oral document. Her responses also incorporate a pause in speech or laughter, which emerge throughout the case when Chris introduces a new agenda item or changes the discussion topic within one. The opening segments incorporate the materiality property, or evidence of the physical and symbolic nature of the primary participant's voice. Additionally, one opening segment refers to a part of the organization; the other, to a prior event that occurred

within it. The references incorporate the institutionalization property. They provide evidence of the organizational sub-texts involved in the origins and shaping of the oral document. The references also incorporate evidence of the social discipline property in how Chris engages in self reflection to recall relevant and current information. A metaphorical description of each opening is that of a preface to a book or an introduction to an essay.

Next, the opening segments of both oral documents are followed by the provision of information related to the topic provided in the opening. The background information provides a sense of what parts of the organizational context the utterance involves and explores issues involved in adhering to norms and practices maintained in those sub-texts. For example shortly after the excerpt considered above, Chris considers whether one packaging option will accommodate how customers will be able to obtain the packages when, "…we're not there. Random desk staff are gonna come down and look for the box." In this way, Chris shares information in an effort to identify how options being considered would impact sub-texts within the broader organizational context, mainly staff from another department and customers.

Isolating and identifying the second segment proves challenging. The minimal information about the topic that is conveyed in the opening is closely related to the

background information. And, the segments conveying background information vary in length and incorporate different combinations of references to the organizational context, Chris' role within it, and her preparation for having assumed that role (which is evidence of the institutionalization, materiality, and social discipline properties respectively). However, Chris' vocal characteristics change when she provides background information. Her speech is more fluid and includes fewer pauses unlike the openings and closings. She provides longer explanations. Also, secondary participants ask questions of and provide additional background information during this segment. They speak in ways that help to ensure the accuracy of background information being conveyed, which is evidence of the social discipline property. Having the background information enables the meeting participants to interpret, situate, or understand information conveyed in the remainder of each oral document.

Third, both oral documents incorporate a point or a main message. The historicity property, or evidence of a change in access to some information, emerges only within this third segment. This segment acts as a kind of climax. The first two segments establish a focus and clarify which sub-texts the oral documents involve—i.e., departments, products, external agencies, or names of persons. The background information provided helps secondary participants interpret and

understand the change conveyed within the main message. After the main message, the remainder of each oral document echoes or reiterates that message.

The main messages in both oral documents address a change in the method used to access some information, but also introduce a change in a work process. The other segments of each oral document address either multiple tasks within a process or multiple iterations of that process. For example in the opening and background of one oral document (#2), Chris addresses issues involved with educational and marketing materials produced for one exhibit. However, the main message is about a change in the process they will use to create public information for all exhibits. In this way, both main messages involve the broader organizational context.

Finally, the two oral documents end with similar characteristics to ones with which they begin, yet differences emerge. During both endings, Chris speaks more slowly than she had been during the background information and the main message. She also pauses or exhales audibly. The sounds resemble ones that Chris utters during the opening. The closing of the first oral document brings a close to that meeting agenda item by reiterating the decision made in the main message, “Let’s go with your vast experience” (oral document #1). The closing of the second oral document also reiterates the main message. But, the closing changes the topic being addressed without bringing the agenda item to a close:

> "…they're, it's not up to them to choose our look. I definitely need you to do that. And, tell me how often and… [does not complete sentence]"

A secondary participant begins to discuss a topic that is different although related to that of the oral document.

Overall, data from the first case reveal how the oral documents observed have structure. They have an opening, background information, a main message, and a closing. Moreover, these four interrelated segments are ordered and function in a particular way.

The properties of a document

When comparing the two oral documents empirically observed in the first case, information about the properties of a document emerges and helps to further describe how the properties function within the oral documents.

Data within the first case reveal that three of the properties of a document—institutionalization, materiality, and social discipline—emerged most frequently. The fourth, the historicity property, emerges less frequently. Moreover, the properties did not emerge in a mutually exclusive manner. For instance, when Chris refers to a decision she had made saying, "…as long as you're comfortable with

reviewing everything…,” she utilizes her knowledge of museum work flows, asserts her managerial capacity, and builds on her knowledge of various staff members’ skills (the institutionalization, materiality, and social discipline properties; see Appendix I or section 4.2.1.1.). Other excerpts of each oral document similarly incorporate one or more properties of a document.

The main message, or the segment which incorporates information about a change (the historicity property), guides interpretations of the oral document. Guidance is needed because the lack of mutual exclusivity with regards to how the properties are incorporated can introduce ambiguity. Any portion of an oral document could be interpreted as providing information about the organization, the primary participant, the impact of the oral document, or some other aspect of the organizational context.

In the example being discussed, Chris’ question can be interpreted as asking a secondary participant about his comfort level. But, the main message helps clarify that it is not a comment intended to establish preference or extend emotional support, but to reiterate that a new step in an existing work process has been introduced. The main messages provide this sort of guidance because they clarify the primary focus of the oral document. In the example being discussed, the main

message reinforces the importance of and helps to maintain an effective method for producing quality public information.

Context

Context refers to frames of reference including a focal event and a background, which support the study of relevant elements (see 2.1.3.2.). Context has already been discussed in terms of how it influences and shapes an oral document. This influence is made evident by identifying the properties of a document that an oral document incorporates (see 2.3.1.). This sub-section describes how references to context additionally make the oral documents observed succinct.

At one point, Chris responds to a question by saying, “That was a week ago, wasn’t it?” (oral document #1). The secondary participants subsequently interact with her knowing that she has just provided them with information. Her question refers to a specific event, specific packaging material, a particular traveling exhibit, the secondary participants themselves, their departments, a set of material presentation and handling issues, related transportation matters, and specific sub-texts internal and external to the broader organization including:

- the museum mail storage area;
- work processes of staff in the department adjacent to the mail storage area;
- museum organizational values;

- a mailing services vendor and various levels of its staff; and,
- organizational customers, their staff and other stakeholders (i.e., schools, teachers, and students).

In other words, the reference to the event makes it possible for the secondary participants to understand which parts of the organizational context the oral document involves. Some parts of context referenced are very relevant to the oral document (they exist in the focal event of the meeting context); other parts of context referenced are relatively less relevant to the oral document (and exist in the background that embeds the focal event; see 2.1.3.2.). Although numerous sub-texts are relevant, one or more of them come into and out of focus as the oral document progresses. Chris utilizes references to context as resources to help her make relevant information available without having to explicitly state the information or how it is relevant. Participants use the references as tools to access this related information.

To summarize, the incorporation of contextual references: (1) demonstrates evidence of the properties of a document; (2) renders the oral documents informative about which parts of the overall context are relevant to different portions of each oral document; and (3) makes it possible for the oral documents to be succinct.

Other – an anomaly

The study design anticipated that agenda items addressed in both observations of a case might reveal additional information about how to describe an oral document. The first case included no common agenda items. Additionally, oral documents emerge from all six observations conducted in this study except the second observation in this first case. These results may be due to the role of each participant or to the nature of museum work. Analyzing the lack of common agenda items and the lack of oral documents resulting from the second observation helps to support how oral documents incorporate all four properties of documents and leads to further descriptions of the oral documents observed.

While two oral documents in the first observation incorporate evidence of a change in methods used to access some information (the historicity property), no utterance does in the second. The participants in the first observation make decisions regarding programming for an imminent exhibit. Participants in the second observation had discussed this imminent exhibit weeks (or months) prior in earlier planning stages. Likewise in future weeks, participants in the first observation would discuss the exhibit that participants in the second observation had discussed. The second meeting observed involved planning—i.e., identifying needed information and determining strategies for—future programs that the museum was co-sponsoring with a new organization. The meeting addressed less routine and

more precedent setting work in an effort to make joint decisions with the co-sponsor. This staged nature of museum work means that at any given time some staff members have more information about issues related to a particular exhibit than others.

In the second observation, one secondary participant—a peer manager of Chris'—was the only museum staff member who had met with the co-sponsor and therefore had the most information about it. Data reveal that Chris asked clarifying questions of and reiterated information contributed by this peer manager. This result suggests that oral documents originate from situations in which decisions can be made. Further, the capacity of the person uttering an oral document is relative to the focal event, not absolute within the entire context (see 2.1.3.2.).

Analysis of this anomaly reveals that in situations in which decisions can be made, the primary participant is able to utter an oral document because she has more capacity, in terms of knowledge (the social discipline property) or position within the organizational structure (the materiality property) to utter one. Data also indicate that the primary participant's capacity is relative to the focal event and not the background of the organizational context. Datum resulting from this anomaly helps clarify that there are contextual boundaries around the oral document in addition to the temporal and sonorous ones already identified.

Summary

This sub-section presents patterns revealed by comparing the two oral documents empirically observed in the first case. The results show how the oral documents are bound, have structure, and rely on context. The properties of a document are not incorporated into either oral document in a mutually exclusive manner. The historicity property, which emerges least frequently and in the main message segment of both the two oral documents, performs the function of minimizing ambiguity in the remainder of the oral document. Finally, data reveal that the primary participant is able to utter an oral document in situations in which decisions could be made and because her capacity to utter one is relatively higher than others in the focal event, or most relevant part, of the context in which it is uttered.

4.2.2.2. Case #2

In comparing the five oral documents (#3-7) empirically observed in the second case, similarities and differences emerge with regards to boundaries, structure, emergence of the properties of a document, and the incorporation of contextual references. This sub-section also explores whether the six agenda items common to

both observations result in any additional insight into informational evidence incorporated within oral documents.

Boundaries

The unit of analysis, or the object of study, used to identify the five oral documents in the second case is an utterance that incorporates the four properties of a document that have been identified. The oral documents are bound additionally by time, the primary participant's vocal characteristics, and context.

Four of the five oral documents occur within the time span of one observed meeting. Data indicate that one had begun prior to the observations. Variation also emerges in how each oral document is situated within an agenda item (see Table 3). None make up one complete agenda item. Each oral document leads to continued discussion of different aspects of the agenda item in which the oral documents emerge. These results show that oral documents are bound by time allotted to an agenda item or to a discussion within one, even if that discussion occurs during multiple occasions.

Oral document #	*Opening*	*Closing*
3	begins a new agenda item	Jesse continues discussing a different aspect of the same agenda item
4	addresses a new aspect of an ongoing agenda item	secondary participant introduces different aspect of the same agenda item
5	begins a new agenda item	secondary participant introduces different aspect of the same agenda item
6	addresses a new aspect of an ongoing agenda item	secondary participant introduces different aspect of the same agenda item
7	addresses new aspect of an ongoing agenda item	Jesse continues discussing a different aspect of the same agenda item

Table 3. Case #2 Oral Documents' Boundaries

At the end of three oral documents (#4-6), a secondary participant asks a question about a different aspect of the issue(s) related to the oral document. This result suggests that secondary participants can detect when Jesse, the primary participant in the second case, has reached the end of an oral document. Their questions do not interrupt the delivery of the oral documents, but do introduce a different aspect of the same agenda item. Participants in the second observation interrupt each other. In the oral document (#5), a secondary participant interrupts Jesse with a question about the oral document when he pauses in his speech. Yet, despite how Jesse responds using pauses and repeating information he had already provided, another secondary participant asks a question after Jesse completes the oral document:

> Jesse: …make sure that [name of a senior administrator] is aware of them, and see what happens. So …"
>
> Secondary participant #1: So, should we be or should I be doing something--
>
> Jesse: [over a secondary participant #1] No, I would do it through your [acronym use for title of a branch manager]. So, do it through me ah and I'll, I'll ask again. I've done it twice in the last year… same result each time. 'We don't have any extra.' And then… that was the end of it.
>
> Secondary participant #2: How, how many other [acronym use for title of a branch manager] feel the same way, do you know?

An explanation regarding how secondary participants detect the end of an oral document comes from continued analysis of the five oral documents. Comparing them reveals that Jesse incorporates combinations of certain sounds at the start and end of each oral document. These sounds—including "ok," "so," "um," or a pause in speech—incorporate the materiality property, or evidence of symbolic values attributed to Jesse's voice. Jesse utters one or more words or sounds that he uses throughout the observations to facilitate a transition between agenda items or topics of ongoing agenda items (discussed more below). In addition to acting as boundaries around each oral document, these combinations of sounds signal progress through the meeting that the secondary participants detect.

Examining another example in which a secondary participant talks during an oral document helps determine whether the utterance is included within its boundaries. Jesse responds to a secondary participant by sharing additional, relevant information. One secondary participant suggests that another, who had just made an insightful comment, be included in a new committee (oral document #4). Jesse subsequently implements the suggestion where the secondary participant who made it does not have the organizational capacity to do so. Other contributions from secondary participants similarly influence Jesse's oral documents by ensuring that they involve accurate information (which provides evidence of the social discipline property). Jesse's response, that repeats and augments the contributions, demonstrates that they remain outside of the boundaries. They influence the oral documents without becoming a part of them.

Moreover, continued analysis of the example being considered supports the result that a speaker's capacity (i.e., role, title, or expertise) to create an oral document is relative to others within the focal event it establishes, not within the whole organizational context. Jesse refers to an administrator within the broader library context who is ranked at a higher administrative level than he is. Even though the administrator has a role in the process that Jesse addresses, she does not participate in the meeting. The contextual aspect of the oral document's boundaries consists of a focal event that makes it possible for Jesse to create an oral document within it.

In summary, the boundaries surrounding an oral document are temporal, sonorous, and contextual. The boundaries depend on the primary participant's capacity (i.e., role, title, or expertise) to create an oral document being relatively higher than others in focal event of the oral document.

Structure

In addition to making it possible to identify how each of the five oral documents is bound, comparing the results reveal that they have structure. The oral documents have segments including an opening, background information, a main message, and an ending. The four segments each have a function and are interrelated. A difference occurs in how they are ordered.

The oral documents begin with Jesse uttering multiple sounds that he uses throughout the observations to introduce a new agenda item or change the topic of an ongoing one. These soundings incorporate the materiality property—in the form of physicality or symbolic values within a voice—that becomes further evident in how secondary participants use these same sounds to preface questions (which is evidence that Jesse's orality leads to subsequent activity, or the materiality property in the form of weight; oral documents #5 and #7). The start of four of the five oral

documents observed (#3-5, and #7) provides information that gives a sense of the topic and which parts of the organizational context it involves. That is, they incorporate references to the organizational context, Jesse's preparation, or his role, which are evidence of the institutionalization, materiality, or social discipline properties of a document, respectively. The start of the fifth oral document (#6) provides information about magnitude, "[pauses before continuing] The other ah big news…" This opening clarifies that the forthcoming information will have an impact beyond the meeting sub-context and on the broader organization. The opening segments of each oral document mark its start and help establish what topic it addresses.

Next, the oral documents incorporate a segment with more detailed or background information. This background information provides participants with a sense of whether information is available, needed, or in need of being updated. Jesse provides this information in three of the oral documents. In the fourth (oral document #4), he provides some and asks for more information. Specifically, he describes what he knows about a collection project and then asks for volunteers to gather additional information about it. The results reveal that this segment involves the facilitation of access to information, not just the provision of it. In all but one of the oral documents (#4-7), this background information follows the opening segment (more discussion below).

Third, each oral document incorporates a segment with a main point or message. The main messages in all five case #2 oral documents are the only segments which incorporate the historicity property, evidence that access to some information has changed. Additionally, the opening and background information within four out of five oral documents (#4-7) help anticipate the main message, while the closing echoes or reiterates it.

Most main message segments in the second case involve an assertion (oral documents #3-6). The fifth involves a suggestion (oral document #7). Jesse tells staff that retrieving one's own borrowing information from the library system may lead to a conflict of interest or policy infringement. He describes a way to avoid these sorts of outcomes and suggests the secondary participants follow it. Although Jesse clearly states that he is not directing staff, the serious nature of the topic and the authority incorporated into his utterance—evidence, in part, of the materiality property—combine in a convincing way. Secondary participants make joking and other remarks later during the observation to indicate that they will follow his suggestion (evidence that Jesse's orality leads to subsequent activity, which is weight or the materiality property). These results demonstrate that in oral documents, references to changes in access to some information (the historicity property) can include definitive as well as suggested changes.

In four of the five oral documents (#4-7), the main message emerges third after the opening and the background information. The structure of one oral document (#3) differs. The main message emerges after the opening. The background information follows:

> [pauses] OK, um, ok, so… so, I try to come up with a few safety and security policy and procedure related things each time just to review. And so, I thought um, since we had the problems with the fire alarms the other day, I thought I would just sort of, tell you what happened so that everybody knows. (oral document #3)

In responding to observation follow-up questions, Jesse describes how staff knowledge of emergency information had been inconsistent. He attributes the inconsistencies to the previous methods of access—electronic mail, wikis, and wall-mounted bulletin boards. After he had assumed his management position (and previous to the two observations), he had changed the way staff access emergency information. And, he explained how he continually reminds staff the about this change in part because many routinely work in other organizational sub-texts that rely on the previous methods.

Jesse's explanation indicates that he had provided background information about this new method of access previous to this observation. This oral document reiterates a part of a previous utterance, and the historicity it incorporates, in an

effort to continue to establish the new method. This data reveal that this oral document does not stand alone, but continues one that began at some previous point in time. No additional data emerge with regards to the remainder of the oral document about emergency information.

Following the main message in this oral document (#3) with the uniquely ordered structure is the segment with background information. Jesse reminds all that he provides emergency information, "just to review." He shares the impetus behind the main message and uses it to make a transition into another discussion topic that is part of the same agenda item.

Finally, the endings of each oral document vary, yet share characteristics with the openings. The final segments of most case #2 oral documents include sounds used to introduce a transition. They are the same sounds—"ok," "so," "um," or a pause in speech—uttered during the opening segment. Jesse also emits these sounds occasionally throughout the oral documents, however they emerge in combinations when he opens and closes each oral document.

Overall, data from the second case reveal that oral documents have a structure. The structure has four interrelated parts including an opening, background information, a main message, and a closing. The primary participant facilitates access to (e.g.,

provides or seeks) relevant information during the background information segment. Data reveal that the property of historicity (or evidence of a change in access to some information), which emerges only in the main message, can involve a suggested change. However, a suggested change is made only in one of the oral documents observed; the others involve a definitive change. Finally, while the opening and closing consistently frame each of the oral documents, the two middle segments can emerge in reverse order as occurs in one oral document observed.

The properties of documents

Results from the second case provide insight into how the properties of a document emerge and help to further describe the oral documents.

Any one property of documents does not emerge mutually exclusive of others in the five oral documents observed in the second case. For example, when Jesse instructs staff to, "start making these requests anew and… make sure that [name of a senior administrator] is aware of them," his words reflect all four properties of a document (oral document #5; see 4.2.1.2. and Appendix J). He asserts his role and understanding of a situation to announce a change in the organization's environment, which is evidence of the social discipline, materiality, historicity, and institutionalization properties, respectively. Excerpts from each of the five oral documents in the second case similarly incorporate as many as four properties.

Ambiguity in the oral documents can be introduced in part by how the properties of a document do not emerge in a mutually exclusive manner. The historicity property (or evidence of a change in access to some information), which is incorporated infrequently, functions in part to minimize ambiguity. The segment of the oral document that incorporates historicity guides interpretations of information conveyed in the remainder of the oral document that may be perceived as ambiguous. By asserting changes to the equipment request process, Jesse helps to reestablish that having a successful method to secure needed equipment is an organizational priority (oral document #5). Further, it clarifies that Jesse's previous comment about an equipment request falling into one department's "black hole" is a criticism.

Further analysis of the five oral documents observed helps show how the main messages, with their evidence of the historicity property, are also about organizational processes to:

- maintain access to current emergency information (oral document #3);
- develop a plan for improving access to the collection (oral document #4);
- maintain appropriate use of the library resources (oral document #5);
- adjust to having a new branch library manager (oral document #6); and,

- maintain an effective equipment request process (oral document #7).

By contrast, the remainder of each oral document is about one or more tasks involved in or iterations of a process. In another example, Jesse announces that he has been temporarily reassigned to manage a different branch library (oral document #6). He continues offering a plethora of details about his reassignment dates, his replacement branch library manager, and how the interim manager will be supported. The main message of the oral document, with its exact transition date, clarifies when the interim manager will take over and reiterates how the organization values having branch level management support at all times. This main message helps the participants know how to respond to the remainder of the oral document.

In summary, the properties of a document do not emerge in a mutually exclusive manner. This result helps explain how excerpts of an oral document may be interpreted in multiple ways. The historicity property, which emerges least frequently, functions to convey information about the topic that is central to the oral document and guide interpretations of any part of it.

Context

Oral documents in the second case rely on context, or frames of reference with a focal event and a background relevant to the public library organization under study

(see 2.1.3.2.). In the previous section (4.2.1.), the data presented reveal that contextual references make it possible to trace how the properties of a document emerge within an oral document. The references additionally render the oral documents succinct in terms of how they convey the parts of a context that are most relevant to any portion of the oral document.

Data reveal that references to context provide succinct ways to convey relevant information. The five oral documents observed remain succinct by incorporating references to the sub-texts that are most relevant to the information being conveyed. These sub-texts become a part of the meeting focal event. Although other sub-texts within the background of the organization may be relevant, they are not made explicit. For example, the oral document (#5) about the equipment request process does not specify the communication system that will be used to manage equipment request information. Jesse assumes that enough contextual information has been provided so that all would know what communication system to use for submitting requests. Or, information about the communication system remains in the background of the context, yet all still know that it is relevant to the discussion.

The references to context make it possible for the oral documents to succinctly convey information about relevant sub-texts.

Other

The study design anticipated that analyzing agenda items common to both observations in a case might provide additional insight into describing oral documents. Of the six common agenda items, one leads to the creation of an oral document about emergency information (see Table 4; oral document #3). However, comparing the utterance and the oral document regarding this common agenda item led to no additional insights.

	Observation #2.1 (Oral document #3)	**Observation #2.2**
Utterances regarding emergency information	"[pauses] Ok, um… I try to come up with a few safety and security policy and procedure related things each time just to review. And so, I thought um, since we had the problems with the fire alarms the other day, I thought I would just sort of, tell you what happened so that everybody knows. Um…"	"Ok, so, um… We have problems with the fire security alarm at [branch library where first observation occurred] ah recently. So, I wanted to, to make sure everybody kind of knows how the fire alarm and security alarms work. [pauses] Um…"

Table 4. Comparison of Utterances Regarding a Common Agenda Item

Although Jesse makes two utterances about emergency information one during each observation, only the first describes a new way to access this type of

information (the historicity property; see the second column in Table 4). As mentioned previously, Jesse described his reasons for having taken a long term approach to making this change. Despite providing the explanation after the first observation, Jesse did not remind secondary participants of the change during the second observation (see the third column in Table 4).

This difference may be explained in a number of ways. First, Jesse uses this new goal to discuss emergency information at each meeting as a reason to talk about an incident that had recently occurred at the location of the first observation. He may have needed to share more detailed information at that site. Second, the difference may reflect how time had been needed to discuss a number of administrative changes announced between the two observations—two key resignations, a restructuring, and Jesse's imminent temporary reassignment to a new position. Throughout the observations, Jesse routinely shares detailed information and provides his reasons for sharing it. On numerous occasions, he uses the phrase, "just so everybody knows" (14 total occurrences [six in the first observation] including in oral documents #3 and #6-7). He may have only had time to share detailed information about the common agenda item during the first observation. Finally, Jesse may have provided more detailed information because he was being observed. Prior to each observation, I had reminded participants that they did not need to provide me with any background information or alter their meetings in any

way. But, Jesse may have become accustomed to being observed by the second observation, which would also explain the difference. To summarize, a number of factors may have influenced the differences in Jesse's utterances regarding the common agenda item about fire alarms.

Overall, none of the explanations for the difference in utterances are conclusive. Yet, the results, specifically how one utterance incorporates the historicity property and the other utterance does not, support the claim that an oral document must incorporate all four properties of a document. The data regarding the six common agenda items yield no additional insights into identifying attributes of oral documents.

Summary

This sub-section presents results that are revealed by comparing the five oral documents found in the second case. The results show how the oral documents have structure, boundaries, and contextual references. The properties of a document do not emerge independently of one another. Where excerpts of an oral document may convey ambiguous information, the historicity property—which emerges the least—provides guidance for minimizing this ambiguity. Finally, analyzing utterances regarding one common agenda item yielded no additional insights into the attributes of oral documents.

4.2.2.3. Case #3

Comparing the seven oral documents that emerged from the third research site assists in describing oral documents further. Results reveal similarities with regards to the boundaries, structure, emergence of the properties of a document, and incorporation of contextual references. Differences that resulted are also discussed.

Boundaries

The unit of analysis, or the object of study, originally proposed for this study is an utterance that incorporates the four properties of a document that have been identified. Analyzing the seven oral documents observed in the third case reveals that oral documents are bound by time, vocal characteristics, and context. An utterance made by a secondary participant can be included within an oral document's boundaries. However, an oral document depends on the capacity, or role and preparation (as they are explained by the materiality and the social discipline properties), of the primary participant.

All the oral documents in the third case occur between the start and end of a business meeting. Each of the oral documents begins and ends with a change to a

new agenda item or in the topic of an ongoing one. Transition sounds mark each start and end. For Pat, these sounds include a pause in speech or uttering “ok,” “um,” or something similar. Even while Pat utters these sounds singly within several of the seven oral documents (#10, #12, #14, and #15), the openings and closings of the oral documents incorporate the sounds in combinations.

Secondary participants contribute to four of the seven oral documents in this third case. One secondary participant contributes by answering Pat’s question and saying that a particular faculty member is currently teaching (oral document #13 in the third case; see also Appendix K). Pat continues and builds on the secondary participant’s contribution, “let’s make sure we go into his class.” A similar dynamic occurs when Pat uses a secondary participant’s report to state an additional method for delivering product information (oral document #15). The words of a secondary participant make the information provided in the oral document possible, which differs from increasing the accuracy of the information within an oral document (the social discipline property). This result means the secondary participant’s utterance is included within the boundaries of the oral document. And, the primary participant is able to include it because she has relatively more capacity to do so compared to others within the focal event of the oral document. The primary participant’s capacity refers to their abilities to act based on their training and preparation as a professional (evidence of the social

discipline property) and on their assigned role, title, or position (evidence of the materiality property).

The oral documents observed in the third case have temporal, sonorous, and contextual boundaries.

Structure

Comparing the seven oral documents observed in the third case additionally reveals that they have similar structure. They each have four interrelated segments—an opening, background information, a main message, and a closing. Each segment has a function including how the opening and background information lead up to the main message, while the closing echoes or reiterates it.

The openings of the oral documents incorporate some combination of transition sounds including a pause of silence or the expressions “ah,” “ok,” “yeah,” “um,” or “well.” In addition to marking the start of an oral document, the openings provide information about its topic regardless of whether each begins a new agenda item (oral documents #12 and #14) or a new aspect of an on-going one. Four openings provide no or fewer contextual cues and move swiftly into the second segment of the oral document (oral documents #8, #10, #13, and #15). These five begin with a change of topic within an ongoing agenda item.

Next, the second segment of each oral document involves background information. Differences emerge in how the background information becomes available. In three of the oral documents (#8, #10, and #12), Pat provides background information from print or electronic sources. She refers to web-based instructions for participating in a budget process before providing different oral ones. In another two, she engages in self reflection to provide background information (oral documents #11 and #14). And in the remaining two, Pat asks for background information (oral document #13 and #15; see Appendix K). This result demonstrates that Pat also facilitates access to background information in this second segment.

Third, a point or main message follows the background information made available in each of the seven oral documents. This main message is the only segment that incorporates the historicity property, evidence that access to some information has changed. The main message segments reflect the assignment of a task(s) (oral documents #8, #10-11, and #13-15). For instance, one oral document instructs two primary participants to complete an atypical tasks in order to meet library outreach goals (oral document #13; see 4.2.1.3. or Appendix K). The tasks assigned in this and the other six oral documents indicate that one or more participants will engage in subsequent activity, which demonstrates evidence of the materiality property.

While the oral documents are about one or more tasks, they also reinforce the importance of an organizational process of which each assigned task(s) is a part:

- to present ideas for and obtain faculty feedback on ways to reduce spending (oral documents #8 and #11);
- to determine why an automated spending process did not work (oral document #10);
- to maintain access to current resources on selected subject areas (oral documents #12 and #14); and,
- to take steps necessary to conduct library outreach (oral document #13 and #15).

The main messages of the seven oral documents in this third case incorporate the historicity property and assign one or more tasks.

Finally, each oral document closes with the same combination of transition sounds as those that emerged in the opening. Three of the closings also reiterate the main message (oral documents #8, #10, and #11). Immediately following five of the oral documents, Pat initiates a new agenda item or changes the discussion topic of an ongoing one. In the remaining two (oral documents #13 and #15), a secondary participant changes the discussion topic of an ongoing agenda item. To summarize, the closing is detected in changes in the primary participant's vocal characteristics and by a transition to a new agenda item or discussion topic within one.

The structure of the seven oral documents in the third case includes four ordered and interrelated segments; each has a specific function.

The properties of a document

Results from the third case provide insight into the properties of a document and how they function within each of the seven oral documents empirically observed.

The four properties of a document identified did not emerge in isolation. For example in one oral document, Pat says that she will assist in obtaining needed permission. What she says reflects her managerial position and her knowledge of how library outreach and the academic context works which are evidence of the institutionalization, materiality, and social discipline properties (oral document #13; see Appendix K or 4.2.1.3.). This dynamic and these three properties emerge frequently in any given excerpt from an oral document.

The historicity property, or evidence of a change in method to access some information, emerges least frequently of the properties. In the example being discussed, Pat gives a reason for her willingness to assist that can be interpreted in multiple ways, “since he’s kind of, you know.” The segment of the oral document that incorporates the historicity property helps to reduce the ambiguity in her

reason. Pat refers to some issues related to the organizational hierarchy that might prevent a lower ranked staff member from obtaining the needed permission.

Context

References to context, or frames of reference to relevant elements regarding a focal event and a background (see 2.1.3.2.), make it possible to detect evidence of the properties of a document (see 3.5.1.). Additionally, contextual references render the seven oral documents from the third case informative and succinct. Context supplies Pat with simplified ways to refer to staff, roles, and operations within her campus branch library; parts of the broader library organization; the campus parent institution; and numerous other external affiliates. Contextual references draw on how secondary participants possessed some understanding of the library or campus context. For example, Pat asks whether one faculty member was currently teaching (oral document #13; see also Appendix K). In the context of the oral document, the secondary participants hear that this class is a potential site for the outreach effort they had been describing. His class becomes part of the focal event. Other contextual references to which Pat indirectly refers are also relevant, yet remain in the background. They include the subject of his class, the time it gathers, its size, and the parent organization policy requiring all to obtain faculty permission before entering it. Referring to the one class alerts the secondary participants to that

background information without making it explicit. In this manner, the seven oral documents draw on contextual resources to be informative and succinct.

Other

The research design anticipated that additional insights into describing oral documents may emerge from analyzing agenda items discussed in both observations of one case. Although the observations included four common agenda items, Pat uttered only one oral document among them.

The third case involved two different groups of secondary participants, managers and non-managerial staff. During the second observation, Pat told the non-managerial library staff about the change in how they would access scholarly information given that recent circumstances had just debilitated a vendor (oral document #12). Although she shared news about the now-former vendor with the managerial staff, she did not tell them about the change in access. The change in access provides evidence of the historicity property, which the utterance addressing the managers lacks. Only the utterance about this common item in the second observation incorporates the historicity property. Pat shares new information about a library resource. Library access to the resources would be impacted by circumstances which the vendor that produced it faced.

Pat may not have known about the new option when she shared this news in the first observation with the managerial secondary participants. Also, it may not have been necessary for Pat to share detailed information regarding product replacement with them because they had expertise and may have known independent of Pat. Regardless of the reason for the difference between the oral documents and the utterance, the results further support how an oral document must incorporate all four properties of a document. Although there were common meeting agenda items discussed during each observation in the third case, data regarding them lead to no additional conclusions.

4.2.2.4. Summary

This section presents results based on comparing the oral documents observed within each case. Analyzing the data within cases helps further describe oral documents and reveals what informational evidence they convey. This section presents results regarding how the fourteen oral documents have boundaries, structure, and contextual references, albeit with some variation. These results also reveal information about the properties of documents and how they function. No conclusive results emerge from analyzing utterances related to agenda items common to both observations in a single case.

Oral documents observed within each of the three cases have temporal, sonorous, and contextual boundaries. Data also reveal that a secondary participant's contribution can be incorporated into an oral document depending on how the primary participant responds to it.

Each oral document also has a structure consisting of four interrelated and sequenced segments: opening, background information, main message, and closing. Data reveal some flexibility in this structure. The background information in one oral document emerges after the main message. However, the opening and closing consistently emerge at the start and end of the oral documents observed. Data also reveal that the primary participant facilitates (e.g., provides or seeks) access to background information. And, the main message reflects organizational processes or tasks that are a part of those larger processes.

In addition to providing evidence of the properties of documents (as described in 4.2.1.), contextual references also help participants identify which sub-texts are relevant to an oral document. Moreover, these references render each oral document informative and succinct.

Comparing oral documents that result within each case also reveals that the properties of a document do not emerge in a mutually exclusive manner. This helps explain how an excerpt from an oral document may be interpreted in multiple ways. This sort of ambiguity is reduced by the historicity property, which emerges the least frequently of four properties and therefore can clarify the purpose of an oral document. This property involves evidence of a change in the method used to access some information. Typically, the change is definitive, but it can be in the form of a suggestion.

The creation of oral documents relies on a context being able to support a decision being made. This support would be made evident by how the properties create a focal event, a sub-context, in which one speaker has more capacity (i.e., role, title, or expertise) to utter an oral document relative to others within it. The decision emerges in the main message, or (typically) the third segment of the oral document that incorporates the historicity property.

Finally, analyzing utterances regarding common agenda items proves less revealing. However, one observation that yields no oral documents lends support to how oral documents in the organizational context studied incorporate each of the properties.

4.2.3. Data Across Cases

Results presented in this section compare oral documents empirically observed across the three cases studied. Comparing the results from the different research sites aids in determining whether the themes emerging from the data are valid. Emerging themes involve the structure of, boundaries around, and references to context within the oral documents identified. This continued analysis enables further description of oral documents and exploration of the informational evidence they incorporate and convey.

4.2.3.1. Boundaries

The unit of analysis used to gather data for this study requires focusing on utterances that incorporate four properties of a document. Results reveal additional information about the boundaries that help distinguish oral documents from other utterances. Comparing data across cases reveals how the boundaries have temporal, sonorous, and contextual aspects.

Of the fourteen oral documents, thirteen are bound within the amount of time allotted to an organizational meeting agenda item, yet they vary in length. In each case, at least one oral document begins and ends simultaneously with an agenda item. Others make up one of many topics addressed within an agenda item. Data also indicate that an oral document can traverse multiple occasions. Data regarding one oral document reveal that it spans over a length of the time that precedes the observation conducted (#3 in the public library context, case #2, which is discussed more below). The data did not reveal any additional temporal information about this oral document. However, these results make it possible to establish that oral documents can vary in length and can occur over multiple periods of time.

The results within each case reveal how the primary participants' voices also inform the boundaries of an oral document. The sounds of their voices incorporate symbolic values that represent their capacity to manage (evidence of the materiality property). Evidence of their voices acting as boundaries is detected in combinations of transitional sounds or in the slower pace of each primary participant's speech at the opening and close of each oral document. Examples of these transitional sounds include pauses of silence and expressions like "ah," "ok," "so," and "um." Although the transitional sounds are not entirely unique across the three cases, each primary participant combines them in a unique way at the start and end of (1) an agenda item, (2) a discussion topic within an ongoing agenda item, and (3) an oral

document. During the observed meetings and within an agenda item, primary participants may utter one of these sounds. Uttering them in this way differs from how the primary participants utter them in combination during meeting transitions.

Evidence of the vocal aspects of an oral document's boundaries is noted in how secondary participants detect its sonorous qualities. In each case, secondary participants ask questions and make comments that change the topic of an agenda item. However, these types of contributions occur after the closing segment of an oral document. If a secondary participant asks a question or makes a comment within the boundary of an oral document, her or his remark(s) directly relate to the topic being addressed and help ensure its accuracy (the latter of which is evidence of the social discipline property). On occasion during each case, secondary participants also mimic the transitional sounds that their respective primary participant utters when they begin or stop speaking (which is evidence of weight, a form of the materiality property). Primary participants' voices help bind oral documents and signal progress through the meeting.

Finally, there are contextual aspects to the boundaries that surround the fourteen oral documents empirically observed. Data resulting from the second observation in the first case help reveal the importance of context. No utterance from that observation incorporates evidence of a change in method to access some

information (the historicity property) for two reasons. Firstly, a secondary participant in that observation, a peer manager to the primary participant, had relatively more information about an external sub-context, a partner organization that was relevant to the primary participant's utterances. Second, participants explore possible future activities which would involve that sub-context, but the primary participant had neither enough information about nor capacity (e.g., training nor position) to make decisions that would impact it.

> Chris (primary participant from the first case): And so, I don't know. They may wanna… They might need to just invoice them… for expenses against the ticket cost.

Utterances like this one repeatedly indicate that staff members who work in that sub-context but who had not participated in the meeting observed would need to be involved in making any decision. By contrast, sub-texts relevant to another oral document (#5 from the second case involving the public library; see Appendix J) include a senior administrator who is ranked higher than the primary participant and who also does not participate in the meeting observed. However, the primary participant is still able to utter an oral document because he has more knowledge about the relevant sub-texts than the senior administrator does.

Comparing these results across the two cases reveal that the contextual aspect of an oral document's boundaries establishes a focal event that incorporates relevant sub-

texts within the broader organizational context. In the anomalous example being discussed, the focal event included the face-to-face meeting, other internal sub-texts that would be impacted by issues being addressed, and an external sub-context. Data reveal that a primary participant's capacity to utter an oral document is relative to others within the focal event whether they are present when the oral document is created or not. Moreover, the results reveal that the focal event in the anomalous observation, which results in no oral documents, is not capable of supporting a decision, which means the historicity property did not emerge.

With the capacity to create an oral document within the focal event, a primary participant can also determine whether an utterance made by a secondary participant becomes part of an oral document. The data reveal that a secondary participant's utterance becomes part of an oral document when a primary participant uses the information it incorporates to continue uttering subsequent parts of an oral document (#13 and #15). A secondary participant's utterance does not become a part of an oral document when the primary participant repeats the contribution and augments it. The primary participant augments these types of responses by incorporating one or more properties of a document where a secondary participant has relatively less capacity and can not.

The boundaries of oral documents have temporal, sonorous, and contextual aspects. Also, the context, specifically a focal event, must be capable of allowing decisions to be made and of supporting them. This data moreover demonstrate that each primary participant's capacity to create an oral document is relative to others present within the focal event, or the relevant sub-texts within the broader context. With this relative capacity, primary participants evaluate secondary participants' contributions in all three cases. Of the eleven oral documents during which secondary participants speak, their utterances contribute to, without becoming a part of, ten. One utterance became a part of one oral document (#13). Data reveal that a primary participant's response to a secondary participant's contribution determines whether it becomes a part of an oral document. Whether a secondary participant contributes to or helps create an oral document, evidence of the social discipline property (or of how they help ensure the accuracy of the information being conveyed) emerges in what they say.

4.2.3.2. Structure

The structure of the fourteen oral documents observed has four interrelated segments—an opening, background information, a main message, and a closing.

The segments in all but one oral document (#3, discussed more below) emerge in a particular sequence. Data reveal that each segment has a function.

The initial segments or the openings of the oral documents in all three cases include transition sounds or reflect how the primary participant speaks more slowly. Moreover, each primary participant uses her or his voice in a distinct way. For example, one primary participant pauses then says “ok,” while exhaling or by emphasizing the ‘o’ sound when saying, “so,” and than pausing again before proceeding with the oral document. In another example, Pat’s openings (case #1; oral documents #1 and #2) are distinguished mainly by how much more slowly she speaks at the start than in the remainder of the oral documents. Each primary participant opens her or his respective oral documents using the same unique manner consistently throughout each case. The distinct combination of transition sounds incorporate physicality (e.g., a form of the materiality property with evidence of contextualized symbolism) which helps frame the oral documents.

Data reflect how secondary participants detect this context-specific framing device. After a primary participant closed an oral document in six cases (at least one in each case), a secondary participant spoke to change agenda items (oral document #1) or to discuss a different aspect of an on-going one (oral documents #2, #4, #6, #13, and #15).

The openings also provide information about a topic, either a new agenda item or a new topic within an on-going one. Data reveal some evidence that when an opening changes the topic of an on-going discussion, the openings provide no or fewer contextual references and are shorter in length (oral documents #8, #10, #11, #13, and #15 within cases #2 and #3) compared to openings that initiate a new agenda item. Data reveal that the opening can also provide information about how the oral document relates to the context. This occurs in one oral document (#6 in the second case) that involves information which impacted the broader organizational context.

It can be challenging to identify the opening when it initiates a change in the topic of an ongoing agenda item (as opposed to introducing a new one). The next segment, the background information, can follow the transition sounds immediately or can occur at opposite ends of the sentence in which the opening occurs.

Next, a segment of each oral document facilitates the provision of background information. Primary participants ensure that background information is made available through one or more of three different means. Primary participants mainly share background information using self reflection (oral documents #1- 7 and #11-14). In the third case, one primary participant also makes background information available through printed sources (oral documents #8 and #10). Primary

participants in each case also facilitate access by asking for background information from secondary participants (oral documents #1, #2, #4, #13, and #15). Results indicate that the primary participants evaluate information that secondary participants contribute. Their contributions help ensure the accuracy of the oral document and provide evidence of the social discipline property.

Data reveal that background information made available provides a sense of whether information is available, needed, or in need of altering. Additionally, this segment provides information about how the oral document relates to particular parts of the organizational context—including equipment, individuals, departments, external agencies, and organization values. The information may also pertain to an organizational process, an iteration(s) of that process, or one or more tasks that the process involves. Even for the oral documents that focus on a process (#1-8 which result from the first two cases), this segment of the oral documents frequently focus on a task(s) or on an iteration of that process.

Third, the main message follows the background information in thirteen of the oral documents observed (#1-2, #4-8, and #10-15). This is the only segment of all fourteen oral documents that incorporates the historicity property, or evidence of a change in access to some information. Typically, the main message is very brief

and is uttered only once. But, the main message is uttered multiple times in two oral documents (#7 case #2 and #12 from case #3).

Finally, each oral document has a closing. This segment reiterates the main message or the primary participant's capacity to utter the oral document (i.e., training or role, which is evidence of the materiality or the social discipline property). Each primary participant again utters some combination of soundings that he or she had uttered in the opening. And again, the combination of the transition sounds used and pace of speech are unique to each primary participant.

After the closing, a number of secondary participants in each case ask questions about or make comments that change the discussion topic or the agenda item (oral documents #2, #4, #5, #6, #13, and #15). The timing of these kinds of questions reflects that the secondary participants detect when an oral document, particularly when its closing segment, has ended. Other data reveal that the secondary participants interrupt the primary participants' utterances throughout all three cases, yet the interruptions do not occur as readily within the boundaries of an oral document.

Comparing data from across cases reveal how the function of each segment remains consistent in each oral document observed, however variation emerged in the order

of structure. In thirteen of the oral documents observed, the segments emerge in the following sequence: opening, background information, main message, and closing. In the remaining oral document (#3), the background information emerges simultaneously with or after the main message. The two segments occur at two ends of the same sentence. Jesse, the case #2 primary participant says, "[pausing] OK, um, ok, so… so, I try to come up with a few safety and security policy and procedure related things each time…", which is the main message (with its evidence of a change in method to access some information or the historicity property). He finishes the sentence by providing background information, "…just to review." The opening and closing segments consistently emerge at the beginning and end of the oral document (#3). The data suggest that this oral document began when the change had first been announced prior to the observation conducted. The oral document observed is actually part of a multi-part oral document uttered over an unknown span of time.

4.2.3.3. The Properties of a Document

Comparing the results across cases reveals that in addition to the properties of a document being incorporated into an oral document, the properties also emerge in a

particular manner. Moreover, the properties have a function in how information that the oral document convey is interpreted.

Results reveal how the properties of a document did not emerge in a mutually exclusive manner in any of the three cases. Evidence of up to four properties can be detected in an excerpt from any of the oral documents observed. Additionally, three of the properties of a document emerge multiple times in all of the oral documents observed. The fourth property, historicity emerges one time in thirteen of the fourteen oral documents observed and twice in the fourteenth oral document.

In addition to providing insight into the frequency with which the properties emerge, data reveal information about how the properties function. Three of the properties allow an oral document to be interpreted in multiple ways. For example, an oral document may be interpreted as relating to a staff member, a department, an external sub-context, or a particular process within the organizational context. Any particular interpretation may stem from a reference that the oral document incorporates to the context (the institutionalization property), the primary participant's position (the social discipline property), or the primary participant's training (the social discipline property). Historicity, the fourth property, helps to reduce this ambiguity by providing clarity of the overall message conveyed by the oral document. It clarifies that all the information conveyed by the oral document

directly relates to the change, specifically in the method that will be used to access some information, to which it refers.

Data also reveal two additional points about the historicity property. First, an oral document can incorporate information about a change that is definitive or suggested. The latter means listeners are strongly encouraged to make the change. In thirteen of the fourteen oral documents observed, the change is definite; it has already occurred or it is occurring as reflected in how the incorporation of the historicity property is made by articulating an assertion or making an assignment. However in one oral document (#7, case #2), evidence of this property emerges in the form of a suggestion. The primary participant suggests or strongly encourages secondary participants to make the change. In this result, the presence of the other properties and the seriousness of the change ensure that that change, though suggested, takes place—as evidenced by subsequent data gathered.

Second, results suggest that oral documents emerge from contexts in which decisions that will impact the future can be made. This suggestion stems from observing how one of the six observations (the second one in the first case) resulted in no oral documents. That observation involved planning work that lacked information needed to make decisions. Having a context in which decisions about future activity could not be supported prevented any utterance from incorporating

information about a change in method to access some information, or evidence of the historicity property. The oral documents empirically observed incorporate evidence of this and other properties.

4.2.3.4. Context

The oral documents observed in each of the three cases reported incorporate references to context. Context refers to frames of reference that are relevant elements and involve a focal event and a background (see 2.1.3.2.). The data reveal two points about how context is used to create oral documents.

First, primary participants did not fully articulate all the parts of a context that are relevant to an oral document. Instead, references to context are used as a kind of short hand that makes it possible for participants to know which sub-texts are relevant to the oral document. These references make it possible for oral documents to be informative and succinct.

Second, and as described above (see 4.2.3.3.), in order for an oral document to be uttered, a context must be able to support decisions. The person uttering an oral document has the capacity (i.e., training or role, which is evidence of the materiality or social discipline properties) to make decisions. That capacity is

relative to the focal event, not to the background (which is the remainder of the organizational context; see 2.1.3.2.). Primary participants were able to utter the oral documents observed because they knew relatively more—about a topic, the focal event, the organization, or the profession—or because they were positioned relatively higher than others present within the focal event (evidence of the social discipline or the materiality properties).

In the observation from which no oral documents emerged (the second one in the first case), one secondary participant had more information that was key to decisions that would need to be made. The primary participant's utterances in this observation lacked historicity. By contrast, historicity did emerge when one primary participant had relatively more information (surrounding oral document #5 in the second case). He had information about the compromised equipment request and evidence that a higher level senior administrator did not have this information. This result suggests that each observed meeting establishes a focal event and makes it possible to identify who has the capacity to utter an oral document within that focal event.

4.3. Responding to the Research Questions

The research questions addressed by this study respond to a gap. On one side, social constructionism principles hold that contributions to knowledge can be made through actions, in writing, or with orality. Yet on the side, neither information behavior research nor professional practices readily incorporate information conveyed orally. The major empirical result of this study is that orally-based information can result in an artifact, an oral document. This result establishes a foundation from which to respond to the research questions.

4.3.1. Defining the Concept

The first research question, what is an oral document, was posed to articulate the nature of the concept under investigation and increase our understanding of it. A careful reading of social constructionism, information behavior, and document literature facilitated an initial response to this question in the form of a working definition of the concept:

> An *oral document* is an artifact conveying *evidence or information*: 1) about specific content and 2) that is *embedded in the action*(s) of furnishing that content through orality.

This initial definition took into account how information science defines the term *document* by relying on formal definitions or by noting practices surrounding them (see 2.3.1.; Buckland, 1991; Briet, 2006; Day, 1997; Frohmann, 2004).

Analysis of empirical data provides a more precise response to the research question in part through a revised working definition. Empirically observing oral documents demonstrate that they are not only artifacts, but a specific type of artifact, a document. Additionally, an oral document is interdependent with context. Knowledge about context is essential for an oral document to make information available and for anyone to interpret or understand that information. The results also reveal how practices, evidenced as properties of a document, influence the ways in which documents make informational evidence available. Given these results, the revised working definition reads:

> An *oral document* is a type of document conveying contextualized *evidence or information* that: 1) is captured in specific content; 2) is situated or embedded within the action(s) of furnishing that content through orality; and 3) incorporates one or more properties of a document.

In the case of the oral documents empirically observed in this study, the properties of a document refer to the four that Frohmann (2004) identifies—

historicity, institutionalization, materiality, and social discipline—and two additional ones, boundaries and structure, empirically observed. The revised working definition reflects how Frohmann (2004, 397) asserts that a document may incorporate one or more properties, not all of which have been identified. The revision accounts for how this study operationalizes and identifies one type of oral document, one that incorporates all six properties of a document that have been identified.

Like the working definition initially proposed, the revised definition explains that oral documents make evidence or information available just as documents in other formats (Briet, 2006, 10; Buckland, 1991, 355; Otlet in Day, 1997, 315). The revision also reflects how context provides resources that are used to create an oral document (Goodwin & Duranti, 1992; Talja et al., 2005). Contextual resources work in part to ensure that the properties incorporated into an oral document are consistent within a given context.

Overall, an oral document is an informational artifact produced by making information available orally. As noted above, having a definition for a concept is only one approach to describing it. Another approach involves describing practices surrounding it. This study utilizes both approaches. The results make it possible to continue describing the practices surrounding

oral documents which enable them to convey information. Given this, responses to the first two research questions are interrelated.

4.3.2. Information Conveyed by Oral Documents

The second research question asks about what informational evidence an oral document conveys. This question is posed to further explicate the concept of an oral document. All documents make evidence or information available (Briet, 2006, 10; Buckland, 1991, 355; Otlet in Day, 1997, 315). The results of this dissertation reveal that oral documents likewise convey evidence or information available about some topic, practice, context, entities within that context (i.e., persons, processes, sub-texts, and more), relationships among those entities, and how each of these influence the oral document.

Identifying what informational evidence oral documents convey is accomplished in two ways: 1) by examining information which oral documents convey and how conveying it provides evidence of the properties of documents and 2) by identifying and describing the ways in which oral documents convey information.

Informational evidence that is conveyed by oral documents can be described in two ways. First, this informational evidence can be described in terms of the properties of a document which provide insight into practices which make that document possible, including:

- demonstrations of and references to the symbolic values within, training behind, or subsequent activities caused by uttering an oral document (evidence of the materiality property in the forms of physicality, significance, and weight);
- one or more references to parts of a context (evidence of the institutionalization property);
- demonstrations of and references to a discipline(s) informing or shaping and oral document (evidence of the social discipline property);
- a reference to a change regarding the method used to access some information (evidence of the historicity property);
- existence of boundaries placed around the oral document (evidence of the boundaries property); and,
- the incorporation of ordered segments, each with a particular function, within the oral document (evidence of the structure property).

Additionally, the informational evidence that an oral document conveys can be described in terms of how it is captured by or situated within an oral document. Oral documents *capture* or articulate informational evidence within the meaning of the words uttered. The words and phrases used to construct an oral document provide information based on their literal meaning(s). Obtaining information from

an oral document in part involves deciphering meaning from the words that are spoken. Literal meanings are combined with and at times superseded by meanings that adhere to contextual or localized social agreements (see 2.1.1.; Berger & Luckmann, 1966; Glock, 1996; Talja et al., 2005, 89; Wittgenstein, 2001). For example, a reference to packaging material typically means a box or related object. However in the first case at the museum research site, a reference made to a specific type of packaging material is also used to refer to an organizational process that involves museum collection items, staff in several departments, multiple external organizations, and more (oral document #2). When agreements like this have been established, the information within an oral document captures this sort of contextualized meaning.

The second way in which the informational evidence that oral documents convey can be described is in how they *situate* informational evidence in the actions necessary for their creation. For example, one primary participant typically begins his oral documents by integrating the terms, "well" and "ah," into the initial opening segment. Though the terms seem inconsequential, each primary participant uses a specific sub-set of them to distinguish their utterances. When used to utter oral documents, these terms *situate* informational evidence that the imminent utterance:

- provides formal information (or evidence of the boundaries property);

- will begin and end (evidence of the structure property);
- demonstrates how the primary participant utilizes the authority of her or his position (evidence of the materiality property); and,
- demonstrates how the primary participant acts in a way that maintains and perpetuates the organizational context (evidence of the institutionalization and social discipline properties) (see also 2.1.1.).

Note how information embedded within an oral document can also include evidence of one or more of the properties of a document. There is a difference between informational evidence that is captured versus how it is situated in an oral document. The difference is detected in how the latter involves actions that convey information in a less direct manner than the information made available in the connotations or denotations of words uttered. Still, both capture and situate information within an oral document and provide information necessary to make sense of whatever meaning(s) it conveys.

An oral document conveys informational evidence about some topic and about some context. It is possible to identify the evidence that oral documents make available by understanding that they convey information by examining how they incorporate the properties of documents and by determining what information they capture and situate. This explanation of

information that oral documents convey makes it possible to design a research method to empirically observe one.

4.3.3. Empirical Evidence of Oral Documents

The third research question sought to determine whether an oral document can be empirically observed. Like the second research question, this final one is asked to further elaborate the concept under investigation.

An oral document can be empirically observed. Empirically observing one involves identifying how it incorporates the properties of a document and which properties it incorporates. For this study, each oral document incorporates the boundaries, materiality, institutionalization, historicity, social discipline, and structure properties of a document. The research design utilized to explore this final question builds on the articulation of the concept. The method utilizes the unit of analysis—or object of study—of an utterance that incorporates four properties of a document that have been identified. However, the results indicate that two additional properties, the boundaries and structure properties, are also a part of the unit of analysis when working to empirically observe oral documents.

First, empirically observing an oral document involves noting how it originates from a speaker who has the capacity to provide formal information (see 2.2.2.1.). This capacity includes how a speaker has a position or role and the preparation or training to make the utterance. This stipulation means that empirically observing an oral document involves identifying how evidence of the materiality and social discipline properties helps to categorize the information being provided. Additionally, a document involves information about a change in the way that some information is accessed, which is evidence of the historicity property. Detecting this sort of change when empirically observing an oral document requires knowing about the context in which it is embedded. Contextual knowledge includes information about organizational practices—like the previous method of access and the parts of an organization that the change involves—that influence and shape an oral document (and provide evidence of the institutionalization property).

One final point in noting how an oral document incorporates the six properties of a document involves context. The properties that oral documents incorporate are interdependent with context. Empirically observing an oral document means noting how an utterance that incorporates the properties creates a focal event, or sub-context, that makes it possible for a speaker to have the capacity—relative to others in the broader context—to utter the oral document. It is also useful to determine whether the evidence of each of the properties involves specific parts of or a whole

context. For example, the oral documents in this study are empirically observed in an organizational context and incorporate contextual resources specific to each research site.

To summarize, the data gathered for this dissertation reveal that oral documents exist and can be empirically observed. Oral documents convey information about some topic and a context including practices that make uttering them possible. Examining how an utterance incorporates six properties of documents makes it possible to distinguish that utterance as an oral document. Developing a method to empirically observe an oral document builds on the definition of the concept and the identification of what information an utterance conveys.

4.4. Discussion

The results reveal that oral documents can be empirically observed and that they incorporate six properties of a document—boundaries, historicity, institutionalization, materiality, social discipline, and structure. These results indicate that an oral contribution to knowledge can produce an informational artifact, an oral document. This section presents a discussion of the theoretical and practical implications, along with design considerations of this study. The

theoretical implications include a discussion of the two new properties of oral documents identified. The empirical implications include further description of oral documents and a discussion of a method for studying them. The results facilitate the revision of the proposed definition of oral document and the reconsideration of allied concepts including context and formal and informal information sources.

4.4.1. Theoretical implications

The purpose of this study is to increase our understanding of oral contributions to knowledge. The main objectives involve defining and demonstrating the utility of the concept of an oral informational artifact, specifically an oral document. In an effort to conceptualize this new type of informational artifact, the investigation relies on research findings from social constructionism, information behavior, and document studies. The study initially proposed that an oral document is an utterance that incorporates four properties of a document (see 3.5.1.). The results reveal that oral documents exist and incorporate six properties. This section provides a rationale for describing the oral documents in greater detail. This rationale is based on how the data reveal that practices which ensure the informative nature of an oral document include those that involve its structure and boundaries. This section also discusses other theoretical implications: that the

properties of documents each have a function, that the oral documents subdivide context into three parts not two, and that the concept articulated additionally introduces a new genre.

4.4.1.1. Results Regarding the Properties

Properties of documents reveal information about practices that render documents informative (Frohmann, 2004). This research project set out to identify utterances that incorporate evidence of the four properties of a document articulated by Frohmann (2004). However, the results enable the identification of two additional properties—structure and boundaries. The fourteen oral documents empirically observed each incorporate six properties. The data also provide insight into the nature of the two new properties, questions about an existing property, how the properties emerge, and how the properties interact with context.

Two new properties, structure and boundaries

The properties of documents reflect practices that render documents informative (Frohmann, 2004). Frohmann (2004, 397) suggests that more than the four properties that he identifies exist. The results confirm this suggestion. Specifically,

the structure and boundaries, of the oral documents empirically observed, provide evidence of business meeting practices that contribute to the informative nature of documents. The managers observed work in different organizations within the same industry—information institutions, and yet they use meetings in similar ways. Each uses face-to-face meetings, in part, to make information available in the form of oral documents. When comparing data across cases, this outcome suggests that neither of the primary participants determine the function of a meeting within their isolated organization. Instead, an understanding of the function of meetings and how to use time within them emanates from somewhere in the broader profession or industry, or in the background of each meeting context. Evidence that this industry-based contextual practice exists is detected in the consistent nature of the structure of and boundaries surrounding each empirically observed oral document.

First, the results reveal that the structure of oral documents empirically observed has four interrelated segments. Each oral document has an opening, background information, a main message, and a closing segment. Each segment has a unique function within the oral document. The order in which the segments emerge is somewhat flexibility. However, in most oral documents observed, the segments emerge in a particular order.

The *opening* segment marks the start of each oral document and provides their initial frame. It also provides minimal information about the topic(s) of each oral document. This beginning segment functions to distinguish each oral document from utterances that precede them. The opening consists of the primary participant who has the capacity (in terms of their preparation or role) to make decisions within the context in which the oral document is uttered or to which it pertains. Each opening involves using a specific pattern of sounds and expressions, like "um" and "ok," that seem incidental. However, the opening sounds combine with other properties—materiality, social discipline, or the institutionalization properties—to create an opportunity to provide information. Data reveal that the length of opening segments of oral documents that are embedded in on-going agenda items tend to be shorter than ones that introduce new agenda items.

Like the opening segments, the *background information* segments provide information about the topic of the oral document, but in greater detail. The data reveal how this segment incorporates a combination of the materiality, social discipline, and institutionalization properties. The segment functions to help clarify to what parts of a context the oral document pertains. Each primary participant ensures that the background information is made available through self reflection, from another individual present when the oral document is uttered, or from information conveyed in another format (e.g., a web site, organizational report, or

an electronic message of a work assignment). This segment varies in length, but the data reveal that it tends to be the longest in most of the oral documents empirically observed. The less abstract nature of the background information distinguishes it from the opening segment.

The data also reveal how the next segment provides a point or a *main message*. In all but one oral document empirically observed, the main message is the only segment that incorporates the historicity property, information about a change in the method used to gain access to some information. By contrast, the other properties emerge multiple times in this and other segments. In the context of an oral document, the main message facilitates understanding of the overall meaning conveyed by an oral document (see also 4.4.1.1.).

Next, the data reveal how the *closing* segment marks the end of the oral document. Like the opening segment, the closing incorporates recognized sounds and phrases made by the primary participant who has the capacity to utter them. Data also reveal how the soundings distinguish each oral document from utterances that follow it. While some closings reiterate the main message of the oral document, they all incorporate the materiality and social discipline properties. A few incorporate the institutionalization properties, while one incorporates the historicity.

In addition to how the structure of oral documents provides evidence of meeting practices, the boundaries surrounding an oral document provide evidence of them as well. The data reveal that boundaries of oral documents have sonorous, contextual, and temporal characteristics. Each characteristic can be described singly. However, the ways in which the characteristics of the boundaries interact with other properties also bind an oral document.

The data reveal that sonorous characteristics of the opening and closing segments contribute to the boundaries as described above. The data also reveal how these characteristics interact with context to bind an oral document. The sonorous characteristics reflect a speaker's capacity to utter an oral document within a focal event, or within portions of the broader context that are relevant to the oral document (see 2.1.3.2.). Put another way, having contextual limits in the form of a focal event makes it possible for the materiality and the social discipline properties of documents to emerge within an oral document. The data reveal how these two properties reflect a speaker's capacity to utter an oral document relative to others within the focal event not within the broader organizational context. The contextual limits establish that a primary participant has the capacity to utter an oral document where only the director would if one took the entire organizational context into account (discussed further in 4.4.1.2.).

Finally, the data reveal that a primary participant's capacity to utter an oral document and the sonorous characteristics used to utter it additionally make it possible to extend the boundaries of an oral document around comments made by a secondary participant. This type of integration depends on how the primary participant continues uttering an oral document after another speaks within its boundaries. The speaker may or may not incorporate the information conveyed through the comment into the oral document. In some oral documents empirically observed, the primary participant continues talking in a way that builds on or incorporates information conveyed by the secondary participant. When this kind of response occurs, the comment becomes a part of the oral document. In other oral documents, the primary participant continues in a way that relies on the properties of a document to convey information that was also the topic of the comment. Therefore, the comment does not become a part of the oral document. Even though the primary participant seems to repeat the same information conveyed by the secondary participant, the primary participant's speech incorporates one or more of the properties, which means it conveys different information. If the oral document continues in a way that does not repeat nor incorporate information conveyed by the comment, neither the information conveyed nor the comment become a part of the oral document.

This discussion demonstrates that the structure and the boundaries of each oral document empirically observed emerge across cases in a consistent manner. The consistency of these results suggests that the structure and the boundaries reflect practices with regards to meetings in information institutions and are therefore properties of the oral documents observed.

How the properties emerge

The results reveal a number of points about how the six properties of a document emerge and function within oral documents. First, results reveal that the four properties that have been identified do not emerge in a mutually exclusive manner. Any excerpt from an oral document incorporates evidence of up to six of the properties. Second, this lack of mutual exclusivity allows the properties to interact in a way that aids the creation of an oral document. For instance, the boundaries can be established because of the simultaneous use of the boundaries and materiality properties, evidenced in the primary participant's authority. Third, the results reveal how the properties can work together to incorporate information conveyed by others present when an oral document is uttered. Fourth, evidence of most of the properties emerges multiple times. Evidence of the historicity property emerges typically only once in the oral documents empirically observed—although twice in one oral document. These multiple occurrences of most properties

combine with the lack of mutual exclusivity to help explain how portions of an oral document can be considered ambiguous. However, the results additionally reveal that the infrequent incorporation of the historicity property guides interpretation of the oral document.

The results also imply that the concept of an oral document provides an information science based explanation into how professionals use orality. Pondy (1978; Pondy, 1983) finds that leaders use language in an ambiguous manner to address multiple parts of an organizational context simultaneously. Other researchers also describe leaders' language use as being ambiguous (Astley & Zammuto, 1992, 450-451; Auster & Choo, 1993). The results of this study reveal that this sort of ambiguity can be explained by how any portion of an oral document may refer to some aspect of one's title or role (the materiality property), an organization (the institutionalization property), or one's preparation or training (the social discipline property). The confusion that having multiple interpretations may cause is allayed by the infrequent emergence of information about a change in method for access to information (which is evidence of the historicity property). This result additionally implies that the historicity property functions to guide the interpretation of the entire oral document.

Finally, the results suggest that the historicity property is central to distinguishing an oral document from other utterances. In evidence of the sole oral document that emerges over multiple meetings, references to how each iteration of the oral document incorporate the historicity property substantiates evidence that the oral document is uttered during more than one occasion. In response to follow-up observation questions, the primary participant involved explains that it takes time to introduce and render sustainable a change in the method used to provide staff with access to safety and security information (oral document #3). The data reveal that all the instances during which this oral document is uttered, including the one empirically observed, incorporate the main message with its evidence of the historicity property.

Reconsidering the historicity property

Throughout the observations, the historicity property, or evidence of a change in the method used to access some information, emerged the least. However a number of utterances make a reference to a method used to access some information, but lack information about a change in that method. These utterances instead:

- reinforce that the current method used to access that information will remain;

- announce under what circumstances a change in the method used to access the information would become a reality; or,
- convey information that a change in the method to access the information would become available at some future point in time.

One of the utterances that incorporates evidence of this sort of evaluation occurs in the academic library research site. The primary participant reminds staff of how important it is to provide her with access to responses to a library public survey before staff members forward them to library central administration. Chris continues by sharing how her access to survey responses in the past has aided her in increasing their branch library funding for specific resources. Her utterance provides evidence that an evaluation of the method used to access customer feedback information has led to the determination that the method works effectively and is not to be changed. Moreover, this utterance relies on and ensures the organizational hierarchy, while acknowledging relationships between internal and external sub-texts (evidence of the materiality, institutionalization, and social discipline properties). This data reinforce how orality makes the past present by *re*-presenting or confirming that past knowledge continues to be valid in a new context (see 2.1.2.), in this case the organizational context informed by the latest iteration of the process to obtain periodic customer feedback. In other words, Chris' utterance and others like it function in ways similar to oral documents despite not incorporating evidence of a change in access.

This data provide an opportunity to reconsider the historicity property. This property provides evidence of practices used to document information over time. Such practices help perpetuate and ensure the longevity of a context and the role a document plays to accomplish this and related goals. While document literature explains historicity as involving a change (Frohmann, 2004), this kind of change implies that an evaluation precedes a decision to introduce it. In the event that a method used to access some information is evaluated and not changed, access is still ensured. And, the context in which the access occurs is still perpetuated.

If the purpose of the historicity property is to ensure that a context is perpetuated over time, evidence that an evaluation of the method used to access some information provides proof of this purpose whether it results in a change in method or a decision to reinforce the status quo. Both ensure subsequent access. Data about these utterances provide an opportunity to reconsider whether the *historicity* property can refer to evidence of a broader range of actions taken to ensure that an effective method of access to some information remains in place over time.

How the properties interact with context

There is one additional point that the results facilitate making about the properties of a document. This study approaches the identification of oral documents by assuming document status could only be extended to an utterance that incorporates the four properties identified by Frohmann (2004). However, the results confirm

Frohmann's suggestion (2004, 397) that additional properties exist and that an oral document may incorporate one or more properties. The results also suggest that which properties and the number of properties incorporated into an oral document from one type of context must be consistent. The anomalous observation that involved no oral document also involved no decisions. This outcome also meant that no evidence of the historicity property—information about a change in access method—could have emerged. All the oral documents that result from this study incorporate this and the other five properties. Noting that Frohmann (2004, 397) suggests that a document may incorporate one or more properties of a document—some of which have yet to be identified, the results expand that suggestion. The results suggest that the number and type of properties of a document incorporated into oral documents must be the same for all oral documents in any given context.

4.4.1.2. Oral Documents and Context

This study relies on a working definition of context referring to relevant frames of reference (see 2.1.3.2.). The definition identifies two categories of contextual frames of reference, focal event and background. However, the results reveal that participants rely on three categories of contextual frames of reference. Specifically, references are made to sub-texts directly, indirectly, or not at all. Additionally, the

person who utters an oral document has the capacity, in terms of their preparation or role (evidence of the social discipline or materiality properties), to do so based on those parts of context to which direct references are made.

In one oral document (#5) uttered in the public library setting, the primary participant directly refers to a few staff members who will be involved in submitting future requests for equipment. He indirectly refers to most tasks involved in making requests, organizational criteria for having an effective request process in place, and the work processes for which the requested equipment would support. And, he does not refer to other branch libraries, other departments within central administration, or customers that are all a part of the broader organizational context. These selected references to context make it possible for this and other oral documents empirically observed to succinctly provide information about what sub-texts relate to the topic of the oral document and how they influence it. Additionally, the direct contextual references establish the focal event in which it can be established that some individual has the capacity (i.e., preparation or role which is evidence of the social discipline or materiality properties) to utter an oral document relative to others within it. Moreover, the decision made within the focal event can be supported within it. Or conversely, neither public library customers nor staff in departments to which no reference is made would have a way to

reinforce the decision to change the process around equipment requests; they remain outside of the focal event.

These results imply that *context* not only has a focal event and a background, but also a foreground. Goodwin and Duranti (1992) describe the *background* as the space, within and outside of its frame, surrounding the main figure, or *focal event*, of an art piece. The results imply a different interpretation of this metaphor: The space around the main figure and within the frame has a more direct influence on the focal event than the space outside of the frame. The results suggest that this immediate space would more appropriately be considered the *foreground*. The *background* is the broader location, like a museum or art gallery, in which the art piece is displayed. Put another way, the foreground embeds the focal event; the background embeds the foreground (see Figure 3).

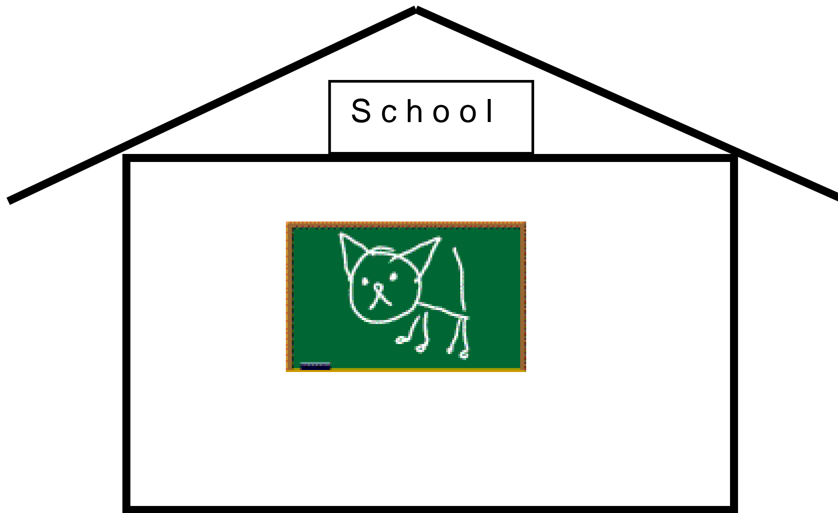

Figure 3. A Revised Representation of Context.
The main figure of the cat is the *focal event*. All that appears outside of that image and within the school building, including the chalk board and the building itself, is the *foreground*. The *background* consists of the space that surrounds the building in which, for example, the chalk board is constructed and used. (The original representation of context appears in Figure 1.)

I propose a revised working definition of *context*:

> Context refers to the frames of reference, incorporating a focal event, foreground(s), and background(s), which support the study of relevant elements.

This revised definition recognizes that the *foreground* consists of one or more immediate settings within the background. An oral document includes indirect references to the *foreground*, which influences or otherwise facilitates the information conveyed about the focal event. Having this third category of sub-texts provides a way to identify the relationship between context and information being conveyed. Determining which contextual references belong in each of the three

categories of context also assists in identifying the properties of documents incorporated in an oral document.

In addition to reflecting the results, this revised conceptualization of context builds on Goodwin and Duranti's (1992) and on Talja et al.'s (2005) definitions of the term just as the original one proposed does. It supports how reality has multiple dimensions or parts (see 2.1.3.2.; Berger & Luckmann, 1966, 25-26; Cheuk & Dervin, 1999; Day, 2005; Talja et al., 1999, 752; Weick, 1979). Berger and Luckmann (1966, 147, 149; see also Wittgenstein, 2001) state that using language in the form of dialog, especially when face-to-face, generates and legitimates reality. The results reflect how reality within the oral documents observed involve multiple entities in different ways. Although a parent institution, professional association, and partner institutions, and organizational memberships influence the oral documents no references to them are made. These sub-texts remain in the background of the oral documents because they have comparatively less influence than a library process. The oral documents indirectly refer to certain library processes which become part of the foreground of the oral document.

In summary, the results reveal that an oral document relies on three categories of sub-context to convey information about the topic it addresses and how that topic relates to those sub-texts. An oral document additionally conveys information about who within the most relevant sub-texts has the capacity to utter the oral document.

4.4.1.3. Oral Documents and Genre

At the start of this study, I had originally suspected that an oral document could be viewed in light of genre theory. The results suggest that the description of oral documents articulated do resemble criteria established for a communicative act to be considered a *genre*—or, a way of responding in a routine manner to certain situations (Yates & Orlikowski, 1992, 299-301; see also 1.6.). However, the results also reveal that an oral document can be limited to using orality to transmit information as opposed to using orality to communicate. Although communicating orally may resemble conveying information orally, the two concepts differ (see 4.4.2.2.2.).

Yates and Orlikowski (1992, 301) study genres of organizational communication which are relevant to this investigation conducted in information institutions. They define *genre* as:

> a typified communicative action invoked in response to a recurrent situation (Yates & Orlikowski, 1992, 301).

A *recurrent situation* is a need defined by and within some social context (Yates & Orlikowski, 1992, 301). This type of situation leads to communication that is characterized by *substance* and *form* (Yates & Orlikowski, 1992, 301).

To illustrate these concepts using results from this study conducted in organizational contexts, one primary participant uses an oral document (#5 in the public library setting) to introduce a change in the process used to request equipment for his branch. Two *recurrent situations* involved in this example include how managers like this primary participant routinely ensure that staff members have access to resources necessary to attend to their areas of responsibility. Managers also routinely evaluate work processes.

Next, when the primary participant involved realizes staff members do not have a needed resource, he evaluates the situation including the process through which they should have received it and responds in a substantive manner. *Substance* consists of the topics addressed, themes that emerge, and motives behind a communicative act (Yates & Orlikowski, 1992, 301). The data reveal that the oral document addresses a number of topics including the equipment request process, branch library operational resources, branch library processes, branch library staff needs (equipment, ergonomics, etc.), responsibilities of another department, and

organizational administrative changes. Evidence of themes emerging from the oral document includes the need:

- to maintain a hierarchical staffing structure that makes it possible to meet the main organizational goal to make information available;
- for administrators to make decisions and guide operations;
- for a manager over each of the various departments to ensure that decisions are implemented and to evaluate that implementation; and,
- for staff members to have effective tools and processes that make it possible for them to run operations, in this situation to provide information to those served by the library, within the parameters set forth by the administrators and managers.

The data suggest that motives behind the oral document include a determination that the equipment request process is not working and that particular organizational sub-texts render the process problematic. The manager is also motivated to have a process that works in place as well as to obtain the needed equipment for his staff.

Finally, the results reveal that an oral document has *form*. Moreover, that form can be observed (Yates & Orlikowski, 1992, 301). The form of oral documents includes its boundaries, structure, and the incorporation of the remaining four properties of a document (see 4.4.1.1.).

Presenting the results in this manner suggests that the oral documents empirically observed begin to qualify as being within a category of a genre of oral documents. Existing categories of genre that involve face-to-face encounters include an elegy, inaugural address, and meeting genres (Yates & Orlikowski, 1992, 300). These sorts of genres are referred to as *rhetorical genres*; they involve discourse and have characteristics including form, subject, audience, or situation (Yates & Orlikowski, 1992, 300).

Genres have traditionally been used to study communicative actions. Information scientists have begun to use genres to explore what objects arise from communicative actions (Andersen, 2008; Montesi & Mackenzie-Owen, 2008). My results further this exploration in two ways: (1) they help explicate the difference between a communicative act involving information use and an instance of information transfer and (2) they raise additional questions about genres. When a speaker utters an oral document in a way that builds on or incorporates the information conveyed by a listener—who does not have the capacity to utter an oral document—without repeating it, this utterance reflects an instance of information use and of communication (a speaker receives and uses information sent by another person; see 4.4.1.1.). However, a speaker may not use information conveyed by a listener which suggests communication may not have occurred. Additional research

is needed to determine when an oral document may be considered a communicative act.

The results suggest a need to ask numerous questions of the concept articulated to reflect a specific range of practices represented by the six properties of documents they incorporate. Could an oral document be a genre, and if so under what conditions (e.g., evidence of substantive information being conveyed and used, the incorporation of a specific set of properties—not necessarily those utilized in this study, etc.)? Is the type of oral document empirically observed a category of genre in and of itself or is it part of an existing category of genres, like rhetorical genres, organizational communication genres, or some subset of them? Or, can an oral document be incorporated into or result from a meeting (or similar) genre? Or, is an oral document more simply a means through which an existing genre may occur? For instance, an oral document along with other media may help produce a meeting genre in the same way that hand-writing, print, or electronic mail provide means for producing a memo genre (Yates & Orlikowski, 1992, 319). Although this study does not focus on responses to these questions, the results indicate that further research about oral documents and genre theory is needed.

4.4.2. Practical Implications

This section discusses practical implications of the results. The implications involve how social constructionism is used in information science literature, insight into information behavior, information about organizational practices, and future research efforts to further understanding of oral documents.

4.4.2.1. Implications Regarding Social Constructionism

The purpose of this study is to explore oral contributions to knowledge. The concept of an oral document is based on the social constructionism proposition that contributions to knowledge can be made with orality. The results, including that oral documents exist, build on this claim. The outcome of this study affirms this proposition of social constructionism and demonstrates that information science scholars have not fully utilized this meta-theory.

The results of this study provide an approach for explaining how orality is used as a tool for information behavior. It approaches orally-based information in ways that information behavior investigations have traditionally only approached information made available in other modes. As a result, one contribution of this study is that it

models a way to adopt social constructionism where information behavior research to date may be described as adapting it. That is, information behavior studies reflect having adapted the meta-theory in addressing action-based (or practice-based) and written contributions to knowledge. However, few studies are based on how the meta-theory also holds that contributions to knowledge can also be oral.

The results imply that further studies which acknowledge and build on this meta-theoretical assertion involving orality are needed. This investigation provides one approach that involves identifying an oral informational artifact. Other approaches have yet to be determined. The current reliance on the meta-theory reflects the use of portions of social constructionism principles. To adopt all of the meta-theory's principles, approaches to and treatment of oral contributions to knowledge are needed. And, these types of contributions should compare to how research approaches and treats action-based and written contributions to knowledge.

4.4.2.2. Oral Documents and Information Behavior

The main problem this study addresses is the need to increase our understanding of orality and information behavior. The practical implications of the results provide new understandings of information behavior. Specifically, the results clarify

definitions of the categories of information—formal and informal sources. The results also provide new clarity into distinguishing between information use and communication as they emerge within oral documents.

4.4.2.2.1. Categories and Information

Earlier in this dissertation, a review of the information behavior literature demonstrates how published findings inconsistently define and use categories regarding information and its sources (see 2.2.2.1.). From that discussion, a suggestion emerges that information from formal sources is produced by institutionalized processes. By contrast, information from informal sources derives from social processes. The results substantiate these descriptions.

Reviewing the literature revealed that two terms—*formal* and *informal information sources*—are used extensively in information behavior research, yet they are not defined. At times, the terms are conflated with *formal* and *informal information*. The results suggest that increasing clarity surrounding these terms involves noticing the extent to which information being made available adheres to the expectations and norms of one or more contexts. Formal information and sources for it adhere to norms that are shared across multiple contexts. For example,

evidence emerges that the oral documents empirically observed comply with expectations and standards of multiple information institution, parent organization, professional, national, legal, and more contexts. These results illuminate where a dialog aimed at articulating definitions for *formal information*, *informal information*, *formal information sources*, and *informal information sources* might begin.

First, the results discourage definitions of formal and informal information sources that solely rely on the mode in which information is conveyed to determine into which category it is placed. The results reveal why oral documents uttered by professionals must be categorized as information from a formal source. Analysis of the data reveal that institutionalized processes in the form of institutional, disciplinary, organizational, and professional practices influence oral documents and information they convey. This study explicates how evidence of this kind of influence can be found in how they incorporate six properties of a document—the boundaries, historicity institutionalization, materiality, social discipline, and structure properties. The results indicate that the mode through which information is conveyed does not provide adequate indication of how information being conveyed has been influenced. This clarification substantiates Leckie and colleagues' (1996) and Taylor's (1991) claim that the information that professionals convey orally can be categorized as being from a formal source: It

explains why this claim is valid. Orally-based information conveyed by professionals is influenced by or adheres to norms that are shared across multiple contexts in the same way that information from formal sources, conveyed via other modes, adheres to such norms. The results moreover indicate that definitions of the categories of information sources must not rely on mode.

In her discussion of scholarly communication, Fry (2003, 40-42) builds on Meadows' distinction (1974) between categories of formal and informal communication in a way that relates to the current results. She points out how traditional descriptions of the two categories, information from formal and informal sources, have become challenged by new modes of communication that information technology enables (Fry, 2003). To counteract such challenges, Fry (2003) introduces a third category, casual communication, and places the three categories on a continuum. The results of this study suggest that furthers Fry's suggestion is useful. To use the current results as an example, this study suggests that the information conveyed by oral documents originates from professionals and is shaped by multiple institutions, which would move them toward the end of the continuum reflecting information from formal sources.

In summary, the results reveal how oral documents are used as tools for information use. Implications of the results include how definitions for sources of

formal and informal information must reflect to which contextual norms information being conveyed adheres and how. Moreover, determining into what category to place information must not solely rely on the mode through which information is conveyed because the mode provides insufficient insight into how that information has been influenced. Further research is needed to increase clarity regarding how categories into which information is commonly place are defined and used.

4.4.2.2.2. Information Use and Communication

In addition to identifying what information oral documents convey, the results begin to illuminate a distinction between conveying information and communicating. In the results secondary participants listen and talk during a number of oral documents, but lack the training or role (which in part inform the materiality and social discipline properties) needed to utter one. For convenience, they will be referred to as *listeners*. When a listener talks within the boundaries of an oral document, a speaker can respond in at least three ways. A speaker can continue uttering the oral document in a way that builds on or incorporates the information conveyed by a listener without repeating it. This way of responding reflects an instance of information use (see also 4.4.1.1.). This interaction also

reflects that communication has taken place; a speaker receives and uses information sent by another.

By contrast, a speaker can continue uttering the oral document and repeat the information conveyed by another. Such a response reflects how a speaker incorporates the properties of a document to convey a more substantiated version of the information conveyed by the listener. That substantiated information becomes a part of the oral document. This type of response reflects that information conveyed may have been used and that communication may have taken place; a speaker may have received and may have used information sent by a listener, or not.

Finally, a speaker can continue uttering the oral document in a way that neither incorporates nor repeats information conveyed by a listener. This third way of responding reflects that information may have been conveyed. However, it remains outside of the boundaries of the oral document. This type of response reflects that a speaker may have received but does not use information sent by a listener.

The results suggest that this distinction between conveying information and communicating is worthy of further study.

4.4.2.3. Oral Documents and Information About Practices

The main objectives of this study are to define and demonstrate the utility of the concept of an oral document. The results suggest that oral documents not only convey information about practices, but oral documents are also used in support of organizational process(es).

The oral documents empirically observed in two cases involve an organizational process; in the third, one or more tasks. By *process*, I refer to how information conveyed by the oral documents involves entities from two or more of the following: levels of staff, departments, external sub-texts (i.e., vendors, different customer organization stakeholders, multiple sub-context within a parent organization, and more), tasks that make up steps in a process, or types of resources (i.e., those used to ship, produce materials, restock supplies, or similar). Oral documents that emerge from the museum and the public library research sites involve branch or department level staff, administrative level staff, organizational structure, multiple processes, and more. By contrast, the oral documents empirically observed at the academic library research site address *tasks*. That is, these oral documents involve one or two items from the list above or one iteration of a process. This result suggests that oral documents convey information about

organizational climate and practices, not ones necessarily related to the properties of documents.

Although each research site had a stable organization at the time the data were gathered, two sites faced relatively more change than the third. The museum and public library sites were negotiating some combination of issues including growth, administrative restructuring, high level administrative staff turnover, changes in relationships with external stakeholders, and more. Oral documents from those sites reflect this change in how they are used to address processes which involve a wider range of organizational entities and issues. By contrast, oral documents from the third site, the academic library, reflect how organizational processes did not need to be altered in significant ways. Instead, oral documents in this site involve the manipulation of a small number of tasks within a process or of one iteration of a process. These results suggest that an oral document may convey information about the stability of a context. This suggestion furthers the result that an oral document can only emerge from a context in which a decision can be made and sustained (see 4.4.1.2.). It indicates that oral documents are used one way in a less stable context and in a different way in more stable contexts.

However oral documents support tasks or processes, this result moreover suggests that oral documents are used to convey information about local practices. Of

course, oral documents convey information about practices that help produce them (which is evidence of the properties of a document). This result additionally indicates that oral documents convey information about the nature of work in the organizations studied and the ways it changes. In fact, the data suggest that contributions to knowledge in the form of oral documents presuppose other contributions to knowledge made within the organizations studied.

For example, in the museum context, the primary participant utters an oral document (#2) that reflects her decision about what resource will be central to a routine process involving multiple staff members, departments, external sub-texts, and types of organizational resources. From that oral document, subsequent knowledge will emerge regarding physical assembly of the resource, maintenance of supplies it involves, and determining and completing numerous routine tasks surrounding that resource.

This observation about how oral contributions to knowledge precede action-based contributions provides a new perspective on information behavior and orality. In preliminary data gathered for a study related to the current exploration, an observation made of the information behavior of emerging leaders reveals how they use orality to track and record knowledge in its nascent, developmental stages (Turner, 2007, Discussion section, para. 1-2). By contrast, they tend to record

evidence of change once it has become stable by using other modes (e.g., digital, electronic, or written; Turner, 2007, Discussion section, para. 1-2). The results of the current study substantiate how the preliminary finding indicates orality is used to convey new information.

An example of this substantiation lies in how the study design incorporates agenda items common to the two observations at each research site. One of these common agenda items addressed in the public library setting produced one oral document and one utterance. The common agenda item was in part motivated by an incident that had occurred just prior to the first observation. Four weeks passed before the second observation could be scheduled; no oral document emerged during it. This result suggests support for the claim that orality may be used more to track new as opposed to stabilized information (see 2.2.2.5.; Auster & Choo, 1993; Brown & Duguid, 1991; Huotari & Chatman, 2001; Ikoja-Odongo &Ocholla, 2004; Mackenzie, 2005; Pezeshki-Rad & Zamani, 2005; Turner, 2007; Wilkinson, 2001).

The results moreover imply that oral contributions to knowledge precede other types of contributions. The oral documents empirically observed convey information about the nature of subsequent work. The meeting participants describe how they will use that information to inform how they approach future work tasks including how they arrange work spaces, secure needed resources, adhere to

articulated time lines, and more. This result supports a suggestion that how oral documents may be preferred to convey information in the early phases of its life cycle (Turner, 2007). After an oral document emerges, action-based or written contributions to knowledge may subsequently be made and augment or replace the oral information with different types of informational artifacts that offer different kinds of tangibility (Turner, 2007, Discussion section, para. 1-2).

One final note about oral contributions to knowledge involves how they resemble action-based and written contributions. The discussion above demonstrates how meeting practices that include oral documents lead to knowledge comparable to how actions, or practices, lead to knowledge. Oral documents involve actions which convey information or meaning. Similarly, oral documents also involve some topic(s) that conveys information or meaning. At least one information science scholar refers to this latter type of information within orality as textual (Solomon, 1997), a term frequently applied to written contributions. Continued exploration of how oral documents involve practice(s) is needed to increase understanding of similarities and differences between action-based, oral, and written contributions to knowledge.

In summary, oral documents convey information about practices that are used to create them (Frohmann, 2004, 396-397). The results suggest that oral documents

convey information about local practices impacted as a direct result of the oral document having been uttered. This latter information precedes future instances of information use.

4.4.2.4. Additional Implications

The goal of this study is to define and demonstrate the utility of the concept oral contributions to knowledge in the form of oral documents. The results of the exploratory research design used reveal implications regarding the unit of analysis and the approach to identifying the properties of a document within an utterance.

The unit of analysis used, to provide a focus for and limits around the data, is an utterance that incorporates the four properties of documents that have been identified. The results reveal that the historicity property (evidence of a change in method to access some information) emerged least frequently. This result implies that an effective way to analyze future efforts to identify an oral document is to first identify occurrences of the historicity property. Utterances that incorporate this property tend to also incorporate the other five properties. Although I initially began searching for instances of the materiality property, I modified later analysis to utilize this approach.

The results additionally reveal that the kind of oral documents empirically observed incorporate six properties of a document. The results imply that future research into this type of oral documents can utilize a unit of analysis that involves the six properties used within this study. And, future studies must account for how a speaker can extend the boundaries of an oral document over multiple time periods or around comments made by individuals who do not have the training or role (which would indicate evidence of the social discipline or materiality properties) needed to utter an oral document. Research activities must detect whether an oral document began at a time prior to data gathering activities or whether it will continue to be uttered during some future time. This result suggests that an oral document may be studied as an event during which information is conveyed and in which evidence of communication may emerge (see also 4.4.2.2.2.).

Overall, the results indicate that future research into oral documents can utilize a more detailed unit of analysis and a different approach to the analysis of data than was used in this study. A unit of analysis for future studies is an utterance that incorporates the six properties of a document discussed or identified herein. Once future data have been gathered, analysis conducted to identify oral documents should begin with identifying evidence of the historicity property.

4.4.3. Discussion Summary

This dissertation reveals the existence of oral documents. Of particular interest is how the type of oral documents empirically observed incorporates six properties of a document, including two identified in this study, and convey information. Also, the study articulates how oral documents can be observed. The following lists the primary results of this study.

1. Information conveyed orally can incorporate properties of a document, which renders the utterance conveying it an oral document.

2. Like the original four properties (Frohmann, 2004), two new properties of a document identified in oral documents reflect practices. Specifically, they reflect how contextual resources are used to bind and provide structure for the oral documents empirically observed. Additionally, the number of and which properties are incorporated into an oral document may need to be consistent for any oral document from a given context.

3. An oral document can be observed by using contextualized information to identify evidence of the properties of a document it incorporates.

4. The properties of a document incorporated within an oral document emerge and function in specific ways.

5. Information about a change in method to access information, which is evidence of the historicity property, guides the interpretation of the entire oral document.

6. Oral documents and the information they convey are interdependent with context and rely on various sub-texts in different ways.

7. The oral documents empirically observed provide evidence of differences between information use and communication.

8. Orally-based information in the form of an oral document can be categorized as information from a formal source. It is one type of an informational artifact that provides evidence of an oral contribution to knowledge.

4.5. Research Design Considerations

This study set out to explore whether orality and information behavior results in an information artifact, specifically an oral document. The field study conducted, to gather and analyze observation data, also involves a number of strengths, weaknesses, and limitations.

The research method used reflects the exploratory nature of this study. A strength of the research design is how the conceptualization of oral documents stems from analyzing the social constructionism, information behavior, and document literatures reviewed. Findings from the literature make it possible to construct a conceptualization of an informational artifact produced when people convey information by talking while face-to-face. This conceptualization made it possible to examine the data using an a priori approach—identifying oral data that incorporates the four properties of documents that have been identified. However, the research design also incorporates flexibility in how it allows additional results

to emerge from continued examination of the results. This latter design element makes it possible to describe oral documents further by not relying solely on presupposed knowledge.

An area of weakness in the research design stems from its small scale. The study involves data from six observations organized into three cases—each with two observations—involving three different organizations. Although every utterance in seven and a half hours of audio recording had the potential to become a unit of analysis, only fourteen units of analysis emerged (n=14); the results are based on how those fourteen utterances incorporate the six properties of a document. This number of units raises questions about whether repeating the study could produce the same results (i.e., generalizability). Issues raised by the scale of the study are mitigated in part by having gathered data at three different research sites within a single industry. Additionally, concerns regarding the scale are mitigated by how the data include multiple instances of analyzing every utterance made during the seven and a half hours of face-to-face meetings. Of them, fourteen oral documents—two in the first case, five and seven in the second and third cases—emerge when examining the data.

Rigorous analysis of the data also helps mitigate concerns raised by the small scale of the study. First, data analysis initially involves isolating and examining every

utterance within each of the six observations to identify which incorporate the four properties of a document originally articulated by Frohmann (2004). Next, the oral documents identified in the first observation of a case are then compared to and contrasted with those identified in the second observation of that same case. And finally, the oral documents from each case are compared with those found in other cases. The results reveal that all the oral documents can be described in similar ways. This result substantiates how the research design aids in overcoming weakness stemming from the small sample size.

Related to the small scale nature of the study is a weakness in how the research design tested the conceptualization of oral documents by gathering and analyzing limited types of data; it mainly relied on face-to-face orality. The method used is based on the formal case study method (Eisenhardt, 1989; Leonard-Burton, 1990; Yin, 1994), but departs from how it utilizes a range of data types. For example, despite being set in an organizational context, the research design does not incorporate annual reports, organizational records like meeting minutes, or organizational charts with information about staffing structures (Krathwhol, 1998; Patton, 2002; Yin, 1994). The goal of this study is to increase our understanding of oral contributions to knowledge. Therefore, orality is isolated from other types of data and examined. Czarniawska (1998, 69) asserts that in order to determine whether an utterance represents reality (i.e., validity), it must be compared to other

utterances, not to the topic it addresses. Examining non-oral data would have detracted from the concept studied by introducing secondary documents that focus on topics relevant to the organization. These additional documents may not have necessarily focused on the nature of the organization's orality. The research design utilizes this assertion in how oral data are analyzed and compared to other oral data within a single observation, within a single case, and than across multiple cases. Utilizing the formal case study method would have resulted in data that describes each organizational context. That is, the results would have described the topics addressed by the oral documents and not the oral documents themselves.

Another area of weakness in the research design involves having used limited sources for data. This concern is mitigated in two ways. I utilize my knowledge of information institutions, although not of the specific research sites selected, to an appropriate extent throughout the data collection and analysis activities. This limitation is also mitigated by the rigorous examination of data from three different types of organizations within the same industry. It is interesting to note that the results reveal that information conveyed in non-oral modes influence some of the oral documents observed. For example, the primary participants engage in information seeking that involves non-oral information sources in three of the oral documents observed. Also, evidence of authority and power in staff relations emerge in the results as they are reflected in part by a primary participants' capacity

(evidence of the materiality and social discipline properties) to utter an oral document. Finally, the results reveal that each utterance is used in similar ways to maintain the organizational context by reinforcing its staffing roles, directing future work, and more. The consistent ways in which the oral documents emerge helps to neutralize this concern regarding weakness in the research design. This consistent result provides proof that the oral documents are identified in part from using a systemic research method. Overall, weaknesses caused by having used a small sample and limited sources of data are mitigated by how the research design incorporates this rigorous and systematic examination of the data.

Next, a researcher can determine how much to participate during an observation. This research project reflects having used a *non-participant observer* role. I sat in and witnessed organizational meetings in a detached manner without becoming involved (Krathwohl, 1998, 252). Yet, some scholars would argue that this style of *direct observation* is not possible when oral data are involved because every audience member has a role in or influences what is said (Ong, 1988; Vansina, 1961, 1985). Krathwohl (1998, 252) notes how using the *direct observation technique* means that a researcher becomes a member of an audience. However, he does not take into account the extent to which every audience member, including an uninvolved researcher, influences the orality being observed.

This potential design weakness is mitigated by remaining aware of potential discomfort on the part of the participants and with multiple interactions with the primary participants, including:

- talking, exchanging electronic mail messages, and meeting with each primary participant in person prior to the initial observation;
- conducting two observations per site;
- asking each primary participant to help determine where I should sit during the observations;
- introducing myself to and answering questions posed by secondary participants to help ally any discomfort felt on their part which may have impacted the tone of the meetings I observed; and
- asking the primary participant follow-up observation questions.

These interactions helped to increase the participants' comfort with having been observed. For instance, when a secondary participant reminded a primary participant about me being present during the first museum observation, the primary participant laughingly commented that she had forgotten I was in the room.

Finally, it is useful to acknowledge limitations in the research design. First, one might argue that when developing the concept of an oral artifact it is not necessary to investigate orality and information behavior. Instead, one may simply gather and analyze oral data. In response, this study takes one approach to studying oral information behavior. The approach is based on how library and information

professionals have developed practices involving action-based and written contributions to knowledge. This investigation begins to remedy the lack of similar exploration and treatment of oral contributions to knowledge by exploring an information artifact that is oral. The approach taken herein does not prevent other approaches from being used.

Another limitation to note of the research design is how the approach used adheres to objectives identified as important in document studies. The unit of analysis originally articulated set out to identify artifacts that function to ensure access to information (3.5.1.). This is especially noted in the nature of the historicity property, evidence of a change in the method used to access information (Frohmann, 2004). Information institutions share this objective which is reflected in how access to pertinent business information is essential to their mission. Still, given the unit of analysis selected and later modified, the results of this study do not identify a full range of oral documents that may have significance as defined by those within the context of the research sites.

These limitations along with the strengths and weaknesses identified together provide this initial exploration with limited, though useful results that facilitate the identification of additional oral documents that reflect objectives identified solely by the context in which they are uttered and used.

4.6. Summary

This chapter reports on results derived from observational data of orality organized into three cases. It also presents responses to the research questions. It ends by discussing strengths, weaknesses, and limitations of the research design and the ways in which the latter are mitigated.

5. Conclusions and Recommendations

This dissertation reflects a strategic initial step toward a broader goal of increasing library and information science knowledge about information and orality. The strategy involves conceptualizing an *oral document* and finding empirical evidence of the concept being used in practice. Additionally, satisfying these specific objectives yields progress toward numerous related ones. The resulting conclusions and recommendations reflect how the study accomplishes its stated objectives, demonstrates progress toward the broader goal, and explains how to progress further on the remaining objectives. This chapter presents those conclusions and recommendations.

5.1. Conclusions

The concept of an oral document and research conducted to articulate it offer value in a number of forms for information science. The results of this study lead to the following fifteen conclusions. Conclusions that respond to the three research questions appear first.

5.1.1. Nature of an Oral Document

The first two conclusions emerge from answering the first research question asking what an oral document is. They describe how the concept is explicated and posited into the existing understanding of artifact (C1 – C2).

C1. Oral documents exist in concept and in practice.

This study relies on how document literature indicates that a *document* may be defined by using a formal definition or by determining what is done in practice (see 3.5.1.). This study introduces and revises a definition of an *oral document*. The revised definition relies on a definition of document born out of information and, in particular, document studies. Also, empirical evidence substantiates the concept by revealing how practices lead to the creation of oral documents and to their shape. This evidence emerges from empirical observation in the form of properties of a document.

This conclusion acknowledges that the documents identified in this study represent one type of oral document used to support access to information within an organizational setting. This is reflected by how each oral document incorporates the historicity property, with its evidence of a

change in access to some information. The term, oral document, becomes the first term in a vocabulary for describing informational artifacts that result from orally-based information.

C2. Like written contributions to knowledge, oral contributions can result in an informational artifact.

This study relies on an emerging understanding of an artifact as any thing constructed by humans (*Oxford English Dictionary*, 2009; see 1.5.). The data reveal how an utterance can be constructed in such a way that it results in a specific type of artifact, an oral document. This oral construction involves engaging in six different practices that influence and shape it. The results therefore reveal that an oral document represents one type of artifact produced by a contribution to knowledge. Such an outcome means that this study extends the concept of an informational artifact to oral contributions to knowledge.

The concept of an oral document and this dissertation build on how social constructionism holds that contributions to knowledge are made with actions, speech, or writing. It also acknowledges how library and information science professionals and researchers develop practices for approaching and interacting with those contributions once they have been

identified. Numerous professional practices and research traditions are based on how informational artifacts result from written contributions to knowledge. None are based on how informational artifacts result from oral contributions. In order to determine whether existing or similar professional and research practices may be extended to oral contributions to knowledge, it is necessary to identify an oral informational artifact. The dissertation accomplishes this initial step.

Additionally, this study extends library and information science research to reflect all social constructionism principles. That is, library and information science research has typically addressed how social constructionism explains that the origins of knowledge can lead to non-oral informational artifacts; this dissertation explores how social constructionism similarly explains that the origins of knowledge can stem from an oral one. This conclusion recognizes that an oral document is one type of oral informational artifact and acknowledges that other types may exist.

5.1.2. Informational Evidence and Oral Documents

The second research question addressed in this dissertation asks what informational evidence an oral document conveys. Several conclusions that address this question emerge from the data. Oral documents convey evidence about the multiple practices that shape them—including the new ones identified herein (C3), information about the one or more topics they address, and insights for interpreting the information they convey (C4- C5). Given the relationship between orality and context, oral documents also provide information about the context in which they are uttered (C6). Finally, oral documents reveal how oral contributions to knowledge are used vis-à-vis other types of contributions (C7).

C3. In an oral document, evidence of a property conveys information about practices that guide the creation and interpretation of that oral document.

> Frohmann articulates (2004) that evidence of practice emerges in documents in the form of properties. Specifically, he explains how the four properties of a document that he identifies provide informational evidence of the practices that shape and render a document informative (Frohmann, 2004). This study substantiates his assertion. Moreover, the results facilitate the identification of two additional properties which are shown to be

consistent with and substantiate Frohmann's (2004) articulation of the concept of properties of documents.

C4. Frohmann's speculation (2004, 397) that additional properties of a document exist is correct. Two additional properties of oral documents are boundaries and structure.

The properties of a document are described as providing evidence about practices that shape and render a document informative (Frohmann, 2004). The results of this study reveal how oral documents incorporate evidence about meeting practices in addition to the historicity, institutionalization, materiality, and social discipline practices originally identified (Frohmann, 2004). The meeting practices emerge in the form of two new properties, boundaries and structure. The portions of an oral document that incorporate these properties convey information about the start and end of that oral document, its point or main message, and who is involved in creating it. These properties contribute to an oral document's informativeness as well as guide its creation, which is true of how the original properties of documents articulated (Frohmann, 2004) shape and influence documents.

C5. The properties of an oral document have one or more functions.

The results of this study reveal numerous ways in which the properties of oral documents have additional functions beyond those originally articulated by Frohmann (2004). In addition to guiding the creation and interpretation of the information being conveyed, the properties of oral documents:

(a) indicate what speakers are involved in creating an oral document (boundaries property),

(b) identify which parts of a context are relevant to an oral document (institutionalization and the structure property),

(c) perpetuate a context (the materiality, historicity, institutionalization, and social discipline properties), and

(d) clarify the main information being conveyed (historicity property).

Additionally, a property can be used to identify and interpret information conveyed by another property. Perhaps the clearest example of this function lies in how the historicity property can reduce ambiguity. Because it emerges infrequently (typically once), the historicity property provides a singular point of reference, or main message. The reference clarifies how the other properties, which can emerge multiple times, provide background information for that main message. This function is needed because an oral document can provide a wealth of information that can prove challenging to interpret.

C6. Oral documents indicate that context can be categorized into sub-contexts. Each category of sub-context (a) provides different resources for information conveyed orally, (b) influences that information, and (c) influences how it is interpreted.

> Orality and context are interdependent (see 2.1.3.). Therefore, just as context provides resources that help make orality informative, orality provides information about context. An oral document in particular conveys nuanced information about the context (and related sub-contexts) in which it is uttered. Identifying this information is facilitated by a definition of context that accounts for its sub-contexts. The results of this study indicate that *context* comprises (a) a focal event, (b) one or more foregrounds, and (c) one or more backgrounds. Each of the categories of context supply an oral document with resources, or frames of reference, which help make that oral document relevant to the context in which it is uttered. The resources also make it possible to perpetuate a context, replete with all its nuanced parts.

C7. Knowledge that emerges orally can precede knowledge in other forms.

The study reported in this dissertation demonstrates that orality is used in support of new information. It also shows how the type of oral documents empirically observed is utilized to accomplish work within a given context. The *historicity* property, or insight into a change in the method used to access some information, provides evidence that an oral document (a) reflects a decision and (b) leads to activity that is necessary to implement that decision. The results of this study reveal how staff members engage in activities aimed at accessing information from a new source (e.g., they write down the new information in the form of meeting minutes, describe intentions to alter practices that involve obtaining the needed information from the new source, and more). These activities reinforce or lead to new insights about the decision being made in the form of modified work practices. In effect, the subsequent insight is an activity-based, or practice-based, contribution to organizational knowledge that follows the oral one conveyed by the oral document.

5.1.3. Empirically Observing an Oral Document

The final research question of this dissertation seeks to further substantiate the concept under investigation with empirical evidence. Finding that an oral document can be empirically observed leads to the following five conclusions. The first indicates how to operationalize the concept, by relying on the properties of a document (C8). The next conclusion addresses which research method and technique to use when investigating oral documents (C9). Two conclusions note the category of information from which an oral document is likely to emerge (C10) and how to analyze that data once they have been gathered (C11). Finally, empirically observing an oral document requires analyzing how an utterance interacts with context (C12).

C8. Evidence of the properties of a document can be used to identify documents made available orally.

> Oral documents are conceptualized in this dissertation as being a type of document. Therefore, empirically observing one necessitates identifying how an utterance adheres to a definition of document or incorporates the properties of a document that more traditional forms of documents incorporate. This study demonstrates that a researcher can examine utterances for evidence of these properties by analyzing what practices

guide the creation and facilitate the informative nature of an oral document. Practices that shape oral documents emerge in the form of the boundaries, historicity, institutionalization, materiality, social discipline, and structure properties. Identifying that these properties have been incorporated into an utterance makes it possible to determine that the utterance is an oral document. In this way, the study demonstrates that techniques used to study more traditional informational artifacts may be applied to orally-based information.

C9. An oral document can be empirically observed.

The study reveals that oral documents can be empirically observed by utilizing a field study approach. A researcher can identify through observation how a speaker's utterance incorporates evidence of the six properties of a document.

C10. Oral documents are *formal* sources of information.

The results of this study demonstrate that a speaker's capacity to utter an oral document (reflected in the materiality and social discipline properties) means that he or she conveys information from an institutionalized source. The results also (a) substantiate claims that an oral document can be categorized as information from a formal source (see Leckie et al., 1996;

Taylor, 1991); (b) explicate under what circumstances orally-based information is formal; and (c) substantiate previous research that begins to clarify the differences between formal and informal information. Specifically, the latter point refers to how formal information and sources originate from institutionalized processes and informal ones from social processes (Fry, 2003; see also Case, 2002, 2007; Leckie et al., 1996; Taylor, 1991). This outcome contradicts the prevailing scholarly practice of categorizing orally-based information as informal (see 2.2.2.1.).

C11. The properties of an oral document may be observed in any combination; or, any excerpt from an oral document may incorporate one or more properties.

When empirically observing an oral document, it is useful to note how evidence of one or more document properties may be identified in any excerpt from an oral document. The ways in which the properties of documents emerge can lead to ambiguous interpretations of the information that an oral document conveys. That is, any segment of an oral document may be interpreted as conveying information about institutional customs, a speaker's preparation, some aspect of an external sub-context, or other aspect of the practices that influence and shape that oral document. Remaining cognizant of this conclusion can prove helpful when analyzing oral data in an effort to identify an oral document.

C12. The properties of an oral document interact with context.

Empirically observing an oral document requires noting whether a speaker has the capacity to speak definitively and to render a decision in a given context or within its sub-contexts (evidence of the historicity, institutionalization, and materiality properties). This capacity is detected in how an oral document utilizes the resources within a context to create a sub-context, specifically a focal event, which is embedded within it. A speaker, who does not have the capacity to announce a decision impacting the broader context, may have the capacity to announce a decision within a more localized focal event. For example, the results reveal how a manager describes organization-wide problems with the equipment request process, but only announces and implements the changes for his department (see 4.2.1.2. or Appendix J). The ways in which the properties of an oral document interact with context reveal these contextual limits. Empirically observing an oral document requires detecting these limits and how they influence the information being conveyed.

5.1.4. Other Conclusions

Three final conclusions move beyond answers to the research questions and focus on the broader implications of this study. One conclusion reflects how the concept of *an oral document* emerges at the cross section of three areas of the literature (C13). Another provides insight into two ways that orality can support human interactions with information (C14). And, the final conclusion promotes a new perspective on the properties of oral documents (C15).

C13. Methods developed to study informational artifacts in a broad range of modes are applicable to the oral mode.

> This study explicates a conceptualization of an oral informational artifact by exploring the intersection of three research areas. Social constructionism focuses on identifying where knowledge originates. Information behavior explores how people interact—chiefly seek, find, and use—with information in a given context. Document studies examine how information is maintained and made accessible. This dissertation demonstrates that the tools of information science can be used to discover oral informational artifacts assumed to capture oral contributions to knowledge. The study also assumes that this type of understanding is needed to extend library and information science professional practices and research traditions to

accommodate how social constructionism states that contributions to knowledge can be made orally.

C14. Orality is a means for interacting with information.

This study focuses on oral documents made available through the mode of orality. Some results therefore apply to this mode. The results demonstrate how oral documents can involve concrete evidence of a dialog (information is sent, received, and used) or evidence of information simply being conveyed (with no evidence of receipt or of use). This result indicates that orality provides a way to interact with information whether that involves communicating, transmitting, or using that information.

C15. The properties of a document are an analytical tool.

This dissertation demonstrates how the properties of oral documents function in numerous ways. Their presence in an informational artifact conveys document status even when that artifact is made available in a non-traditional mode (as is evidenced in the research design used in this study; see 3.5.; also, see C1, C9). As such, the properties make it possible to detect an oral document (see C9, C11). The properties shape oral documents and help them convey information; the properties also interact with each other in a way that makes it possible to interpret the information that an oral

document conveys (see C4-C5). And the properties interact with context in part by creating a sub-context into which the information being conveyed is transmitted and used (see C12; see also C6). The results of this study demonstrate that the properties of oral documents are powerful tools that increase our understanding of these documents. This conclusion departs from the original articulation of the properties of documents as an "analytical notion" (Frohmann, 2004, 397).

5.2. Recommendations

The research reported in this dissertation explicates the concept of an oral document and demonstrates that utterances are used in professional settings to systematically make information available. The results and conclusions of this study lead to sixteen recommendations presented in this section. These recommendations introduce several research questions, call for the utilization of a range of research techniques, and express a need to develop practical implications of this study.

5.2.1. Continued Conceptual Investigations

The first set of recommendations acknowledges that the concept under study has been explicated and addresses conceptual and theoretical implications of its outcome. They call for continued study of the concept (R1), increased understanding of concepts that inform it (R2-R3), and exploration of how it is related to the concept of a genre (R4).

R1. Further study is needed of how orality produces oral documents.

Research is needed to strengthen and extend the explication of an oral document presented in the results of this study. Future research to build on this recommendation should review and refine the conceptual work introduced to define an oral document in the current study. Future research is also needed to substantiate this empirical study by repeating the study in the same industry, information institutions, or another. This study focuses on one type of oral document: one uttered while face-to-face in an organizational context and incorporating six properties of a document (see 3.5.1.). Repeating the current study in different contexts is needed to help identify how orality can produce other types of oral documents.

Additional research to build on this recommendation should also adhere to Frohmann's assertion (2004, 397) that documents may incorporate evidence of a variable number of properties, not all of which have been identified. Repeating the current study in different contexts may facilitate the identification of oral documents that incorporate a different set of properties. Identifying context-specific priorities and related practices should help facilitate this objective. This approach would introduce a departure from the documentation-oriented focus utilized herein. Given the interdependent nature of context and orality, this research strategy would reflect how context informs practices that emerge as properties which influence and shape the creation and use of oral documents in a context. Anticipated outcomes should substantiate existing properties and identify new ones.

Whether seeking to substantiate existing understandings or to identify new types of oral documents or properties, research to increase our understanding of how orality produces oral documents should rely on the field study method and observation technique utilized herein. A field study method allows researchers direct experience of orality essential for comprehending how it is used. Data gathering activities should involve a non-participant observer who captures data by using some combination of

audio recording, video technology, or written field notes. Recording activities should capture verbal and non-verbal actions of research participants because both contribute meaning to utterances. Any research design must incorporate appropriate ways to mitigate potential discomfort among participants. For example, a researcher furthering this study by relying on video technology to capture data may conduct a longitudinal field study to counteract awkwardness that can be caused by having a camera present.

Analyzing the gathered data should begin with an a priori analysis to identify oral documents, or utterances incorporating the properties of documents that have already been identified. Next, those oral documents identified are to be compared within a single research setting and across multiple ones. This subsequent analysis facilitates further description of existing properties and identification of new ones. In the event that new properties of a document are identified, the data may be analyzed again to determine whether this outcome changes the total number of oral documents identified. Anticipated results should include strengthening results from this current study regarding one type of oral document or identifying new types of oral documents or properties (see also R10.)

R2. Determine the nature of fixity in an oral document.

Fixity refers to an artifact's physical nature and informs how it can be reproduced under the same conditions (see 2.3.1). This exploration addressed the fixity of oral documents by noting practices surrounding their use. Specifically, since oral documents are used to provide access to new information (see C7), their fixity is needed while information remains new. Such speculation needs further study and substantiation.

Responding to a research question about the nature of fixity in an oral document should include an exploration of the ontological assumptions behind orality, the mode on which oral documents rely. This type of exploration may leverage philosophical and psychological understandings of orality offered in works by Clanchy (1993), Goody (1977; 1986; 1987), Ong (1988), and Vansina (1961; 1985). Anticipated research outcomes will build on the discussion of the raw ingredients or components of orality and orally-based information presented in this study (see 2.2.1.).

In addition to further conceptualizing, exploring the nature of fixity of an oral document calls for empirical research that reveals references being made to and reproductions being made of oral documents. This type of investigation should utilize a case study method to capture data in situ

(Eisenhardt, 1989; Leonard-Burton, 1990; Yin, 1994). Data needed include information made available about a particular topic via an oral document and other modes. Data gathering should proceed long enough for information about that topic to emerge on multiple occasions and for the frequency of using that information to diminish. Results will demonstrate whether an oral document has fixity and, if so, how.

R3. Conduct further research to substantiate a more nuanced definition of context.

This recommendation calls for better tools to continue exploring the interdependency between context and orality (see 2.1.3.). The study offers a working definition of context that lends itself to more nuanced explanations of contextual and sub-contextual influences. Substantiating the working definition will help facilitate even greater understanding of how context interacts with informational artifacts, especially oral ones. This recommendation calls for a response to the research question: How does a nuanced definition of context help us identify the purpose and value of oral documents? Continued study should involve capturing oral documents and drawing on a deep understanding of the context in which they are uttered. A researcher may use the participant observer technique or an ethnographic method to gain access to the data needed. Whereas this study was limited to observing occasions in which oral documents were uttered, the

recommended study design could also include observations of activities that lead up to such occasions, like time spent preparing a meeting agenda, orientation sessions for those who assume roles that enable them to utter oral documents, and more. Analyzing the data would identify how various categories of sub-contexts influence and shape each oral document.

R4. Conduct research to determine how the concept of an oral document relates to genre theory.

This recommendation emerges from how the results of this study demonstrate that the oral documents empirically observed reflect criteria of a *genre*, or a routine communicative act. Identifying one type of oral document, a face-to-face utterance concerning the availability of organizational information, suggests that an oral document genre exists. However, the results also reveal a method to distinguish between communicating (i.e., information is sent, received, and used) and conveying information orally (i.e., information is sent). Future investigation into genre theory and oral documents therefore, is needed to clarify how oral documents relate to existing genres. Research questions recommended for focusing on oral documents and genre must ask whether the type of oral documents empirically observed in this study are a type of genre. In this study, it can be argued that the results may be included in a subset of a

genre of oral documents that involve organizational meetings, decisions, or work processes. In addition to exploring whether the oral documents empirically observed might form a sub-genre, this continued study may also explore whether oral documents are better described as a new mode through which an existing genre may occur. For example, an existing meeting genre may consist of a printed agenda and an oral document. Finally, a response to a research question about oral documents and genre could determine if an oral document is a broader category of genre (e.g., an 'umbrella' genre like a rhetorical genre) under which other types of existing genre may fit. To summarize, additional research is needed to better determine how this new concept relates to genre theory.

This recommendation calls for related research to identify different types of an oral document genre. This study here results in identifying what may be a genre of oral document used in organizational settings. It utilizes a research design that lead to empirical observations of oral documents that incorporate six properties of a document and a decision that one of those properties incorporates evidence of the historicity property. In order to identify other types of oral document genre, investigations need to be conducted in different contexts where oral documents may occur, like educational, legal, or religious settings. These oral documents may

incorporate a different set of properties. Recommended research activities will require determining what makes oral data a document or a routine communicative act, i.e., a genre. Conducting this research will further efforts to understand how genre theory can apply to information science (Andersen, 2008). It may also provide new insight into oral documents uttered in different settings.

5.2.2. Addressing Gaps in Information Behavior Literature

This study addresses gaps in the information behavior literature about orally-based information. The results establish that we can interact with an artifact that is oral, but it also raises questions about the nature of this interaction and how it compares to interacting with information made available in other modes (R5-R6). A third recommendation urges a need for consistent definitions and use of categories of information (R7).

R5. Explore how oral information interactions differ when they (1) occur through face-to-face orality or (2) are supported by information communication technologies or non-oral modes.

This recommendation urges the investigation of research questions such as, how do interactions with information conveyed orally while face-to-face

differ from those conveyed while supported by technology (i.e., via audio, text, video, or immersive technology). It similarly recommends an exploration of whether, and how, interactions with information conveyed through various oral modes differ from those conveyed through non-oral modes.

Research needed to respond to these questions should involve data in multiple modes, and should accommodate the differences. While an experimental method could facilitate the gathering of data for technologically supported oral data, it is not the most suitable means for obtaining face-to-face oral data. Instead conducting ethnographic research would enable the continuous observation of a stable set of participants interacting with information in various modes. Similarly, a case study method would facilitate the capture of data involving interactions with information in various formats.

Conducting this research in a multinational workplace would provide the sort of data needed for the investigation being recommended. Multinational staff members routinely share information using multiple types of technology. If multinational research sites are used, participants should

speak the same language(s) as the researcher when interacting with information in the various modes under investigation.

Conducting this research could involve identifying what modes are used to address a specific topic, analyzing the information about that topic made available in each mode, and analyzing what properties or attributes describe information in each mode. The aim would be to identify whether and how the information being conveyed or instances of information use differ depending on the mode through which information becomes available.

In addition to addressing the gap in information behavior literature regarding orally-based information, research in this area could also help predict under what circumstances or in what situations a particular media might be chosen and used. In this regard, anticipated findings would build on work by Sole and Edmondson (2002) who find that face-to-face interactions are essential when a team begins to work with a new member, typically located off site.

Further study should also inform research methods used to focus on oral data. Currently, methods for collecting and analyzing oral data require transferring it to a secondary format, like an audio or video recording, or a

transcription. Increasing our understanding of differences when interacting with information in different modes will provide insight into how researchers can approach and treat oral data.

R6. Investigate how orally-based information is combined and used with information that is accessed through other modes.

Although not the focus of this study, data demonstrate that participants used information in a variety of modes during the course of each observation. Research is needed to explain why and how different modes are combined in the course of information use activities.

This recommendation builds on the conclusion that orally-based information precedes information made available through other modes (see C7). It also builds on how this study substantiates previous suggestions that orality is used to access new information (see C7; see 2.2.2.5.; see also Auster & Choo, 1993; Daft & Lengel, 1983; Huotari & Chatman, 2001; Mackenzie, 2005; Turner, 2007; Wilkinson, 2001). These results suggest that orally-based information migrates to other modes. Further, the results lend weight to the idea that people interact with information orally at the start of its life cycle and in other modes as it matures (Turner, 2007).

To build on these research outcomes, future research should address questions that focus on the maturation of information. Are different modes used to interact with information at different points in its life cycle? Why does information migrate between modes? How is choosing from among the different modes influenced by context? Investigation in this area should also explore temporal differences between contributions to knowledge through actions, in writing, and via orality. Although long term observational data may be best, a short term field study could also be used. Regardless, time spent gathering data would need to involve observing one or more primary participants engaging with information during multiple encounters that involve a variety of modes, for example electronic messages or postings, face-to-face meetings, and more. During the encounters, one or more issues would need to be addressed multiple times. Information behavior investigations that respond to this recommendation would do well to account for previous research about media choice (see McLuhan & Fiore, 1996). This type of continued study would further our understanding of interactions with oral information vis-à-vis those in other modes.

R7. Determine and use consistent descriptions of the four categories—formal information, informal information, formal information sources, and informal information sources.

Although an oral document is a new kind of informational artifact, its conceptualization in part relies on existing information behavior understandings of the categories of information and information sources. Reviewing how the categories used to describe the types of information with which people interact help determine where to locate an oral document.

A theme that emerges from the literature reviewed is that formal information and information from formal sources originates from institutionalized processes; informal information and information from informal sources originates from social activity (see 2.2.2.1.). Unfortunately the literature neither defines nor uses these categories consistently. This recommendation is, therefore, aimed at resolving the inconsistency.

Conducting a meta-literature review that describes how these categories are currently used is recommended. Findings from such a study would determine whether a consensus can emerge regarding definitions for and

uses of each category. This survey of current usage would reflect a social constructionist approach to resolving the inconsistency.

Having a consistent understanding of the categories will enable consistent approaches to describing information made available through existing and emerging informational artifacts. This recommendation additionally supports the idea of articulating a continuum along which the categories fit (see Fry, 2003). Moreover, it supports further exploration of an approach that involves distinguishing between the mode and the content of information (see Huotari & Chatman, 2001).

5.2.3. Implications Involving Document Studies

Oral documents are conceptualized as a type of document. Therefore, this study inspires questions that will contribute to our understanding of documents made available in oral and other formats. The next three recommendations address how the articulation of the concept leads to additional research questions about the properties of a document (R8 and R10) and the contextual influences on them (R9). This section describes research that is needed to determine whether the conclusions are generalizable to non-oral documents.

R8. Continue to explore the properties of a document.

This recommendation stems from the conclusion that the properties of documents, which Frohmann (2004, 397) originally articulates as analytical notions, are instead analytical tools having multiple functions (see C15). Additional research is needed to further substantiate this assertion and to determine whether the research outcomes apply to non-oral documents. Specifically, future investigations should: (1) substantiate the two new properties of oral documents identified (the boundaries and structure properties); (2) identify additional properties; and (3) continue to explore how the properties function and interact. Requiring more attention is the historicity property. Research should explore (4) whether evidence of this property proves more predictive when identifying an oral document. An investigation is needed to (5) determine whether the historicity property can emerge as evidence involving a definitive or a suggested change. Finally, this study suggests that the historicity property may be better defined as evidence of having evaluated the method used to access some information and the outcome of that evaluation. An investigation is also needed (6) to determine whether this suggested definition should replace the current one that limits historicity to evidence of a change in the method used to access some information.

Since the properties of documents are evidence of practices, research that addresses these problem areas would need to study evidence of properties and the practices they reflect. A research design could repeat how this study organizes data into cases. The case study method could also be used to ensure discovery of information about practices. Case studies can accommodate data in numerous modes, like meeting minutes, annual reports, mission statement, and other artifacts, that may contain evidence of practices in organizational research sites.

This research objective should involve identifying oral documents in various contexts, then comparing them within and across those contexts. Comparative analysis will facilitate the identification of patterns and anomalies that substantiate or refute the current findings. Next, the same steps need to be taken to identify and compare non-oral documents within and across various contexts. Finally, properties of the oral documents identified would need to be compared to attributes of the non-oral ones identified. Completing this three-part objective will help resolve the six research problems described (above) by providing insight into practices that emerge as properties of documents. A secondary research outcome consistent with that of this study will help determine whether the current

and emerging results apply to all documents regardless of the mode in which they become available.

R9. Research is needed to determine whether the properties of a document emerge in any combination regardless of the mode in which a document becomes available.

The results of this study reveal that any segment of an oral document may incorporate up to six properties of a document (C11). This recommendation concerns whether any segment of a non-oral document can incorporate one or more properties of a document. And if any segment can, does the way in which the properties emerge contribute to ambiguous interpretations of the information being conveyed? Findings that emerge from a study, based on this recommendation, would determine whether the particular results from this current study are generalizable to documents in non-oral modes.

R10. Conduct research to confirm whether context influences which properties of a document an artifact must incorporate in order for it to be considered a document.

This recommendation builds on how the results of this study modify Frohmann's speculation (2004, 397) that a document may incorporate a different number of properties, some which have yet to be identified. The results agree that the number of properties incorporated into a document may vary, but suggest all oral documents uttered within a given context

must consistently incorporate the same properties. To illustrate, recommended research may determine that all oral documents in multinational corporations must incorporate the same seven properties; oral documents in religious institutions require the same three properties; political contexts the same two; and so on. To substantiate this suggestion, research is needed to systematically identify and compare oral documents uttered in different settings.

This recommendation suggests utilizing field research and data analysis strategies as described in the first recommendation (see R1). Conducting field research in multiple settings can require a great number of resources. An effective way to negotiate resources required by such a study, or series of studies, is be to analyze existing data or findings of research involving appropriate orally-based information in different settings. This approach may involve conducting a meta-literature review. Another approach would be to utilize appropriate data gathered for previous studies and stored in data archives. A study that utilizes these or other alternatives to gathering original data would need to incorporate analysis of oral data and to address any limitation that such secondary use of the data would present. Any of these approaches would lead to a useful contribution to the dialog about

how context influences the properties of documents incorporated in an oral document.

5.2.4. Implications Involving Social Constructionism

This dissertation explores oral contributions to knowledge. It builds on an intellectual foundation provided by social constructionism, which states that contributions to knowledge can be made orally. Having relied on the meta-theory in this way, the study highlights how oral contributions to knowledge have not been the focus of study in the same manner that other types of contributions to knowledge have been. The following recommendation informs a broader goal to encourage information scientists to continue efforts to fully utilize this meta-theory (R11).

R11. The information science discipline should continue to adopt social constructionism.

The current lack of rigorous treatment of oral contributions to knowledge suggests that the discipline has adapted social constructionism by focusing on a subset of its assertions. Information science needs to conduct additional research, like that presented in this dissertation, to study all the

ways that this meta-theory explains how orality contributes to knowledge generation. This recommendation calls for additional investigations to study how oral contributions to knowledge result in information and to increase knowledge about how people prefer to engage with orally-based information.

The recommendation means that information science scholars should continue to study oral documents, orally-based information, and oral information behavior in general. One objective to help further this goal lies in developing an empirically-informed vocabulary of terms that describe a range of information that can be made available orally. Such a vocabulary would augment or replace terms for orality that are currently informed by intuition and by practice. These include terms like gossip, lecture, narrative, sermon, and testimony. This dissertation introduces an initial term for this empirically-informed vocabulary, and also introduces a systematic method for distinguishing oral documents from other utterances. Empirical research that articulates additional terms in this vocabulary will help demonstrate an effort to adopt social constructionism.

This objective encourages conducting research to identify the attributes of other kinds of information conveyed orally. Studies needed to further this

goal should rely on the method used herein to correct, substantiate, or extend the results of this study. For example, a study is needed to increase our understanding of how an oral document can be uttered by multiple speakers or on numerous occasions. This study focuses on face-to-face utterances that result in oral informational artifacts. Other approaches may utilize data from a larger scale study (e.g., ones involving a larger data set, more than two observations per research site, or longitudinal data); explore a different unit of analysis that does not incorporate properties of documents (Frohmann, 2004); involve different types of research contexts; or, explore phenomena related to orality—including facial expressions, gestures, and silence.

Finally, research questions called for by this recommendation include: (a) how do oral contributions to knowledge—which results suggest have characteristics of both action-based and written contributions to knowledge—differ from other types of contributions; (b) can library and information professionals approach and treat artifacts of oral contributions using the same methods extended to traditional artifacts, and if so how (see also R13); and (c) how does context influence the way in which someone might choose from among the three ways of contributing to knowledge? Additionally, implementing other recommendations articulated in this

chapter will contribute to resolving this one. Overall, this recommendation like this dissertation makes a broad appeal for additional research activities investigating orally-based information.

5.2.5. Recommendations for Practice

The final set of recommendations acknowledges that the oral document concept has implications for practice. These recommendations address implications involving oral documents and organizational stability (R12), primary documents (R13), skill development for professionals (R14), professional treatment of orally-based information (R15), and claims involving oral evidence (R16).

R12. Additional research should be conducted to determine whether the way in which oral documents emerge and are used depends on the stability of the context in which they are uttered.

This recommendation encourages us to explore the role of oral documents in work practices, knowledge creation, and organizational change. In order to ensure that the change represented in the historicity property of an oral document is implemented, the organization must have necessary resources in place (e.g., staffing structures, work processes, work practices, and

more). Lacking these, no change in the method used to access some information could be made (the historicity property is evidence of such a change). This recommendation emerges from a pattern surrounding this sort of change detected within the results.

The oral documents empirically observed are used to convey information about organizational processes and tasks, yet in a particular way. Analysis of the data demonstrates that when a research setting is undergoing relatively less organizational change, the oral documents empirically observed in that context address tasks—meaning, one or more steps within a larger process or one iteration of that process. When a research setting is undergoing relatively more organizational change, the oral documents empirically observed in that context address processes—or, routine activity that involves one or more levels of staff, departments, external sub-contexts, resources, and more.

A follow-on study is needed to respond to a research question regarding how oral documents are used. Specifically, it would explore whether the use of oral documents provides information about the stability of a context. To substantiate evidence of this pattern, a follow-on study should operationalize *stability* and gather oral data in selected organizational

contexts—e.g., in different industries, different sized organization, or in social groups—experiencing different levels of stability.

Research sites chosen could involve two or more established communities of practice which could provide some degree of uniformity in how different sets of research participants interact with one another (Lave & Wenger, 1996; Wenger, 1991). Sites chosen could also include geographically dispersed work sites to determine whether the role of oral documents is influenced by professionals working together in different locations.

Using a field study method is encouraged for obtaining oral data. The follow-on study should also utilize the observation technique to identify oral documents before comparing them. However, oral documents for this follow-on study may be operationalized to include utterances that incorporate a different set of properties of documents than those upon which this study focuses. Analysis of anticipated data may reveal practices and related, newly-identified properties aimed at negotiating organizational change or stability.

The findings that result will help substantiate or refute the pattern identified herein, provide further insight into how the properties of documents

influence and shape oral documents, and provide further insight into the use of oral documents.

R13. Research is needed to increase our understanding of whether information conveyed by oral documents differs from that, seemingly same, information made available in replicas, such as written transcripts or audio/visual recordings.

Current practices treat replicas of information originally made available orally as primary documents. For example, orally-based intellectual property is placed into a digital modality to meet international records management goals (for example, as is described in NAGPRA, 1990; WIPO, 2006; see 2.1.2.). The results of this study provide tools to determine whether practices like these are more accurately described as treating secondary documents as if they are primary. The recommendation calls for exploring differences in the practices used to make information available in different modalities.

While the results of this study provide a tool for studying these differences, conducting research based on this recommendation would require some change to the research design in this study. Speeches and other types of orality of which transcripts tend to be made do not necessarily adhere to the way oral documents have been operationalized herein. Therefore, continued

study would involve determining which of the properties of a document an utterance would need to incorporate in order to be considered an oral document in the context surrounding the speech or other orality. Only then could that study utilize the remainder of the research design used in this investigation.

Analysis of the oral data gathered would still require identifying and comparing the properties of documents that emerge in a set of data. However, that data would occur in different modes—e.g., some combination of electronic, oral, and print modes. Qualitative findings anticipated from this research effort would build on this study and contribute needed information about differences in information conveyed via different modes.

R14. Explore and articulate guidelines for emerging leaders and other professionals to intentionally structure their speech in situations in which orality proves to be the best tool for documenting information.

This recommendation frames an oral document as a tool and a resource. It involves identifying in which situations information is best conveyed orally. Previous research suggests and this study substantiates that such situations may occur when new information is involved. Having a description of what

constitutes an oral document facilitates the identification of practical steps involved in utilizing orally-based information in those situations. This recommendation calls for assisting emerging leaders and other professionals by determining professional development tools and techniques for:

- learning to consciously use orality as a tool for conveying information;
- knowing how using orality to facilitate access to information will impact a situation; and,
- using oral documents as a tool for documenting information when appropriate.

By acknowledging how orality can have structure and by exploring how skill is needed to construct an oral document, this recommendation begins to suggest that using oral documents requires having a specific set of skills not unlike using written documents. In addition to calling on professionals to explore using oral documents as a tool, this recommendation in effect suggests that the existence of oral documents questions whether the concept of literacy can be extended to orality. Conducting conceptual research to develop the idea of oral literacy and explore its usefulness for interacting with information would build on the work of scholars like Andersen (2006), McCall (1971), and Ong (1988) as well as substantiate how this recommendation calls for developing an oral document skill set.

R15. Library and information professionals should use the outcomes of this study as an opportunity to identify whether and how to extend professional practices to oral documents and orally-based information in general.

> This dissertation does not indicate that library and information professionals need to begin applying professional practices to all oral documents. This study increases our understanding of information in the early stages of its life cycle (see C7; see also R5 and R11). Information professionals have developed numerous practices for approaching information in later stages of its life cycle, typically when it becomes available in more traditional informational artifacts. Research is needed to determine what kinds of oral informational artifacts are significant within a given context. The findings should inform a discussion of whether professional practices need to be applied to those selected artifacts. If so, subsequent efforts are needed to determine how to adapt acquisition, organization, storage, retrieval, system design, or other emerging practice to provide access to information conveyed orally.
>
> To determine whether to extend practices in this manner, library and information professionals should first begin by noting how information is accessed within a given context. In the area of administration and management, this could be accomplished as simply as ending practices

surrounding meeting minutes and noticing any changes this causes in sharing needed information. At one research site in the current study, a primary participant described how this approach saved organization resources, mainly staff time, and increased the chances that all staff members had access to accurate and current information. In the area of marketing, professionals could take actions to increase face-to-face discussions about library operations and services that take place away from traditional service provision and meeting locations. This would involve providing library services in residence halls (for academic librarians), at central transportation hubs (for public librarians), and in informal departmental gathering places (for information professionals). These types of activities involve action based research. Action research can provide useful insights for assessing investments of organizational resources, while increasing understanding of orally-based information in professional settings. In essence, the results support and inform strategies presented in emerging works concerning the transformation of academic libraries (see Brewer, Hook, Simmons-Welburn, & Williams, 2004; Guskin & Marcy, 2004; Pritchard, 2008).

Subsequently, the results of these action research activities should also provide insight into conducting additional studies needed to determine how

oral documents and orally-based information in general are used within parent organizations (e.g., an academic campus, government entity, corporation, etc.) that are served by information institutions. Results of these additional studies can determine whether resources need to be extended to help manage or provide access to orally-based information used by institutional customers and users seeking information. In this regard, the recommendation calls for a needs assessment of oral documents not unlike those conducted of traditional artifacts that an information institution makes available for its parent organization(s).

If it is determined that significant orally-based information requires the professional interventions and mediations extended to information in traditional formats, this recommendation calls for exploring how the properties of oral documents might aid this goal.

R16. Explore how the concept of an oral document can inform practices that involve accepting oral evidence for establishing claims.

Developments in cultural heritage, intellectual property, and legal information have begun to allow individuals, groups, and other entities to submit oral evidence when making claims that have traditionally required other or additional evidence in non-oral modes (Commission on Intellectual

Property Rights, 2002; UNESCO, 2003; NAGPRA, 1990). Typically, the oral evidence is transcribed. Practices hold that transcriptions become proof of that evidence. The results of this study lead to questions about whether current practices provide sufficient access to this type of information.

Additional research is needed to determine how the results can assist developments in making claims with oral information. Research that determines the difference between information conveyed in oral and non-oral modes will assist with this goal (see R5 and R6). Moreover, these claims also involve oral information having origins in oral cultures and oral traditions. This recommendation additionally calls for research to explore differences between oral information in oral cultures and in cultures that rely on writing and other technological tools.

This dissertation contributes to a hermeneutics of orally-based information. However, future research activities in this area must account for cultural sensitivities and contextual differences throughout data collection and analysis which, at the very least, may help inform practices and properties of oral documents. Goals to meet this research objective can be attained conducting ethnographic research to learn about oral documents in oral cultures. This sort of study should involve analyzing oral data in the manner

used in this study, learning about the preparation and role of those who convey orally-based information, and determining how that information is used. Next, research should explore the governmental, multinational, or other context that accepts claims based on oral evidence. This goal calls for exploring how oral evidence is received, stored, and used. Finally, comparing the data from these two different contexts will contribute to an understanding of information that is transferred across cultures. This research could build on allied literatures presented by Philipsen (1992, 1989), Vansina (1961, 1985) and others who have written about various aspects of information in oral cultures.

5.3. A Reflection

At the start of this research project, I was struck by the persistent use of orality to convey information and intrigued by its confusing and amorphous nature. I was also impressed by intellectual developments in information science. In a relatively brief span of time, we have developed a full set of tools that reflect our understanding of information and the questions that remain to be asked of our interactions with it. This dissertation has been motivated by how few of those questions have been asked about orality and its role in information interactions. I

asked whether tools developed to study information in a variety of modalities are robust enough to apply to the oral mode. The results demonstrate that existing tools used to identify documents are sufficiently robust for studying oral information.

The study results provide a way for information scientists to begin to converse with scholars in other disciplines who study orality in its various forms including oral traditions. It offers an information-based explication of orally-based information in a systematic way such that it acknowledges how talking can document information. By providing an approach for the rigorous study of orality, this investigation contributes to a dialog concerning why orality often is the preferred mode for accessing and providing information. This research moreover begins to close the gap between what is known about conveying, exchanging, sharing, and transmitting information when using orality and when using other modalities. The results contribute insights into the existence of an oral information artifact, the nature of an oral document, practices involved in creating oral documents, and oral information behavior in general. Additionally, the results help indicate that numerous areas of study which involve orally-based information have yet to be explored not only in information behavior, but also document studies, information policy, knowledge management, literacy, and allied areas of study. In essence, this dissertation begins to inform the terrain of the gap in information science knowledge concerning orality. Continued efforts to explore oral contributions to knowledge will supply

the discipline with knowledge needed to pursue information science research traditions that reflect the full range of ways in which people interact with information.

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Appendix A. Information statement

UNIVERSITY OF WASHINGTON

INFORMATION STATEMENT

Information behavior of emerging leaders

Researchers:

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Please note that we cannot ensure the confidentiality of information sent via e-mail.

RESEARCHER'S STATEMENT

The purpose of this information statement is to provide information about this study. Interested persons may ask questions about the purpose of the research, what I would ask participants to do, the possible risks and benefits, participants' rights as volunteers, and anything else about the research or this information sheet that is not clear. Individuals who decide they want to be in the study will agree to participate in a process called *informed consent*.

PURPOSE AND BENEFITS OF THE STUDY

I want to better understand strategies that individuals who hold high level positions use to manage information. I would like to observe these individuals as they work and subsequently interview them about the strategies they use with regards to information. I hope the results of this study will lead to a better understanding of the information needs of emerging leaders. Participants may not directly benefit from taking part in this research study.

STUDY PROCEDURES

I would like to observe how each participant who chooses to be a part of this study interacts with others during the course of two meetings and subsequently interview

them about the strategies they use to manage information. Any participant can stop and withdraw from the study at any time.

I would like to audiotape the observations to create an accurate record of what transpires. Only I and my faculty advisor will have access to the audio recordings, which will be retained until July 31, 2009. I will transcribe the observation within 90 days of each observation and each interview and assign study codes to the transcripts. I will also take hand written notes. All notes, transcriptions, and recordings will be kept in a locked file cabinet.

RISKS, STRESS, OR DISCOMFORT

Some people feel that being observed for research is an invasion of privacy. Some people feel self-conscious when notes of what they say are being taken. I address concerns regarding participants' privacy in the section below.

OTHER INFORMATION

Taking part in this study is voluntary. Again, participants can stop and withdraw from the study at any time. Information about each participant is confidential. I will code the study information. I will keep the link between participants' names and the code in a separate, secured location until July 31, 2009. Then I will destroy the link and all recordings. If the results of this study are published or presented, I will not use participants' names.

If anyone has any questions about this research study, they may contact me at the telephone number or e-mail listed above. If they have any questions about a participant's rights as a research subject, they may contact the University of Washington Human Subjects Division: 206-543-0098.

Copies to: Investigator's file Subject

Appendix B. Observation follow-up questions

Questions asked of emerging leaders (primary participants) to increase clarity and understanding of observation data (note: secondary participants are asked no follow-up questions); brief responses are anticipated

Question 1

Was this meeting like other meetings? Did anything unusual or unexpected occur?

Question 2

During the observation: you talked about one particular situation involving <<refer to a specific situation>>. Can you say more about that discussion?

Prompting questions (solely if needed)

1. Were you able to convey the information you had wanted?
2. Did you use certain words or phrases that you thought might remind others of some strategic approach, an organizational priority, or some specific situation for those listening to you?
3. Without going into detail, was any information you shared done so in an effort to prepare others for some forthcoming situation the details about which can not be revealed yet?
4. Again, without going into detail, did you withhold or mask any information for reasons that may not be easily apparent?
5. Were you taking any broader issues (e.g., human resource, budgetary, organizational structural, etc.) into account when you conveyed the information that you did (or did not)?

Question 3

During the observation: someone talked about to you about one particular situation involving <<refer to a specific situation>>. Can you say more about how you interpreted this information?

Prompting Questions (solely if needed):

1. Did it prompt subsequent activities or did it contribute to subsequent business decisions?
2. Did it trigger your thoughts regarding any broader issue (e.g., human resource, budgetary, organizational structural, etc.) within the organization, outside of the organization, in the field/profession?

Appendix C. Observation protocol

Guides the recording of hand written field notes

Information about the participant:

Category into which their organization fits (i.e., museum, library, etc.):

Type of position held and/or role assumed
(i.e., senior administrator, manager, coordinator, chair, etc.):

Information about secondary participants:

persons present:

Type of position held and/or role assumed:
(i.e., senior administrator, manager, coordinator, chair, assistant, etc.):

Relationship of persons present to the primary participant:
(i.e., direct report, mentor, intern, administrative assistant, colleague, etc.):

Relationship of persons present to other secondary participants:
(i.e., direct report, mentor, intern, administrative assistant, colleague, etc.):

Date of Observation:

Frequency that event being observed takes place:

Evidence of leadership style used (e.g., consensus, autocratic, participatory, etc.):

Different categories of information in which participants engage (i.e., meeting agenda items):

The number of different categories of information in which participants engage:

Modes for accessing information in which participants engage (i.e., face-to-face, text messaging, email, mobile phone, web, etc.):

Modes for accessing information to which participants refer (i.e., face-to-face, text messaging, email, mobile phone, web, etc.):

Speech strategy utilized:

(i.e., patterns of words or linguistic cues, like "I would like to call this meeting to order…," used to accomplish meeting objectives—e.g., begin business portion of the meeting, end small talk or banter, resolve an agenda item, delegate duties, close the meeting, etc.):

Words or phrases that are used:

Words or phrases that the participants use repeatedly:

Words or phrases that the primary participant uses and secondary participants also use, repeat, or mimic:

Words or phrases that secondary participants use and that the primary participant also uses, repeats, or mimics:

Words or phrases that others in the meeting use and that the subject does not:

Questions asked that may bring about clarity or understanding, especially those that seem to indicate a new application for a known term:

Information about context to which the participants refer to as being a source of or channel for information:

The number of different types of sources or channels:

Strategies the participants use to gain access to information (e.g., asking, comparing, silence, stating a need, etc.):

The number of different strategies participants use to gain access to information:

Notes regarding the pre-identified meeting discussion topic:

The topic itself:

Notes:

Notes regarding the primary participant's responses to observation follow-up questions:

Location where follow-up questions are asked:

Tone of responses:

Other notes:

The following additional questions guided what data was gathered:

1. the topic(s) discussed and any indication of how participants regarded the topic (e.g., whether participants took informal notes, behaved differently during or after the discussion, made reference to the topic outside of the time designated for it, or commented on how they regarded the topic[s] as extremely important, necessary to discuss but not that important, and the like)

2. oral strategies used to interact with information that was transmitted orally—this sort of data include answers to question such as:

    a. what were the material qualities of a speaker's voice—including register, timbre, tone, and volume? did any information emerge about the symbolic values attributed to those vocal qualities (e.g., participants become quiet or all respond using the same gesture)?

    b. how did participants respond to information made orally available (e.g., do they indicate agreement, disagreement, confusion, understanding, indifference, or surprise)? did responses vary among participants?

    c. how did participants interact with information made orally available? were questions asked? answered? did interruptions occur? if yes, how frequently? were utterances repeated, reiterated, or corrected?

    d. did participants use specific phrases or terms? if so, what phrases or terms did they use? when were the phrases or terms used (e.g., at the start of an agenda item, the end, when a speaker was questioned)? was there any indication that these phrases or terms provided information about context?

3. acknowledgement or incorporation of references to context, including:

    a. a participant's title or role (e.g., to make a change, to lead some effort, to explain or muster support for a management decision, etc.); indication of the primary participant's ability–e.g., training or position—to make an utterance or to provide information to others;

any indication that the primary participant's ability, function, or role had been shaped by institutional or by social processes

b. an indication that the primary participant engaged in self reflection or memory to produce an utterance relevant to topics that were discussed

c. references to different parts of the participants' organization

d. references to entities external to the organization (e.g., vendors, organizations with which it collaborates, professional associations, labor unions etc.)

e. references to the past, especially if they incorporate evidence of how methods used to access information had changed—e.g., it had migrated to the web, was available from a new staff member, etc.; indications of reasons why references to the past had been uttered (e.g., to explain some new event, to update some recorded information about it, etc.)

4. any indication of why a participant had selected a specific informational artifact or a particular mode (e.g., digital, oral, or written) to fulfill their informational needs

   a. because of how it had been perceived (e.g., as accessible, popular, associated with some activity, facilitated access to current information, facilitated access to context-specific information, expected, or because someone was considered knowledgeable, useful, as having an accessible communication style, as being compatible [i.e., approachable and willing to listen], or familiar)

   b. in order to help to generate or create new knowledge

   c. in order to learn about resources for and resolve problems

   d. because the mode of access had been sanctioned or made official in some way (e.g., "we always use this source," "we paid for it," etc.)

   e. because of how a participant relates to or expects something of a certain context

f. because it reflects a participant’s role within the organizational context

g. because a participant is knowledgeable about the source of information (e.g., “I was trained to use it”)

5. any indication of why a particular artifact or mode (ex. digital, oral, or written) was not selected for use to convey information

6. any indication of what kind of informational content had been needed—i.e., information that the orally-based information did not fulfill

7. participants reactions and responses to hearing certain utterances (for example, did they disseminate information via minutes, make a decision, develop strategies to discover and incorporate information from others not involved in the discussion, address information needs identified in other ways, or talk about the information obtained [by rephrasing, summarizing, etc. it])?

8. how the primary participants addressed the topic that they had indicated would be discussed during both observations

9. primary participants’ responses to the observation follow-up questions (see Appendix B)

Appendix D. Supervisor recruitment letter

Letter used when initially contacting the emerging leader's supervisor

Dear <<name>>,

I am writing to ask for your assistance with my PhD research efforts. I am investigating strategies individuals use to manage information. Specifically, I seek to interview and observe professionals who hold or may some day hold high level positions in organizations that primarily deal with information-based products or services. This topic warrants serious study as those who successfully transition into these positions manage important information about fiscal, staffing, operations, business, environmental and other matters. The remainder of this letter describes what assisting me would involve.

For this research, I am asking you to identify the names of one to two individual staff members in the << name of organization >> who you think fit the description above. With such a staff member's consent, I also ask for your approval that I be allowed to observe them twice, while he or she meets with others who work at << name of organization >>, and interview them during regular business hours and in <<name of organization>> work spaces. Please be aware that I will also seek the consent of the additional meeting participants before the start of any observation.

In considering which individuals may participate in this study, please take into account who among your middle managers or senior administrators would be able and willing to allow me to: (1) observe them in two meetings that involve up to five participants; and (2) interview them for thirty (30) minutes either in a conference room at <<name of the organization>> or at the University of Washington.

I also seek your approval to allow me to take hand written notes and to make audio recordings of the observations (2) and of the interview. I will make transcriptions of the recordings. Notes, recordings, and transcriptions will be stored in a locked file cabinet. Recordings will be kept until July 31, 2009. Confidentiality will be ensured for the protection of all participants and of <<name of organization>>.

Even though you may provide me with up to two names, only one person from <<name of organization>> will be selected. If possible, both the interview and the observations (2) will be scheduled during the week of <<date>>. If possible, please allow me to initiate contact with the individuals you identify as well as those with

whom they will meet. Finally, if these requests are granted, I would ask to represent your agreement in a letter of cooperation.

As you know, individuals holding high level positions manage a great volume of information. This research project may benefit such individuals in the future by increasing our understanding of how they strategize around information.

I will contact you soon regarding this request. Thank you in advance for considering it.

Sincerely,

Deborah Turner, BA, MILS, PhD Candidate
The Information School, Box 354985
University of Washington
4311 11th Avenue NE, Suite 400
Seattle, WA 98115

Appendix E. Primary participant recruitment letter

Letter the researcher (not the supervisor) used to initially contact potential primary participants

Dear <<name of potential participant>>,

I am writing to ask you to consider assisting me with my PhD research efforts. <<Name of contact>> gave me your name and suggested I contact you. I am investigating strategies individuals use to manage information. Specifically, I seek to interview and observe professionals who hold or may some day hold high level positions in organizations that primarily deal with information-based products or services. This topic warrants serious study as those who successfully transition into these positions manage important information about fiscal, staffing, operations, environmental, and other matters.

If you are able to consider participating, I would like to schedule a brief phone call with you to describe more what the study entails and to ensure that you meet study criteria.

For this research, I would ask you to: (1) allow me to observe you during two business meetings each with five or less participants, (2) interview you for thirty (30) minutes either in a conference room at <<name of the organization>> or at the University of Washington, and (3) assist me in scheduling the interview and observations. Please be aware that I would seek permission from those with whom you would meet before any observation begins.

With your consent, I would also like to make an audio recording of the observations (2) and of the interview. Any recording made will be stored in a locked file cabinet and retained until July 31, 2009. Confidentiality is ensured for your participation.

If possible, both the interview and the observations can be scheduled during the week of <<date>>.

As you know, individuals who hold high level positions manage a tremendous volume of information. This research project may benefit such individuals in the future by increasing our understanding of how such individuals manage information.

I will contact you soon regarding this request. Thank you in advance for considering it.

Sincerely,

Deborah Turner, AB, MILS, PhD Candidate
The Information School / University of Washington
4311 11th Avenue NE, Suite 400
Seattle, WA 98115

Appendix F. Consent form for primary participants

UNIVERSITY OF WASHINGTON
CONSENT FORM
Information behavior of emerging leaders

Researchers:

Deborah Turner, A.B., M.I.L.S., PhD Candidate,
Information School, turned@u.washington.edu, (206) 543-2121

Harry Bruce, Faculty Advisor, Dean and Professor,
Information School, harryb@u.washington.edu, (206) 685-9937

Please note that we cannot ensure the confidentiality of information sent via e-mail.

Researchers' statement

I am asking you to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask questions about the purpose of the research, what I would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When I have answered all your questions, you can decide if you want to be in the study or not. This process is called *informed consent*. I will give you a copy of this form for your records.

PURPOSE OF THE STUDY

I want to better understand strategies individuals who hold high level positions use to manage information. I would like to observe such individuals as they work and subsequently interview them about the strategies they use with regards to information. I hope the results of this study will help us better understand information needs of individuals who hold high level positions. You will not directly benefit from taking part in this research study.

STUDY PROCEDURES

If you choose to be in this study, I would like to 1) observe you during the course of two business meetings and 2) to interview you after the observations. To better understand what occurs during the observation, I would also like to ask a few follow-up questions which will last no longer than ten (10) minutes. Please note that I will contact others who will participate in the meetings separately to obtain their consent.

Additionally, I would like to interview you about strategies you use to manage information. The interview will last about thirty (30) minutes and will focus on information needs and strategies. For example, I will ask you to please provide additional insight into information discussed during the observations. And, I will ask you "what strategies do you use to gain access to the information you need?" and "for what kinds of situations do you prefer to talk to someone when sharing or requesting information?" You may refuse to answer any question.

Finally, I would like to audiotape the observations (2) and the subsequent interview so as to obtain an accurate record. I will transcribe your observation and interview tape within 90 days of your observation and interview, assign a study code to the transcript, and retain the recording for analysis of the data until July 31, 2009. Only I and my faculty advisor will have access to the audio recordings. I would also like to take hand written notes. The notes and the recordings will be kept in a locked file cabinet. Please be aware that you can stop and withdraw from the study at any time.

RISKS, STRESS, OR DISCOMFORT

Some people feel that being observed and providing information for research is an invasion of privacy. Some people feel self-conscious when notes of what they say are being taken. I address concerns regarding privacy in the section below.

BENEFITS OF THE STUDY

I hope the results of this study will help us better understand information needs of individuals who hold high level positions. You will not directly benefit from taking part in this research study.

OTHER INFORMATION

Taking part in this study is voluntary. Again, you can stop and withdraw from the study at any time. Information about you will be kept confidential. I will code the study information. I will keep the link between your name and the code in a

separate, secured location until July 31, 2009. Then I will destroy the link and all recordings. If the results of this study are published or presented, I will not use your name.

If you have any questions about this research study, please contact me at the telephone number or e-mail listed above. If you have any questions about your rights as a research subject, please contact the University of Washington Human Subjects Division: 206-543-0098.

____

Printed name of investigator Signature Date

Subject's statement

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later about the research, I can ask one of the researchers listed above. If I have questions about my rights as a research subject, I can call the Human Subjects Division at (206) 543-0098. I give my permission for the researcher to audiotape me during the observation session as described above in this consent form. I will receive a copy of this consent form.

____

Printed name of subject Signature of subject Date

Copies to: Researcher
Subject

Appendix G. Consent form for secondary participants

UNIVERSITY OF WASHINGTON
CONSENT FORM
Information behavior of emerging leaders

Researchers:

Deborah Turner, A.B., M.I.L.S., PhD Candidate,
Information School, turned@u.washington.edu, (206) 543-2121

Harry Bruce, Faculty Advisor, Dean and Professor,
Information School, harryb@u.washington.edu, (206) 685-9937

Please note that we cannot ensure the confidentiality of information sent via e-mail.

Researchers' statement

I am asking you to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask questions about the purpose of the research, what I would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When I have answered all your questions, you can decide if you want to be in the study or not. This process is called *informed consent*. I will give you a copy of this form for your records.

PURPOSE OF THE STUDY

I want to better understand strategies individuals who hold high level positions use to manage information. I would like to observe such individuals as they work and subsequently interview them about the strategies they use with regards to information. I hope the results of this study will help us better understand information needs of individuals who hold high level positions. You will not directly benefit from taking part in this research study.

STUDY PROCEDURES

If you choose to be in this study, I would like to observe you as you interact with others during the course of a meeting.

I would like to audiotape the observation so as to obtain an accurate record. Only I and my faculty advisor will have access to the audio recordings. I will transcribe the recording of the observation within 90 days, assign a study code to the transcript, and retain the recording for analysis of the data through July 31, 2009. I would also like to take hand written notes during the observation. The notes and the recording will be kept in a locked file cabinet. Please be aware that you can stop and withdraw from the study at any time.

RISKS, STRESS, OR DISCOMFORT

Some people feel that being observed and providing information for research is an invasion of privacy. Some people feel self-conscious when notes of what they say are being taken. I address concerns regarding privacy in the section below.

BENEFITS OF THE STUDY

I hope the results of this study will help us better understand information needs of individuals who hold high level positions. You will not directly benefit from taking part in this research study.

OTHER INFORMATION

Taking part in this study is voluntary. Again, you can stop and withdraw from the study at any time. Information about you will be kept confidential and anonymous. I will code the study information. I will keep the link between information about your professional position and the code in a separate, secured location until July 31, 2009. Then I will destroy the link and all recordings. If the results of this study are published or presented, I will not use your name.

If you have any questions about this research study, please contact me at the telephone number or e-mail listed above. If you have any questions about your rights as a research subject, please contact the University of Washington Human Subjects Division: 206-543-0098.

____

Printed name of investigator   Signature   Date

Subject's statement

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later about the research, I can ask

one of the researchers listed above. If I have questions about my rights as a research subject, I can call the Human Subjects Division at (206) 543-0098. I give my permission for the researcher to audiotape me during the observation session as described above in this consent form. I will receive a copy of this consent form.

____

Printed name of subject Signature of subject Date

Copies to: Researcher
Subject

Appendix H. Coding tool

Properties of documents (Frohmann, 2004)	the way in which evidence of the properties of a document emerge within orality
Institutionalization	references to internal and externals parts of context (focal event and background) any indication that organizational norms hold that a certain type of information artifact or a particular mode (e.g., digital, writing, oral) be used or not be used to transmit information
Materiality physicality	the qualities of a participant's voice; an indication of symbolic values attributed to those vocal qualities (e.g., become quiet or use with the same gesture)
weight or significance	evidence that orality leads to subsequent activities or outcomes (e.g., participants record, repeat, rephrase, or otherwise use oral information conveyed) any indication of a participant's capacity for making an utterance—e.g., their training or position—or any indication of how that utterance has a role and function within the organization
Social discipline	evidence that secondary participants engage in ensuring that oral information is accurate or transmitted in an appropriate manner (e.g., they ask questions of, interrupt, or correct utterances) any indication of a participant's capacity to make an utterance (mainly, their training/education, title, or role); indication of engaging in self reflection or memory to produce an utterance in a way that provides evidence of knowledge about practices informing some utterance using phrases or terms that shape an utterance or denote its informative nature

Historicity	references to the past, specifically evidence of how access to some information has changed

Appendix I. Analysis of the second oral document observed in case #1 (oral document #2)

Property	excerpt from the oral document	analysis
institutionalization	"We met with them yesterday… and they… are going to produce something fun." "…they thought maybe the best thing to do is, come up with something really, like some… grab you but still be kind of funny that says um, you know read this before you take anything out of this [package]. And then, open it up and get the everything-not-to-do… information." "…it's not up to them to choose our look. So, I definitely need you to do that."	excerpts (3) refer to a different part of the organizational context (the background); also demonstrate knowledge of the organizational structure and values it holds (note: the pronouns used refer to individuals who work in different departments)
materiality	"We met with them yesterday…" "So, I think, they got the idea of what we were talking about, plus the graphic style. You know, all the colors and the everything were there so…"	Chris' response to a secondary participant's question (physicality) reinforces her capacity to lead (significance) significance reflected in how Chris' has the capacity (training, knowledge, and hierarchical position) to evaluate work done by another department

	"ok," "right," "yeah," etc. "we won't laminate them right away... But… they would be laminated eventually…" "Great. We will definitely run everything past you." "Well as long as you are comfortable with reviewing everything…" "…I definitely need you to do that."	Chris uses her voice to evaluate secondary participants contributions to the oral document (physicality); once Chris expresses agreement in this manner, the contributions help explain the need for the subsequent change described later in Chris' oral document indications that this excerpt will lead to subsequent activity (weight) indications (3) that these excerpts will lead to subsequent activity (weight)
social discipline	"…the main thing I think that they're gonna be looking for right away is what those little don't-even-think-about-doing-that icons are." "…the everything-not-to-do… information."	uses specific phrases including one that describes a context-specific visual aid, to ensure that others will understand the information being shared

social discipline (continued)	"we were thinking… 8-1/2 by 14 or do we go with 11 by 17?... [pauses] And, they can design it both ways and let us take a look at it."	evidence of using self reflection and engaging secondary participant to ensure the informative nature of the oral document
historicity	"Great. We will definitely run everything past you." "…So, I definitely need you to do that."	instructs staff within her department to access information regarding exhibits from a specific staff member instead of from a department as had been done up until that point in time reiterates the new instructions

Appendix J. Analysis of the third oral document observed in case #2 (oral document #5)

property	excerpt from the oral document	analysis
institutionalization	"… a lot of these things are gonna come back up afresh now that we kind of have, have semi new management ah structure…"	incorporates a reference to the broader organization (background of the context)
	"…I've asked several times about [that] and it's fallen into the [name of central department] black hole every time… we should… start making these requests anew and… make sure that [name of a senior administrator] is aware of them… do it through your [acronym use for title of a branch manager]... through me..."	refers to numerous entities (e.g., branch manager, branch staff, administrator over another department) and their roles within the branch library (focal event of the context), the larger organization (background), and central administration (also, the background); additionally, provides evidence that a process specific to this organizational context is not working effectively
materiality	"Well, you know, ah that was one of those things that, that I've asked several times about and it's fallen into the [name of central department 1] black hole every time…"	introduces *physicality* and *weight* that in effect broadens the scope of a matter raised by a secondary participant which the primary participant proceeds to discuss; also, demonstrates the primary participant's capacity to be asked and respond knowledgeably to questions about the larger organization (*significance*)

materiality (continued)	"…their basic answer was that they don't have any."	demonstrates how the primary participant is positioned to have and has information originating from a central administrative department (*significance*)
	"…we should… start making these requests anew and… make sure that [name of a senior administrator] is aware of them… do it through your [acronym used for title of a branch manager]... through me..."	provides evidence that the primary participants will engage in subsequent activity (*weight*)
social discipline	"…and it's fallen into the [name of a central department] black hole every time…"	demonstrates the primary participant's organizational role which involves having knowledge of library request processes in general and of this one in particular
	"we should… start making these requests anew…"	the shorthand, "these requests," is contextualized to the current discussion and alerts meeting participants to a specific organizational procedure
	• [acronym used for title of a branch manager] • [name of a senior administrator] • [name of a central department]	using specific terms which have particular meanings within this public library context helps make this oral document informative

historicity	"…what I think we should do is ah start making these requests anew and make them, make sure that [name of a senior administrator] is aware of them, and see what happens…"	evidence of a change in the way staff will access information about needed equipment
	"No, I would do it through your [acronym use for title of a branch manager]. So, do it through me..."	continues to clarify the new process for accessing information

Appendix K. Analysis of the fifth oral document observed in case #3 (oral document #13)

Property	**excerpt from the oral document**	**analysis**
institutionalization	"…go into his class…" "… he's kind of you know…"	reference to a department, classes, and staff roles in the background of the broader organizational context; also, indicates an organizational norm for using face-to-face modes when conducting one type of outreach work reference to the work style of a staff member, who works in the broader organizational context, that may impact the outreach project
materiality	"What, what about Tom Kallier? Is he teaching?" "Ok…" "Let's make sure that we go into his class…"	asks about one aspect of the outreach project which reflects the capacity to manage library outreach in general, including ways to expand it (*significance*) demonstrates *physicality* in how the primary participant's uses her voice to change the focus of the discussion holds *weight* in that it leads to subsequent activities: a) completing work tasks assigned, and b) influencing specific language use, the term 'bridge'
social discipline	"…his class…" "…I'll be willing to make the bridge…"	renders the oral document informative by incorporating knowledge of the broader organizational context and by reflecting knowledge of the divisions of labor within the

social discipline (continued)		context, including the primary participant's title and role within the broader context
Historicity	"…I'll be willing to make the bridge, you know since he's kind of, you know."	evidence that a different method will be used for accessing the needed information, faculty approval, to complete the assigned task

Appendix L. Secondary participants relationship to primary participants

The following chart describes the relationships between the three (3) primary participants and the secondary participants at each research site.

Case	Observation #1	observation #2
1	one direct report one peer manager (relatively new to the position)	one direct report one senior administrator
2	direct reports who staff branch library A	direct reports who staff branch library B (includes a new staff member)
3	indirect reports who each manage one branch library	direct reports who together staff one branch library (includes a graduate student intern) one peer level manager (relatively new to the position)

VITA

Deborah Turner has lived in many places throughout the United States and in Tampere, Finland. Prior to entering her doctoral program, she lived and held academic librarian positions in Santa Cruz, California. She earned her Bachelor of Arts degree in English at the University of California, Berkeley where she also completed a concentration in Native American Studies. She earned a Masters of Library and Information Science degree from the University of Michigan. In 2009, she earned a Doctor of Philosophy in Information Science from the University of Washington.