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DISCOURSE OF INSTITUTIONAL CHANGE: (DE)LEGITIMIZATION OF CHANGE NARRATIVES

WITHIN THE ORGANIZATIONAL FIELD

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ABSTRACT OF THE DISSERTATION

Discourse of institutional change: (De)legitimization of change narratives within
the organizational field

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This study examined messages representing three institutional orders – institutional order of the State, Profession and Corporation – to understand the process of institutional change surrounding the implementation of Electronic Health Records (EHR). An institutional change influences a host of stakeholders within an organizational field. These stakeholders include organizations representing different institutional orders, with multiple logics emerging from these orders. Institutional changes typically require modifying or replacing these existing institutional logics.

Communication plays an integral role in how institutional logics are transformed, legitimized or delegitimized within an organizational field during change. Accordingly, this study used a discursive approach to understand institutional change. It analyzed institutional messages and identified organizing visions within an organizational field. Analysis of institutional messages enabled identification of institutional logics that are established and contested by institutional orders of the State, Profession and Corporation,

whereas organizing visions located change discourse within the larger inter-institutional context. This was accomplished by asking the following research questions: What are the institutional logics advanced by institutional orders of State, Profession and Corporation? What are the discursive strategies used by institutional orders to (de)legitimize institutional logics and promote their version of change? What are the dominant organizing visions arising out of the messages within the organizational field?

Institutional orders of the State and Corporation attempted to legitimize EHR-related change through logic of healthsystem efficacy, logic of operational efficacy and logic of collaboration. Institutional order of the Profession delegitimized the assertions made by the State and the Corporation by challenging their claims and advocating the logic of healthcare crises. The study found that all the institutional orders primarily used intertextual references that would aid them in establishment of their logics. At the same time, they also used intertextuality to minimize or exclude certain discourses or problematize discourses to delegitimize certain logics. Further, use of intertextuality enabled institutional orders to gain wider reach and increase the establishment of their messages. This, in turn, facilitated creation of two organizing visions – EHR technology as an impediment and EHR technology as progress. The study found that institutional change and discourse are mutually implicated, and highlighted the significance of discourse transmission and consumption to understand the dynamics of power and resistance within an organizational field.

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Table of Contents

Title page	i
Abstract	ii
Acknowledgement	iv
Chapter 1 – Introduction	1
<i>Overview of Key Concepts in the Study of Institutional Change</i>	5
<i>Institutions and institutional logics.</i>	6
<i>Conclusion</i>	19
Chapter 2 - Review of Literature	21
<i>Institutions, Institutional Legitimacy and Isomorphism</i>	21
<i>Change as Discursive Phenomena</i>	35
Table 1: Message features and their examples	43
Figure 1 – Framework of the Study	49
<i>Understanding EHR, its benefits and challenges</i>	50
<i>Research Questions</i>	53
Chapter 3 - Research Methodology	56
<i>Data Collection Design</i>	57
<i>Data Analyses: Sociological Discourse Analysis</i>	64
Chapter 4 – Results	75
<i>Institutional Messages and Logics</i>	76
Table 2	77
Institutional Logics and Associated Supercodes	77
<i>Logics Related to Efficacy</i>	79
<i>Intertextuality in Messages</i>	95
Table 3: Intertextual representation for source type	97
Table 4: Source purpose in intertextual messages	98
<i>Features of Institutional Messages</i>	115
Table 5: Features of institutional messages	116
Chapter 5: Conclusion	127
<i>Emerging Institutional Logics</i>	129

<i>Discourse and (de)legitimization</i>	131
Table 6: Overview of discourse strategies used to advance institutional logics	132
<i>Emergence of Organizing Visions within the Field</i>	141
<i>Limitations</i>	147
<i>Implications and Future Directions</i>	149
References	161
Appendix 1 – Glossary of EHR related terms and abbreviations	180
Appendix 2 - Network view of Supercodes in Healthsystem Efficacy	183
Appendix 3 - Network View of Supercodes in Operational Efficacy	184
Appendix 3	185
Network view of Supercodes in Collaboration Logic	185
Appendix 4 - Network view of Supercodes in Logic of Heathcare Crises	186

Chapter 1 - Introduction

This study investigated the ways in which organizations respond to large-scale changes by examining their discourses surrounding a specific change. The term large-scale refers to the size and the scope of change, usually described either as first order, second order or third order change. Lewis (2011) notes that first order change refers to small, incremental changes; second order changes are transformational or radical changes that lead to a significant departure from the previous functioning of the organization; and third order changes involve preparation for continuous change. The focus of this study will be second order changes involving organizations associated with the United States healthcare, namely the healthcare IT vendors, physicians and regulatory bodies.

Organizational response to the change is influenced by its stakeholders. Freeman (1984) states, “A stakeholder of an organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization’s objectives” (p.46). The change process becomes more complex when we consider that various stakeholders affected by the change might be interdependent and therefore the ways they respond to the change would impact others within the organizational field. An organizational field includes those organizations that share cultural-cognitive or normative frameworks along with a common regulatory authority (Zucker, 1987). Scott (2001) has noted that organizational members construct and negotiate their social reality within a broader context of frameworks and cultural systems existing with the organizational field. The assumptions and cultural frames that seem to be contextually specific to an organization may be in fact drawn from a larger framework – that of the organizational field to which a particular organizational belongs. The discourse among members of organizational field

can also result in unanticipated outcomes, as multiple actors are involved in communicating, justifying and re-evaluating various issues at hand, which may result in emergence of a completely new arrangement rather than any predetermined goals of actors (Scott, 2001). This suggests that the discourse of various actors operating within a field is important for understanding how change gets understood and accepted.

This study uses the concept of organizational fields to understand how stakeholders within the field of healthcare construct and negotiate the changes implemented under the American Recovery and Reinvestment Act (ARRA) through their discourse. One of the significant changes brought about by ARRA is the Health Information Technology for Economic and Clinical Health Act (HITECH), which requires all healthcare professionals to use the information technology called Electronic Health Records (EHR). EHR implementation requires 'meaningful' electronic creation and management of health records as per nationally recognized interoperability standards. The standards developed by the federal government for the term 'meaningful use' can be briefly described as having three main components: use of a certified EHR in a meaningful manner, such as e-prescribing; use of EHR for electronic exchange of health information to improve quality of health care; use of EHR to submit clinical quality and other measures (Brusco, 2011).

Vest (2010) noted that federal mandate of adopting EHR for health information exchange does not automatically translate into implementation of EHR. Technology implementation can be an extremely challenging task, with implementation failures costing organizations over \$150 billion a year (Dalcher & Genus, 2003). IT implementation in healthcare is even more difficult since the risk associated with failure

of the implementation is higher in this industry as compared to other traditional industries (Abraham & Junglas, 2011). The difficulties are compounded by the fact that there is very limited research examining IT implementation in healthcare settings (Blake et al., 2010).

According to Stewart, Kroth, Schuyler & Bailey (2010) note that unsuccessful attempts far outnumber the successful stories of technology implementation in the healthcare sector, specifically EHR-related change because of complexities associated with the technology itself, as well as the numerous stakeholders (physicians, health administrators, vendors, suppliers, state regulatory bodies, IT experts, patients etc) impacted by this change. Further, since complex information technology applications involve multiple organizations and industries, the discourse of these various stakeholder groups plays a crucial role in our understanding of how each of them navigates this change process (Crowston & Myers 2004).

The current study analyzes EHR-related discourse by three key stakeholder groups – vendors, physicians and regulatory bodies – to gain insight into the change process surrounding EHR. This project draws upon institutional theory to understand this change process. Not too long ago, institutional theory was used primarily as an explanation of the similarity (isomorphism) and stability of organizational arrangements in a field of organizations, and therefore not necessarily considered appropriate to explain organizational change (Greenwood & Hinings, 1996). However, more recently, scholars have noted that institutional theory can provide valuable insights into radical or second order change processes, because it aids us in contextualizing the phenomena we study (Greenwood, Oliver, Sahlin & Suddaby, 2008). Various regulatory, historical, political or

technological changes can be understood when we recognize that they are socially constructed within a broader context of institutionalization. When we say that certain practices or actions become institutionalized, it simply means that they are taken for granted assumptions and widely exhibited by the members of the organizational field (Greenwood et al. 2008). Institutionalized acts often require no monitoring or enforcement but persist solely through transmission.

The term institution refers to “taken for granted, repetitive social behavior that is underpinned by normative systems and cognitive understandings that give meaning to social exchange and thus enable self reproducing social order” (Greenwood et al. 2008, pp. 4). Institutions exist at the individual level, such as a handshake; organizational level, such as personnel practices and formal structures; the field level, such as hiring patterns and organizational alliances; and the societal level, such as the legal system. Institutional change refers to deviation from these assumptions and practices, which can also be brought on by exogenous jolts such as regulatory changes in an organizational field (Edelman, 1992). During these changes, fields are often seen as conflicted spaces with suppressed interests. Institutional settings that are usually perceived as highly stable and become contested terrains between actors who have conflicting interests (Wooten & Hoffman, 2008). This study investigates second order changes taking place in healthcare through the lenses of institutional theory. It provides insights into institutional change dynamics that take place when multiple stakeholder groups in an organizational field navigate their way through the change process.

Overview of Key Concepts in the Study of Institutional Change

The sections below provide an overview of the key concepts being used in this study to understand EHR-related change, namely, institutions, institutional logics, institutional messages and organizing visions. As mentioned earlier, institutions are social structures that provide meaning and stability; are relatively resistant to change; and are transmitted across generations, to be maintained and reproduced (Scott, 1995). Institutional logics are the dominant belief systems that guide actions of organizational members, and institutional changes typically modify existing logics or replace them completely (Thornton, 2004). Institutional messages are carriers of institutional logics; organizational members look for institutional logics within the messages (Lammers, 2011), thus informing us of the need to attend to discourses of change.

Finally, I argue that institutional changes are not smooth. They are contested by various stakeholders operating within the organizational field. Therefore, various stakeholders attempt to dominate the field by presenting their version of change in their messages. These competing and conflicting interests lead to multiple messages within the organizational field, leading to the creation of multiple representations of a particular change (organizing visions). According to Swanson and Ramiller (1997), an organizing vision represents a narrative of change that is built by multiple texts existing in the field, wherein each text is building on the other. Differences in narratives could also lead to multiple, often competing organizing visions within an organizational field. An examination of these visions provides us an understanding of the ways different stakeholders attempt to influence each other or get influenced by each other through public discourse.

Institutions and institutional logics. According to Giddens (1979) institutions are “those practices which have the greatest time-space extension,” and are among “the more enduring features of social life” (p. 17). However, state and societal forces can destabilize institutional practices and beliefs. For example state pressures to conform to certain demands and expectations (such as pollution control or safety regulations) may displace or deinstitutionalize certain existing practices. For instance, Edelman (1992) demonstrated how legislations pertaining to equal opportunity employment and affirmative action resulted in evolution of personnel profession, as field members pushed for Affirmative Action and Equal Employment Opportunity (AA/EEO) offices to indicate their compliance. In general, organizations constantly face complex political, regulatory, and technological changes that can potentially reshape the nature of the organization, leading to revised interaction patterns and reformed core values (Scott, Ruef, Mendel, & Caronna, 2000) among other consequences. When institutional change occurs throughout an organizational field it often will require not only alteration of existing practices and structures but also reconsideration of taken-for-granted symbols, practices, norms, and beliefs.

There have been various meanings and usages assigned to the term ‘institution’ over the last few decades, and it has continued to take on new and diverse meanings over time (Scott, 2008). According to Lammers (2011), despite the multiple meanings, the term suggests that certain persons, organizations, rules, ways of thinking and behavior have fixed and enduring character. Similarly, Arndt and Bigelow (2006) have noted that institutions are social orders or patterns that have attained a certain state or property, and institutionalized practices are self-reproducing with self-regulating controls. One of the

most widely accepted definitions of institutions has been provided by Scott (1995) who defined them as “cognitive, normative and regulative structures and activities that provide stability and meaning to social behavior,” (p. 33). For instance, Lammers discusses how institutions consist of observable routines that are consistent across different settings. He notes that the term ‘institution’ is used when we refer to institutions of education and medicine, as they consist of observable behaviors that, to a certain extent, seem consistent across a variety of social settings.

Scott (2008) argues that there are three pillars that support institutions: Rules, norms and cultural cognitive beliefs. These pillars are the central ingredients of institutions that guide the behavior of the actors during periods of stability as well as change. Regulatory processes establish rules, mandate conformation to these rules and often use rewards or punishments to influence behavior. Normative systems help establish goals along with appropriate ways of pursuing these goals. The cultural-cognitive pillar highlights the subjectively constructed rules and meanings that indicate the appropriateness of certain behaviors and actions. Institutionalization leads to certain understandings of social realities that become internalized and are further transmitted to others. These meanings arise in interaction and are maintained or transformed over a period of time. So for example, in case of institutions of education we may have specific beliefs about what constitutes a good college education. We may recognize certain symbolic structures, language, practices as associated with “good” college education. We come to expect to see these artifacts of institutions.

Although institutions connote stability, they do undergo change. For instance, Leblebici, Salancik, Copay and King (1991) have documented the institutional changes in

the US radio broadcast industry from its inception in early 1920s to the 1960s. They identified three critical points of institutional change – from 1920-1934 during which the broadcasting industry evolved from being a public good to privately owned commercial activity; from 1935 to 1949, which saw the rise of networks; and finally from 1950 to 1965, which saw the rise of local independent owners and decline of national networks. Institutional changes can take place over relatively brief and concentrated periods of time or over decades. They can take place in an incremental manner or in an abrupt manner leading to large discontinuities (Dacin, Goodstein, & Scott, 2002).

The concept of institutional logic was introduced in institutional theory by Friedland and Alford (1991) in their attempt to understand such institutional change. They define institutional logic as a “set of material practices and symbolic constructions which constitute institutions’ organizing principles and which is available to organizations and individuals to elaborate,” (p. 248). Chiasson and Davidson (2005) note that institutional logics play a significant role in shaping interpretations and legitimizing actions during change. Institutional change requires replacing or modifying these existing institutional logics. For example, in their study on institutional logics in the higher education publishing industry, Thornton and Ocasio (1999) discussed how publishers were initially committed to building the prestige of the publishing house and hired editors to enhance their reputation. They identified the prevalence of editorial logic during this phase of publishing industry. Eventually, editorial logic was replaced by market logic, and the firms began focusing on increasing their profit margins and strengthening their competitive position in the industry.

According to Arndt and Bigelow (2006) logics also determine the goals and values that need to be pursued within a particular organizational field and inform the actors which means of pursuing them are considered appropriate. Logics enable actors to generate knowledge structures and schemas to process information and make decisions. Thus, institutional logics are the dominant belief systems that guide actions of organizational members, and provide legitimacy to formation and reproduction of organizational practices within an industry (Green, Babb, & Alpaslan, 2008).

Rarely is a change process guided by a single institutional logic. Rather, there tend to be multiple institutional logics existing at a particular point of time. This is because an institutional change influences not *a* particular organization, but rather an organizational field. Organizational fields have been defined as “organizations that, in the aggregate, resources and product constitute a recognized area of institutional life: key suppliers, consumers, regulatory agencies, and other organizations that produce similar services or products,” (DiMaggio & Powell, 1991, pp. 64-65). Members of an organizational field share cultural-cognitive or normative frameworks along with a common regulatory authority, which leads to a shared institutional life.

The notion of organizational field draws heavily from the social constructionist account of reality (Zucker, 1987). Repeated interactions between organizations within a particular organizational field lead to emergence of collective beliefs that constitute social realities. Organizations within particular fields share information, interact with each other and develop patterns of belief systems (Scott, 2001; c.f. Chiasson & Davidson, 2005). However, scholars of organizational change too often have focused on specific organizations instead of organizational fields, and are thus “underspecifying theory and

producing general explanations that may break down,” (p. 597) when considered within the larger institutional context (Chiasson & Davidson, 2005).

There are often multiple institutional logics within an organizational field, which may create contradictions and tensions. When institutional logics have legitimacy among multiple organizations within a field, they can be described as convergent. Divergent logics in a field suggest existence of multiple, often contradictory logics. Further, the shift from one dominant logic to the other is neither straightforward nor is it necessarily long lasting. In their study, van Gestel and Hillebrand (2011) found that an organizational field may have plural institutional logics that may compete for dominance, create internal contradictions and even serve as triggers for change. They posit that a field may shift back and forth before finally settling on a dominant logic. In the absence of a dominant or powerful actor that pushes for a single institutional logic, multiple logics may coexist or fields may remain unstable.

The current study posits that communication plays an integral role in how institutional logics are played out. Discourse can be viewed as part of the organizational action, and discourses are used to redefine what is justified or legitimate (Tienari, Vaara & Bjorkman, 2003). Discursive strategies and resources of the organizations advance their institutional logics and enable them to compete for legitimacy. For instance, Hardy, Palmer and Phillips (2000) noted that actors access and mobilize different discourses to generate meanings that help or obstruct the enactment of specific changes.

Study of institutional logics within an organizational field also provides an excellent opportunity to examine change at different levels - individual, organizational or field level. Friedland and Alford (1991) posit that society consists of three levels -

individual, organizational and institutional - embedded within each other, thus making it necessary to study all these levels if one wants to adequately understand institutional change. Embedded agency assumes partial autonomy of individuals, organizations, and the institutions. Individual and organizational action is embedded within institutions, and at the same time, institutions are constituted by individuals and organizations (Berger & Luckmann, 1967). However, according to Greenwood et al. (2008), most researchers tend to emphasize one level over another. This study examines institutional logics at two levels – organizational and field - by analyzing institutional discourse reflected in institutional messages and organizing vision (to be discussed in the next section).

Thornton and Ocasio (2008) also caution researchers against making the assumption that institutional logics emerge within the organizational field. They note that logics can get played out or reshaped within the organizational field. However, they initially emerge within an institutional order. The notion of institutional order was conceptualized by Friedland and Alford (1991), who believed institutional orders to be the core institutions of society – the capitalist market, the bureaucratic state, families, democracy, and religion. The typology of institutional orders was modified by Thornton (2004) to include six societal sectors that represented core institutions or institutional orders - markets, corporations, professions, states, families and religions. More recently, Thornton, Ocasio and Lounsbury (2012) included community as the seventh institutional order in their typology. Institutional orders together comprise a larger inter-institutional system that is representative of our society. According to Scott (2008), “multiple frameworks are available within developed societies, which are differentiated around

numerous specialized arenas – political, economic, religious, kinship and so on – each of which is governed by a different logic” (p. 186). Friedland and Alford note that each institutional order has a central logic that constrains individual behavior and is constitutive of individuals, organizations, and society (Thornton, 2004).

According to Thornton et al. (2012) organizational fields are characterized by institutional logics embedded in a wider institutional order or a societal sector. An organizational field may include organizations that are representative of different institutional orders and therefore also include multiple logics emerging from various orders. For instance, Thornton and Ocasio (2008) note how family and religion are closely tied and therefore research related to religion is likely to include family as a critical part of the organizational field. Each institutional order represents a different set of expectations related to beliefs and behavior, thus leading to potential for multiple logics within the organizational field. In the current study, vendors, physicians and regulatory bodies are also representative of three different institutional orders. However, Greenwood et al. (2008) lament that most studies of institutional logics do not in some way tie their analyses back to the institutional orders of the inter-institutional system. This study incorporates the inter-institutional system by demonstrating how three different institutional orders influence the organizational field during this change process. Vendors represent the Corporation, physicians represent the Profession, and regulatory bodies represent the State.

Institutional messages as carriers of institutional logic. According to Phillips and Malhotra (2008) interpretive methods can provide ideal tools to examine institutional orders and competing logics within an organizational field. For instance, in their study of

institutional orders related to the healthcare system, Scott et al. (2000) used content analysis to identify the key terms important for the actors of the professions and corporate institutional orders. They were able to identify the emergence and decline of specific institutional logics by analyzing vocabularies used by the actors within the organizational field. Several other researchers have called for greater attention to the role of communication and discourse to strengthen our understanding of institutionalization and change in institutional logics (Philips & Hardy, 2002; Suddaby & Greenwood, 2005). Zilber (2008) notes that this change has been triggered primarily because of the shift in the focus of institutional theory research from isomorphism to institutional change and deviation. Further, Zilber attributes this change to the article by Phillips, Lawrence and Hardy (2004) for a “rapprochement between institutional theory and its social constructivist roots” (p. 713). Phillips et al. (2004) posited that institutions are constituted through discourse and they should be understood as products of discursive activity that influences actions. Within the organizational realm, actions are not directly observable, but are learned about through their accounts in various texts. Thus it is only through discourse that definitions of reality are constituted.

Discourse is used to not only re-establish existing logics, but also delegitimize them and establish new logics. According to Thornton, Ocasio and Lounsbury (2012), use of certain vocabularies and rhetorical devices are invoked to effect changes in institutional logics. For instance, Nigam and Ocasio (2010) examined emergence of new logic after Clinton’s healthcare reform movement and found that changes in the frequency and use of certain vocabularies led to the establishment of “managed care” logic. The term, managed care, previously used to signify an organizational form, became

a term to represent a property of the US healthcare system. Green et al. (2008) analyzed how institutional logics are linguistically shaped through corporate rhetoric. These authors conducted a rhetorical analysis of corporate control discourse and connected actual control of the firm with rhetoric of the stakeholders vying for control. They argued that stakeholder rhetoric shapes institutional logics of control, thus legitimizing dominant stakeholder groups in the field.

We can conclude that discourse can be the basis of stability as well as change. Discursive practices reaffirm social structures as well as provide a space for challenging these social structures (Clegg, Courpasson, & Phillips, 2006). They also provide a framework to empirically examine the process of institutional change (Zilber, 2008). However, rather than focus on the outcomes of institutional processes, a discursive framework attends to the process of institutionalization, the way it unfolds in various circumstances and the role of organizations or actors in this process.

This study uses a discursive framework to understand institutional change and analyzes institutional messages within the field of healthcare to identify logics guiding the change process. Lammers (2011) defines institutional messages as “collations of thoughts that are intentional, enduring, have a wide reach, and encumber organizational participants to engage in certain behaviors or take performative responses” (p. 154). Lammers argued that institutional messages are repositories of institutional logics. People do not use institutional logics in their conduct, but rather use institutional messages to make sense of the ongoing actions. According to Lammers, messages are carriers of institutional logics and the strength of institutional logics rests on these messages and the way they are interpreted and acted on.

Institutional messages can be located in individual behavior across organizations, in the behavior of organizations as entities and also at the super-organizational level (Lammers, 2011). Lammers cites the example of a judge in a courtroom to illustrate how individual speech acts can become institutional messages when individuals speak with a certain authority in an organized context such as the courtroom. At the organizational level, the practice of conveying a core organizational value, such as an ethics code, to its internal audience, or external communication by marketing consultants when they use narratives that are aligned to the organization's values can be termed as institutional messages. Elaborating on messages in a superorganizational context, Lammers (2011) posited that institutional attitudes, which reflect the stance of a collection of government agencies, and institutional message events, such as community service events, large or political conferences, symposiums and workshops, can serve as examples of institutional messages.

This study examines institutional messages by vendors, regulatory authorities and physicians to locate institutional logics reflected in their organizational discourse. More specifically, the study analyzes external communication messages and narratives that reflect organization's core values and beliefs surrounding EHR with the assumption that these messages will serve as repositories of their respective organizations' institutional logics.

Organizing vision and collective discourse. As mentioned in the earlier sections, institutional change involves multiple actors operating within an organizational field. These actors are important stakeholders who may have competing stakes in the way in which change unfolds. Pouloudi (1999) notes that there exists a double line of influence

between the organization and a stakeholder. This is because the position of the stakeholders is influenced by the organization's decisions. At the same time, stakeholders are not passive environmental elements; they act according to their interests and use their resources to influence the organization. In order to understand the change process, we also need to take into account the fact that different stakeholders within the same organizational field may view and interpret discontinuities and change differently (Strandholm, Kumar, & Subramanian, 2004). Some stakeholders might stand to gain from these changes and some might stand to lose from them. These transformations could mean reconstruction of reciprocally shared understandings and collective beliefs regarding organizational practices. This may require stakeholders within the organizational field to reposition themselves and adopt new positions among other entities within their organizational field through their actions and communication practices. Thus they may engage in a constant effort to shape each others' outlooks on what a change means to them.

In their study of the impact of the Spellings Commission on higher education, Ruben et al. (2008) revealed that the Commission's report was viewed differently by different sections of higher education; also, within each sector, there were differences among stakeholders occupying varying positions such as chancellors, presidents, academic officers and business officers in the way they viewed and interpreted the report. Stakeholders can also influence each others' construction of what the change means. Lewis (2011) argues that through their communication, stakeholders enact or construct the environment and influence the process of enactment for each other.

Swanson and Ramiller (1997) propose the concept of organizing vision that allows us to understand how different stakeholders attempt to influence each other through their discourse, specifically during technology initiated change. Organizing vision presents community's ongoing interpretation of the change, what it is about and how it could be used. It represents the community's attempt to develop a social account or story to explain a new technology's implication within a broader social, technical, material and economic framework.

Swanson and Ramiller posit that organizing vision "evolves through dynamic layering of texts, each building selectively on, and responding to, the texts laid down before." (p. 463). Thus, one can conclude that an organizing vision is a product of multiple institutional messages that are communicated by stakeholders at individual, organizational or institutional level. According to Swanson and Ramiller (1997), "even as the community shapes the organizing vision through its discourse, the organization vision reciprocally shapes the community as it exposes emergent opportunities that attract new participants..." (p. 465).

However, Swanson and Ramiller (1997) also note that organizing vision is not necessarily one cohesive vision. It is in fact developed by different stakeholders who modify and embellish their story to suit their purposes and their interests. Thus the vision is created by various participants who are committed to the public interpretation of the change but have different interests and roles, which motivate them to compete with each other for cognitive authority over the discourse. For instance, Reardon and Davidson (2007) explored the role of organizing vision in healthcare community, with specific emphasis on small physician practices. Their study revealed that despite increasing

emphasis on healthcare information technology (HIT) actual adoption and usage rates of Electronic Medical Records are below expectations because most private physicians do not respond to the community discourse and organizing vision related to EMR. Though the discourse of organizing vision emphasizes the importance of EMR adoption, doubts regarding plausibility and cost of the technology are not adequately addressed in the discourse, thus reducing the rate of diffusion. Different stakeholders can construct their own narrative surrounding the change, and attempt to influence others to reconsider their perception of change through their discourses.

Ramiller and Swanson (2003) suggest that conflict and tension is natural because the organizing vision invites the attention of diverse professional interests, including vendors, consultants, industry experts, academics, and prospective adopters, each with their varied arguments competing for legitimacy within the community. Thus messages by vendors might create an organizing vision that is significantly different from the organizing vision of physicians. In order for us to truly understand institutional change within an organizational field, we need to recognize these competing versions of change and study how stakeholders accommodate these differing viewpoints.

This study posits that to understand institutional change and the role of communication during change, we need to examine institutional messages as carriers of institutional logic. Since institutional change requires replacing or modifying these logics, examining institutional messages enables us to understand how organizations use discourse to legitimize certain logics. Also, institutional messages by organizations can lead to collective discourse within the organizational field, which is likely to create organizing visions. Examining these organizing visions can provide us with valuable

insights regarding the ways in which stakeholders position themselves vis-à-vis other stakeholder groups in their change discourse, the commonalities and differences in the logics that they attend to, and pave a way to recognize stakeholder collaborations and conflicts as they navigate the change process.

Conclusion

The study makes important contributions to our theoretical understanding of institutional change communication. First, it locates organizational discourse within the larger institutional context during change, and therefore underscores the role of change communication in institutional theory. This is done by refining the concept of institutional messages developed recently by Lammers (2011), taking a discourse analytic perspective towards institutional logics, and shedding more light on the concept of organizing vision -- an important but largely neglected area of research that can provide valuable assistance in examining how multiple stakeholders communicate. Second, institutional messages by different organizations allow us to examine the emergence of institutional logics within institutional orders whereas organizing vision facilitates our examination of institutional logics at the field level. Thus it attends to the call by several institutional researchers for multi-level analysis of institutional logics (Greenwood, 2008; Scott, 2008. Thornton et al., 2012). Also, it makes contributions towards advancing the theory of institutional change by focusing on three different institutional orders, Corporation, Profession and the State, by analyzing discourse of the vendors, physicians and regulatory bodies respectively.

Although institutional change involves a complex set of communicative processes, researchers have underutilized discourse-based approaches for understanding

change. This study demonstrates how institutional change and organizational discourse are mutually implicated. It draws our attention to the communicative practices of organizations and institutional orders that are part of the change process, and thus provides insights into ways in which discourses shape change processes. The study also highlights the importance of context and recognizes that researchers need to pay greater attention to the relationships among different texts and various devices within these texts. The implication being that a text does not stand alone; we need to examine its existence within the larger context to understand how discourse shapes meanings, legitimizes or delegitimizes change, and reproduces social structures (Hardy & Phillips, 2004). Finally, the study also contributes to the development of theory and research by analyzing multiple levels of discourse surrounding change processes.

Chapter 2 - Review of Literature

This research takes place within the broader context of health sector, and explores public discourse within the organizational field using the framework of institutional theory. The first section of this literature review presents a larger theoretical backdrop related to institutional theory, including legitimacy, isomorphism, institutional orders and inter-institutional system, organizational field and institutional logic. The second section introduces the focal concepts of discourse being used in this study. In doing so, institutional messages and organizing visions are elaborated in terms of the critical role they play in legitimizing change. This section also highlights the need to recognize discourse processes as fundamental part of institutional change and institutional logics. A third and final section provides an overview of EHR implementation research in order to identify important unique elements of this context.

Institutions, Institutional Legitimacy and Isomorphism

Institutions are multifaceted systems, processes or set of actions (Scott, 1995). For instance, Packard (2008) cites marriage between a man and a woman in the United States is an example of institution. The routines and associations surrounding marriage such as household chores and concept of monogamy are well established, and although there may be differences in individual beliefs about how marriages work, a specific individual belief about marriage cannot change the institution of marriage. Packard further notes that it is possible for a group of marriages (e.g., gay marriages) to ultimately change the set of practices that make up the institution. Similarly, it is not specific organizations that are institutionalized, but rather organizational forms, structural components and rules that are institutionalized (Powell & DiMaggio, 1991). Regulative

systems, normative systems and cultural-cognitive systems have all been identified by institutional theory researchers as vital components of institutions. According to Hanson (2001), the regulative pillar prescribes actions through formal and informal rules that establish, sanction and monitor actions. Hanson cites an example of the ways in which school rules, state laws and professional standards govern the actions of teachers and administrators. The normative pillar informs the teachers of the values and norms that are associated with education and the cognitive pillar shapes how people view reality and gives meaning to them as they interpret their world (Hanson, 2001). Finally, the cultural cognitive pillar is described by Hanson as the filter through which people view reality and provides meaning to their world. It highlights the subjectively constructed rules and meanings that indicate the appropriateness of certain behaviors and actions. However, institutional theory has been used by number of disciplines, and they do not always consider all three elements – regulative, normative and cultural cognitive – to be equally central for understanding of institutions. Typically researchers have prioritized one element over the other in their study of institutions.

We can categorize institutional theory into three broad strands - rational choice, historical and sociological (Lawrence, Suddaby & Leca, 2009; Markvart, 2009). Rational choice institutionalism emphasizes the formal and informal rules and compliance procedures (Campbell, 2004). Researchers typically consider regulative pillar of institutions to be more significant as compared to the normative or cultural cognitive pillars. They perceive institutional emergence and institutional change as a response to opportunism, incomplete information, and transaction costs (Powell & DiMaggio, 1991). According to Markvart (2009), institutional establishment and persistence are explained

by rational choice institutionalists based on logic of instrumentality. They take a functionalist view that focuses on an actor's need for maximizing his or her interests. Thus, actors will maintain or change institutions depending on whether they facilitate attainment of goals that they were originally created to achieve.

Hall and Taylor (1996) note that historical institutionalism has a perspective that is similar to rational choice institutionalists. However, they have emphasized more on the temporal aspect of institutionalism and posit that institutional decision making reflects historical experience (Campbell, 2004). They emphasize long term, temporal processes and provide an analytical framework for understanding how institutional change is rooted in historical conflicts (Markvart, 2009).

Finally, sociological institutionalism is concerned with applying an institutional perspective to cognitive scripts and frames of meaning that guide action and behavior (Hall & Taylor, 1996). Powell and DiMaggio (1991) note "sociologists find institutions everywhere, from handshakes to marriages to strategic-planning departments" (p. 9). Organizational researchers following this school of institutionalism examine how and why organizations adopt certain forms and processes and the ways in which these processes get established across organizational fields (Markvart, 2009; Hall & Taylor, 1996). Thus, social legitimacy becomes more significant for sociological institutionalists, as compared to rational choice and historical institutionalists, who primarily take an instrumental approach towards institutional change.

Each of the three pillars provides a basis for institutional legitimacy. According to Scott (1995) institutional legitimacy is not a "commodity to be possessed or exchanged, but a condition reflecting cultural alignment, normative support, or

consonance with relevant rules or laws” (p. 45). Further, legitimacy is a social construction that is based on the actions of a legitimate entity and shared beliefs of the social group to which the entity belongs. One of the widely recognized definitions of legitimacy was provided by Suchman (1995) as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p. 576).

According to Thornton et al. (2012) the regulative pillar emphasizes legitimacy through compliance with legal requirements, the normative pillar leads to legitimacy through conformity with moral bias, and cognitive pillar ensures legitimacy by developing a common frame of meaning or understanding of the situation. According to Galvin, Ventresca and Hudson (2004), there are three aspects of legitimacy: (a) a recognizable entity or actor, (b) meanings and beliefs that establish the terms of legitimacy, and (c) appropriateness of specific actions in a given category. Suchman further notes that legitimacy is a perception, created subjectively. So, an organization may sometimes depart from societal norms, but if its actions are dismissed as unique or rare occurrences, the organization will still retain legitimacy.

Further, researchers have found that organizations adhere to similar institutional norms, even when these norms impede their performance, because following these norms gained them legitimacy within the field (DiMaggio & Powell, 1983). This process of homogenization, wherein one organization closely resembled other organizations facing the same set of environmental conditions, has been termed as isomorphism. DiMaggio and Powell (1983) have identified three mechanisms of institutional isomorphism - coercive, mimetic, and normative. Coercive isomorphism stems from formal and

informal pressures placed upon an organization and cultural expectations of the society within which the organization functions. Mimetic isomorphism occurs because of poorly understood technologies (March & Olsen, 1984), ambiguous organizational goals, or uncertainty caused by the environment. These conditions result in organizations modeling themselves according to other organizations in the field that have gained success and legitimacy. Most new organizations are modeled upon the old ones. Normative isomorphism is a result of professionalization. DiMaggio and Powell note that universities, professional training institutions and trade associations play a key role in development of norms associated with organizational and professional behavior. Thus we have almost interchangeable individuals who occupy similar positions across various organizations, with similar orientation and disposition. As institutional scholars gained understanding of institutional legitimacy, isomorphism and establishment of norms and practices within organizational fields, several theorists called for further research to develop our understanding of not only how institutions remain stable, but also how they change (Thornton & Ocasio, 2008). The concept of institutional logics gained prominence as scholarship of institutional theory moved towards examination of deinstitutionalization and change.

Role of institutional logics during change. The concept of institutional logic was introduced in institutional theory by Friedland and Alford (1991) in their attempt to understand institutional change. They define institutional logic as a “set of material practices and symbolic constructions which constitute its organizing principles and which is available to organizations and individuals to elaborate” (p. 248). Institutional logics play a role in reproduction as well as transformation of institutions and organizations

(Thornton et al., 2012). For instance, Thornton (2002) demonstrated how institutional logics shifted from editorial logic to market logic in the publishing industry. These logics also determine the goals and values that need to be pursued within a particular field and inform the actors about which means of pursuing them are considered appropriate (Arndt & Bigelow, 2006). By analyzing widely available texts within the architectural profession, Jones and Levine-Tarandach (2008) identified three distinct word clusters representing distinct logics: business practice, professional exemplars, and state bureaucracy. Logic of business practice focused on the client needs, logic of professional exemplars focused on the means for creating great architecture, and logic of state bureaucrats focused on the management and construction of public facilities.

Individuals are members of multiple groups, such as organizations, professions, associations, and occupations that share collective identity. According to Thornton et al. (2012) institutional logics shape actions through “embedded agency or social action that is culturally embedded in institutional logics,” (p. 77). They further note that institutional logics exert their effects on individuals and organizations when they identify with logics of an institutionalized group, organization, profession, or a field. Thornton (2002) posits that institutional logics help the actors figure out which issues are salient and shape their structures of relevance. Since institutional logics help us give meaning to activities, specify what goals should be pursued and indicate appropriateness or inappropriateness of actions, they also play a critical role in shaping and legitimizing changes.

Friedland and Alford (1991) have noted that institutional change takes place when new logic is mobilized and eventually replaces the field logic. The process of legitimizing new logic can be contentious and may not be straightforward with multiple competing

logics co-existing for periods of time rather than immediately replacing each other (Swan, Brensen, Robertson, Newell & Dopson, 2010). Van Gestel and Hillebrand (2011) focused on the interplay between various actors adhering to different field logics to understand how organizational fields evolve. Using the case study approach, van Gestel and Hillebrand examined field evolution from 1998 to 2000. Their study demonstrated how an organizational field may have multiple institutional logics that may compete for dominance, create internal contradictions, and even serve as triggers for change. Using secondary data sources and 44 semi-structured interviews, the authors found that a field may shift back and forth before finally settling on a dominant logic. In the absence of a dominant or powerful actor that pushes for a single institutional logic, multiple logics may coexist. van Gestel and Hillebrand uncovered two factors that lead to temporary stability followed by another change in a field – negative choice and deliberate ambiguity. Negative choice occurs when a particular logic is legitimized and accepted by the actors because it seems the lesser of two evils. Deliberate ambiguity occurs when actors purposefully create ambiguity leading to temporary consensus within the field about a particular logic. In a related study, Swan et al. (2010) examined the field of biomedical sciences and demonstrated how policy makers and scientists resisted, changed, or championed certain logics that legitimized different meanings of knowledge production. Based on analysis of interviews, nonparticipant observation and secondary data such as government publications, white papers and policies, the authors found that the field was characterized by long period of struggle to change the field by establishing a new logic of knowledge production. The old logic, also termed as Mode 1 by the authors, privileged knowledge creation based on the problems identified by the academicians

whereas Mode 2 logic attempted to legitimize knowledge produced in the context of application. Swan et al. found that tensions and conflicts surrounding a new institutional logic (Mode 2) led to contradictions that eventually led to resurrection of the old logic Mode 1.

However, not all changes in institutional logic are as contested or lead to instability in the field. Replacement of an old institutional logic with a new one can also be followed by periods of stability. For instance, Thornton (2002) studied the transformation of the publishing industry from 1958 to 1990 and the changes in institutional logics that enabled this transformation. Publishing was considered mainly as a lifestyle and profession, where the legitimacy stemmed from personal reputations in the field, their relationships with authors, and the stature of their books. Thornton identifies these belief systems as editorial logic wherein decisions and actions were shaped by actors' commitments to publication of good books. The transformation of the publishing industry was facilitated by shift to market logic that emphasized the need for profits and privileged the role of business executives over editors. Similarly, Arndt and Bigelow (2006) explored the creation of a dominant institutional logic in hospital management from 1913-1920 by examining the journal publication *Modern Hospital* as the primary data source. Based on their analysis, they found that this seven-year period led to the rise of efficiency as the dominant logic that governed the actions of most hospitals. The logic of efficiency encompassed economy, quantity and quality of services, as well as access to healthcare. The emphasis on efficiency also facilitated introduction of new technology in hospitals, the assumption that hospitals should be managed like businesses and made large-scale hospitals a model for other providers to follow.

Study of institutional logics across levels. Thornton and Ocasio (2008) note that institutional logics “presuppose a core meta theory: to understand individual and organizational behavior, it must be located in social and institutional context, and this institutional context both regularizes behavior and provides opportunity for agency and change,” (pp. 101-102). This assumption, also known as embedded agency, allows for partial autonomy of individuals, organizations and institutions in a society in our explanation of social action (Friedland & Alford, 1991). They also posit that society consists of three levels -- individuals, organizations and institutions -- and all these levels are necessary to adequately understand society. These three levels are also nested; individual and organizational action is embedded in institutions whereas institutions are socially constructed and therefore constituted by individual and organizational actions. Researchers have chosen to emphasize one level or the other (Thornton et al., 2012), though all three levels are equally critical.

According to Thornton and Ocasio (2008), an institutional logic approach has tremendous capacity to facilitate research at different institutional levels. Institutional logics may develop at different levels such as organizations, markets, industries, inter organizational networks, communities, and organizational fields. For instance, Thornton and Ocasio (1999) analyzed industry level logics existing in higher education publishing. They examined the effect of shifts in industry-level institutional logics from editorial logic to market logic. Another industry level study by Lounsbury (2007) examined institutional logics in the mutual fund industry, wherein two different institutional logics emerged, leading to two distinct patterns of change. At the societal level, Scott et al. (2000) found that different professional, government and market logics shaped the

transformation of the health care organizational field. Their study of transformation in healthcare field revealed that a dominant professional logic was replaced by three logics that served as co-existing logics. Jackall's (1988) study on decision making and action in organizations is an excellent example of institutional logics at the organizational level. The formal structures of the organization combined with the paternalistic ethos created an institutional logic that was termed by Jackson as patrimonial bureaucracy.

The concept of organizational field has become an acceptable unit of analysis for researchers seeking to study institutionalization at multiple levels of analysis.

Organizational fields have been defined as “organizations that, in the aggregate, resources and product constitute a recognized area of institutional life: key suppliers, consumers, regulatory agencies, and other organizations that produce similar services or products,” (DiMaggio & Powell 1991, pp. 64-65). DiMaggio and Powell's conception of organizational field was influenced by sociologist Bourdieu (1971) who stated that study of fields leads us to think relationally. He used the analogy of a game with rules, players, stakes, competition and contestation in which all players seek to advance their interests.

Scott et al. (2000) note that organizational fields, though similar to an industry system, add to this conventional concept by taking into consideration other organizations that critically influence their performance, such as regulators, exchange partners and competitors (Scott, 2008). Fields share cultural-cognitive or normative frameworks along with a common regulatory authority, which leads to a shared institutional life. Repeated interactions between organizations within a particular organizational field lead to emergence of collective beliefs that constitute social reality. The participants of an organizational field “partake a common meaning system... and interact more frequently

and fatefully with each other than actors outside of the field” (Scott, 1994, pp. 207-208). They do so by sharing common discursive spaces which allow them to construct a social reality and enforce a correct way to perceive the world (Leonardi, 2008).

An organizational field, however, is not a static entity; with time, it evolves as populations develop, boundaries expand or reduce, inter-organizational alliances get formed, and discursive patterns change. Organizational fields provide an excellent opportunity to study institutional logics because they are not limited by geography or organizational goals, but instead get identified by a recognized area of institutional life. The advantage of this unit of analysis is that it does not limit our attention simply to competing firms, or to certain networks of organizations that interact with each other, but to what DiMaggio and Powell term as “the totality of relevant actors” (p. 148). The idea of who is and who is not a relevant actor is determined largely through interaction and communication in the discursive space. Thus the idea of relevance is also socially constructed. For instance, a study by Hoffman (1999) demonstrated how organizational fields are formed around issues that are of interest to specific collective of organizations, rather than common industries, leading to salience of certain actors that may not have been perceived as relevant, but became so because of their discursive activities and actions. Hoffman cites the example of residents of Love Canal in New York in the year 1979, who played an influential role in shaping perceptions related to hazardous waste sites, when it was found that their homes were built over 20,000 tons of chemical waste. However, once this issue was resolved, the influence of this group of residents also waned. Thus fields may exist only for a finite period of time, until the issue is of little relevance.

An analysis of institutional logics within an organizational field may also include organizations from different institutional orders. According to Friedland and Alford (1991), society comprises different institutional orders that make up an inter-institutional system. They identified market, bureaucratic state, religion, democracy and family as key institutional orders in our society. This inter-institutional system was modified by Thornton et al. (2012) to include seven institutional orders, namely, markets, corporations, professions, states, families, religions and community. Thornton et al. further note that inter institutional systems are not static; they evolve over time and are adaptable. When we conceptualize society as an inter-institutional order, it allows us to observe contradictions between logics existing in different institutional orders.

A study of an organizational field could include organizations belonging to different institutional orders. For instance, Thornton and Ocasio (2008) cite the example of family and religion as both being directly involved in production, distribution and consumption of goods and services. This is because institutional orders within inter-institutional systems are interdependent. For instance, religion reifies family fidelity and values associated with a family. Also, historically, the state has been known to use religion to justify its authority over its citizens. Families are influential institutional orders in business and economic policies developed by the state. In this study, the organizational field includes vendors, regulatory bodies and physicians, all of which belong to a different institutional order. Regulatory authorities are part of the State, vendors represent Corporations, whereas physicians are representative of Professions within the inter-institutional system.

Based on the framework by Friedland and Alford (1991), there have been some studies that have examined the ways in which institutional change are affected by logics emerging from different institutional orders. For instance, Greenwood and Suddaby (2006) demonstrated how audit and law firms are affected by market logics, professional logics and also family logics. Owen-Smith and Powell (2004) looked at the role of market logics and professional logics in institutional transformation. They studied regional innovation and found that it is influenced by market alliances and professional norms of universities. Thornton's (2004) study of the US publishing industry demonstrated that over a period of time, the editorial logic dominating the publishing sector was governed by family ownership, which was eventually replaced by professional logic.

Institutional logics emerge in various institutional orders of the inter-institutional system, and may get reshaped and customized in an organizational field. Organizational field is therefore a unit of analysis, and logics might get played out in an organizational field (Thornton & Ocasio, 2008). Scott (2008) points out that organizational field is an excellent intermediate unit between micro levels representing individuals and organizations, and macro level system of society.

This study posits that communication is fundamental to the creation and sustenance of institutional logics as well as institutional change. Researchers can understand the manner in which these logics get played out in the organizational field if they examine the communication surrounding the change. Most of the studies surrounding institutional change have focused on patterns of action to understand the process of transformation. Phillips et al. (2004) lament that scholars of institutional

theory have examined organizational actions as separate from discursive practices that constitute these actions. For instance, Lounsbury's (2007) study on competing logics in the mutual fund industry used yearly data on mutual fund industry regarding product category, fund performance, fund assets and fund manager, along with industry reports and documents to identify the shift in logics. Similarly, van Gestel and Hillebrand (2011) identified plural logics in the public employment services (PES) in the Netherlands by conducting a historical analysis of public documents and data sources. These studies, along with most of the other studies on institutional change, inform us of the existence of multiple or dominant institutional logics at any given point of time, but we do not know much about the discursive process that constitutes this change. These logics exist within the larger context of interaction and communicative dynamics. Creating, establishing and changing logics is an extremely interpretive process that needs to be examined within the discursive space in which they exist. According to Phillips et al. (2004) "institutions are constituted through discourse and that it is not action per se that provides the basis for institutionalization but, rather, the texts that describe and communicate those actions. It is primarily through texts that information about actions is widely distributed and comes to influence the actions of others" (p. 635). The next section argues that change is a multilevel discursive phenomena and organizations involved in the process need to reinforce or replace discourses in order to legitimize or delegitimize certain logics. It also lays out the communication concepts that are central to this study, namely, institutional messages and organizing visions, and elaborates on their role in constituting institutional change.

Change as Discursive Phenomena

Phillips et al. (2008) note that communication is an integral part of institutional changes that take place within an organizational field. This is because an organizational field is not only characterized by a set of shared beliefs but also certain discourses that are prevalent within the social space. Philips et al. note that organizational fields are complex because there is not just one discourse, but multiple discourses that hold together organizations within the field and enable as well as constrain their actions. Grant and Marshak (2011) define discourse “as a set of interrelated texts that, along with the related practices of text production, dissemination, and consumption, brings an object or idea into being,” (p. 208). Thus discourses play a central role in constituting reality as they enable the production of identity, values and beliefs (Deetz, 1992). According to Putnam (2005), although discourse analytic studies of organizations often focus on the micro level, examination of discourse is equally suited for studying macro organizational processes and institutional relationships.

Grant and Marshak (2011) note that the analysis of organizational discourse allows researchers to understand the nature and complexity of organizational change. We can have a more complex understanding of organizations, emphasizing communication as not only facilitating exchange of information, but also constructing social and organizational reality (Heracleous & Barrett, 2001). Discourse analysis allows for a view of communication that is primarily transformative, as opposed to communication being viewed as being informative. Elaborating on the relationship between discourse and communication, Putnam (2008) notes the role of discourse differs based on the metaphors invoked by communication scholars. For instance, she notes that the conduit metaphor

treats communication as a tool for information exchange, and accordingly, discourse does not play much of a role in this view of communication. The symbol metaphor, which highlights the role of communication in creation of meaning, sensemaking and interpretation, views discourse as enabler and facilitator of communication. Discourse becomes a resource or building block that allows communication to create meaning. The process metaphor draws attention to the dynamic and ever changing nature of communication. Here, discourse is vital in establishing communication as an ongoing process. It interacts with non linguistic elements to produce or shape the nature of communication. For example, non-verbal cues such as facial expressions and body language interact with talk and text to shape messages of dominance, power, closeness, etc. Finally, the fourth metaphor of co-construction or constitution reflects how communication creates social reality. In this case, both communication and discourse constitute social reality. Putnam notes that the constitutive nature of communication emerges in discourse as it shapes ongoing situations that in turn, construct social reality. Along the lines of the constitutive view of communication as identified by Putnam (2008), this study examines how institutional messages construct the social reality of change within an organizational field.

According to Deetz (1992) discourse serves as the medium through which institutions are conceived, produced and understood. Discourse helps us construct social realities by ruling in certain ways of discussing an issue, bringing in an acceptable manner of talking or acting, and also ruling out certain other ways of talking. Accordingly, discourse can be seen as a powerful organizing force that contributes to the creation of meaning (Alvesson & Kärreman, 2000). At the same time, it should be noted

that institutions are not reducible to discourses about them, but rather, they should be examined as structures that are organized and reproduced through discourse (Selsky, Spicer & Teicher, 2003). Such an assumption presupposes that actors actively order and reorder the institutions by proliferation of discourses and linking their discourse with other existing texts.

Discourse is also central to establishment and change of institutional logics. Institutional logics provide meaning to activities, specify what goals should be pursued and indicate appropriateness or inappropriateness of actions. Thus, they provide us with a correct and incorrect way of doing things and perceiving the world, i.e. enabling perceptual control. Leonardi (2008) notes that we use discourse to effect perceptual control, which allows us, intentionally or unintentionally, to influence others' perception of what is right and wrong. For instance, institutional entrepreneurs – actors who bring about change in ways that they find advantageous – make use of discourse to increase their legitimacy.

Suddaby and Greenwood (2005) studied the accounting industry and showed how institutional entrepreneurs reinterpreted and manipulated organizational forms. Institutional entrepreneurs have been defined as those who bring about changes through their access to resources that support their self interests (DiMaggio, 1988). Suddaby and Greenwood found that they used rhetorical strategies or institutional vocabularies to reaffirm or discredit prevailing institutional logics that legitimized existing organizational forms. Their study examined the process by which large accounting firms began to extend their scope of service from traditional accounting to non-financial services. They analyzed the transcripts of testimony provided by witnesses to two commissions: the

American Bar Association (ABA) and US Securities and Exchange Commission (SEC). The transcripts and supporting documents were analyzed to understand how language was used to contest legitimacy of the new organizational form. Green and Suddaby note that rhetoric is directly connected to manipulation of institutional logics, which in turn is a fundamental mechanism of institutional change. They call for emphasis on language in our study of institutional change and note that although scholars are aware of organizations as existing in enacted environment, we have not paid enough attention to how words, logics and symbols are essential in resisting or legitimizing change.

Elaborating on the importance of vocabularies, Thornton et al. (2012) state that “vocabularies of practice serve as critical linchpins between symbolic representations and material practices in the emergence of institutional logics” (p. 96). Nigam and Ocasio’s (2010) study underscores the importance of vocabularies in legitimization of logics. Their study examined logics that provided the organizing principles for institutionalized practices in the hospitals. They traced the emergence of managed care logic in the healthcare industry and found that institutional changes were negotiated by changes in vocabularies. As part of their study, they analyzed articles from *Hospitals and Health Networks*, the only trade journal targeted at hospital executives. Their study identified vocabulary change as an essential component for change in institutional logics. In this context, the term vocabulary change was used as both changes in the words or labels being used as well as changes in the meanings attached to specific words or labels.

Rhetorical frames and narratives have also been identified as crucial in establishment of logics during periods of change (Thornton et al., 2012). They are used selectively to bring attention to specific arguments or make certain claims, depending on

the situation, as found by Jones and Levine-Tarandach (2008) in their study of rhetoric by architects. They posit that there exist “complementary relationships among rhetoric, frame analysis, and institutional logics,” (p. 1077). Jones and Levine-Tarandach examined the relationship between institutional logics and rhetorical strategies used by architects for framing their arguments. They noted that analysis of rhetoric helps in identification of keywords that emphasize on specific logics and provide legitimacy by which clients are persuaded, whereas frame analysis highlights the role of actors and their strategies of action. Further, the study found that selective keywords and vocabularies were used by architects to explain their contributions to the profession and to persuade their clients of their competency to perform services. Architects used three clusters of keywords that formed distinct vocabularies and represented three logics: business, profession, and state. The use of words and vocabularies of the profession differed depending on the context. Specific institutional logics were used to bring attention to distinct competencies: servicing clients, building great architecture, or programming facilities.

According to Weber and Glynn (2006) institutionalized language and discourse play a significant role in priming sensemaking. Sensemaking during periods of change is fundamentally a social process – people interpret their environment through interactions with others, constructing accounts that allow them to comprehend the external reality and take collective actions (Isabella, 1990; Lewis, 2011). Sensemaking involves placing the stimuli into some kind of a framework, which allows them to comprehend, understand, explain, attribute, extrapolate and predict. According to Weick (1995), sensemaking activities are particularly relevant during dynamic environments, when there are changes

taking place. Though the study by Weber and Glynn (2006) does not directly examine institutional logics, it contributes to our understanding of how language, logics and change are intertwined since institutional logics can serve as building blocks of sensemaking (Thornton et al., 2012). In their paper, they put forth three contextual mechanisms by which institutions affect sensemaking, namely, priming, editing and triggering sensemaking. They posit that institutions prime sensemaking by providing social cues. They provide a limited register of typifications (words) that are used to construct a course of action (sentence). Institutionalized attention primes people to start with certain words, to notice certain cues, or attend to certain issues. Further, institutions edit sensemaking through the process of social feedback. Institutionalization of roles and actions enables individuals to form expectations regarding their own conduct as well as that of the others. The editing mechanism allows people to deviate from these expectations and then justify this shift when faced with social policing of action. Finally, institutions trigger sensemaking by providing sensemaking puzzles through institutional contradictions and ambiguities.

Institutional messages as carriers of logic. Lammers (2011) notes that though Weber and Glynn (2006) have not used the term ‘institutional message,’ it is definitely implied in their argument when they discuss the ways in which institutions prime sensemaking. Also, when they state that some situations and cues are paid more attention than others, Lammers suggests that the institutional messages are bound to influence this likelihood. According to Lammers, institutional messages carry institutional logics. Messages carry patterns of beliefs and rules of institutional logics that are intentional, enduring, have a wide reach and encumber the participants to carry out certain actions.

Thus people do not use logics in their conduct but rather rely on messages to make sense of the ongoing conduct. This means “analysts subsequently may identify those patterns of beliefs and rules as logics, but participants sort through messages, not logics, in an ongoing way,” (p. 174).

Though message is a core concept in the communication discipline and is commonly used, Lammers notes that it is not considered a technical concept and its meaning has evolved over time. Explaining the concept of a message as used in his article, Lammers states “messages are collations of thought transmitted under a wide variety of motivational circumstances... messages are interactively understood through a variety of media” (p. 162).

At the organizational level, an institutional message communicates core meaning of an organization and aligns the organization’s activities and image with environmental rules. Thus, the term institutional message refers to organization’s publicly perceived actions conveyed to external and internal audiences. It can be an institutional voice when used as a representative narrative to promote an organization or used for general statements that inform the public about an organization but do not promote it. At the institutional level, message is a coalition of thoughts that takes on a life independent of senders and receivers. It can have the force of rules; it is spread via multiple channels; it can have a narrow or wide reach; it may have been sent intentionally or unintentionally. Lammers (2011) provides four features of institutional messages: establishment (the degree of equivocality associated with the message), reach (size of the audience receiving the message), encumbrancy (requirement for the respondent to comply to the message) and intentionality (conscious, stated purpose of the members in the field). Messages that

are less established can be open to different interpretations and be temporary in nature. They could also be low in encumbency, meaning that the receivers of the message may not be under any compulsion to follow the message. A change proposal for instance, may be low in establishment; it could be deliberately vague, leading too multiple interpretations and would definitely be low in encumbency. Institutional messages reflecting laws and regulations by government agencies would have high encumbency as well as intentionality. They may have wide or narrow reach, depending on the number of audiences and types of audiences impacted by the regulation. So housing regulations imposed by the management representatives of a particular building are likely to be communicated only to the small number of residents occupying the building, and therefore have a narrow reach, as opposed to communication of housing regulations by the state government. See table 1 (below) for an explanation of message features.

Table 1: Message features and their examples

Message Features		
	High	Low
Establishment	Unequivocal messages that are high in endurance and frequency. Example: Standards of a professional body or association	Open to many interpretations, temporary and less in frequency Example: Fashion fads
Reach	Messages reaching large number of people and large number of audiences Example: National weather alerts	Messages with smaller size of audience and limited number of audiences Example: Local conference speeches
Encumbency	Need for audience to comply with the message. Example: State and Federal laws	No requirement of compliance to the message. Example: Advice by management gurus
Intentionality	Messages congruent with the conscious, stated purpose of the organization Example: Vision and mission statement of an organization	Messages sent out without specific purpose or intent Example: Informal conversation; small talk

According to Lammers (2011), the strength and endurance of institutional logics depends on the ways in which these messages are interpreted and acted on, thus making it imperative for us to study institutional messages if we want to understand the process of institutional change.

Locating discourse and context through organizing vision. According to Nigam and Ocasio (2010), field-level logics direct how institutional actors compete, cooperate and coordinate with each other. They can also redefine relationships between various actors as they struggle to collectively make sense of the changes and compete to legitimize or delegitimize the change by making certain logics salient in their discourse. Swanson and Ramiller (1997) coined the term ‘organizing vision’ to help us understand how multiple actors within an organizational field enact technology-driven change. Thus, organizing vision represents the ways in which multiple organizations and institutional orders collectively talk about change in a public discursive space. According to Swanson and Ramiller (1997) an organizing vision serves the basic function of creation and diffusion of information system innovations and facilitates three important aspects of technology-driven change: interpretation, legitimization, and mobilization. The concept of organizing vision contributes to institutional theory by providing a useful theoretical lens for examination of technology-related changes and innovations (Currie, 2004). Chiasson and Davidson (2005) argued that while technology capabilities may exist in most organizational fields, the acceptance of technology-driven change depends on (a) pervasiveness of legitimate institutional logics supporting the technology among different actors, and (b) persuasive organizing visions for how the technology can be applied by the actors within the field.

According to Swanson and Ramiller, an organization is not alone in its attempt to understand the implications of a new technology. It belongs to a complex organizational field, the members of which jointly contemplate new technology, and often engage in public discourse to understand what the change means. They state that the interorganizational community, when faced with technology driven change, collectively creates an organizing vision, which plays a crucial role in shaping their interpretation and diffusion of technology. They posit that often an emergent technology is not readily grasped or understood. Although it makes new activities possible, these are typically undertaken in an exploratory manner by pioneers among potential adopters, or promoted by entrepreneurial providers such as vendors and consultants. At this point, the implications of the technology are not well articulated. Faced with uncertainties, an organizing vision represents the field's attempt to develop a social account or story to explain a new technology's implication within a broader social, technical, material and economic framework. It further legitimizes the technology by grounding it in broader business concerns and functional aspects that are of interest to prominent stakeholders. And finally, an organizing vision serves to mobilize the technology by acting as a creative force that activates the market. Its idea of the future defines varied commercial opportunities, which in turn lead to elaboration of possible roles and relationships as well as social networks that are necessary for change implementation (Swanson & Ramiller, 1997).

Swanson and Ramiller (1997) also note that organizing vision is not necessarily one cohesive vision. It is in fact developed by different stakeholders who modify and embellish their story to suit their purposes and their audiences' interests. Thus the vision

is created by various participants who are committed to the public interpretation of the technology but have different interests and roles, which motivate them to compete with each other for cognitive authority over the discourse. Swanson and Ramiller posit that organizing vision “evolves through dynamic layering of texts, each building selectively on, and responding to, the texts laid down before” (p. 463).

The concept of organizing vision in technology-induced change has been examined by researchers in healthcare contexts as well as the IT industry (e.g. Currie, 2004, Davidson & Reardon, 2005; Reardon & Davidson, 2007; Swanson & Ramiller, 2004) to understand its role in innovation diffusion. For instance, Reardon and Davidson (2007) explored the role of organizing vision in a healthcare community, with specific emphasis on small physician practices. Their study revealed that despite increasing emphasis on healthcare information technology (HIT) actual adoption and usage rates of Electronic Medical Records are below expectations because most private physicians do not respond to the community discourse and organizing vision related to EMR. Though the discourse of organizing vision emphasizes the importance of EMR adoption, doubts regarding plausibility and cost of the technology are not adequately addressed in the discourse, thus reducing the rate of diffusion. Research by Currie (2004) revealed how underdevelopment of organizing vision at an early stage can lead to challenges in diffusion of technology and inhibit its implementation. The study used organizing vision as a lens for analyzing emergence of information systems known as Application Service Provisioning (ASP) for small and medium enterprises (SMEs). Currie found that over time, the hype surrounding ASP was replaced by distrust as the discourse surrounding organizing vision became fragmented by stakeholder conflicts. Both the studies revealed

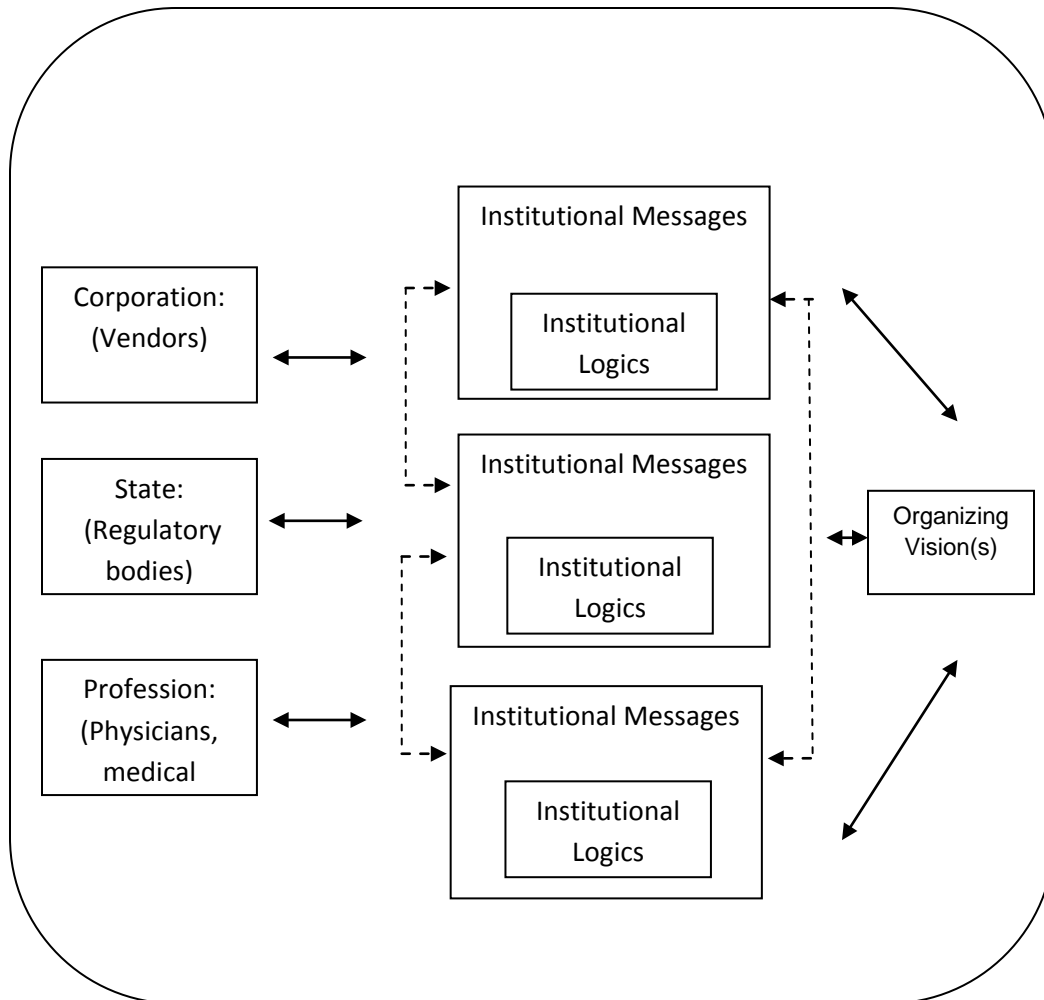
how organizing vision is a discursive construction, full of contradictions, challenges, and persuasion attempts. In their study, Ramiller and Swanson (2003) suggest that conflict and tension is natural because the organizing vision invites the attention of diverse professional interests, including vendors, consultants, industry experts, academics, and prospective adopters, each with their varied arguments competing for legitimacy within the community. While making an argument for study of technological frames in an industry level context, Davidson (2006) also contends that it would be theoretically useful to conceptualize organizing vision as an organizational field-level technological frame. Further, for the most part, health research has primarily been concerned with how internal organizational members such as physicians and nurses make sense of new technology, without taking into account the reciprocal relationship between organizations and external environment (Blake et al., 2010). Massey, Montoya-Weiss and Brown (2001) point out that understanding perspectives of multiple stakeholders such as organizational management, project teams, end-users, consultants, vendors and so on can be critical in change implementation. Chiasson and Davidson (2005) have called for greater emphasis on the role of context in our research on information technology implementation. They posit that by focusing only on individual-level or organizational-level research, scholars may overlook external environmental and industrial influences that facilitate or constrain actions of organizations. According to Chiasson and Davidson, focusing solely on the internal organizational context yields a highly generalized understanding of the phenomenon that breaks down when industry contexts vary significantly.

This study proposes that organizing visions created within an organizational field are a product of the collective discourse of various institutional orders involved in the change process. They allow us to examine how meaning of a particular institutional change is negotiated through the interplay of texts that are part of a larger iterative, recursive process (Grant & Hardy, 2004). This is because, as mentioned earlier, discourses are not isolated texts; they are situated within the larger context even as they themselves create context. Examination of organizing visions also informs us of specific discursive actions (such as institutional messages) situated within the larger macro level discourses about institutional change. Further, organizing visions of the interinstitutional system draw our attentions to the complex relationships among sets of discourses of various institutional orders in their attempt to shape the change process.

Thus, the concept of organizing vision is significant to this study because it locates discourses by multiple organizations, situated within multiple institutional orders, as they build upon each other over a period of time to legitimize or delegitimize the change, thus situating discourses within the larger contextual space. This discourse can be further broken down into institutional messages of these stakeholders. As noted above, since institutional messages reflect institutional logics (Lammers, 2011), we can examine these messages to understand how logics are being made available as bases for action and serve as organizing principles for the field. See figure 1 (given below) for a view of the framework of this study.

Figure 1 – Framework of the Study

Organizational Field



Understanding EHR, its benefits and challenges

Recent federal decisions have led to the advent of major changes in HIT, one of them being the need for all healthcare professionals to become meaningful users of electronic health records. In 2009, the American Recovery and Reinvestment Act (ARRA) came into existence, which included HITECH Act to deal with health care information technology requirements. In an effort to encourage meaningful use of EHR, the HITECH Act consists of several incentive programs in place to reward facilities that establish an EHR by the designated deadlines and use certified EHR in a ‘meaningful’ manner (Brusco, 2011).

Informing us of the long standing need for improved information management system in the health sector, Lobach and Detmer (2007) state that recent federal regulations and developments in information technology have helped to create a strong wave of opportunity for EHR diffusion. They go on to state that emphasis by the federal government on EHR implementation is not surprising; EHRs offer significant potential to improve the health system in the United States (Krueser, 2007). According to Shea and Hripcsak (2010), there seems to be an emerging consensus that information transfer is an important component of medical care, and therefore alignment of hospitals and physicians afforded by EHR is necessary to provide higher-quality care and service for patients when they shift to different healthcare providers. Other purported benefits of EHR include the ability to create and export bills, creation of automated patient letters, e-prescribing and task tracking, which translates into an increase in time savings as well as ease in transfer of information. Also, Shea and Hripcsak argue that there is greater increase in emphasis on quality of care, but payment for quality also requires

documentation of quality, which is made possible through EHR. The capacity of EHR to provide a patient's lifetime of medical history has been identified as a major benefit by Kreuser (2007) since it can integrate longitudinal medical records across various sites of healthcare, thus resulting in quality and continuity of treatment. Other benefits noted by Krueser include a decrease in errors caused by handwritten documentation and elimination of the need for physical storage requirements.

Resistance to EHR. Overall, information technology adoption in the healthcare sector within the US has been slow, with strong resistance to the use of EHR and similar information systems in the past, such as electronic medical records (Stewart, Kroth, Schuyler & Bailey, 2010). Their review indicates that unsuccessful attempts far outnumber the successful stories of technology implementation in the healthcare sector.

In an effort to understand the trends in information technology use in healthcare, especially the use of EHR, Menachemi and Brooks (2006) conducted a large-scale state-wide survey of Florida-based physicians. Their survey revealed that though a large percentage of physicians used technology to support administrative functions, fewer physicians have adopted clinical and quality enhancing technologies such as EHRs. The rate of adoption was found to be especially low when compared to other developed countries such as Sweden, Denmark, the Netherlands, UK and Austria. Their study also concluded that the decision to use EHR was related to the type of medical practice and the number of physicians in the clinic. Therefore physicians who practiced in larger groups were found to be more likely to use EHR than those who operated in the form of an individual private practice. This trend, which has also been identified by Ford, Menachemi, Peterson and Huerta (2009), has been attributed to the economies of scale

that larger practices have in terms of better access to financial and human resources (Menachemi & Brooks, 2006). Based on their survey data, Ford et al. posit that implementation costs of EHR system are a major cause for slow adoption. Often, medical practitioners require special features and ‘add-ons’ to the base implementation, which further increases implementation cost, thus leading to the perception that EHR adoption leads to unforeseen costs. Furthermore, Ford et al. suggest that failed implementation stories circulated through social networks of small medical practitioners serve to deter individual or small groups of practitioners from adopting EHR.

Several other factors have been identified as causes for EHR resistance. Some of the major barriers to EHR adoption, as noted by Stewart et al. (2010), include initial costs of investment, effects on personal contact with the patient, time spent with the patient, changes clinical workflow, the need for training, changes in work roles and power distribution. In a comprehensive review of literature related to healthcare information systems, Ward, Stevens and Brentnall (2008) add that often physicians decide not to adopt EHR technologies because they perceive EHR as a potential threat to their professional autonomy and fail to provide an adequate return on investment costs. Ford et al. (2009) also note that issues related to professional autonomy lead to reluctance in the use of EHR, as physicians are concerned that policymakers, insurers and administrators will use EHR as a proxy mechanism to dictate or influence the practice of medicine. They also go on to identify three sources of uncertainty that could be delaying adoption: uncertainty about implementation costs, uncertainty related to causes and effects.

Yet another widely discussed issue in EHR implementation relates to privacy concerns and risks associated with the vastly expanded capacity for sharing patient

records along with easy, quick and simultaneous transfer of scores of patient records. Shea and Hripsack (2010) contend that the capacity to provide a truly secure, reliable electronic system to store and share patient data is beyond the reach of most solo physician practices, and is currently feasible only for large organizations that have centrally supported technological capabilities. Opponents of EHRs often cite breaches of patient privacy as a major concern by stating that making a patient's records available in electronic form potentially exposes their information for indirect uses, “such as research, analysis, public reporting, provider certification and accreditation, and marketing and other commercial activity,” (Krueser, 2007; p. 317). She notes that EHR technology allows a vast amount of healthcare information belonging to identifiable individuals to be accessed by agencies that have previously not had access to these data. The concern for privacy is also closely related to physicians’ fear about loss of control, according to Jacques (2011), who argues that healthcare providers often view this system as a ‘black box’ and worry that losing control over the system will make them completely reliant on technology experts who may not fully appreciate the requirement for privacy in healthcare. We can conclude that EHR is a complex organizational technology; its applications, uses, limitations, and consequences are not clear-cut, thus increasing the various challenges associated with EHR implementation.

Research Questions

One of the most important contributions of this study is that it brings forth the discursive perspective to examine institutional change taking place across different institutional orders. Any change, be it in the form of an organizational problem or exogenous jolt, gets shaped in a discursive space that is to the relevant actors (Parker,

1992). As the process of change is discussed and deliberated in the public discursive space, there emerge different legitimate ways of talking about the issue. By locating institutional change process within a larger discursive space, the study demonstrates how different institutional orders use the discursive space to advance certain institutional logics and legitimize specific versions of change to suit their purposes.

Further, it identifies institutional logics existing in the discourse of three different institutional orders – the State, the Corporation and the Profession – by examining institutional messages. There have been only a handful of studies focusing on change across inter-institutional system, such as Lounsbury, (2007) and Thornton and Ocasio (1999). Institutional theorists have called for more research that can show how institutional change occurs across different institutional orders (Thornton et al., 2012). Also, this study operationalizes the concept of institutional messages, thus facilitating its application for future research, and furthering our knowledge of the constitutive role of communication in legitimization of logics.

Another important contribution of the study is that it examines change as it unfolds across two different levels of discourse. Recently, Grant and Marshak (2011) have called for examination of change as a function of multilevel discursive phenomena. They note that change scholars need to understand how different levels of discourse influence each other to create a “web of reinforcing narratives, stories, metaphors and conversations,” (p. 23). At the same time, institutional theorists have called for examination of change as it unfolds at multiple levels and have stated that institutional logics can provide an excellent way of studying this process (Thornton & Ocasio. 2008). This research examines institutional change at the organizational level and the field level

through institutional messages and organizing visions. Institutional messages by specific regulatory authorities, vendors and physicians inform us of the logics being utilized at the organizational level to legitimize change. At the same time, this study analyzes complex relationships between sets of texts to understand how different institutional orders draw on, and simultaneously create discourses, leading to establishment of organizing visions. Thus, the study identifies dominant organizing visions emerging during this change process to understand how different institutional orders of the State, Profession and Corporation represent change in their public discourse.

The study asks the following research questions:

- 1) What are the institutional logics advanced by the three institutional orders of State, Profession and Corporation?
- 2) What are the discursive strategies used by institutional orders to (de)legitimize institutional logics and promote their version of change?
- 3) What are the dominant organizing visions arising out of the messages within the inter-institutional field?

Chapter 3 - Research Methodology

This study employed discourse analytic methods to examine how members of the organizational field responded to EHR-related changes. Discourse refers to practices of writing and talking; it ‘rules in’ specific ways of talking about a subject, defines acceptable and intelligible way to talk or write, while ‘ruling out’, or restricting other ways of talking or constructing knowledge (Phillips, Lawrence, & Hardy, 2004). Taylor and Van Every (1999) referred to it as structured collections of meaningful texts, wherein the term text includes “any kind of symbolic expression requiring a physical medium and permitting of permanent storage.” Discourse analysis involves an examining the text itself, as well as its production, dissemination and consumption, thus allowing us to explore the relationship between discourse and social reality. Also, texts are not studied in isolation, but rather are studied as a collection or bodies of texts, with focus on how they are made meaningful through their links to other texts. They enable researchers to study social process of organizational as well as interorganizational discourse (Phillips et al. 2004).

Discourse analysis includes not only collection and analysis of data, but also brings with it the assumption that language is fundamental to the construction of social reality (Saldana, 2009). The process of analysis includes questions such as (a) what are the institutional logics underlying this text? (b) How is this text situated within the broader context of discourse surrounding institutional change? and (c) What has been recorded, omitted and taken for granted within the discourse? This section provides details about how the data was collected and the way in which discourse analysis was used to answer the research questions.

Data Collection Design

The method for selecting the research sample was theoretical *and* selective sampling. According to Coyne (1996), selective sampling, also known as purposive sampling, is one of the most frequently used methods of sampling in qualitative analysis. Coyne states that selective sampling “refers to a decision made prior to beginning a study, to sample subjects according to a preconceived, but reasonable initial set of criteria” (p. 628). Different forms of purposeful sampling include convenience sampling (obtaining information about the theoretical construct in a convenient fashion), extreme or unusual case sampling (to obtain information about extreme or unusual examples of the theoretical construct), central case sampling (to obtain information where the theoretical construct is assumed to be present), similar case sampling (to obtain information about how the theoretical construct operates in range of situations similar to your study), and paradigm case sampling (to obtain information about the theoretical construct in day-to-day life). This study used the central case sampling method, wherein the researcher selects the most productive sample to answer the research question. According to Marshall (1996), the question regarding what should be considered the most productive sample can be answered based on the researcher’s practical knowledge of the area, available literature, and evidence from the study itself, since qualitative research feeds on itself.

Theoretical sampling refers to a sampling based on analytic grounds, and is developed in the course of a study. Theoretical sampling is the process of choosing a research sample in order to understand, extend or refine a theory or a concept (Auerbach

& Silverstein, 2003). It is responsive to the data and is not established in a rigid fashion before the research begins. According to Corbin and Strauss (2008) this form of sampling is open and flexible; concepts are derived from data during analysis and if needed, these concepts drive the next round of data collection. Theoretical sampling aids understanding of relevant concepts, their properties and dimensions. Coyne (1996) suggest that selective sampling typically precedes theoretical sampling because the researcher projects a sampling frame at the beginning of the study (selective sampling) which permits the researcher to develop the conceptual lines that will ultimately drive theoretical sampling.

Data were collected primarily through identification and analysis of relevant written documents, web-based publications, and publically available discourse (web-based). For the purposes of data collection, a network of key healthcare stakeholders (Scott et al., 2000) involved in EHR implementation was identified – physicians, EHR vendors and the government. Data collection included discourse by a) key vendors that provide EHR software to physicians – Aprima, Greenway, AdvancedMD and Cerner b) key regulatory bodies and associations that are involved in EHR implementation process, namely the Office of National Coordinator for Health Information Technology (ONC) and National eHealth Collaborative (NHC), c) associations and publications that represented physicians – American Medical Association (AMA), New England Journal of Medicine (NEJM) and thehealthcareblog.

The key vendors were randomly selected out of the list of top ten EHR vendors for primary care physicians, based on the market research by Black Book Rankings in the year 2012. Black Book Rankings is a technology service and market research organization, which also provides lists of EHR vendors based on their satisfactory ratings

every year. Stakeholders within the field of health care field often quote Black Book Rankings, including some of the influential organizations such as American Medical Association and Health Information Management Systems Society (HIMMS), as well as blogs and healthcare websites such as thehealthcareblog.com.

In their study, Davidson and Reardon (2005) identified criteria that make certain documents relevant for our understanding of discourse surrounding EHR. These include: Statements about the business problematic (healthcare sector problems which involve EHR); experiences and problems relating to EHR; core EHR technologies; document authors' apparent goals relative to EHRs as evident in the document; and documents serving the purpose of interpretation, legitimization or mobilization of EHR. Data related to textual documentation was collected in the form of organizational websites, blogs, and other publicly available discourses such as transcripts of meetings held by ONC, and webinars organized by Aprima, Greenway, AdvancedMD and ONC. Analysis focused on those statements concerned with the business problematic (healthcare sector problems which involve EHR), experiences relating to EHR, apparent goals relative to EHRs, and statements that attempt to interpret, legitimize for mobilize the use of EHR. The list of webpages at the beginning of the study was an approximate one, but the list changed and included additional pages or discarded information from some of the pages that were initially downloaded as the analysis progressed. In typical practice, the number of required subjects/documents usually becomes obvious as the study progresses, and new categories, themes or explanations stop emerging from the data as part of theoretical sampling (Marshall, 1996). The process of this study echoed this sequence.

Data collection through web pages. The first step was to identify the websites of the organizations and associations that were being studied. Next, I visited the homepages of the websites and looked for sections focusing on EHR. In case of vendor websites, most sections focused on EHR, but only the pages that met with Davidson and Reardon's (2005) criteria were downloaded. All the vendor websites had blogs and case studies about EHR. While blogs discussed healthcare sector issues related to EHR, core EHR technologies, EHR goals and attempts at interpretation and legitimization of EHR, case studies usually documented physician stories or experiences and problems related to EHR, and reflected an attempt to mobilize EHR by encouraging the audience (presumably physicians) to implement EHR at their clinic. All marketing and sales brochures related to EHR were also downloaded from the websites. In most cases, brochures and case studies were available as pdf files, making it easy to download the files directly in the pdf format. When pdf files were not available, the content on the webpage was copied and pasted in a word document, which was then saved digitally.

Webpages related to ONC and NEH were more complex and addressed a range of issues beyond EHR, because the websites focused on healthcare IT in general and not just EHR. In these cases, data collection included all the EHR-related blogs and web pages under sections connected to EHR, such as meaningful use, EHR incentives, EHR resources, EHR funding, news or events. These sections further included sub sections which in total comprised hundreds of pages. Therefore to limit the number of pages, they were randomly selected from each section using advanced google search. Advanced google search allows us to search for specific terms (such as electronic health record) under each web section (such as <http://healthit.hhs.gov/portal/server.pt/community>) of a

website (<http://healthit.hhs.gov>). For instance, the search result would include all web pages linked to <http://healthit.hhs.gov/portal/server.pt/community> containing the term electronic health record. Links to all the web pages appearing on this search were copied and randomly chosen for analysis. To randomly choose the web pages, they were initially pasted on an excel sheet. Random numbers were generated in the first column of that excel sheet and the 'sort data' function was used to sort the columns according to the first column of random numbers. Web pages appearing in the first twenty rows were then selected for analysis. The process was repeated for each web section of that website. The entire process was then repeated for the National eHealth website <http://www.nationalehealth.org/>, American Medical Association www.ama-assn.org, The New England Journal of Medicine <http://www.nejm.org/>, and the Healthcare Blog www.healthcareblog.com.

Data collection through webinars. I participated in approximately eight webinars that discussed implementation of EHR. Webinars are typically organized by vendors, regulatory authorities and professional associations. The number of webinars for data collection was based on my initial participation in two webinars, organized by AdvanceMD and Healthcare Information and Managing Systems Society (HIMSS), which led to the assumption that data from eight additional webinars might be sufficient for the purpose of this study. Out of the eight webinars, two were organized by Aprima, two by Greenway, one by Healthcare Information and Managing Systems Society (HIMSS) and three by National eHealth Collaborative (NeHC).

Thus, in total, I participated in ten webinars, five of which were organized by vendors (Aprima, AdvanceMD and Greenway), two of them were organized by HIMSS

and three were organized by NeHC. HIMMS is a non-profit organization that provides information about health information technology and NeHC has been established with the help of a grant from the ONC to identify and address issues surrounding health information technology. The webinars were chosen based on their topics and the participants at the panel discussion. For instance, webinars that had a diverse panel, including representation from vendors, government representatives, hospital administrators and physicians were chosen for the study, as opposed to those that only included vendors and administrators, or vendors and government representatives. This is because the webinars panelists were seen as a representation of the members within the organizational field, and therefore the goal was to get at the discourse surrounding EHR from the perspective of various field members.

Each webinar lasted for approximately one hour thirty minutes, which included presentations from each of the panelists, followed by a question-answer session that was open for all the participants of the webinar. These webinars had anywhere between 50-150 participants at a time. It is not possible to give an exact number of the participants for all the webinars, as participants kept logging in and logging off at different points of time. The webinars enabled me to view presentations, panel discussions, lectures and interactions among diverse members of the organizational field, thus providing an opportunity to study various discourses surrounding EHR. The interaction process was analyzed as embedded in the larger context of the institutional orders within the organizational field.

Supplemental information gathering. EHR implementation is complex issue and therefore during this study, I supplemented my data collection process with series of

physician interviews. A small set of physicians were interviewed to get an overview of the issues surrounding EHR. These interviews were conducted purely to gather background information and understand the complexities surrounding EHR. They were a part of the data collection and data analysis process to answer the research questions of this project.

For gather the background information, I focused on twelve independently practicing physicians and asked them questions regarding their perception of EHR. The choice of interviewing only independently practicing physicians was made because their involvement in the EHR process is higher than their counterparts working in large hospitals. One of the reasons for their higher involvement is the financial cost of implementing the technology; up-front costs range from \$ 16,000 to \$ 36,000 per physician (Miller, Hillman, & Given, 2004). Also, unlike physicians working in hospitals, where a medical records director make decisions regarding EHR adoption, the burden of making logistical decisions regarding EHR fall upon independent physicians. Considering that there are over 300 EHR vendors, physicians invest considerable time and effort choosing the right EHR vendor for their practice. Therefore physicians who practiced in larger groups or hospitals are found to be more likely to use EHR than those who operate in the form of an independent solo practice (Menachemi & Brooks, 2006). Initially, participants were recruited through selective sampling. Professional and personal acquaintances that fit the criteria mentioned above were contacted for their voluntary participation, with a request to provide contact details of other potential participants. However, as the analysis proceeded, theoretical sampling was followed based on analytic requirements. For instance, the need to interview physicians who had

implemented EHR by a particular vendor, but were dissatisfied, and therefore had to use another vendor and go through the process all over again.

Data Analyses: Sociological Discourse Analysis

Data was analyzed using sociological discourse analysis method to analyze the discourse by different stakeholders regarding EHR. This section will provide information about this method, outline step-by-step processes involved in the analysis of data, and the ways in which it will enable me to address specific research questions.

The study used sociological discourse analysis method, as outlined by Ruiz (2009), to examine stakeholder communication surrounding EHR. Ruiz posits that this method allows us to look at discourse from a holistic point of view by engaging with discourse at a textual as well as social level. This form of analysis requires discourse to be studied from both textual and contextual standpoint, and accordingly, Ruiz identifies three levels of analysis: textual level, contextual level, and interpretation level. He notes that textual analysis focuses on words and utterances, thus allowing us to characterize the discourse; contextual analysis allows us to understand the discourse; and interpretation allows us to look at the social aspects of the discourse.

Textual level of analysis. The initial analysis begins at the textual level wherein the analyst is expected to use standardized methods to study the text, giving it an appearance of objectivity. However, Ruiz argues that such objectivity does not truly exist, as we still have the analyst reading the text, selecting pertinent parts of the text, establishing relationships between texts and identifying significant aspects. The first step in textual analysis is to *transcribe* and *describe* the discourse (in cases where it is not readily available as written documentation) and convert them into textual form. Ruiz

clarifies that transcription should include all non-verbal elements such as silence, emphasis, meaningful gestures etc and the description should include the context in which the discourse exists. In this study, some of the federal committee meetings that are available only as audio files (without transcription) were described and transcribed, whereas the discourse on websites and blogs was described.

Since textual analysis involves characterizing or determining the substance and structure of the discourse, one of the techniques used for this purpose is content analysis (Ruiz, 2009). Content analysis primarily includes breaking down the text into significant units of information; these units are coded and categorized for further analysis. According to Berelson (1952), content analysis was initially used for both qualitative and quantitative analysis, though eventually this method became known for its quantitative approach towards analysis of text or quantitative analysis of qualitative data (Morgan, 1993). The classic definition by Berelson (1952) considers content analysis to be a “research technique for the objective, systematic, quantitative description of the manifest content of communication” (p. 18). However, Hsieh and Shannon (2005) note that the last few decades have seen recognition of content analysis as a method of qualitative analysis, leading to its increased use and popularity. In this study, content analysis has been defined as a “method for subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). The basic coding process requires organizing large quantities of text into fewer content categories (Weber, 1990). Content analysis requires development of coding schemes that allow the analyst to make decisions regarding the content. Thus coding scheme is a translation device that organizes data into categories.

Categories are themes that are either directly expressed in the text or are derived from the text by the analyst. The final step is to identify relationships among categories.

According to Hsieh and Shannon (2005), development of a good coding scheme is central to successful content analysis. They note that coding schemes can be developed through conventional, directed or summative approaches towards content analysis. The conventional approach to content analysis focuses on description of the phenomenon, with emphasis on the unique perspective emerging from the data, without imposing preconceived categories or theoretical perspectives. This approach is usually used when there is a lack of existing research literature or theory surrounding the phenomenon being studied. However, the drawback of this approach is that it does not take into consideration the context and therefore may not allow a complete understanding of the phenomenon. Directed content analysis is used to validate or extend a conceptual framework or theory. Based on the existing concepts or variables, researchers create initial coding categories and use these predetermined codes to analyze data. Text that cannot be coded through predetermined codes is categorized into new codes or subcategories of existing codes. A summative approach to analysis refers to identifying certain words or content in the text to understand the use of the words or content. Here the attempt is not to infer meaning but rather to explore the usage of the word. For this study, summative approach to content analysis was used. It began with an initial coding method that identified the use of key words used by the organizations to talk about uses of EHR, benefits, challenges, business problematic and technical aspects. The first step was to locate certain patterns in data through these words, and the second step was to examine the data to understand the underlying differences and similarities in the patterns

of communication produced by various organizations. So the first step yielded information regarding the ways in which certain institutional key words are used by the organizations in the institutional messages, whereas the second step yielded an understanding of the institutional logics emerging in different stakeholder messages.

Content analysis was conducted using the qualitative analysis software Atlas.ti. Atlas.ti provides researchers with tools to identify themes, create coding schemes, and observe patterns that reflect complex relationships between the codes. The program allows for consolidating large amounts of text, audio and video files into hermeneutic units (HU), which contain all the primary documents, notes, codes, quotes, memos, and so on. Primary documents refer to the documents that are downloaded into the program for analysis. Codes refer to coding schemes developed from the documents being analyzed. Quotations refer to the specific content from a document that is identified by the research as reflecting a particular code. A quotation may reflect more than one code. Memos refer to notes reflecting the researcher's thoughts, comments and questions. Memos can either be linked to a code, document or quotation, or they can be saved as a stand-alone note. The program also has a tool called co-occurrence explorer, which allows the researchers to examine how certain codes may be inter-related.

In this study, all the data from organizations' websites, case studies, blogs and webinars were downloaded into the Atlas.ti file as primary documents. In case of webinars and audio files of meetings organized by the regulatory authorities, Atlas.ti's A-Docs was used to transcribe the data within Atlas.ti and link the documents to each other in such a way that they could be viewed synchronously. Therefore, I could read the transcript and listen to the audio file hearing the original tone of voice. This allowed for a

much better understanding of the transcribed data, making it easier for me to code the transcription. There were total of 344 primary documents, out of which 112 represented the vendors, 128 represented the regulatory bodies, and 104 represented the physicians and medical associations. Documents from various organizations and associations were saved into separate folders. A separate HU was created for each of the three institutional orders, and therefore each HU contained several primary document folders representing organizations from the same institutional order. While it was technically possible to save all the primary documents from various institutional orders into the same HU, it made more sense to have separate HUs for each institutional order because of coding purposes. The coding comparison tool, also known as the co-occurrence tool in Atlas.ti, allows the researchers to choose specific codes for comparison but the tool includes all the primary documents for this purpose. It is not possible, for instance, to limit the coding comparison to primary documents of a specific institutional order. Thus it was more efficient to initially create separate HUs for each institutional order and compare code patterns between different organizations within the same institutional order. The three HUs were later merged into one large HU to compare code patterns between different institutional orders.

Pandit (1996) notes that Atlas.ti has two levels of data analysis: textual level and conceptual level. The textual level is focused on the raw data and allows for text segmentation, coding and memo writing. The conceptual level is focused on building a framework and creating patterns by interrelating codes, concepts and categories to advance our theoretical knowledge. The first step involved analysis at the textual level. I went through each line of each primary document to explore the ways in which

organizations talked about uses of EHR, benefits, challenges, business problematic and technical aspects. Specific words or content in the text was identified and coded by the same label when they were found to be conceptually similar. Quotes that represented various concepts received multiple codes. Memos were used at all times to describe the codes and record the thinking process while the data were being analyzed. As the coding progressed, certain codes were deleted for being redundant and some codes were merged when they were found to conceptually represent the same thing.

This was followed by a conceptual level analysis wherein codes were studied for the groundedness and density. Groundedness refers to the number of quotations associated with each code, and density refers to the number of codes associated with a particular quote. Information about groundedness allowed me to identify key words and phrases that were most prominently associated with certain primary documents, organizations or institutional orders. For instance, patient care was a recurring category that emerged in all primary documents associated with government bodies and its groundedness was 63, meaning that the 63 quotations were associated with patient care. Density allowed me to narrow down the quotations that could potentially provide information about linkages between different codes. For instance, primary documents about case studies about a government initiative titled ‘beacon communities’ typically had high density quotations, meaning that a particular quotation would be linked to four different codes.

Examining the groundedness and density allowed me to get a broad overview of the code patterns in the data. However, to make sure I was not missing out on any crucial piece of information, I generated a complete report of all the codes, quotations linked to

the codes, their groundedness and density. Next, I used the co-occurrence tool to examine the patterns underlying these codes. The co-occurrence tool is a basic proximity tool that allows the researcher to retrieve all the codes that occur close to each other, either because they overlap or follow one another, thus helping the researcher recognize the links and connections between certain codes. I also used the query tool to retrieve quotations using the codes that were associated with each other during coding. A query is a search expression based on operands or codes, and operators such as AND, OR, FOLLOWS, INCLUDES, ENCLOSES, etc., that define the conditions that needs to be met for a quotation to be retrieved. For instance, ‘patient care FOLLOWS patient empowerment’ would retrieve all quotations where a particular content was coded as patient care and followed by content that was coded as patient empowerment.

This allowed me to examine the proximity of certain codes -- codes appearing next to each other, codes following or preceding each other, or codes that never occurred with each other (though they were expected to do so). These insights were used as a guiding tool to conduct summative content analysis and helped me identify institutional logics embedded in the organizational discourse. The co-occurrence and query tools allowed me to create supercodes – codes that were not connected to particular textual data but rather, were connected to other codes. These were higher order codes that represented the institutional logics emerging in the data. This analysis was used to address the first research question: What are the institutional logics advanced by the three institutional orders of State, Profession and Corporation?

Contextual level of analysis. The second level of sociological discourse analysis focuses on the context. Context has been defined by Ruiz (2009) as the space in which

the discourse emerges and acquires meaning. Here, Ruiz makes the distinction between two types of contexts – situational and intertextual contexts.

Situational context analysis involves detailed description of the circumstances surrounding the discourse and the subjects that produce the discourse. This involves questions such as whether the discourse is individual or collective, the availability of resources and discursive capacity of the subject, and other relevant questions for understanding the contextual meaning of the discourse. The analyst must examine who produced the discourse, why the discourse has been produced and for what aim (intention), the nature of the discourse and its meaning, the discursive position of the subject, etc for situational analysis. For this study, addressing the questions proposed by Ruiz also allowed me to investigate institutional message features, as outlined by Lammers (2011), namely intentionality of the message, encumbency of the message, establishment of the message and reach of the message.

For instance, questions regarding the discursive capacity and reach of the discourse also address features related to encumbency and reach of institutional messages; examining the discursive position would reveal the intentionality of the messages; exploring the meaning of the discourse, its collective audiences and availability of resources can also inform us of the establishment of the messages. Situational analysis at the contextual level lead to insights regarding features that reflect institutionality of messages. Here, the analysis process was different than the coding that took place at the textual level of analysis. The codes were predefined as encumbency, reach, institutionality and establishment. Each primary document loaded in the HU was coded either as high, low or not applicable in encumbency, reach, institutionality and

establishment. The interpretation of whether a message was high, low or not applicable for a particular category was made based on Lammers' (2011) definition of messages and message characteristics.

All of this discourse is embedded in an institutional context that includes multiple institutional messages. This context can be studied through intertextual level of analysis (Ruiz, 2009). According to Ruiz intertextual analysis enables us to understand a particular discourse by referring to all of the other discourses circulating in the social space. Thus, a message will not be studied in isolation, but rather studied is part of collection of institutional messages surrounding EHR.

The concept of intertextuality assumes that we resort to discourses existing within the social space to produce our own discourse. Discursive activity involves selecting and combining elements from other discourses as well as engaging in implicit or explicit dialogue with other discourses. The meaning of the discourse, therefore, emerges through comparative analysis of other discourses. This study argues that examining the intertextual context of the discourse would allow an understanding of the emergence of organizing vision constituted by institutional messages of the stakeholders. According to Ruiz, intertextual analysis requires the researcher to examine each fragment of discourse with reference to other discourses it dialogues with, and also explore the associative or conflictive relationships with other discourses. Such analysis reveals the various associations, tensions and conflicts surrounding the EHR narrative. It sheds light on different stakeholders' creation of organizing vision through their institutional messages as they selectively adopt, refute, challenge or reinforce existing discourse Researchers have approached intertextuality from different perspectives, for different purposes, and

therefore we do not have one single method for analyzing intertextuality in written texts (e.g. Bazerman, 2004; Fairclough, 1992; White, 2002). For this study, I draw upon the method of analysis used by Wang (2008) in her article on Chinese newspaper commentaries regarding 9/11. Based on the framework by White and Bazerman, Wang explored ways in which authors draw on external sources for their texts study the way in which writers include outside sources. Wang examines source type to examine the type of sources being used, source function to examine the purpose for using these outside sources and finally how the authors position themselves vis-à-vis external sources.

The framework by Wang (2008) was adapted to study intertextuality of messages by examining each primary document for source type, source function and the purpose of the author in incorporating the text. Source type and source function were created as supercodes in the HU, following which each of the primary documents was examined line by line to code them under these categories. The process of coding after creating the supercode categories was similar to the coding that was done as part of summative coding for textual analysis. This analysis addressed the research question: What are the discursive strategies used by institutional orders to (de)legitimize institutional logics to promote their version of change?

Interpretational level of analysis. The third and the final level of analysis, which is the interpretational analysis, requires the analyst to make connections between the discourse and the social space within which they emerge. Ruiz (2009) suggests that there can be three types of interpretations, the first one being interpretation of the discourse as social information. This involves examining discourse in terms of the social competence of authors as informants. Here, questions are asked related to their knowledge of the

reality and their expository capacity. The second type of interpretation has to do with discourse as reflection of the ideologies of the authors. It requires the analyst to ask questions regarding the authors' viewpoint. The discourse is studied to examine their ideological constructs, their ways of perceiving the world and finding their place in the world. The third type of interpretation, which is also the focus of this study, explores the discourse as a social product.

This type of analysis leads to questions such as: What allows a discourse to have legitimacy? What social conditions have allowed certain discourses to emerge and not others? Ruiz notes that this type of interpretation means breaking away from discourse or taking a step away from the discourse in order to establish a connection with the wider social context. It provides an explanation of the discourse as an indication of broader social phenomena. He compares it to deductive reasoning by detectives who interpret clues that allow for reconstruction of events or a doctor's process of reasoning when diagnosing an illness based on symptoms. The interpretational level of analysis is expected to answer the broader research question: How do stakeholders legitimize or delegitimize change through institutional messages and organizing visions? It makes the assumption that every discourse reflects the social reality in which it has been produced and therefore it can reveal the social conditions, social structure, symbolic gestures, cultural orientations, as well as practices and norms of the social world. Interpretational analysis was used to answer the third research question: What are the dominant organizing visions arising out of the messages within the inter-institutional field?

Chapter 4 - Results

This chapter presents the results in three sections: (a) content of the institutional messages and identifying institutional logics within those messages, (b) intertextual references that account for how these logics are established, strengthened, legitimized and delegitimized (c) features of institutional messages that inform how organizing visions emerge out of the discourse within the inter-institutional system. These three sections will answer the following research questions, respectively – what are the institutional logics advanced by the three institutional orders of State, Profession and Corporation? What are the discursive strategies used by institutional orders to (de)legitimize institutional logics and promote their version of change? What are the dominant organizing visions arising out of the messages within the inter-institutional field?

As discussed earlier in the second chapter, discourse is used to perform persuasive functions of organizations as well as achieve specific goals. Organizations attempt to shape, rather than simply anticipate the situations they might face, by influencing perceptions and policies (Cheney, Christensen, Conrad & Lair, 2004). Discourse often draws on existing cultural assumptions to support, condemn, legitimize or delegitimize policies and changes. Organizational discourse is also used to strategically manipulate the environment, especially during times of change.

This project found that institutional orders resorted to strategic rhetorical discourse, reflecting a “conscious, deliberate and efficient use of persuasion” (Cheney et al., 2004). According to Cheney et al. rhetoric has always been concerned with the way in which discourse intertwines with human relations. Fairhurst and Putnam (2001) note that

of all the approaches to discourse analysis, identification of rhetorical strategies is most closely associated with organizational communication, as it is concerned primarily with strategic dimensions of the discourse; allows for direct and indirect persuasion; and facilitates image and identity management. According to Cheney et al., through rhetorical discourse, organizations try to influence the *topoi* or beliefs and general assumptions prevailing in the organizational field. *Topoi*, meaning topics or commonplaces, are points of references and pools of meaning used for explaining ideas and making claims (Karpik, 1978). Cheney et al. give the example of ‘free market capitalism’ as one of the most valuable *topoi* and note that premise of free market superiority is often used by most institutions to legitimize a policy or practice. For instance, in 1990s, the tobacco industry questioned government’s proposed tax on tobacco by framing the discourse as government interference in the free market that would compromise the positions of working class and middle class consumers. They legitimized their position as champions of working people and free market system, thus sidestepping the issue of tobacco addiction. This section on institutional logics will show how two institutional orders of the State and Corporation use the common *topoi* of efficacy to advance their logics. These two institutional orders often used the same *topoi* to legitimize their claims regarding EHR, even when they differed in their claims. By using similar *topoi* in their messages, institutional orders align their interests and advance common goals, even when their discourse at large suggests differences in their logics.

Institutional Messages and Logics

An examination of institutional messages by organizations from all the three institutional orders revealed clear, distinct patterns in their use of certain words and co-

occurrences. The changes surrounding EHR were presented differently in the messages by each institutional order. Even in cases where organizations from various institutional orders discussed similar concerns, benefits and challenges, these similarities were underscored by differences in the ways in which these issues were framed.

In my analysis of messages representing the Corporation as an institutional order, 73 codes were developed, which were further refined into 17 supercodes. These supercodes were further analyzed using co-occurring tool and Atlas.ti's network manager to identify the associations and relationships between various supercodes, thus revealing dominant institutional logics in the messages (See table 2 below for the list of supercodes and institutional logics). For the regulatory bodies and associations representing the State, a total of 85 codes were developed, which were further refined into 15 supercodes. These supercodes were also analyzed using Atlas.ti's co-occurring tool and network manager to reveal the dominant institutional logics (see Appendices 2, 3, 4 and 5 for detailed network view). Similar analysis was also performed for the institutional order of Profession, which yielded 60 codes, 13 supercodes and led to the identification of institutional logic.

Table 2

Institutional Logics and Associated Supercodes		
Institutional Order	Institutional logics	Supercodes

Corporation	Operational Efficacy	<hr/> <i>Cost containment, reduction of errors, timesaving, data availability, billing and insurance systems. inevitability of EHR, technological flexibility, information sharing, complete documentation, patient care, coordinated care, patient diagnosis physician convenience, physician flexibility, meaningful use</i> <hr/>
State and Corporation	Logic of Collaboration	<hr/> <i>inevitability of EHR, public-private partnership, integrated healthcare, medical progress, medical success, information exchange, EHR certification, EHR implementation, privacy and security</i> <hr/>
State	Healthsystem Efficacy	<hr/> <i>Technology and progress, innovation, patient empowerment, EHR certification, meaningful use, interoperability, community health, quality of care, aiding primary care, coordinated care, preemptive care, positive patient outcomes, sustainable healthcare, health improvement goals</i> <hr/>
Profession	Healthcare crisis	<hr/> <i>Technology-related errors, dysfunctional systems, administrative burdens, interoperability, health information exchange,</i>

*billing and insurance, physician-patient
interaction, medical errors, work challenges,
EHR expenses, high risk investments*

Logics Related to Efficacy

The notion that EHR as a technology would lead to *increased* efficacy was reiterated in the institutional messages by organizations representing the institutional order of Corporation as well as the State. However, the codes and supercodes associated with the logic of efficacy differed significantly for both institutional orders, thus suggesting that the concept of efficacy was presented and communicated differently by the State and the Corporation. According to Thornton et al. (2012) strategic aims of Corporation and State are increasing efficacy via profit and increasing community good, respectively. It was hardly a surprise, then, to discover that institutional messages by vendors linked EHR-related efficacy to improvement in business practices by reducing costs, increasing revenues and time saving strategies. Regulatory bodies and government associations, however, identified EHR-related efficacy as this technology's ability to create systems that would support positive health outcomes in a community. Thus messages by the vendors advance the *logic of operational efficacy* whereas messages by government agencies advance the *logic of healthsystem efficacy*.

Institutional messages by vendors equated efficacy with reduction of red tape, quick availability of information, and ability to keep track of patient records, all of which save time for doctors and the medical staff. Aprima's website narrates the experiences of a medical staff, who commends Aprima for making things simpler for her at work:

Margaret White of HCS says, ‘We really appreciate the Aprima system. Having all the information in one record makes our job much easier. For example, images of things like the insurance card and driver’s license are right there, so if we get an error message from a payer, we can make the correction without having to call the practice and ask them to pull the file. Aprima also makes it easier to respond to denials; if the payer says a diagnosis code doesn’t match the CPT code, we can look at the clinical note and respond immediately. Aprima saves us a lot of telephone calls and a lot of hours.

In yet another instance, efficacy is linked to physicians’ ability to multitask, respond instantly to messages, if the need arises, and the feeling of being in control during all times.

Dr. Leitner names increased efficiency as his favorite thing. “Everything’s so much more organized,” he says. “The messaging center makes it easy for me to check routine messages at lunch and at the end of the day. I can also see instantly if another doctor is calling, so I can step out of an exam to take the call if I need to.”

Thus, messages representing institutional order of Corporation advance the logic of operational efficacy. In case of institutional messages representing the State, efficacy was equated with improving the health of the community at large, use of EHR by physicians to share information with patients and other relevant medical practioners, and use of EHR by patients to address their health needs. In a webinar, one of the coordinators of health information technology reiterated their goal:

Health IT can strengthen consumers’ communications with their care team, enable access to information about personal health, and provide tools and services that support them in making sound choices including those related to diet, exercise, and taking medications.

On their website, while discussing the benefits of HER and its meaningful use, Office of HIT states,

All of our nation's health care system will benefit from an efficient IT infrastructure in which electronic health information can be collected, exchanged, and innovatively deployed to improve the safety, quality, and cost effectiveness of American health care.

And further,

Post-acute and long-term care providers stand to benefit enormously from effectively using electronic health records to reduce errors, increase efficiency, and improve care coordination.

Exactly what EHR technology means is constructed differently by these institutional orders. Different orders draw attention to completely different sets of material features of EHR. Their logics related to technology differ because they attribute different meanings to it. This can be recognized as interpretive flexibility – a notion that the meaning of an artifact does not lie in the technology; it is socially constructed by relevant social groups (Orlikowski, 1992). The term was first used by Pinch and Bijker (1984) to describe the relationship between technology and its potential users. Orlikowski states that technology is not viewed as a fixed object but rather as something that offers various possibilities for creation and interpretation. Prominent social groups that have an interest in this technology often play a role in shaping how this technology is perceived and implemented. The way a technology is positioned and discussed influences people's perception of what it can do and how it is utilized, which in turn, influences the process of change associated with the technology (Avolio, Kahai & Dodge, 2001).

It is clear that both the institutional orders draw from the *topoi* of EHR as a means for *increased efficacy* though each one presents a different idea of efficacy. This could be explained by the roles that different organizations in these institutional orders adopt as they advance their logic in the organizational field. Organizations belonging to a specific institutional order must also perpetuate the belief systems, roles and behaviors commonly

associated with the institutional order and conform to the expectations associated with them by the virtue of affiliations (Wooten & Hoffman, 2008). As noted by Thornton et al. (2012), the strategic aims of Corporation and State differ, therefore making it necessary for them to champion different features of the same technology, even as they both maintain support for EHR and advocate the position that EHR leads to increase in efficacy.

In case of vendors, this was achieved by drawing attention to administrative and business functions of EHR, such as billing, insurance claims, payments, and revenue generation. These features of technology were played up significantly in the institutional messages by all the vendors. Codes related to these technological functions were highest in terms of density – the subject of EHR as a tool for revenue increase came up the most and was coded 68 times, followed by billing (48), reduced expense (46), insurance (44) and payments (39). Supercodes cost containment and billings and payment were high in groundedness as well as density.

EHR's technological features related to billing, insurance and revenues were linked with efficacy to build the argument that not only does EHR have tools that facilitate administrative and operational tasks, it also enables physicians to bill patients for all the services rendered, without worrying about insurance claims or payment delays.

It was too easy to forget to write down an X-ray or injection, so those things didn't get billed," says Dr. Tucker. "We were doing things for free. Now when I do an X-ray, it just takes a click or two to note that in the chart, and it automatically gets recorded in the superbill.

And,

Charting is not only better, it's more efficient. Compared to his previous practice, Dr. Tucker has found that he's able to handle 30% more patients, and earn 30% more revenue.

In case of the State, messages by regulatory bodies and associations drew attention to the technological features of EHR that facilitated health information exchange (HIE). They highlighted EHR's capabilities associated with information sharing, easy access to relevant data and coordinated care by various medical practitioners

First, the sooner physicians start using an EHR, the sooner they and their patients will realize its benefits - the ability to share patient data with colleagues and patients, the ability to retrieve old data effortlessly, the ability to access patient records remotely, so they answer patient questions intelligently from home, or even from a medical meeting.

A few weeks ago, I was at the Salt Lake City Diabetes Expo, and met a woman who carries a USB drive with all of her medical records on it to her doctor's appointments. She is tired of faxing all of her records and her doctors' inability to exchange her health information electronically.

Thus, institutional messages reflect institutionalized identities of the organizations being studied – the vendors, regulatory bodies and associations. In their communication related to EHR, organizations conceptualize the technology in ways that reflect the assumptions, beliefs and rules of the institutional orders to which they belong. According to Friedland and Alfred (1991), identities can function as a form of institutional logics, as evidenced in the institutional messages of vendors and regulatory bodies. The identities, goals and objectives of the institutional order resonate in the institutional logics of these organizations. Thus, this study found that during periods of change, institutional

messages of organizations reflected logics that were aligned with the known beliefs, assumptions and goals of the larger institutional order to which they belonged.

Another important finding of the study is that logics residing in institutional messages can become key resources for institutional orders in not only legitimizing their own interests, but also constructing and evoking interests of organizations belonging to another institutional order. According to Hardy, Palmer and Phillips (2000), discourse can be used as a tool by agents to shape the meaning of change for its intended audiences. In this study, we see how by evoking institutional logics, organizations attempt to shape the reality of EHR technology uses and benefits. They do so by attempting to translate the interests of relevant groups in order to align them with their own interests. Translation involves representing the change in a manner that makes others recognize it as congruent with their desires, concerns, or interests (Whittle, Suhomlinova & Mueller, 2010). Organizations representing institutional orders of State and Corporation used the logic of efficacy to function as translators, and aligned their interests with institutional order of Profession. They did so by using two translation strategies identified by Whittle et al. (2010). Institutional messages of the Corporation claimed that they share the same interests as physicians, basically saying “what I want is also what you want.” The second translation strategy reflected in institutional messages of the State asked “I want it, why don’t you?” Fifty two per cent of the primary documents representing vendors and forty three per cent of the primary documents representing regulatory authorities reflected the strategy of translation. These translations are an attempt by the institutional orders of State and Corporation to transform the meaning of EHR and legitimize their EHR discourse in the view of physicians.

For instance, vendors emphasized the administrative and business oriented functions of EHR. Their motives, interests and goals were different from that of physicians, representing institutional order of Profession. The strategic aims of physicians are related to professional excellence and medical practice (Thornton et al., 2012). Vendors recognized this distinction, acknowledged it in their messages, and at the same time, used the strategy of translation to create new meanings and ascribe them to technological features of EHR. As mentioned earlier, institutional messages of the Corporation identified EHR with billings and revenues. At the same time, these messages made a distinction between the primary role of a physician, which is to care for the patients, and the role that they are forced to perform, which is that of an administrator.

Dr. Jeffrey Hyman of UPG and his two partners started looking for an EHR system that would allow them to give more attention to patients and less to paperwork — without changing the way they worked.

The message above, representing Aprima, indicates how translations were used to position EHR technology as something that should be desired by physicians because it would further their interests and benefit their practice of medicine. Interests of different organizations and institutional orders were not just expressed through discourse, as in the case of State and Corporation, but also invoked through discourse, as in the case of Profession. The message below by Greenway draws attention of the physicians to their administrative tasks, thus invoking their need for EHR features related to payment processes.

What other industry or profession are you required to basically learn a foreign language in order to get paid? Physicians must know CPTs, ICD9s, modifiers, HCPCs in order to bill for their services.

Institutional messages of the State used the strategy of translation to maintain that their interests should be the same – “I want it, why don’t you?” This was done by positioning their interests – patient care and positive community health outcomes - being of superordinate importance, overshadowing all other issues. Physicians that embraced the change were hailed as leaders and were praised for their efforts. Benefits of using EHR were presented as being obvious and apparent, as evidenced in the messages below by David Bluementhal, National Coordinator for Health IT and the ONC website, respectively:

To me the choice is clear. Physicians’ professional, clinical and financial interests all point in the same direction. Become part of the future. Become a meaningful user of an electronic health record.

Changing everything over to EHR’s has proven very challenging for the providers and the staff, but they continue to push because they believe it is the right thing to do. They look forward to being connected to each other to coordinate patients’ care and having access to more information, which will enable them to improve their care outcomes. Hard-working providers who try to do the very best for their patients are what keep us all motivated.

Further, changes brought about by EHR technology were depicted as beneficial as well as inevitable. Idea of implementing EHR was presented as “right thing to do” and physicians who did not welcome the change were portrayed as those delaying the progress in this quote from ONC website.

Its advent is inevitable - no more avoidable than the arrival of the stethoscope in the early 1800s or anti-sepsis in the mid 1800s (both of which some physicians furiously resisted) or the ICU in the mid-1900s. Positive change is often disruptive, but it is irresistible nevertheless. In 10 years, paper records will be the exception.

Thus, logic of increased efficacy was used to establish legitimacy for administrative and business oriented account of EHR technology. The strategy of

translation was used to advance logics that suited their purposes and advanced their preferred discourse of EHR technology.

Logic of Collaboration

Institutional messages by the State and Corporation emphasized the logic of collaboration and coordination by advocating a public-private partnership. In their institutional messages, both argued for the need for greater collaboration between the regulatory authorities and vendors so as to pave the way for a more efficient healthcare system.

The stage for collaboration with the private sector, specifically vendors was set early on by the office of National coordinator for HIT. One of their earliest blogs states,

With the meaningful use goals as their framework, these representatives of the private sector are formulating a strategy for the transformation of health care in our country through the use of health IT. These are indeed significant and encouraging first steps, occurring a mere three weeks after announcement of the final phase 1 meaningful use rules... we look forward to more vendors joining the team to move together towards our common goal.

In yet another blog, ONCHIT discusses at length “Partnering with EHR vendors to identify best practices for working together to meet the needs of providers.” In most cases, ONCHIT blogs and government sponsored webinars mention collaboration and partnership as the only way to go about achieving their “common goal.” The distinction between the objectives and goals of the two institutional orders becomes blurred as they frame their messages to highlight their goal of achieving similar outcome – higher penetration of HER.

The HITECH Act got the ball rolling. But government can only take this so far by itself. To provide real momentum for the widespread adoption and meaningful use of electronic health records, the private sector has to be there to push it along.

Institutional messages of vendors draw attention to their partnerships with the national health bodies as a way to gain competitive advantage over others in the field and position themselves as leaders.

It's easy to portray ONC and CMS as cumbersome government agencies invoking rules on how care providers practice medicine and EHR software providers write code, and that notion is out there. We know a little bit better at Greenway since our leadership has been involved for several years in the collaborations toward EHR meaningful use standards and a range of quality reporting initiatives.

When asked to host more than a dozen members of the Federal Health Community at a customer practice during the HIMSS11 annual conference - which included ONC and CMS officials, and those from the FDA, CDC and the HHS Office of Civil Rights among others - we knew we could provide a real-world example of the collaboration between an EHR provider and a physician practice they could take back to their colleagues.

Collaboration was presented as the only way to take the healthcare industry forward – it was a sign of progress and organizations or associations that took this path were portrayed as leaders by both the institutional orders. As reflected in Greenway's blog [here](#), participating in this endeavor is linked with the not only EHR implementation but also better healthcare for patients. The implication being that those who do not collaborate with other organizations and institutional orders could be perceived not only as laggards, but worse, as negatively impacting the field of healthcare.

I applaud the Robert Wood Johnson Foundation for sponsoring this event as well as Beacon Community leaders and fellow Electronic Health Record Association (EHR Association) members for traveling across time zones, (on a time-change weekend no less) in interest of increasing collaboration between groups to ultimately achieve better patient care.

Information about a vendor's collaboration or ties with the national health bodies was associated with greater credibility, sense of importance and prestige. For instance, in

the statement by PrimeSUITE given below, the organization uses its certification provided by ONCHIT as a way to distinguish itself from hundreds of other EHR vendors present in the marketplace.

“At this juncture, PrimeSUITE is one of only two solutions in the marketplace that offers a fully-integrated, meaningful use certified, electronic health and dental record.”

In the next statement, we see how involvement in ONC’s Beacon community project is presented as a way to strengthen the credibility of the vendor.

There are 17 regional Beacon communities in the country today, supported by ONC funding. Greenway has been involved in their advancement and connecting providers to these communities for some time, and it’s an important project seeking further integration with similar programs to continue to advance patient care.

In turn, vendor participation is presented as a proof that the EHR implementation is indeed on the right track and is gaining momentum.

This broad swath of support for the Direct Project represents approximately 90% of market share covered by the participating health IT vendors.

In several cases, institutional messages by organizations from one particular institutional order reflected the goals and beliefs of other institutional orders. So much so that the message, if read in isolation, might be perceived as being communicated by a different institutional order than the one to which it actually belonged. For instance, the following passage taken from the webpage of the vendor PrimeSUITE, could easily be mistaken for a message from ONCHIT:

PCMHs and ACOs provide promise to a healthcare system that seeks improved outcomes through care coordination, patient engagement in their care, the shift from episodic medicine to preventive care with early detection and aggressive management of chronic conditions.

According to Gray (2000), collaboration can be an important component of institutional change, and often disparate actors or organizations, with different interests, come together to promote a similar outcome. These collaborators can hold different interests, may have different views of who they are and what they want to accomplish. In addition to having different interests, collaborators can also have different identities and yet they come together for establishment or maintenance of common institutional logics to shape institutional changes. In these cases, maintaining strong and separate identities may be essential to maintain their legitimacy. Therefore we see both the State and the Corporation advocating for EHR using the logic of increased efficacy, and at the same time legitimize different functions of EHR in their messages.

Logic of Healthcare Crises

Although organizations often purposefully promote specific views, their arguments are also affected by available discourses within the organizational field. This is because they operate within an already existing discursive space, which consists of different discourses competing for legitimacy. In the case of institutional order of Profession, the discourse was shaped by institutional messages from vendors and the government. Analysis of institutional messages in medical associations, trade journals and blogs revealed that physicians used their discourse to engage in a process of delegitimization, rather than legitimization. While legitimization has been defined as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574), delegitimation means establishing a sense of negative, or otherwise unacceptable action affairs (Vaara & Monin, 2010).

Delegitimization of the assertions made by the State and the Corporation was done in a twofold manner: first, by reacting and countering the assertions and secondly, by presenting the logic of *crises*, to indicate that neither the State nor the Corporation truly understood the complexities of healthcare, which was leading to a crisis in healthcare.

According to Hardy and Phillips (2004), attempts of legitimization can actually lead to established legitimacy only if the discourses containing logics are in fact consumed or internalized by the relevant actors or groups within the field. In the field of healthcare, the relevant actors are the physicians who are expected to utilize EHR in their medical practices. Physicians countered legitimization attempts by the State and the Corporation by making direct or indirect references to their assertions regarding EHR technology and contradicting those claims. The two quotes given below from thehealthcareblog.com show how institutional messages by physicians directly challenged the assertions by vendors and the government agencies regarding cost containment, revenue benefits and improved care.

...There is no definitive study showing dramatic clinical improvement, demonstrable return on investment, etc. Indeed, we now have a number of studies suggesting exactly the opposite:

- The implementation of an EHR upends organizational structure and often slows down the provision of care.
- The introduction of an EHR into a dysfunctional organization tends to exacerbate, not alleviate, said dysfunction.
- Much of the promise of health IT is in interoperability, and the industry is a long way from reaching that goal.
- Physicians generally dislike most health IT solutions.
- Patients would rather the doctor look at them instead of the monitor

The simple truth is that EHR systems do not currently offer cost savings equal to purchase price. With some solutions, there's an uncrossable chasm between sticker price and ROI. crisis

Physicians writing for thehealthcareblog.com also contradicted government declarations about information-sharing and interoperability, which in turn challenged the contention that EHR use led to positive health outcomes for patients.

Modern health IT systems are not interconnected and interoperable, functioning less as 'ATM cards,' allowing a patient or provider to access needed health information anywhere at any time, than as 'frequent flier cards' intended to enforce brand loyalty...

Notwithstanding the improved information flow that an electronic health record makes possible within a hospital or medical practice, even certified EHRs often have limited capacity to share important care-related data with other EHRs, in effect creating electronic information silos,' said Kenneth W. Kizer, MD, MPH, director of the University of California, Davis Health System's Institute for Population Health Improvement, in a statement.

Another delegitimization strategy used by physicians was suggesting that the position of physicians was unique. They claimed that the profession of medicine could not be compared with any other because of the nature of physicians' work as well as the high stakes involved in it. And therefore EHR as a technology was a high risk proposition that could cause grave problems.

And we're talking about the financial viability of hospitals, here, not breakfast cereal. If those Lucky Charms disappear from the shelves, your kid may throw a tantrum, but nobody will get hurt.

In discussing the nature of their work, physicians presented the argument that the technology could never replace their unique skills. The quotes given below reflect

physicians' claim that features of EHR technology do not, in any way, add value to their work of patient care and in fact only serve to detract them from their work.

So what can a contemporary software program contribute to observing and understanding patients? Nothing of any significance. Someday we will have intelligent software accessing sensors plastered on patients' organs and clothing and perhaps then software will be able to assist with observation and understanding. But right now software can only offer protocols for simple and self-evident conditions.

Can EHR software help with delivering babies? Or performing surgery? Or at the very least, can it assist with a physical examination? Maybe an EHR can help with formulating treatment plans and ordering therapies? Mostly an EHR cannot do any of these things, and the little it can do comes at great inconvenience to physicians, when compared to methodologies it aims to replace.

Further, institutional messages were used to reinforce the belief that EHR is not just unhelpful, it actually creates problems because it takes away from the physician-patient interaction.

The dynamic in the exam room is altered. Marcel Devetten, MD, an oncologist and chief quality officer at the Nebraska Medical Center in Omaha, said he hears from physicians that by introducing a computer into the exam room, the physician-patient relationship will change fundamentally — and not necessarily for the better.

Physicians are concerned that if they are continuously facing their computer screen and typing as the patient is speaking, it changes the interaction they are having with the patient.

In the quote given below, it is clear that the term 'we' refers not merely to other doctors, but also the government health reform agencies and vendors. The implication is that they – the government agencies and vendors – are not talking about patient care, which should be their concern, but rather about payment care.

“That is because the thing we call “Health Care” refers to the payment system, not to actual patient care.”

Physicians also drew linkages between EHR and problems facing the healthcare field, by discussing the low morale of physicians because of the challenges they face and by indicating that mindless pursuit of EHR technology is adversely affecting the healthcare system.

Being a doctor isn't a happy profession in 2012: 3 in 5 doctors say that, if they could, they'd retire this year. Over three-fourths of physicians are pessimistic about the future of their profession. 84% of doctors feel that the medical profession is in decline. And, over 1 in 3 doctors would choose a different professional if they had it all to do over again.

We have the most fractured and expensive healthcare system in the developed world, and the way we're pursuing health IT adoption is making that worse, not better.

Summary. An examination of institutional messages by organizations from all the three institutional orders answered the first research question - What are the institutional logics advanced by the three institutional orders of State, Profession and Corporation? The study found that these logics are advanced in relation to other discourses within the contextual space. We see how logic of collaboration is co-created by institutional orders of the State and the Corporation. As part of their activities to legitimize themselves, organizations representing these orders make a conscious decision to draw links between their organizations by propagating the logic of collaboration. We also see how physicians use the strategy of delegitimization by drawing upon discourses by vendors and regulatory bodies. They attempt to legitimize their position by delegitimizing the position of other institutional orders. This is because organizations cannot simply use their discourse to shape realities in ways that suit their own needs. They first need to locate their discourses within the existing context of meaning if they want to shape the social

reality in a meaningful manner. Discourses need to be embedded in the broader framework of understanding and interaction (Hardy, Palmer & Phillips, 2000).

In the case of collaboration, institutional messages are consumed unproblematically, in the sense that the dominant meaning is accepted, reinforced and reproduced. However, in the delegitimization effort, physicians use meanings articulated by the other two institutional orders in an attempt to alter the discourse. They point to the inadequacies of the claims made by vendors and regulatory bodies, thereby attempting to provide an alternate version of reality. Thus, organizations mobilize specific discourses by establishing linkages or by delegitimizing them in their messages to establish institutional logics.

Intertextuality in Messages

Intertextuality refers to the way a particular text connects to other texts in the discourse. It is an important component of institutional messages because messages are more likely to influence the overall discourse when they bring messages by other organizations or institutional orders into the interpretation process. According to Hardy and Phillips (2004), when a text evokes other texts, either explicitly or implicitly, it also draws on meanings and understandings that are more grounded. Therefore, this study posits that intertextuality is important for institutional messages aiming to legitimize their perspective of EHR. For instance, ExxonMobil made use of hybrid discourses such as eco-efficiency in order to legitimize the market and delegitimize radical environmentalism (Livesey, 2002). This study examined intertextuality of discourses by looking at the type of sources used in the institutional messages, the function of these

sources and the position taken by the organization through the institutional message (See tables 3 and 4).

An understanding of intertextuality in institutional messages is important because it is not enough to merely identify institutional logics, we also need to understand ways in which these logics are communicated and situated within the larger discourse.

Investigation of institutional message content helps us understand how different organizations exhibit institutional logics, independently of each other, whereas intertextuality helps us understand how these logics are situated within the broader institutional framework. It bridges the micro-macro gap by enabling us to understand how institutional messages aid constitution of meanings within a particular institutional order, and often across different institutional orders.

Intertextual analysis helps us understand the manner in which different institutional orders situate themselves in relation to other organizations and institutional orders. Intertextual relationships can signify various purposes, such as a) indication of formal power or b) critical resources, c) establishment of network links and d) creation of discursive legitimacy (Hardy & Phillips, 2008). For instance, how do vendors incorporate the discourses of physicians and governments in their messages? What does it signify? Examination of source types and analysis of their purpose helps us answer these questions. Researchers examining intertextuality in discourse have focused primarily on one institution or small set of texts (Solin, 2004). However, this study seeks to broaden the scope by analyzing intertextuality across different institutional orders.

A text's relation to other sources of text can be explicit, in the form of a direct or indirect quote, or it can be an implicit one, such as an allusion to a prior text. The term

source type refers to the source of the content being presented within an institutional message. In terms of source types, institutional messages representing Profession used both the government and the vendors to create discursive legitimacy. Table 3 provides brief information about the source type in the institutional messages, and table 4 provides information about the source purpose in institutional messages.

Table 3: Intertextual representation for source type

Total percentage of representation in primary documents			
Source type	Profession (104 documents)	State (128 documents)	Corporation (112 documents)
Regulatory bodies/ govt associations	22.8	56.5	23.0
Vendors	20.2	13.0	17.2
Physicians	24.2	15.7	43.9
Research journals/trade publications	15.4	3.5	2.2
Industry associations	12.1	3.5	7.2
Patients	4.4	4.3	0.7
Business practioners	0.9	3.5	5.8

Table 4: Source purpose in intertextual messages

Source Purpose	Total percentage of representation in primary documents		
	Profession	State	Corporation
Reify: To treat an issue or statement as solid, unchangeable and inevitable	12.2	24.3	17.3
Reinforce: To stress the importance of an issue by providing information or narrative that strengthens the arguments of the author	14.5	70.7	55.4
Refute: To question or challenge an existing stance, view or statement	15.2	0.8	5.0
Problematize: To treat a fact, opinion, or position taken by someone as a problem	51.1	1.7	5.4
Explain: To provide information in a seemingly objective manner, such as explanation of policy or technical functionality	7.0	2.5	16.9

Analysis of institutional messages by physicians revealed an almost equal representation of all the three institutional orders – State (22.8 %), Corporation (20.2 %) and Profession (24.2 %) in their discourse, comprising 67.2 per cent of their source types. Thus, their messages were the most grounded in terms of intertextuality, incorporating messages from all the three institutional orders. Institutional messages by vendors were

dominated by the use of physicians as the primary source (43.9 %), followed by the use of regulatory associations as their source (23 %). Messages by ONCHIT and National eHealth Community primarily alluded to their own texts (56.5 %), followed by some use of physicians (15.7 %) and vendors (13.0 %) as source type.

Along with differences in their use of source types, there were differences in the positions taken by the organizations as they incorporated texts from different sources. The NEH and ONC primarily used the strategy of reinforcement in their discourse (70.7 %) by providing information and narratives that served to strengthen their logic of positive health outcomes. The vendors also used the strategy of reinforcement in 55.4 percent of their messages, along with reification (17.3%) and explanation (16.9). Messages representing the physicians, however, were found to be significantly different, as they used the problematization (51.1 %) in their discourse – a strategy that was virtually non-existent in the messages of vendors and regulatory bodies.

Intertextuality as Indication of Power and Resistance

Analysis of message intertextuality revealed the existing power equations between the three institutional orders. Intertextuality not only produces and transmits power relations, but also threatens them (Ekrama, 2010). It also illustrated the efforts by one particular institutional order, namely Profession, to resist the ongoing change process by subverting the messages of other institutional orders. They did so by appropriating certain parts of messages by vendors and regulatory bodies to expose “the partiality of universal claims... and the inadequacies of institutional practices,” (Ferguson, 1984, p. 156). The intertextual references to other institutional orders in the messages of

Profession are much higher, and these references are used for the purpose of problematization.

High levels of intertextual references have often been linked to greater power and authority. Hardy and Phillips (2004) note that authors may use intertextual references to gain power through network links among other actors. They develop social relationships through these links, which in turn lead to achievement of power. According to Fairclough (1992), power is gained by constituting alliances, winning their consent and integrating with dominant groups through intertextuality. However, this study shows how greater intertextuality can also indicate struggle for contestation of power and legitimacy.

Blogs, journals and associations representing physicians made intertextual references to problematize the texts produced by other institutional orders as a way to validate their own assertions. These references were used constantly to strengthen their own logic of *crises*. This was done either by explicit references in the form of direct quotes, wherein statements by government bodies and vendors are produced and then delegitimized, or by alluding to problems facing the healthcare field and then implicitly connecting them to actions of the government and vendors. They problematized two facets of the change process through their intertextual references – exaggerated claims about operational, administrative and healthcare benefits associated with EHR and the very idea of healthcare as envisaged by the State and Corporation. Intertextuality was used to indicate that only physicians truly understood the nature of healthcare, problematize the trends in healthcare, and elucidate a different vision of what the healthcare field should be all about.

Lies, exaggerations and contradictions. A problematization strategy was used to discredit the claims of other institutional orders and challenge the basic assumptions made by the government and vendors regarding EHR. Intertextual references, in the form of studies and reports by industry associations and academia were cited to show that the claims made by both ONC and vendors about the health outcomes associated with EHR were in fact, exaggerated or did not take into account several important health-related factors, thus making them fallacious. At times, contradictions between claims made by different government agencies were exposed to delegitimize their claims.

What's driving doctors toward pessimism are the least satisfying aspects of practicing medicine in 2012, including... the hassle of dealing with Medicare, Medicaid and government regulations. Physicians spend over 22% of their time on non-clinical paperwork, resulting in a huge clinical productivity loss. As a result of uncertainty due to health reform, regulation and finance/reimbursement, the percent of physicians who remain independent will drop to 33% in 2013.

Vendors were referenced intertextually to point to exaggerated claims made by the vendors about EHR efficacy. Their claims are thus problematized.

The findings of the Dartmouth study contradict studies conducted by the Healthcare Information and Management Systems Society, including one published in April. That study, conducted on behalf of Thomson Reuters, now Truven Health Analytics, found that hospitals in advanced stages of EHR adoption were more likely to set national benchmarks for performance than their peer hospitals with less advanced EHR systems.

One of the blogs referenced a New York Times article, questioning the authenticity of a report which suggested that EHR would lead to reductions in healthcare costs and enable positive health outcomes.

Optimistic predictions by RAND in 2005 helped drive explosive growth in the electronic records industry and encouraged the federal government to give billions of dollars in financial incentives to hospitals and doctors that put the systems in

place... RAND's [2005 report](#) was paid for by a group of companies, including General Electric and Cerner Corporation, that have profited by developing and selling electronic records systems to hospitals and physician practices. Cerner's revenue has nearly tripled since the report was released, to a projected \$3 billion in 2013, from \$1 billion in 2005.

Intertextual references also brought up the goal of EHR interoperability, cited by the government as one of the most crucial goals of health IT reform, and a critical component of meaningful use. By positing that interoperability is far from achievable, physicians attempt to challenge the fundamental objective of government in making EHR use mandatory. The first quote, given below, from the healthcareblog, references the RAND report whereas the second one, from American Medical Association, references American College of Cardiology to legitimize their claims that they have a long way to go before EHR technology allows interoperability.

We've succeeded in creating technological solutions that would be most impressive to a physician in 1985. Now? Not so much. And the vendor community really doesn't want to do the interoperability dance to the extent that the RAND report said some industry insiders are convinced many health IT vendors are "opposed to interoperability."

Much of what the [committee] proposes seems more like science fiction than mere forward thinking," the ACC said. "Indeed, the proposals seem ambitious and imaginative, but almost impossible to actually accomplish, especially without much in the way of underlying data, interoperability and communication standards.

The "committee" here refers to a health information technology committee under the department of Health and Human Services, involved in recommendations for Stage 3 Meaningful Use requirements. Intertextuality is used here as a way to directly challenge the committee recommendations, followed by references from different medical

associations to validate the claims made by the physicians. They oppose the Meaningful Use 3 requirements by arguing that the first and second stages of meaningful use have yet to be achieved and even the most basic goals have not been met.

Rather than prematurely impose stage 3 requirements, HHS should first focus on improving the ability for physicians to achieve meaningful use stage 1 and 2 requirements, wrote AAFP Board Chair Glen Stream, MD.

AAFP refers to the American Academy of Family Physicians. The next two quotes, referencing the journal Pediatrics and American College of Physicians respectively, are along the same line, but point to complexities associated with EHR along with gaps in current technology features that make it difficult to achieve Meaningful Use.

A study and associated commentary in the December issue of Pediatrics lay out five basic functions pediatricians say they need in their electronic health record systems. They also note that, even with meaningful requirements in place, it's nearly impossible to find an EHR that meets those standards.

“A number of the proposed stage 3 measures necessitate significant increases in clinical documentation, involve new and potentially complex work flows, are likely to be difficult for many eligible professionals to understand and implement, or depend on technologies that are not yet widely deployed or shown to be usable in busy practices,” said Michael H. Zaroukian, MD, PhD, chair of the American College of Physicians medical informatics committee.

Most of these references use the arguments made by government agencies as ‘weapons’ and turn them against the government. By positing that interoperability is difficult, if not impossible to achieve, they question the basic premise of EHR. By claiming that Meaningful Use 1 and 2 have not been achieved, they challenge the government’s decision to go ahead with Meaningful Use 3.

At times, texts from one government agency are referenced to challenge claims made by another agency. Contradictory claims made by two government agencies or differences between two government agencies are used to justify their own position. The

message intertextually references center of Medicare and Medicaid Services (CMS), and Office of Inspector General (OIG), US department of Health and Human Services.

Today the Office of the Inspector General (OIG) in the Department of Health and Human Services released a report, here <<https://oig.hhs.gov/oei/reports/oei-05-11-00250.pdf>>, that is decidedly critical of CMS and ONC oversight of the Electronic Health Record (EHR) subsidy program... I have detailed many of these concerns, such as the overall effectiveness of electronic records, my doubts as to the robustness of the first two Stages of Meaningful Use requirements, the safety record of the technologies, their ability to actually save money, their real-world interoperability, and their general usability in the healthcare workflow..."

"We are not headed in the right direction." Intertextual references were also used to show that healthcare is not headed in the right direction; that future of healthcare is in fact going to be less about patient care and healing, and more about systems and processes, if the vendors and government agencies have a say in it. In one of the posts in thehealthcareblog, a physician commented on a speaker at the Health Innovation Summit, explaining how he had a glimpse of healthcare, as seen by technology entrepreneurs who are responsible for EHR technology. He devoted considerable attention to the address by Vinod Khosla, co-founder of Sun Microsystems, which is also one of the organizations responsible for designing and marketing EHR technology.

Khosla believed that patients would be better off getting diagnosed by a machine than by doctors. Creating such a system was a simple problem to solve. Google's development of a driverless smart car was "two orders of magnitude more complex" than providing the right diagnosis. A good machine learning system not only would be cheaper, more accurate and objective, but also effectively replace 80 percent of doctors simply by being better than the average doctor. To do so, the level of machine expertise would need to be in the 80th percentile of doctors' expertise.

Healthcareblog included several posts and hundreds of responses regarding the future of healthcare, with most of them intertextually referencing either Khosla, or other IT entrepreneurs and vendors. They used the speeches and articles written by IT experts

to point out problems in their assessment, followed by their view of what healthcare is truly all about. For instance, the quote below differentiates between the ability of a machine and the ability of a doctor, indicating that technology cannot be the answer to the problems faced by healthcare field.

Data input. Which data and where to enter it? What is the important stuff and what is wishful thinking from the patient? A physician gets much more information about someone just by looking and listening than can ever be entered into a machine. You may get the answer you want, but it will not be the truth. But it will be the answer the insurer accepts because it will have come from a machine made by people with no financial interest in the answer...With the physician as an interested party, the outcome should be better for the patient, who most of the time needs to be told they are fine. The computer will schedule tests and treatments, instead of telling you you are fine.

The quotes privilege the position of a doctor, who is trying to provide patient care, as opposed to goals of the vendors and government bodies, who are more interested in health systems that are oriented towards payment systems and automated diagnosis.

In my post, I talked a bit about the marketplace-driven IT innovations in healthcare, and medicine as seen through the eyes of the IT entrepreneurs. I questioned just how much of what doctors do today can really be replaced by algorithms, particularly the doctor-patient relationship.

The healthcare landscape sure looks different from 40 thousand feet than it does from the ground. I think Khosla's thesis is abject bullshit. It's not just diagnosis physicians do, but manage evolving and complex situations in real time. Knowing the patient and knowing how patients think and act is really important in being a good physician. We're a hundred years away from knowing enough about human disease to do what he suggests.

Intertextuality is also used to criticize the philosophy of market-driven technologies, where EHR features are developed based on profits and revenue. The quote below intertextually references the journal *Pediatrics* to discuss challenges faced by

Pediatricians because developing technological features for their Meaningful Use of EHR would just not be profitable enough for vendors.

EHR vendors have no strong incentive to build pediatric-supporting EHR systems... Given the resources necessary on both the vendor and the customer side to meet [meaningful use] criteria, it is not likely that there will be widespread efforts to implement these sophisticated features.

The goals and motivations of vendors and government agencies were often juxtaposed with those of physicians to increase legitimacy of their claims. For instance, after referencing a study that elaborated on the challenges faced by physicians, the message went on to highlight the motivations of the physicians – their commitment to physician patient interaction.

In the midst of this quite depressing survey outcome, there's one bit of data that's encouraging: 80% of doctors said that "patient relationships" are the most satisfying aspect of medical practice.

Thus, we see how in their messages, physicians use 'facts' as discursive weapons of resistance. They contested the facts laid out by vendors and regulatory bodies to justify their arguments, establish their legitimacy and further their *logic of crises*. Through the process of adoption and reinscription of the dominant discourses by government agencies and vendors, physicians attempt to shift the understanding of EHR technology as something that is likely to do more harm than good, especially if it is pursued according to the vision of State and Corporation.

Intertextuality as Means of Reinforcement

Messages by the ONCHIT and National eHealth Community primarily allude to their own texts in their messages and over 70 per cent of their messages use the strategy

of reinforcement in their communication. They reinforce, legitimize and also attempt to influence actions within the discursive field by extolling the HIT-related work being done by various government agencies. By referring to other governmental agencies and associations such as Regional Extension Centers (RECs) and Beacon Communities intertextually, ONCHIT reinforces its legitimacy through identity construction. Constant intertextual references to other government bodies also facilitate reiteration of efficacy logics and the assumption that EHR is the only way to improve community health outcomes.

For instance, in the message below, we see ONC referring to Beacon Community program, wherein 17 selected communities throughout the United States are provided over \$250 million for the development of EHR adoption and health information exchange.

Communities continue to implement innovative technologies. The Greater Cincinnati, Southeast Michigan, and Crescent City Beacon Communities are testing how texting can help identify undiagnosed diabetics and connect them to resources... The San Diego Beacon Community is testing how mobile text reminders to parents support children's immunization needs.

Beacon communities feature prominently in most of the messages by ONCHIT, as a means of creating social legitimacy, along with other government agencies.

The Regional Extension Centers (RECs) located across the country play a critical role in advancing the use of health information technology (health IT). They are charged with guiding some 100,000 health care providers in their efforts to establish and meaningfully use electronic health records in their practices.

Our RECs are in the field, actively recruiting and signing on providers to their services. To date, our RECs have enrolled over 28,000 providers and for the last 12 weeks, the RECs across the country have enrolled on average over 1,000 providers a week. Some RECs, such as Mississippi and Maine have enrolled over 60% of their overall primary care provider target. Others, such as Colorado, the California Health Information Partnership Service Organization,

Massachusetts, North Carolina, New York City Washington/Idaho RECs have enrolled over 1,000 providers in the last few weeks.

When they do refer to other institutional orders, the intertextual reference is framed in the larger context of other governmental agencies. For instance, vendors would be mentioned as part of a collaborative effort with other government agency or a physician being quoted would also be serving the role of a government agency representative.

Beacon Communities have created self-governed user groups to help Beacons prioritize technology development needs to support meaningful use, health information exchange and interoperability. For example, six EHR vendors are working in partnership to develop a standard continuity of care document (CCD) that can be automatically exported to a health information exchange upon a pre-defined trigger.

In the quote given below, the physician being quoted is also part of the Beacon community program.

As one of the physician leaders for this program, I view this as an opportunity to save primary care, not simply a way to proliferate health information among physicians. Numerous studies have validated the value that primary care physicians bring to our health care delivery system.

As in the quote above, at all times, intertextual references are made only to reinforce their position that use of EHRs is the best possible way to achieve positive health outcomes and improve the state of healthcare. Thus the *logic of health system efficacy* is highlighted at all times. The *logic of collaboration* is also reinforced, but intertextual references are used in a manner that clearly privilege the role of the government agencies in these collaborations. Physicians and vendors are quoted explicitly or implicitly, but their quotes are always encompassed within the broader discourse of health initiatives by government agencies.

Strategy of minimization and exclusion. Messages by physicians, which problematized the issues related to EHR implementation, are either ignored and excluded from the discourse or minimized. When the messages refer to the difficulties faced by physicians, these difficulties are minimized by providing simplistic solutions. There is also shifting of blame; by placing the responsibility of overcoming EHR challenges on the physicians, these messages suggest that EHR implementation difficulties arise due to the actions or assumptions of physicians. For instance, in the quote below, the second most important barrier is prioritization. By mentioning that physicians are unable to give priority to EHR, the implication is that if EHR were to be their priority, the problems would be reduced.

Experience tells us that among the most common barriers small practices confront are:

1. Which EHR vendor to select;
2. Difficulties in prioritizing adoption among other pressing practice needs; and
3. The need for practice transformation support, specifically related to redesigning workflows.

Tools to address these issues are currently being posted on healthIT.gov <<http://www.healthit.gov/providers-professionals/ehr-implementation-steps>>, and ONC and the RECs would welcome feedback to help us further improve how we can help providers get there.

Interoperability issues are rarely mentioned in any of the messages. When they are mentioned, these messages are strategically ambiguous. Strategic ambiguity is the use of discourse to foster multiple interpretations through vague language and equivocal information (Eisenberg, 1984). It also serves to preserve the position of the privileged and strengthens the present arrangement (Clair, 1993). On their website, under the section on health information exchange case studies, interoperability challenges are briefly mentioned, as follows:

To meet this challenge head on, and to address some of the technology-related difficulties in meeting aggressive program goals, Beacon Community awardees

reached out directly to EHR vendors in November 2011. Within one month, seven vendors (NextGen, Greenway, Allscripts, GE, Vitera, Cerner and SuccessEHS) comprising approximately 45 percent of the market, and 12 Beacons formalized an Affinity Group and:

Defined the highest priority data elements needed to be exchanged in support of a limited number of focused use cases

Performed a technology assessment of where EHR vendors stood in terms of ability to produce these data elements

Reached consensus on how EHR vendors could best improve their respective versions of a Continuity of Care Document (CCD) to support Beacon efforts.

Today, the AG is working with more than 100 primary care practice sites nationwide to transition to a form of health information exchange where a consistent set of discrete and structured data are appropriately made available with minimum interruption to provider workflow.

The differences in sources of intertextuality and function of intertextuality between the State and the Profession could be attributed to the fact that the State (and the organization being studied as representative of the State – ONC) has formal power, meaning not just the authority and decision making power, but also access to decision making processes (French & Raven, 1968). It also has what Hardy and Phillips (2008) define as critical resources – money, incentives, certifications and sanctions associated with EHR. Authors that have the formal power within a discursive field also have what Potter and Wetherell (1987) call warranting voice. Warranting of voice refers to acquiring the right to speak in a particular discourse. ONCHIT, for instance, has the discursive legitimacy to speak on EHR as it is a legitimate government body responsible for implementing changes under the HITECH Act.

Thus, while physicians may need to reference messages from other institutional orders and problematize these messages as a way to establish their own legitimacy, government agencies on the other hand, do not engage in discursive intertextuality with other institutional orders at all, unless it is for the purpose of reinforcing their own logics.

Further, by using exclusion, minimization and strategic ambiguity, they aim to maintain their position of privilege. Physicians, however, need to implement EHR within the specified deadlines and demonstrate the meaningful use in order to be eligible for incentives. They do have some say in the decision making process, in the sense that they have representation in EHR-related committees, but these representatives are doctors at high positions in hospitals, medical colleges and universities. Physicians practicing at a smaller scale have little or no say in the matter.

Intertextuality as Source of Credibility

Vendors intertextually reference messages by both institutional orders of the State and Profession, though unlike messages by physicians, who made the references for the purposes of problematization, these messages are used for the purpose of reinforcement. Government agencies are quoted prominently by vendors as a way to reinforce the advantages of EHR and at times reify that they are the only way forward. Vendors also use government agencies as source type to demonstrate their access to critical resources and present their alliances with these agencies as means of increasing their credibility. Explicit references are made to groups with formal authority, indicating the use of authorization as a strategy (Vaara & Monin, 2010). Thus intertextuality is used to further their *logic of collaboration*.

ADP AdvancedMD is proud to provide this significant step for our clients to be considered meaningful users of EHR and aide you in achieving meaningful use incentives. In addition to offering an ONC-ATCB certified EHR, we take meaningful use to the next level with its full suite of products and services that integrate seamlessly and offer independent practices the greatest opportunity for comprehensive clinical, operational, and financial success.

I've just returned to Greenway from the National Association of Community Health Centers (NACHC) conference in Las Vegas, where executives from FQHC, RHC and community health centers nationwide gathered to discuss and learn ways to more effectively advance patient care and advance their own needs while meeting the ever-changing guidelines of the UDS (Uniform Data System.)

Physicians are used as source types to reinforce the positive features and characteristics of EHR. These quotes highlight the technological features that are aligned to vendors' *logic of operational efficacy* – cost reduction, revenues and time saving. Case studies are presented to reinforce the efficacy logic wherein physicians are referenced intertextually to authenticate their claims of administrative and business benefits. The intertextual referencing of physicians also indicates efforts to have their discourse consensually validated by socially relevant groups. For this purpose, vendors used the strategy of exemplification – use of specific examples to establish legitimacy (Vaara & Monin, 2010).

Eric Brinkhoff, Dr. Tucker's Operations Director, evaluated Aprima's ability to manage scheduling, billing, and collections. Brinkhoff says, "I was impressed by Aprima's extensive reporting criteria. We can get all kinds of different information out of the system - tracking procedure codes, for example." With all these factors pointing to Aprima, the practice made the decision to purchase it.

Case studies used by vendors not only narrated success stories of EHR implementation in order to advance their *logics of operational efficacy*, in several cases, they indicated an effort by vendors to distinguish themselves from their competition. Vendors made intertextual references to other vendors or competitors as a way to reinforce their legitimacy. This is done by juxtaposing their own features with those of other vendors to indicate superiority of their system. Physicians are used as source types to validate their claims.

Harvey evaluated six different web-based solutions, but found that AdvancedMD had the strongest reputation for performance and delivery of results that met his

criteria. The clinic runs on the AdvancedMD web-based billing and practice management system, accessible securely from any Internet-connected computer in the office, or anywhere. “The doctor next door not only had to buy and install an on-site system and network, he has to buy and install updates when Medicare or anything else changes,” said Harvey. “With AdvancedMD, it’s automatically done. I don’t have to worry about it and don’t have to pay extra for it.”

They selected two finalists-WebMD and Misys. Then, Dr. Laube attended a medical technology conference and learned about Aprima. The solution was appealing because it provided the clinic with the right combination of flexibility, scalability, and single-database, single-application design.

While the use of exemplification as a strategy is commonplace and has been used during periods of change to legitimize the change process and gain credibility, with the exception of Greenway, all the vendors used embellishment - elaboration of an interpretation by the use detail, sometimes fictitious - thus reducing their credibility. For instance, the two quotes given below make explicit references to physicians who discuss the advantages of using EHR system by Cerner, and they both use the exact phrase at the end of their statement, indicating embellishment by the vendor.

“Now with (Cerner’s Ambulatory) EHR, it is so quick—roughly 45 minutes total to prep our charts for the day,” Clark says. “What a time saver!”

With the Cerner Hub, “I get results from the hospital in a matter of seconds,” Dr. Vigil said. “Before Cerner Ambulatory EHR, it took up to seven days to get a result back. What a time saver!”

Also, use of words such as “wonderful”, “unbelievable”, “fantastic” and “great” indicate embellishment and exaggeration by the vendors.

“Aprima has been great,” Dr. Haghighi says. “We needed Aprima’s support and they delivered in a big way. So I feel better than ever about Aprima.”

Dr. Wait agrees, “Support is fantastic. We communicate with them in several ways, depending on the issue. They always get back to us within 24 hours, and often within a few hours. Also, the local sales rep is very knowledgeable about the

clinical aspects, and he stops in occasionally just to show us tips, tricks and easier ways of doing things.”

Further, despite making several intertextual references to physicians, vendors, just like the government agencies, do not make any references to issues problematized by the physicians. Like government agencies, they use the tactic of minimization in their discourse related to EHR challenges. In their discourse surrounding EHR challenges, they also shifted the responsibility to physicians and provided suggestions that would help them overcome these problems.

Map out the workflow before you go-live - even consider running a mock clinic or test before go-live. The providers should be intimately involved with designing the templates and mapping out the workflows within the clinic. This will help to ensure full physician adoption. Bottom line - have the physicians invest their time!

Training, Training, Training - Get your staff plenty of training, and then get them more.

Summary. Intertextuality facilitated institutional orders to shape their discourse and use strategies that would enable them to promulgate their own views regarding the change process. Intertextual analysis enabled me to answer the second research question - What are the discursive strategies used by institutional orders (de)legitimize institutional logics to promote their version of change? Messages representing all the three institutional orders primarily used intertextual references that would aid them in establishing their institutional logics. At the same time, they also used intertextual references to minimize or exclude certain discourses that would threaten their discursive position, as in the case of the State and Corporation. Intertextuality also revealed how institutional logics were advanced within the broader institutional structure. By

problematizing the discourses of the State and Corporation, *logic of crises* was strengthened. Messages by the State and attempted to subdue other discourses by avoiding their references and reinforcing their own logics. The Corporation did not enjoy formal authority or legitimacy of the State, and therefore could not leave out other discourses in their messages, so they made selective intertextual references to physicians and government agencies to advance their logic of operational efficacy. Messages representing the State as well as Corporation either ignored problematic discourses, minimized them or shifted the responsibility back to the authors of the discourse.

Features of Institutional Messages

The sections so far discussed the content of the messages, their intertextuality and the purpose they served in situating institutional logics within the larger framework of institutional orders. However, closely tied to the purpose and intertextuality of these messages are the features of institutional messages. How large are the audiences of these messages? How varied are the audiences? How enduring are these messages? How compelling are they? Are they audiences required to follow these messages or can they be ignored? These questions pertain to the reach, intentionality, establishment and encumbency of the institutional messages (Lammers, 2011). These questions are important because they, along with information about message intertextuality and purpose, give us a glimpse of the larger picture. They tell us about the organizing visions that emerge out of these messages. The table given below compares the features of messages belonging to the State, Corporation and Profession.

Table 5: Features of institutional messages

Percentage representation in primary documents

Institutional order	Encumbency		Establishment		Intentionality		Reach	
	High	Low	High	Low	High	Low	High	Low
Corporate	13.2	86.8	33.3	66.7	71.1	28.9	29.7	70.3
State	29.2	70.8	48.1	51.9	84.2	15.8	42.1	57.9
Profession	18.4	81.6	43.2	56.8	81.5	18.5	66.7	33.3

Results related to the analysis of message reach were surprising at the first glance. Messages by the State were expected to have the widest reach by the virtue of the formal authority of that institutional order. However, it turned out that messages by Profession had a wider reach – almost sixty seven per cent of their messages were classified as having a wide audience, as compared to messages by the State, which had 42 per cent categorized as wide audience. A closer study of the messages revealed that the answer to why the State did not have as wide an audience as Profession lay in intertextual references of these messages. Messages by institutional order of the Profession made referenced a wide range of sources – medical associations, journals, reports by vendors and government agencies. The nature of the messages also contributed to the wider audience base. They engaged with problematic topics and often made strong statements that drew the attention of wide audiences including vendors, whereas messages by the State usually provided information about their initiatives (such as the Beacon Community) or made policy announcements.

Further, messages by AMA and healthcareblog, which were primarily in the form of blogs, allowed for greater participation through comments section as compared to messages by the government agencies, which were often in the form of pdf file or webpages without any room for comments. Message reach was also calculated based on the placement of the messages within the website. For web-design, a widely acknowledged rule of navigation design is the “three click rule”, according to which a user should be able to get from homepage to any other webpage within three clicks of the mouse (Olson & Olson, 2000; Zhang, Zhu & Greenwood, 2004). In the study, any message that was more than three clicks away from the homepage was coded as having a narrow reach. In case of government agencies, messages with some amount of intertextual reference to the vendors, such as collaborative activities, were more than three clicks away from the home page. Some key messages about important policy announcements and certification requirements such as information about EHR implementation for stage two Meaningful Use and Health Information Privacy were also three clicks away.

Messages by institutional order of Corporation had the narrowest reach, despite having more varied intertextual references in comparison to the State. Since their explicit intertextual references to physicians were made as part of series of case studies on their websites, these references were not perceived as contributing to a wider audience. The size of the audience for most of these messages was also found to be low. This is because several of these case studies were in a pdf format, which needed to be downloaded from the website in order to read them. The assumption being made during the analysis was that the number of audiences that would download case studies was likely to be low.

Further, the number of audiences that would download more than one case study was likely to be even lower. Three of the four vendors being studied – Cerner, Aprima and AdvancedMD – had over twenty case studies each, describing the process of EHR implementation by physicians.

Message encumbency refers to whether the message recipient is compelled to follow the message. The percentage of messages high in encumbency was relatively low, 13 per cent for Corporation, 29 per cent for State and slightly over 18 per cent for Profession. This was not unexpected in itself since relatively large number of messages were being analyzed, and dealt with variety of topics related to EHR. The State was expected to have much greater encumbency in their messages as compared to the other two institutional orders. However, analysis revealed that both State and Profession had relatively similar percent of high and low encumbency messages.

Messages coded high in encumbency were those that discussed EHR policies to be followed and certification rules. The lack of significant difference in encumbency of institutional messages was because all institutional orders contained the same message content that led to the coding of high encumbency. Thus messages by institutional orders of the Corporation and Profession became high in encumbency when they referenced messages by the State regarding EHR certification and incentive guidelines. For instance, the message below has been quoted from AMA news, which references CMS and provides details of Meaningful use state two requirements.

The Centers for Medicare & Medicaid Services released a proposed meaningful use rule for the next stage of the EMR incentive program, which for some doctors will start in 2014. There are several key differences between stages 1 and 2 for physicians.

Measures	Stage 1	Stage 2
Core set measures	Report all 15	Report all 17
Menu set measures	Report 5 of 10	Report 3 of 5
Clinical quality measures	Report at least 6	Report at least 12

Source: Centers for Medicare & Medicaid Services, Electronic Health Record Incentive Program -- Stage 2

Similarly, this message below references CMS to provide information about physicians eligible for reimbursements.

Medicare eligible professionals that do not successfully demonstrate meaningful use by 2015 will have a payment adjustment in their Medicare reimbursement.

Medicare Payments and Corresponding Stage Required										
Calendar Year	2011		2012		2013		2014		2015 and later	
	Payment	Stage	Payment	Stage	Payment	Stage	Payment	Stage	Payment	Stage
2011	\$18,000	1								
2012	\$12,000	1	\$18,000	1						
2013	\$8,000	1	\$12,000	1	\$15,000	1				
2014	\$4,000	2	\$8,000	2	\$12,000	1	\$12,000	1		
2015	\$2,000	2	\$4,000	2	\$8,000	2	\$8,000	1	\$0	1
2016		3	\$2,000	3	\$4,000	2	\$4,000	2	\$0	1
Total	\$44,000		\$44,000		\$39,000		\$24,000		-	

During this course of analysis, a question arose regarding coding of message features related to encumbency. In terms of encumbency, should the message content be the only factor in deciding whether a message is high or low in encumbency? Or do we also take into consideration the original source of the message? For instance, as evidenced above, vendors and associations representing physicians made available documents pertaining to EHR-related incentives, meaningful use and certification. This study attributed these messages with high encumbency, though these messages referenced the State when they alluded to EHR regulations. This is because often this information was presented in a more accessible and user-friendly manner than government agencies. These messages were also easier to locate on their websites, through one or two clicks, as they usually

appeared on their home page or main page of a web section. Here, an assumption was made that it is possible for an interested audience to get the relevant information pertaining to EHR meaningful use from the vendors or medical associations and blogs, instead of going to the websites representing the State. Further, the decision was made keeping in mind the larger context and objective of the message. For instance, if a reference to EHR certification was made in passing, with the aim of making some another point, the message was not coded as high in encumbency. However, if the objective of the message was to inform the audience of EHR timelines and certifications, they were coded as being high in encumbency.

Messages by the State (48%) and the Profession (43%) were higher in establishment as compared to messages by Corporation (33%), though the difference was not too large. Again this was attributed to the fact that often similar messages about EHR implementation were discussed by both the State and the Corporation. Most of the messages by the State which were high in establishment discussed EHR policies, messages about EHR implementation, incentives and vendor certifications. These messages were also reiterated by the Corporation. Though the State had formal authority, messages by the Profession were almost as high in establishment because they either referenced messages by the State or when they used other research studies and statistics to advance their institutional logics. They used intertextual references to their advantage and cited sources from journals or associations that would advance their logics. For instance, messages by Profession that mentioned the RAND report (quoted earlier in this chapter) is an example of intertextual reference leading to high establishment of their messages.

Most of the messages by all the institutional orders were high in intentionality. There was no ambiguity regarding their intent or purpose. According to Lammers (2011) intentionality can also be low when the message does not follow the stated organizational purpose and intent or contradicts it. High intentionality in messages had to do with the nature of the study and messages being analyzed. The messages being analyzed were chosen based on guidelines by Reardon and Davidson (2005) that included experiences and problems related to EHR, core EHR technologies, goals related to EHR, interpretation, legitimization and mobilization of EHR. It was hardly a surprise then, that messages had a clarity of purpose and were high in intentionality. Further, there were no differences in internationalities of messages by different organizations representing the same institutional order (71 % for Corporation, 84% for State and 81 % for Profession).

Message Features and Organizing Vision

Features of the messages by institutional orders enable the establishment and maintenance of their institutional logics. As different institutional orders simultaneously attempt to establish the supremacy of their institutional logics, organizing visions are created. An organizing vision has been defined by Swanson and Ramiller (1997) as a “community's effort to develop a common social account, public theory or story” (p. 460). This study posits that message features can also help us understand whether their organizing vision becomes powerful, enjoys a groundswell of attention or dies away. This is because the higher the establishment, encumbency and reach, the more likely the chances of the vision becoming dominant within the discursive space. The strength of an organizing vision depends on how well it persuades, endures and legitimizes. According to Swanson and Ramiller (1997), strong organizing visions are those that are considered

plausible and important. Here, importance refers to the power of influencing others within the community or being considered to be of value. When an organizing vision includes elements that are important, they become self sustaining and therefore enduring (Swanson & Ramiller, 1997). For instance, certain messages by the State about EHR policies are certifications are truly self sustaining, leading to high encumbency. Analysis of message features shows how other institutional orders intertextually reference these messages because they are considered to be significant for the entire community, regardless of their perception of EHR. It follows then, that they also have a very wide reach, because they are incorporated by all the institutional orders. Thus, when messages by the State discuss EHR polices along with their rationale for EHR implementation, and EHR certifications along with guidelines for its implementation, their interpretation and rationalization of EHR becomes part of a strong organizing vision that dominates all three institutional orders.

This does not mean, however, that a strong organizing vision also gains acceptance by virtue of its dominance. It is believed that an organizing vision grows dominant over time when it is retold within the community (Reardon & Davidson, 2007), thus implying messages that are referenced intertextually by other institutional orders are likely to be more dominant and gain more acceptance. However, this study shows that it may not always be the case. Messages representing Profession make many intertextual references to messages by the State and Corporation, but they do so to delegitimize these messages, not proliferate them. Through their intertextual references, they attempt to reduce the plausibility of the messages by other institutional orders, thus strengthening their own vision. Reardon and Davidson (2007) define lack of plausibility as distortions

in the discourse, emphasizing in particular the burdening of the organizing vision with misunderstandings, exaggerations, and misplaced claims. Thus messages by the Profession attempt to create a lack of plausibility in the visions that State and Corporation are trying to establish by pointing to problems in their collective messages. Organizing visions cannot emerge if the discourse by the relevant groups is inconsistent, contradictory, indistinct or lacks clarity (Swanson & Ramiller, 1997). Accordingly, none of the institutional orders would have been able to create organizing visions if their messages were low in intentionality.

Organizing visions as interpretations of technology. Organizing visions pertain to the comprehension of a technology by different communities and become a focal community idea for application of the technology (Swanson & Ramiller, 1997). The study found two strong organizing visions regarding the interpretation of technology. The first organizing vision that emerged was *technology as an impediment* to be overcome by the physicians. This vision interpreted EHR as something that was expensive, time consuming, difficult to use and as hampering the work of physicians. It can reduced perceived uncertainty (Swanson & Ramiller, 1997) and integrate different viewpoints about the technology (Ellingsen & Monteiro, 2008). However, the organizing vision of technology as an impediment magnifies the problems and uncertainties. The *logic of crises* in their messages, problematization of discourses by other institutional orders and technological issues highlighted by the physicians add to the uncertainty of EHR technology implementation, rather than reducing it. They also point towards the inconsistencies in the interpretations of EHR technology by different institutional orders instead of integrating the views. The second vision was interpretation of *technology as*

progress, as the only way forward for the healthcare field. Their discourse promotes EHR implementation as inevitable and part of natural progression of the industry. This organizing vision was created by the State and the Corporation through their strategy of reinforcement, logics of *healthsystem efficacy*, *operational efficacy*, and *logic of collaboration*.

This is in line with Swanson and Ramiller's (1997) assertion that organizations with shared interests often form alliances to achieve stronger voice. They state that partnerships and collaborations become commonplace and enable the relevant groups to advance their interpretations of the technology.

According to Swanson and Ramiller (1997), an organizing vision facilitates interpretation of a technology within a particular community, develops the underlying rationale for the technology and also mobilizes market forces that can lead to implementation of the technology. Such as conception of organizing vision assumes that an organizing vision necessarily functions as a discursive tool to facilitate the technological change through rationalization and mobilization. There may exist conflicting visions about the interpretation and rationality, leading to different ways of mobilization, but the ultimate goal is still mobilization. Accordingly, most studies on organizing visions have focused on the role of organizing visions in implementation of technologies (Currie, 2004; Ellingsen & Monteiro, 2008; Swanson & Ramiller, 2004; Wang & Swanson, 2003). Swanson and Ramiller state that organizing vision can become a kind of an umbrella and develop a story that incorporates and yet generalizes across experiences of different actors. However, this study found that organizing visions may provide interpretations of a technology, but do not always provide the rationale for the

technology or mobilize the use of technology. If the technology is interpreted as being incongruent with the core values or core functions of a group, then the organizing vision surrounding the technology is likely to impede rather than facilitate the technology implementation. For instance, the interpretation of EHR in the organizing vision of physicians revealed that they had different priorities regarding EHR functionalities as compared to the EHR functions purported by vendors marketing the technology.

Summary. This study found that making intertextual references to different sources across institutional orders can lead to greater reach of the messages, which can in turn help message authors advance their institutional logics. Contrary to expectation, the number of messages with high encumbency was not as large as expected for organizations with greater formal authority. These organizations also did not enjoy much of an advantage in terms of high message establishment. The study revealed that referencing the right sources was the key to higher encumbency as well as higher establishment. Though the State had more authority, messages representing the Profession were almost as high in encumbency and establishment by the virtue of their intertextual references.

The research question ‘What are the dominant organizing visions arising out of the messages within the inter-institutional field?’ revealed two dominant organizing visions emerging within the discourses of institutional orders of the State, Corporation and Profession. The two organizing visions represent two conflicting interpretations of technology – 1) *EHR technology as progress*, which would advance the healthcare field in the United States, and 2) *EHR technology as an impediment* to be overcome by

physicians practicing medicine in the United States. The first vision emerged out the institutional logics advanced by the institutional messages representing the State and the Corporation, and the second vision was created by institutional logics within messages representing the Profession. Finally, the study revealed that organizing visions do not always lead to rationalization and implementation of technology. They also do not always serve the purpose of reducing uncertainty and integrating different interpretations. The first organizing vision of technology as progress integrated the interpretation of the State and Corporation, but the second vision of technology as an impediment increased uncertainties associated with the technology by problematizing it and resisting the discourse of the State and Corporation.

Chapter 5: Conclusion

This study examined public discourse representing three institutional orders – institutional order of the State, Profession and Corporation – to investigate how an institutional change process is legitimized and contested within the discursive space of an organizational field. It argues that institutional change and organizational discourse are mutually implicated (Phillips & Hardy, 2002; Suddaby & Greenwood, 2005), and draws our attention to the communicative practices of organizations and institutional orders associated with this change. It also highlights the practices of discourse transmission and consumption to demonstrate how institutional messages can shape the discursive context within the field and allow us to recognize dynamics of power and resistance.

The discursive process of change is understood by examining institutional messages and identifying organizing visions. Examination of institutional messages informs us of how institutional logics are established and contested by institutional orders during change (Lammers, 2011), whereas study of organizing visions (Swanson & Ramiller, 1997) locates institutional change discourse within the larger inter-institutional context. This study underscores the importance of context and recognizes that change scholars need to pay greater attention to the relationships among different texts and various devices within these texts to fully grasp the complexities of change discourse. Accordingly, it emphasizes the intertextual relationship among various discourses surrounding change and demonstrates its relevance in establishment of message features, institutional logics, organizing visions. Thus, this project highlights the centrality of communication in examining institutional change, and demonstrates how discourse and change are intertwined.

One of the major contributions of this study is that it captures the complexity of discourse by examining communicative acts of organizations representing multiple institutional orders, nested within multiple levels across multiple sites, during a change process. It does so by adopting a context-sensitive approach; examining communicative acts performed by organizations belonging to different institutional orders; and attending to the texts being produced as well as the texts being referenced in the change discourse. For instance, the study of institutional messages and identification of institutional logics provides insights into communicative acts of the institutional orders, whereas identification of organizing visions allows for a broader understanding of discourse within the organizational field at the inter-institutional level.

Intertextual analysis of discourses has provided an understanding of how discourse is created as well as how it is recognized, derecognized or publicly interpreted by the relevant groups. The current study demonstrates how organizations choose to link their texts to other existing texts within the discursive space that facilitates creation and sustenance of their identities, achieves legitimization of their logics, and also, if needed, questions and problematizes existing discourses. The findings of intertextual analysis highlight the tension individual speakers experience in both maintaining organizational identities consistent with their institutional order and at the same time linking their identities and goals with other institutional orders to legitimize their logics.

This study asked the following research questions: 1) what are the institutional logics advanced by the three institutional orders of State, Profession and Corporation? 2) What are the discursive strategies used by institutional orders to (de)legitimize institutional logics and promote their version of change? 3) What are the dominant

organizing visions arising out of the messages within the inter-institutional field? The first three sections of this chapter briefly summarize findings related to each of these research questions and discusses the implications of these findings. Finally, the last section will outline the limitations of the study and discuss avenues for future research related to the role of communication in institutional change.

Emerging Institutional Logics

In this study of EHR, institutional orders of the State, Profession and Corporation attempted to legitimize or delegitimize change through the use of four institutional logics – logic of *operational efficacy*, logic of *healthsystem efficacy*, logic of *collaboration* and logic of *healthcare crises*. The notion that EHR as a technology would lead to increased efficacy was reflected in messages by organizations representing the institutional order of Corporation as well as the State. However, messages by vendors, representing Corporation, linked EHR efficacy to improvement in business administration by arguing that technology implementation would lead to cost reduction, increase in revenues and reduced bureaucratic hassles. At the same time, regulatory bodies and government associations representing the State likened efficacy with EHR's ability to create systems that would increase positive health outcomes in a community. Thus messages by the vendors advanced the *logic of operational efficacy* whereas messages by government agencies advanced the *logic of healthsystem efficacy*.

Institutional messages by the State and Corporation also emphasized the logic of *collaboration* by advocating a public-private partnership. In their institutional messages, they argued that the only way to develop an efficient healthcare system was through coordination and collaboration between government agencies and private organizations

such as vendors and technology developers. Collaboration was presented as a sign of progress and growth; organizations or associations that took this path were portrayed as leaders of healthcare by both the institutional orders.

Institutional order of Profession delegitimized the assertions made by the State and the Corporation by challenging their claims and presenting the logic of *healthcare crises*. They indicated that neither the State nor the Corporation truly understood the complexities of healthcare, which in turn, was leading to a crisis in healthcare. Their discourse attempted to legitimize their position of resisting the EHR technology by delegitimizing the position of other institutional orders. They drew linkages between EHR and problems facing the healthcare field, challenged the contention that EHR led to positive health outcomes and posited that EHR, in fact, reduced operational efficacy. Thus, by pointing to the inadequacies of the claims made by vendors and regulatory bodies, messages by institutional order of Profession provided an alternate narration of change.

The study found that institutional logics were created in relation to other discourses within the organizational field. For instance, logic of collaboration was co-created by institutional orders of the State and the Corporation. Similarly, physicians used the strategy of delegitimization by drawing upon already existing discourses of vendors and regulatory bodies. They attempted to legitimize their position by delegitimizing the position of other institutional orders. Thus, organizations cannot simply use their discourse to shape realities in ways that suit their own needs. Discourses need to be embedded in the broader framework of understanding and interaction (Hardy, Palmer & Phillips, 2000). Further, this study found that claims made by a particular institutional

order (State) are taken up by another institutional order (Profession) leading to contestation of meanings. This is done by the Profession to engage in meaning shifts, but these meaning shifts can be achieved only by locating their discourse within the existing texts in order to influence the change process in a meaningful manner.

Discourse and (de)legitimization

Analysis revealed that institutional orders of the State, Profession and Corporation advanced their institutional logics and legitimized or delegitimized various narrations of change through their discourse (See table 6). State and Corporation advanced their logics of efficacy by attempting to align their interests with interests of the institutional order of the Profession in their discourse. Institutional messages of the State and Corporation also emphasized the need to work together and improve the future of healthcare by advancing logic of collaboration. This was achieved by focusing on the common *topoi* of efficacy and putting aside their differences in strategic aims. Finally, State and Corporation minimized or excluded problematic messages of Profession to strengthen their own narration of EHR-related change. Institutional order of the Profession used intertextuality to delegitimize the assertions of State and Corporation, thus, in turn, justifying their own resistance to EHR and advancing the logic of crises. At the same time, the State used intertextuality to primarily reinforce its own messages, thus consolidating its own position of power and authority while propagating the logic of efficacy as well as collaboration.

Table 6: Overview of discourse strategies used to advance institutional logics

Institutional orders	Discourse strategy	Purpose	Institutional Logics
State and Corporation	Translation of interests	Maintaining identity and managing alignment of interests	Logic of healthsystem efficacy Logic of operational efficacy
State and Corporation	<i>Topoi</i> of efficacy	Maintaining identity and managing alignment of interests	Logic of collaboration
State and Corporation	Minimization and exclusion	Neutralization of opposing, alternative narrations	Logic of healthsystem efficacy Logic of operational efficacy
Profession	Problematization	Delegitimization of claims made by the State and Corporation	Logic of healthcare crises
State	Reinforcement	Consolidating their position of power and excluding other	Logic of healthsystem efficacy

 voices

 Logic of
 collaboration

Maintaining Identities and Aligning Interests

One of the findings of the study is that organizations constantly struggled to maintain their identity and credibility, even as they attempted to align themselves with organizations from other institutional orders (as in the case of organizations representing the State and Corporation), or attempted to distance themselves from other institutional orders (as in the case of institutional orders of Profession). Thus organizations attempted to legitimize their logics by maintaining a delicate balance of identity and connectivity. The task of balancing the dialectic between individual identity and interest alignment was accomplished by using the strategy of translation, thereby advocating efficacy logics, and partnering with other institutional orders, thereby advancing the *collaboration* logic.

Translation of interests. According to Ainsworth and Hardy (2004) organizations often use narratives as discursive resources to construct identities by telling stories about themselves. Identities also get constructed when organizations use narratives to explain events, promote specific outcomes, justify certain actions, etc (Cobb, 1993). Further, narratives are accepted as legitimate only when they are created within a particular social context, and only if the construction of identities is considered to be intelligible within this context (Ainsworth & Hardy, 2004). This study found that organizations constantly engaged in identity construction through their discourse as they perpetuated the belief systems, roles and behaviors associated with their institutional order. Organizational

discourse conformed to the expectations associated with them by the virtue of their institutional affiliations (Wooten & Hoffman, 2008). Thus, even though the State and the Corporation maintained support for EHR related changes, their strategic aims, goals and motivations were vastly different (Thornton et al., 2012), making it necessary for these institutional orders to champion different features of the same technology and define the logics of efficacy in a different manner. Therefore vendors highlighted the administrative and business functions of EHR, such as billing, insurance claims, payments, and revenue generation, whereas messages by the State drew attention to technological features that facilitated health information exchange (HIE) and positive community health outcomes.

The discourse by all the organizations reflected the beliefs, assumptions and goals of the larger institutional order to which they belonged, thereby aligning the purported logics with their identities. At the same time, institutional messages of the Corporation and the State attempted to balance their identity with the core beliefs and assumptions of institutional order of the Profession by using the strategy of translation. According to Whittle et al. (2010), translation involves representing the change in a manner that makes others recognize it as congruent with their desires, concerns, or interests. Strategy of translation was used by the State and the Corporation to make interests of physicians congruent with their own interests. Thus, the desired change process was legitimized by not only maintaining their own identities and interests, but also constructing and evoking interests of organizations belonging to another institutional order.

Institutional messages of the State used the strategy of translation to maintain that the interests of physicians should be the same as their own their interests, thus maintaining, “I want it, why don’t you?” They positioned themselves as primarily being

interested in patient care and positive community health outcomes. Accordingly, they were able to claim that their interests were of superordinate importance, overshadowing all other issues. They presented the benefits of using EHR as obvious and apparent, and therefore, physicians that embraced the change and aligned with the interests of the State were termed as leaders of the healthcare industry whereas those opposing the change were positioned as keeping away the progress.

Institutional messages of the Corporation claimed that they share the same interests as physicians, basically saying “what I want is also what you want.” The interests of vendors were significantly different from the interests of physicians – physicians were concerned with professional excellence in medical practice, whereas vendors emphasized the business oriented and administrative functions of EHR. Despite this distinction, vendors attempted to align their interests with that of physicians by using strategy of translation. This was done by recognizing the physician’s primary role as a healer, but also emphasizing the current environment that required physicians to perform the role of administrators. Corporation used the strategy of translation (I want what you want) by maintaining that EHR would lighten the administrative load and allow physicians to focus on their core function of patient care.

Discourses and power dynamics: Indicative of legitimization process by institutional orders.

According to Heracleous (2004), discourse and power are mutually implicated. This study draws attention to the power and politics of discursive legitimization by analyzing the textual strategies within the larger institutional context. This study

demonstrates how intertextuality is used to reproduce or silence certain voices and perspectives towards change.

Intertextual analysis of messages by the State revealed that they primarily alluded to their own texts in their messages. Over 70 per cent of their messages used the strategy of reinforcement by intertextually referencing other governmental agencies and extolling the HIT-related work accomplished by them. Messages by the State attempted to subdue other discourses by avoiding their references and reinforcing their own logics. In case of intertextual references to other institutional orders, the references were framed in the larger context of achievements by the governmental agencies. For instance, vendors and physicians were referenced as part of their collaborative work with Beacon Communities. Thus, intertextual references enabled the government to reinforce their position that use of EHRs is the best possible way to achieve positive health outcomes and improve the state of healthcare. At all times, intertextual references were made to reinforce this position. Thus the *logic of health system* efficacy was constantly reinforced and maintained.

The logic of *healthcare system* efficacy was also maintained by minimizing or excluding problematic messages by the physicians regarding EHR. This was done by providing simplistic solutions to the problems or issues mentioned by the physicians or shifting the blame on to physicians themselves. For instance, messages by the State either ignored the problem of interoperability, a key issue raised by physicians, or addressed it in vague and ambiguous manner. At times, when the State did address problems by the physicians, the implication was that the burden of the problem rested on the physicians themselves, since it was their action or mindset that caused the problem. Thus the study

draws attention to how institutionalized authorities appropriate meanings and neutralize alternative, oppositional interpretation of events.

Researchers have pointed out that intertextual references may be used to gain power by developing network links, develop social relationships and constitute alliances (Fairclough, 1992; Hardy & Phillips, 2008). However, this study found that greater intertextuality can also be indicative of struggle for contestation of power and legitimacy. Unlike the State, institutional order of the Profession does not have the formal authority or power. Accordingly, the study found distinct differences in the ways in which messages representing State and Profession use discursive strategies to construct meanings surrounding EHR and change. The discourse of institutional order of the Profession points to ways in which dominant meanings are challenged and taken for granted meanings are problematized (Mumby, 2001). Problematization was used by organizations representing institutional order of the Profession to discredit the claims of other institutional orders and advocate their *logic of healthcare crises*. Blogs, journals and associations representing physicians made intertextual references to delegitimize the texts produced by other institutional orders and validate their own assertions as well as strengthen their own logic of crises.

The discourse by institutional orders of the State and Corporation was problematized by making intertextual references that indicated that a) the discourse made exaggerated claims regarding EHR benefits, b) exposed contradictory statements made by the government agencies regarding EHR, and c) questioned the market-driven vision of healthcare reflected in the discourse of the State and Corporation. Organizations representing institutional order of the Profession referenced reports by industry

associations and academia to challenge the EHR-related benefits cited by ONC and vendors. Discourses by the government and vendors were problematized by pointing out that their claims were either exaggerated or did not take into account several important health-related factors, thus making them fallacious. Institutional order of the Profession also made intertextual references to contradictory claims made by different government agencies to delegitimize these agencies. And finally, they used intertextual references to show that the healthcare in the US is not headed in the right direction. They referenced academic journals, blogs and claims made by vendors as well as information technology experts to argue that the vendors and government agencies envision healthcare as being less about patient care and healing, and more about systems and processes. They also juxtaposed the goals and motivations of vendors and government agencies with their own motivations. For instance, they referenced a study regarding the challenges faced by physicians to highlight the motivations of the physicians – their commitment to physician patient interaction. Thus, the study demonstrates how we can discern the ways in which discourse is intertwined with issues of power and resistance when different institutional orders attempt to legitimize or delegitimize institutional logics.

Inclusivity and exclusivity through collaboration and alliances. This study found that institutional orders of the State and Corporation each referenced the others' texts to create a stronger discourse surrounding change. They also advocated the logic of collaboration through their intertextuality. Research by Hardy, Nelson and Thomas (2000) on interorganizational politics and networks suggests that collaboration enables organizations achieve a more central and influential position within the organizational field. Further, Phillips, Lawrence and Hardy (2000) note that certain groups are included

and others are excluded from the collaborative activities, based on the political activity of the participants. According to Philips et al. dynamics of power are central to the aspect of collaboration as powerful participants are able to advocate their perception of the issues in a more forceful manner, define the problem, collaborate and legitimize practices that favor their own interests. Institutionalized rules and resources provide rhetorical basis for participants to justify and legitimize their collaboration.

Analysis of discourse by institutional orders revealed collaborations as a tool to promote their logics and propagate their interests. Institutional orders of the State and Corporation propagated collaboration in their public discourse as the only way to take the healthcare industry forward; collaboration was framed as a sign of progress and organizations or associations that took this path were portrayed as leaders. A higher penetration of EHR became the common goal for the State and Corporation, so much so that the differences regarding other objectives and goals became blurred as they framed their messages to position their partnerships as vital for the advancement of healthcare field.

The discourse further implied that when organizations representing institutional order of the Profession chose not to collaborate with either the State or the Corporation, they were engaging in irresponsible or negligent behavior, thus negatively impacting the healthcare sector. This discourse is constantly maintained by both these institutional orders, to the extent that collaboration is presented as the only alternative, thereby making it an obvious, routine part of change surrounding EHR. In their study on collaboration, Phillips, Lawrence and Hardy (2000) note that such institutionalization of practices or structures lead to creation of power relations within the field, which affect

the strategic opportunities of the members in the field. By turning collaboration with the State and Corporation into a routine, obvious choice for all the members in the field, including organizations representing Profession, government agencies and vendors partner with each other to create shared rules of conduct and impose them on physicians.

State and Corporation utilize public discourse to define realities surrounding three vital aspects of collaboration, as defined by Phillips et al. (2008) – the issue or the problem that the collaboration is intended to address, the membership of the collaboration and the practices utilized to respond to the issue at hand. The ‘issue’ as defined by the State and Corporation, is ensuring implementation of EHR by medical practitioners, whereas analysis of messages by Profession reveals that they perceive EHR technology itself as problematic. The State and Corporation use logics of efficacy to promote their vision of EHR and advocate its implementation. According to Phillips et al. (2000), certain groups will be included or excluded, depending on political activities of various groups and the way the issue is defined. In this particular case, the question of who should be included or excluded in the collaboration is determined by the State and Corporation. Though neither government agencies nor vendors exclude physicians from participating in collaborative activities, and in fact, even advocate their presence, their positions regarding EHR-enabled change differ drastically, thus either excluding physicians from the collaboration, or including them at the cost of their beliefs and assumptions.

Issues of power and authority can be discerned between State and Corporation as well. While messages by both institutional orders promote the logic of collaboration, intertextual analysis of their messages reveals that the State enjoys greater power and

Corporation is much more dependent on the State for enhanced legitimacy and credibility. This imbalance in power was also reflected in their discourse. Even as *logic of collaboration* was reinforced by the State, intertextual references clearly privileged the role of government agencies in these collaborations. Vendors were quoted either explicitly or implicitly, but in all these cases, the quotes were always encompassed within the broader discourse of health initiatives by government agencies. Intertextual analysis of messages by the Corporation revealed that vendors used government agencies as source type for credibility enhancement. They presented their alliances with the government agencies as a proof of their access to critical resources. At times, government agencies were referenced as a way to increase their legitimacy and decrease the legitimacy of their competitors. Explicit references were made to agencies with formal authority and logic of collaboration was maintained by advocating the need for public-private partnership to take the health industry forward. Thus, while State continued to privilege other government agencies in their messages, and discussed collaboration only within the broader framework of initiatives conducted by the government, messages by the Corporation referred to government agencies as a tool for reinforcement of their credibility.

Emergence of Organizing Visions within the Field

The interpretational level of analysis led to identification of two organizing visions that represented social constructions of EHR within the organizational field. The two organizing visions surrounding EHR were: EHR technology as an impediment, and EHR technology as progress. Organizing vision of EHR technology as progress emerged primarily from the messages by institutional order of the State and Corporation, whereas

EHR technology as impediment was created by messages by institutional order of the Profession. The vision of EHR *technology as impediment* interprets this technology as costly, disadvantageous, time consuming, and difficult to use. The vision of EHR *technology as progress*, presents this technology as the best way forward for the healthcare field. Messages by the State and the Corporation create a narrative that attributes this technology with features enabling inter-operability, improvement in patient care, positive health outcomes, reduction of time and costs associated with healthcare, and increased flexibility for the physicians.

Organizing vision as ideology of technology. To a large extent, the discourse surrounding the three logics echoes the idea of ‘obligatory technology use’ as identified by Chandler (2012). Using a cultural approach towards understanding of technology, Chandler argues that the ideology of technological progress mutes criticism and facilitates implementation of technology. Further, it enables proponents of that technology to moralize about its use i.e. they can make moral judgments about the use or non-use, such that technology implementation becomes normal and non-implementation becomes “inversion of the normal”. In their messages, the State and the Corporation advance ideology of technological progress through their institutional logics. Such ideological context makes it imperative for members of the healthcare field to use EHR, thus contributing to the moral obligation faced by physicians.

In effect, the organizing vision by the State and Corporation indicates that technologies (specifically EHR) can foster social transformation, thus taking a deterministic stance towards this technology. Babe (1990) notes that the discourse of technological ideology and determinism is typically used by dominant agents such as

governments, supranational institutions and corporations, since technological causation provides a justification to bring about regulatory changes. For instance, Young (2003) demonstrated how the discourse of technological determinism by Canadian federal government played a role in legitimizing the private sector's increasing role in their broadcasting industry. The broadcasting department's discourse of technological determinism facilitated the perception that the regulatory changes were a response to developments in communication technologies rather than the corporate interests associated with these technologies. According to Babe, the department released several policy documents that articulated a technologically deterministic discourse during the early 1970s to the late 1980s. This tone is also echoed by private organizations within the corporate sector with interests in broadcasting and cable. Thus the observations made by Young (2003) are similar to the findings of this research project, where the State and Corporation jointly propagate the vision of technology as progress.

At the same time, Babe and Young note that such arguments can be challenged by other subordinate agents and their discourse becomes central in examining historical, contemporary or even future conflicts over policy issues.. Thus the field becomes a discursive struggle between the dominant agents, typically represented by the government and/or corporate interests, and subordinate agents such as trade unions, minority groups, professional organizations, community members, etc. This was clearly evident in this study, which found the field to be fragmented by two opposing views of technology: the Profession propagated the vision of EHR as an impediment, thus resisting the deterministic stance of the State and Corporation, and the vision of EHR as progress brought in an ideological, moralistic and deterministic view of EHR.

Organizing vision as more than just a tool for mobilization . Co-creation of organizing vision by the State and Corporation reflects Swanson and Ramiller's (1997) contention that stakeholders with shared interests often form alliances to achieve stronger voice and mobilize technological implementation. They have noted that that collaborations become commonplace during technology-related change and enable the relevant groups to advance their interpretations of the technology and increase its implementation. In fact, according to Swanson and Ramiller, one of the primary functions of an organizing vision is mobilization of new technology through reduction of uncertainty and articulation of the new technology's functions. However, this study found that organizing visions may not always reduce the uncertainty surrounding technology. The vision of EHR as impediment as articulated by the Profession serves to increase the uncertainty rather than reduce it, by problematizing discourses of other institutional orders and highlighting technological issues surrounding EHR implementation. Thus this study revealed that an organizing vision may not always bring forth differing interpretations of technology with the purpose of uncertainty reduction and technology mobilization. In fact, narratives of technology created by the organizing vision may also add to the anxiety and prevent mobilization of technology.

According to Swanson and Ramiller (1997), organizing visions are not necessarily cohesive or strong. A field could have multiple visions, some of which are strong whereas others may be weak and therefore do not sustain for long periods within the field. The study found that the two visions emerge as equally strong within the organizational field. While the State and the Corporation were able to sustain their vision

through their collaboration, the strength of the vision by the Profession can be attributed to the high level of intertextuality within their messages.

Interconnectedness of Message Features, Intertextuality and Organizing Vision

One of the interesting and unexpected results of this study pertained to the relatively similar number of messages with high encumbency, establishment and reach by the three institutional orders. As noted by Hardy (2011), it is quite likely that texts authored by those in position of power, authority and dominance are most likely to produce messages that are high in encumbency. Accordingly, messages by institutional order of the State would be expected to be higher in encumbency as compared to messages by the Corporation and Profession. However, this study found that messages by the Corporation and Profession were almost as high in encumbency as messages by the State. A study of high encumbency and high establishment messages by the Profession and Corporation point to the salience of intertextual references made by these two institutional orders. Messages coded as high in encumbency were usually those that referenced the State's rules and regulations pertaining to EHR technology certifications, meaningful use requirements and timelines for incentives related to EHR implementation. Thus, these messages did not originate from the Corporation or the Profession per se, but they were reiterated by these institutional orders and featured prominently through their websites. These messages were also high in endurance and establishment by virtue of the frequency with which they appeared in the discourse, as well as their content, which was related to the regulatory policies associated with EHR. One of the questions raised by Hardy (2011) in her article was – how can messages be made to endure? According to

McGuire and Hardy (2009), if a message has to endure, it needs to be restated by other authors, as evidenced in this study.

At the same time, McGuire and Hardy also note that when a text is restated, it is also transformed because translation of a text can never be the same as the original. In some cases, these texts are deliberately appropriated in a different way to create counter narratives (Hardy & McGuire, 2010). For instance, though messages representing the Profession are high in encumbency and establishment when they reference the State and inform their readers about the meaningful use stage-two timeline, which the physicians need to adhere, they also present their own narrative regarding the folly of this timeline. Thus these messages serve a dual purpose of restating the rules and regulations and at the same time discrediting the original message of the State.

As mentioned earlier in this section, both the organizing visions emerged as being equally strong by the virtue of the fact that there wasn't much of a difference between them in terms of message features. Higher the establishment, reach and intentionality, the more likely the chances of the vision becoming dominant within the discursive space. Organizing vision created by messages that are high in establishment are likely to last longer, wide reach means they would be have a larger audience and clear intentionality would mean there is a clear sense of purpose and cohesive narrative associated with the vision. Messages by the State as well as the Profession were high in reach, encumbency, establishment and intentionality, and thus were able to promote strong organizing visions.

Limitations

Process of Sampling

One of the limitations of this study is the sample that was selected for analysis. Only publicly available documents were analyzed and therefore there was no access to internal discourses of the organizations and associations being studied. The decision to analyze only publicly available documents was made in order to analyze a wider range of organizations belonging to multiple institutional orders. It would not have been possible to study such a wide range if the sample size were to focus on internal communication of these organizations. However, this also meant that the interpretations and conclusions drawn from discourse analysis in this study were based on explicit communication made to the public.

Another drawback of this sample was that diverse types of organizations and different genres of communication were being studied, which may have impacted message features, especially the reach of the message. For instance, in case of institutional order of the Corporation, only vendor websites and blogs were examined, whereas in case of institutional order of the Profession, messages from blogs, a prominent medical association and a well known medical journal were analyzed. Lack of uniformity regarding the type of organizations being studied may have impacted the reach of the messages, at least to some extent. There is a possibility that the reach of messages by the Profession may be greater than the reach of messages by Corporation because the former had multiple audiences and multiple avenues of communication, while the later only served to communicate with those audiences that specifically visited their corporate website. However, the decision of sampling a blog, a professional association and a

medical journal was made because it was the best possible way to access the collective voice of physicians, which in turn, was the next best thing to interviewing individual physicians.

Longitudinal or Chronological Approach towards Intertextual Analysis

This study was not longitudinal in its scope and captured only a snapshot of public discourse surrounding EHR. It attended to the contextual dimensions of the discourse by investigating intertextual references made by the institutional orders and situated their messages within the larger space of organizational field. However, intertextuality can also be examined through a longitudinal approach, to understand how certain texts are invoked or ignored in communicative acts of organizations to create certain realities. For instance, in their study, Hardy and McGuire (2010) examined production and consumption of texts at a United Nations conference which led to Stockholm Convention that established new rules regarding the use and disposal of persistent organic pollutants (POPs). They chronologically ordered descriptions of ‘who did what, when’ and created discourse history database to ascertain how certain discourses and intertextual references allowed for new narratives to emerge and led to changes in the institutional field. Thus they used intertextual analysis to explore political consequences of different narratives and demonstrated links between communication and action.

It was not possible for this study to take a chronological approach in analysis of the texts, since texts were located in spaces, which did not always allow for identification of timeline. For example, while the blogs representing vendors did have dates associated

with them, the case studies, brochures and other data collected from the websites could not be categorized according to their timeline. Also it was not possible to establish a chain of intertextual referencing, meaning, it was not possible to ascertain when certain texts were referenced or whether a particular organization referenced another organization before or after a particular event. This is because the study did not examine a particular event or limit itself to particular genre (such as newspapers or blogs), which would have made it easier to identify the chain of intertextual referencing. The advantage of this study, however, is that it was able to source a wide range of texts from various institutional orders, thus presenting a broader picture of discursive activity surrounding EHR- related change.

Implications and Future Directions

Collaboration and Collective Identity for Change Legitimization

This study found that inter-organizational and inter-institutional collaboration has the potential to influence change processes. It can balance divergent stakeholder concerns and generate collective action that could produce powerful results. For instance, both institutional orders of the Corporation and Profession were able to sustain dominant logics in their discourse by putting aside some of their differences in strategic goals and creating a collective identity. Collective identity refers to the ‘we-ness’ of the group and has the potential to create legitimacy and increase social capital (Kramer, 2006). According to Koschmann (2013), we need to move away from the concept of collective identity as a cognitive belief held in the minds of the people, and move towards an understanding of collective identity as a product of communication. Such a perspective assumes that identity is made salient through communication and it is the public

discursive representation of collective identity that facilitates the legitimization process. Thus a collective identity is a discursive object that emerges through conversations and texts instead of cognitive beliefs (Hardy et al. 2005). Along similar lines, this study shows that communication is the constitutive process that explains how multiple identities are maintained and made salient, and how collaboration is made possible through formation of collective identities. Further, this study makes an important contribution to the field of change communication by demonstrating how co-creation of collective identity enables stakeholder groups to strengthen their narrative of change. It also gives a better sense of how research on collaboration through collective identity formation applies to the context of organizational change.

This research highlights the ways in which strategic collaborations and alliances can have effects not only on the collaborators themselves, but also other organizations within the field. Hardy et al. (2005) note that discursive conceptualization of collective identity allows for a powerful way to understand collaboration. It shifts away from assessing the intentions and attitudes of the members, and focuses on observable texts and dynamics to understand the dynamics of collaboration. The results of this research support Hardy et al.'s assessment that discursive construction of collective identity “enables participants to construct themselves, the problem and the solution as part of a collaborative framework in which potential for joint action is both significant and beneficial,” p. 63. Such collaboration, as evidenced in this study, becomes particularly beneficial during times of change as it enables stakeholders to attach importance to a particular worldview of an issue, collectively work towards achieving a particular idea of change, and try to secure from other members of the field.

Discourse of Change and Alignment of Interests

Inter-institutional collaboration, as examined in this research, represents organizations across different orders, leading to complexities such as diversity in goals, values and societal expectations. As mentioned earlier, although collaboration can enable stakeholders to implement, resist, and influence the unfolding of a change process, it may not always yield results because of the differences in interests and goals (Koschmann, 2013). Accordingly, inter-organizational collaborations can be rife with tensions and contradictions (Lewis, Isbell & Koschmann, 2010). Examination of public discourse by the stakeholders involved in the change process allows us to gain insights into ways in which organizations attempt to overcome their differences and legitimize their collaboration attempts. Change discourse allows diverse stakeholders to bridge their differences and create collective identities for the purpose of collaboration through translations of interests. The negotiation of institutional and organizational factors associated with these changes occurs through communication (Barbour and Lammers, 2007).

According to Latour (1986), people do not simply accept ideas; they act on these ideas by modifying them, deflecting them and adding to them. During periods of change, ideas are not diffused exactly the way they are, but are modified to suit the purposes of different stakeholders involved in the change process. Whittle et al. (2010) posit that the meaning of change is not fixed. It is transformed in the discourse through translations to accommodate the beliefs and aims of those involved the change process and in order to garner their 'buy-in' of the change narrative. Translation strategies used by institutional order of the State and Corporation offered a way to channelize the interests of physicians,

such that their interests were identified, transformed and aligned with the State and the Corporation. By attending to the ways in which interests are translated, change researchers can further their knowledge of how the meaning of change is transformed to bring together diverse stakeholders. Strategy of translation by the State and Corporation indicated their appreciation of what the physicians want, and their positioning of “I want what you want” as well as “I want it, why don’t you” indicates their awareness that the intended audience needs to consume their message. This finding has implications in terms of both theory and practice. Change agents may find that their audience responds to their change narrative in different ways, depending on how appropriately they are able to translate the interests of the recipients and align their interests with those of other diverse stakeholders. Communication scholars can deepen their understanding of change process by examining how discourse acts to legitimize and delegitimize certain narrations of change. This research supports the view by Hardy et al. (2000) who posited that discourse is a strategic resource, which allows for offering of new interpretations and creation of different social realities to bring together disparate actors and organizations.

The meaning and implications of a change can shift based on the social reality that is created, reinforced and countered through discourse. This research shows that discourse legitimization involves negotiation and translation of meaning by different stakeholders with differing views and interests. Despite the translation of interests to bring other stakeholders on board, the discursive dominance is rarely accomplished in totality, leaving space for alternative, counter discourses by other organizations involved in the change process. Dominance of a particular narrative regarding change is related to power dynamics within the field (Grant & Marshak, 2007). Although there may be some

dominant discourses that govern the field, this dominance, is part of the “ongoing struggle among competing discourses that are continually reproduced or transformed through day-to-day communicative practices,” (Hardy, 2001, p. 28). Change scholars need to appreciate the significance of discourse in their study of change processes.

Various institutional orders transform the discourse of change by changing the narratives and texts, making intertextual references that benefit their narrative, and creating a context that enables them to sustain an alternative version of change. At the same time, change stakeholders show awareness of interests and goals that are different than their own, and take into account these differences for the purpose of alliances. Thus change discourses are indicative of power relationships between different members of the organizational field, and therefore, attending to these discourses will generate a better understanding of stakeholder dynamics, spheres of influence and collaborations within the organizational field.

Communication as Indicative of Relational Spaces within Fields

Organizational fields have been conceptualized as relational spaces that provide field members an opportunity to engage and interact with each other (Wooten & Hoffman, 2008). Studies by most communication scholars have examined institutional power, institutional control and collaboration at micro or meso levels. By focusing only on individual-level or organizational-level research, scholars may overlook field-level influences that facilitate or constrain actions of organizations (Chiasson & Davidson, 2005). As yet, we do not have a deep understanding of how communication can be indicative of relationships alliances and contestations between different institutional orders within organizational fields. Only a handful of studies have examined change

across inter-institutional systems (for example, Lounsbury, 2007; Thornton & Ocasio, 1999). This dissertation demonstrated how different institutional orders draw upon broader discourses within the field to advance institutional logics and legitimize specific versions of change. It found that institutional logics were created in relation to other discourses within the organizational field by forming alliances, building relationships, engaging with other institutional orders or challenging certain discourses. Accordingly, it argues that research scholars should attend to the communicative actions that facilitate and constrain field-level engagements and lead to joint creation of meanings. Future research should explore how and why institutional orders come together within the organizational field; how communicative acts among institutional orders may be indicative of the relational spaces within the field; how field level discourse evolves, changes and shapes involvement of institutional orders with each other.

Closely tied to the aspect of field relationships, is the aspect of power as manifested in discourse. As indicated in this study by the messages of the State, field members attempt to exercise power by ‘fixing’ inter-subjective means and creating a particular reality (Mumby 2001). This study used discourse analysis to explore how discursive activity can privilege some members of the field and provide avenues of resistance for others. It calls for further research on how discursive activity can result in different arrangements of advantage and disadvantage for field members. We need to examine how texts can construct meanings to produce a broader discursive effect within the organizational field. Important questions to pose within this vein of scholarship include: how do certain interconnections between texts of different institutional orders allow for greater dominance of meaning? How do discursive strategies result in

promulgation or circumvention of logics within the organizational field? Change scholars have focused on how discourses constitute organizational realities and examine role of discourse in meaning creation at the local and organizational level (Hardy & Phillips, 2004). But we must also understand how they support and change public discursive spaces (such as organizational fields) in which organizations exist. The role of communication in creation, sustenance and transformation of logics has particularly been neglected. Field level discursive studies will help us attend to this gap and highlight the significance of communication in institutional change.

Messages, Intertextuality and Institutionalization

As mentioned earlier, intertextuality played a very important role in increasing the encumbency and establishment of messages. However, we need more research to understand how intertextuality can affect message features and consequently the process of institutionalization. For instance, if a message originally authored by a particular organization is restated by other organizations, how does that impact the process of establishment and institutionalization? Does the message get diluted, even if there is a faithful attempt to reproduce it? Also, in terms of encumbency, should we analyze only the message content (as was the case in this study) to make conclusions regarding the need for the reader to follow the message? Or do we also take into consideration the original source of the message? For instance, this study found that both vendors and associations representing physicians made available documents and relevant facts pertaining to EHR-related incentives and certification. Often this information was presented in a more simplistic manner than government agencies and therefore was more reader friendly. These messages were also very easy to locate on their websites, often

appearing on their home page or main page of a web section. Thus it is entirely possible that a relevant stakeholder might choose to gather this information from a vendor's website rather than the State's website, which is more complex and difficult to comprehend.

Accordingly, this study attributed these messages with high encumbency, though these messages referenced the State when they alluded to EHR regulations. However, we cannot ignore the question of whether content of the messages should they be traced back to the original source for attribution of high encumbency. Clearly we need more detailed studies focusing on message features to get a nuanced understanding of how intertextuality influences message features and leads to process of institutionalization.

Further examination of intertextual referencing during change processes can also help us gain insights into the power relations, struggles and contestations within the organizational field. In principle, intertextual referencing can take place across different institutional orders, allowing for open exchange of thoughts, ideas and feedbacks (Solin, 2004). However, this study illustrated how intertextuality is not a neutral phenomena and in fact, certain institutional orders are more likely to benefit from advancing each other's messages than others. This study also demonstrated how institutional orders of the State and Corporation tend to create explicit intertextual connections with each other, whereas voices representing physicians through blogs and associations are not attended to by the State and Corporation. The explicit discourse of collaboration between the State and the Corporation strengthened their position considerably within the field and enabled creation of organizing vision that identified EHR technology as progress.

Implications for Practice. This study demonstrated that discourse plays a central role in shaping the change process. It built upon the idea of discourse as a strategic resource, as articulated by Hardy et al. (2000) and elaborated on ways in which various institutional orders shaped the meaning of change through their messages. One of the primary strategies of the State and Corporation was to use translation of interests in order to align their own interests with that of physicians. However, the study found that the attempts of translation did not work because the change agents (in this case, the State and Corporation) were not reflexive in their approach. For instance, the discourse can be effective only if it is consumed by the relevant actors. Clearly, the physicians were not consuming the discourse by the State and the Profession, and yet, they chose not to change their translation strategy. The State could have engaged with the issues discussed by the Profession and used their discourse to address issues such as “why should I embrace this change and turn it to my advantage?” and “How can I use EHR without compromising on the quality of interaction with my patients?”

Practitioners need to recognize that changes become legitimized only when the discourse surrounding the change articulates not only why the change can benefit the organization or the field as a whole, but also how the change can benefit the individual member. However, as this study indicated, discursive translations are not easily accepted. Despite the strategy of translation utilized by the State and the Corporation, the change was viewed as incongruent with the medical community’s perceived interests, goals and beliefs. Thus translations cannot be static. Study by Whittle et al. (2010) demonstrated how change agents need to constantly work towards realigning their interests with those of the recipients. This can be achieved only through constant reflexivity, ongoing

dialogue and reworking of translation, even if it requires deviating from the original translation and meaning of change.

The study also points to the significance of intertextuality in the messages during the change process. Physicians were able to constantly resist the discursive framework of the State and Corporation because of their high intertextual referencing. They created an alternative reality by drawing upon messages from different sources to increase their credibility as well as their audience. The State, however, failed to take into account the discourse of the Profession, thus widening the gap between the discursive positions of the State and the Profession, and in turn negatively impacting the discursive legitimization of the change. Vaara and Monin (2010) have noted that discursive legitimization requires engagement with other stakeholders. Change gains acceptance only if the legitimization is consumed by those involved in the process, and intertextuality aids this ‘consumption’ by connecting with different discourses. Thus change implementers need to only attend to the discourses of change recipients, but also incorporate those discourses within their own to create a common social reality. Practionners need to recognized the process of discursive legitimization in their messages and at the same time create linkages to other broader existing discourses to sustain their legitimization attempts.

.Summary

This study examined public discourse of institutional order of the State, Profession and Corporation and investigated how institutional change process is legitimized and contested within an organizational field. It identified four institutional logics emerging within the field, namely, logic of healthsystem efficacy, logic of operational efficacy, logic of collaboration and logic of crises. The study found that

messages representing all three institutional orders primarily used intertextual references that enabled establishment of their institutional logics; minimized or excluded certain discourses which threatened their discursive position (as in the case of the State and Corporation); or provided alternate narratives to counter narrations of those in the position of privilege and power. There were two dominant organizing visions emerging within the discourses of institutional orders – *EHR technology as progress*, based on the messages of the State and Corporation, and *EHR technology as an impediment*, based on the messages by the Profession. Both the organizing visions emerged as being equally strong by the virtue of the fact that there was no significant difference between message features – encumbrancy, establishment, reach and intentionality, of institutional orders that co-created these visions.

One of the most important contributions of this study is that it brings forth the discursive perspective to examine institutional change taking place across three different institutional orders. Examination of institutional messages by the three institutional orders and identification of institutional logics provided insights into constitutive role of communication, whereas identification of organizing visions provided a broader understanding of discursive activity within the inter-institutional system. This research also underscores the importance of context and highlights the need for investigating relationships among different texts and various devices within these texts to fully grasp the complexities of change discourse within the organizational field. The study posits that intertextuality is an important device for production, transmission and subversion of meaning, and accordingly, we need more studies to understand how intertextual referencing shapes the process of institutionalization. We also need more research to

understand how intertextuality can affect message features, especially encumbency and establishment, and consequently how message consumption can affect message features. Finally, it calls for further research to investigate broader discourses within the organizational fields and examine not only how organizations change, but how discursive spaces, within which the organizations exist, change.

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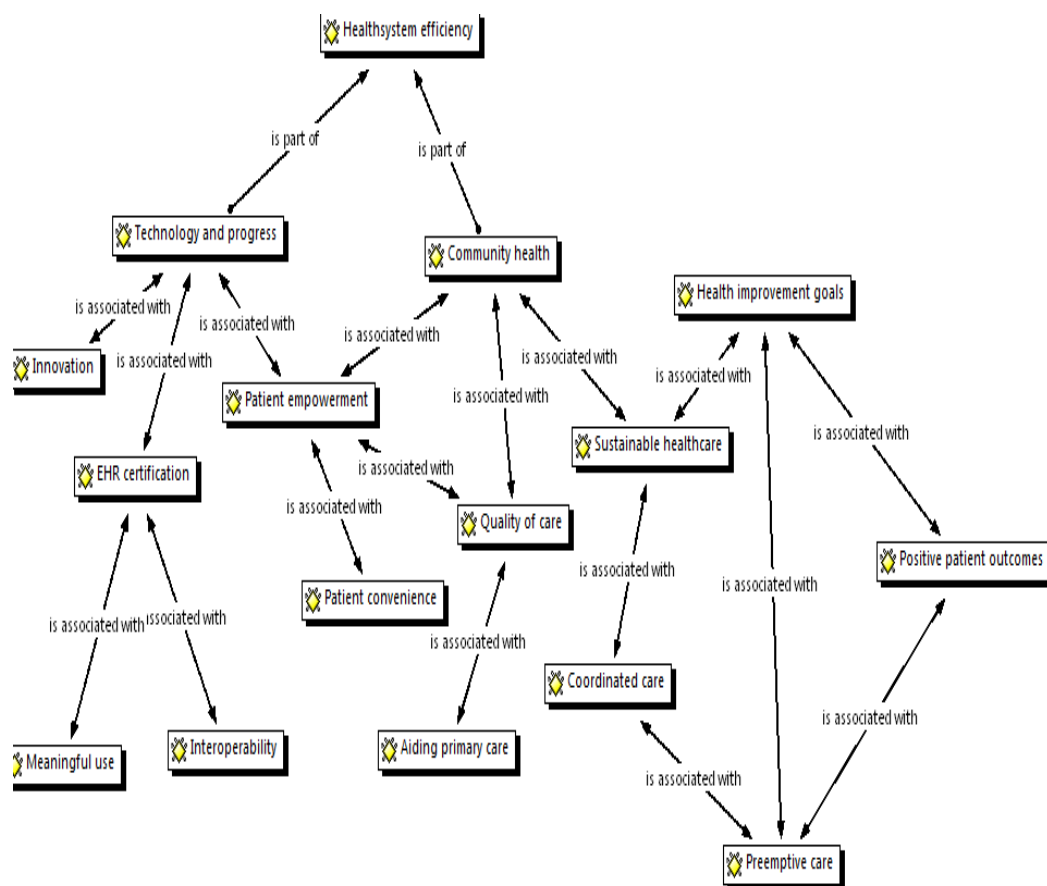
Appendix 1 – Glossary of EHR related terms and abbreviations

American Recovery and Reinvestment Act (ARRA)	The American Recovery and Reinvestment Act authorizes the Centers for Medicare & Medicaid Services (CMS) to provide a reimbursement incentive for physician and hospital providers who are successful in becoming “Meaningful Users” of an electronic health record (EHR). These incentive payments begin in 2011 and gradually phase down. Starting in 2015, providers are expected to have adopted and be actively utilizing an EHR in compliance with the “Meaningful Use” definition or they will be subject to financial penalties under Medicare.
Beacon Communities	The Office of the National Coordinator for Health Information Technology (ONC) funds the Beacon Community Cooperative Agreement Program. The Beacon Communities are seventeen communities across the country chosen to make inroads in the adoption of health IT.
Clinical Decision Support System (CDSS)	A clinical decision support system (CDSS) is software designed to aid clinicians in decision making by matching individual patient characteristics to computerized knowledge bases for the purpose of generating patient-specific assessments or recommendations.
Computerized Physician Order Entry (CPOE)	Computerized Physician Order Entry is a system for physicians to electronically order labs, imaging and prescriptions.
Electronic Health Records (EHR)	An electronic repository of information regarding the health of an individual. EHR’s imply a level of interoperability beyond the capability of an EMR (Electronic Medical Record).
Electronic Medical Records (EMR)	Electronic Medical record has a level of sophistication beyond a document management system. An EMR is a provider-based medical record that includes all health documentation for one person covering all services provided within an enterprise.

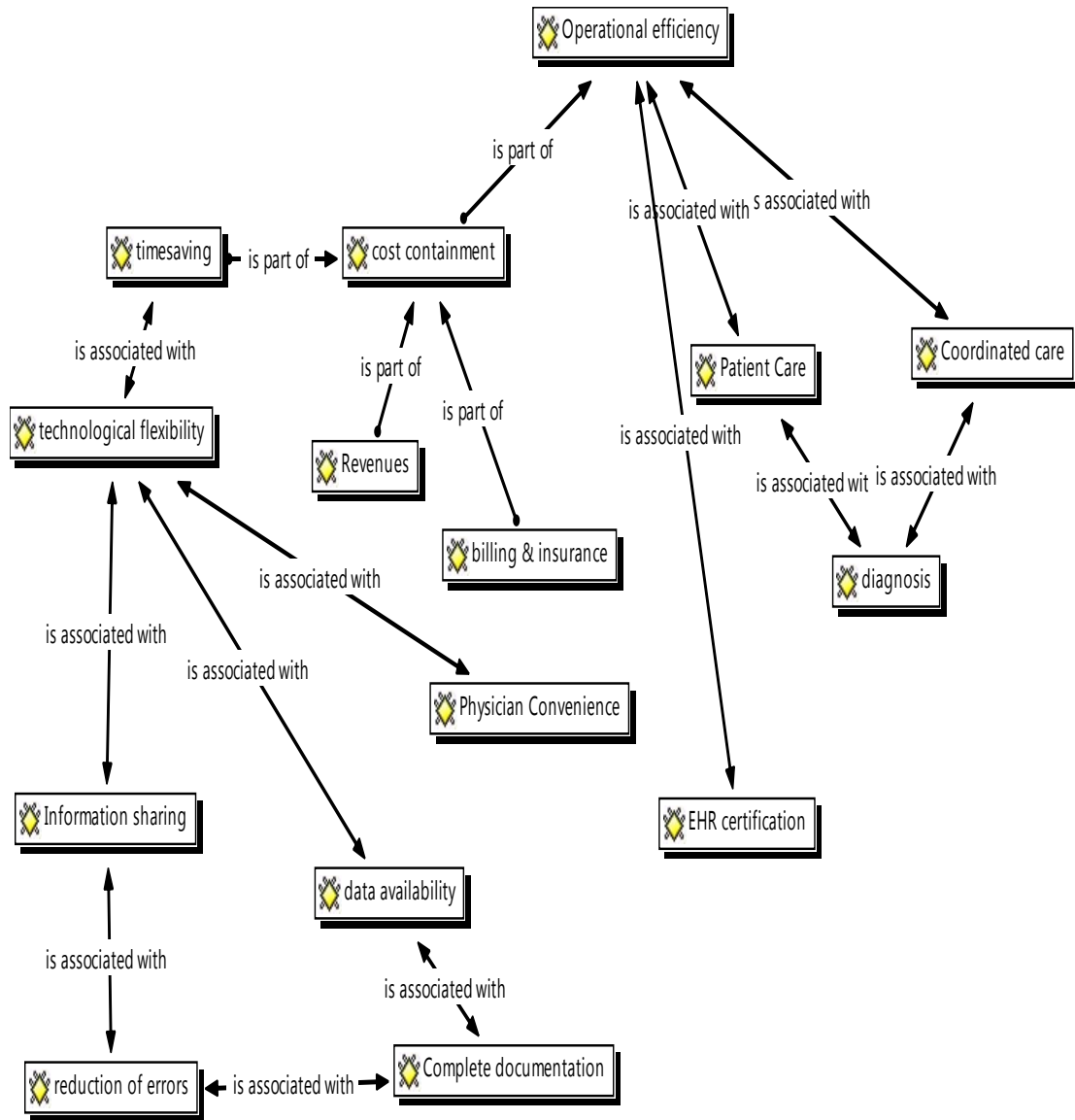
e-prescribing	Prescribing medication through an automated data-entry process and transmitting the information to participating pharmacies.
Health Information Technology (HIT)	Provides the umbrella framework to describe the comprehensive management of health information and its secure exchange between consumers, providers, government and quality entities, and insurers.
Health Information Technology for Economic and Clinical Health Act (HITECH Act)	Health Information Technology for Economic and Clinical Health Act (HITECH Act) legislation created to stimulate the adoption of electronic health records (EHR) and supporting technology in the United States.
Health Insurance Portability and Accountability Act (HIPAA)	HIPAA- Health Insurance Portability and Accountability Act of 1996, is a set of federal regulations which establishes national standards for health care information.
Interoperability	The capability to provide successful communication between end-users across a mixed environment of different domains, networks, facilities and equipment.
Meaningful use	Sets specific objectives that Eligible Professionals (EPs) and Eligible Hospitals (EHs) must achieve to qualify for the CMS EHR Incentive Programs. Simply put, Meaningful Use (MU) means providers need to show they're using Certified EHR Technology (CEHRT) in ways that can be measured significantly in quality and in quantity.
Office of the National Coordinator for Health IT (ONC)	Forefront of the administration's Health IT efforts and is a resource to the entire health system to support the adoption of Health IT and the promotion of health information exchange to improve health care.

Patient Portal	Allows patients and providers to communicate over the Internet in a secure environment.
Regional Extension Centers (RECs)	Offer technical assistance, guidance and information on best practices to support and accelerate health care providers' efforts to become meaningful users of Electronic Health Records (EHRs). The consistent, nationwide adoption and use of secure EHRs will ultimately enhance the quality and value of health care.

Appendix 2 - Network view of Supercodes in Healthsystem Efficacy



Appendix 3 - Network View of Supercodes in Operational Efficacy



Appendix 4 - Network view of Supercodes in Logic of Healthcare Crises

