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METAPHORS IN E-GOVERNANCE AND THEIR IMPLICATIONS FOR PARTICIPATION: THE CASE OF THE DEVELOPMENT GATEWAY

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Abstract

In this study, I explore the role of metaphor in shaping web-based e-governance portals. Specifically I analyze how a seemingly diverse set of portals is underpinned by a limited number of root metaphors, and how these metaphors are enacted through combinations of discursive resources and strategies. I then analyze the implications of specific metaphors on participation. I do this through a case study of the Development Gateway, a multimillion-dollar, multi-stakeholder web-based portal initiated by the World Bank, which has as one of its main features a set of 52 “Country Gateways”, each one a site set up by a different country, yet all established under the same mandate of using information technology for sustainable development. I use discourse analytic techniques to analyze these websites’ words, visuals, and interactivity resources, using a framework of 21 categories broken down into 84 sub-questions. I find that there are three root metaphors underpinning these portals: the metaphors of community, expert, and market. I note that a single metaphor can be enacted in different ways; for example, multiple portals underpinned the “expert” metaphor can nevertheless end up playing significantly different roles. I then examine the implications of these roles on the process of participation.

Keywords: Metaphors, E-Governance, Participation, Discourse.

1 INTRODUCTION

In this paper, I explore the role of metaphor in shaping information and communication technology (ICT) phenomena, specifically web-based portals, and examine how these metaphors have implications on participation, a process which is fundamental to democracy (Hague & Harrop & Breslin 1998). In doing so I seek to make three contributions: First, in the area of research methods, I extend the application of discourse analytic techniques to the interactivity features of websites. Portals often contain text-based as well as visual resources, both of which have been the subject of much discourse analysis; however, web portals may also include HTML forms like radio buttons, or synchronous and asynchronous communication tools like chat and bulletin boards, which remain relatively unexplored as discursive resources, and which I now seek to examine more closely in my study. Second, in the area of management and information systems practice, I seek to make more explicit the link between certain metaphors and specific combinations of discursive resources/discursive strategies, a link that could be useful for more fully understanding how metaphors come to be embodied in new media, and may also be helpful for managers and web designers in that it begins the building up of a toolkit that could eventually aid web design. Third, in taking this approach, I contribute to theory by exploring a specific type of relationship among metaphor, social constructionism, and discourse. While there are growing bodies of work that explore ICT using metaphors (Hirschheim & Newman 1991, Kendall & Kendall 1993), social constructionism (Williams & Edge 1996, Orlikowski 2000), and discourse (Coupland & Brown 2004), there have been minimal efforts to explicate the relationship among these three domains. In taking the approach that I do, I in effect argue that metaphors are the basis for complexes of meaning systems associated with ICT, which result in acts of social constructionism, and which become manifested in discursive formations.

2 METAPHORS, E-GOVERNANCE, AND PARTICIPATION

An empirical review of e-governance literature suggests that the goals and ideals of e-governance have a pronounced link to metaphors. Many ICT studies, while not making explicit mention of metaphor, can still be implicitly linked to such, in particular to traditional organizational metaphors. For example, a number of e-governance studies focus on the relationship between ICT and efficient, streamlined structures and processes; these studies can arguably be founded on the assumption that organizations are machines. Other e-governance studies have focused on how ICT connects government organizations to external environments and entities (Fountain 2001); these can arguably be founded on the assumption that organizations are organismic open systems. I argue that these metaphors, as well as other popular organizational metaphors like the brain, political system, and instrument of domination (Morgan 1997) are so prevalent even in ICT that they have come to be taken-for-granted.

The pervasiveness of metaphors in ICT is not surprising. Metaphors have been described as being inevitable because they are hard-wired into our cognitive processes (Lakoff and Johnson 1980), or as ubiquitous phenomena that facilitate the transfer of ideas from the concrete to the abstract (Sackmann 1989, Hatch 1997, Hoch & Kunreuther & Gunther 2001). They are seen to aid cognition because of their efficiency (Sackmann, 1989), their ability to highlight selected features (Hoch & Kunreuther & Gunther 2001), their ability to express that which is difficult to do so, and their vividness (Ortony 1975). Because they shape cognition, it has been argued that metaphors configure resulting patterns of action. A single problem can be framed using different metaphors and can lead to starkly different actions, reactions and solutions (Schon 1993). Thus metaphors, in framing our apprehension of reality and our resulting actions, can be seen to be constructive of aspects of reality as well (Black 1993). Drawing from these writers, it can therefore be argued that metaphors, in shaping our cognition and construction of reality in general, could also configure the way we understand, as well as construct, specific ICT phenomena.

It therefore becomes plausible to argue that a discrete ICT phenomenon like a single web-based portal could be underpinned by metaphors, and that these metaphors can be “manifested” in ways that can be analyzed. Hence I argue that traces of root metaphors may be found by systematically analyzing the detailed characteristics of ICT phenomena, such as the textual, visual, and interactivity features of websites. In this study, therefore, I focus on the process of finding possible root metaphors that could account for much of the detailed characteristics of websites, and subsequently theorizing on the implications of these metaphors on specific areas and processes of e-governance such as participation. Participation is critical to democratic arrangements, given that the “ideal” democracy is defined as a context wherein “all adult citizens participate in shaping collective decisions” (Hague & Harrop & Breslin 1998, p. 20). I therefore pose two research questions for this study: (1) *What are the metaphors that underpin e-governance phenomena, specifically web-based portals?* (2) *What implications do these metaphors have for the process of participation?*

3 METHODS

I use case study methods and discourse analytic techniques, which allow for the close and detailed examination of discursive resources related to a bounded ICT phenomenon in ways that would generate detailed descriptions amenable to analysis. A case is “a specific and bounded (in time or place) instance of a phenomenon selected for study” (Schwandt 2001, p. 22). Case studies have been described as being valuable for theory testing (for example, via falsification) which can lead to theory development, as well as for generalization, for the creation of context-specific knowledge, and for learning that goes beyond the rule-based (Flyvbjerg 2004).

3.1 Case Study: The Development Gateway and Country Gateways

As a context for my study I examine the Development Gateway (www.developmentgateway.org), a multimillion dollar web-based undertaking initiated by former World Bank President James Wolfensohn in 2000. It is an Internet-based resource on poverty reduction and sustainable development, with reports, articles, statistics, discussion groups, transactions, and policy analyses aimed to assist a variety of actors, ranging from large banks to grassroots organizations to individual users (DevelopmentGateway 2004). The Development Gateway was chosen because of its richness in discursive resources, because technology is core to its operations, and because it is enmeshed in a complex network of stakeholders linked to different degrees and bases of power, as well as to a broad base of users, making it a site that is potentially rich in the dynamics of participation. Since the Development Gateway is huge, I choose to limit myself to one aspect of it: Country Gateways, a set of over 50 web-based portals established by different countries, operating as “locally owned and managed public-private partnerships to facilitate and catalyze the use of information and communication technologies for development” (DevelopmentGateway 2004, p. x). Each Country Gateway has varying areas of emphasis such as agriculture, education, health, or the establishment of an e-society, but all were established under the umbrella mandate of using ICT for poverty reduction, as well as under the same broad guidelines, among them the need to implement portals through collaboration and partnerships (DevelopmentGateway 2005).

3.2 Data Collection and Analysis

At this stage of analysis, I have collected information on the homepages of 19 Country Gateways, as well as the Development Gateway, for a total of 20. The target data pool for this stage of analysis is to have analyzed all homepages of the 27 Country Gateways that are available in English. I have focused on the homepage of each site as this is seen to function like a magazine’s front page: it acts as an advertisement for the portal’s contents, it establishes the genre identity of the portal, and it “frames” the portal in that it “offers a strong, though not compulsory, interpretative frame for what is to follow” (McCracken 1993, p. 32), and is therefore the most critical instantiation or part of a website.

Data gathered from these 20 sites are in the form of textual, visual, and interactivity features, referred to earlier as discursive resources. To guide my data gathering, I have constructed a framework made up of categories that would enable me to unpack their detailed characteristics. To analyze *words*, for example, I have drawn from traditional discourse analysis (e.g. Paltridge 2000) and have come up with six categories for analyzing such (e.g. genre of resources used, topicalization/ foregrounding/ backgrounding, tone employed). Each of these categories is further broken down to generate greater detail; for example, “tone” is further broken down into sub-questions on degree of formality, detachment, objectivity, presence or absence of jargon, and positioning of speaker. To analyze *visual resources* I have drawn from fields like marketing and visual design (e.g. McCracken 1993, Kress & Van Leeuwen 1996) and have come up with another six categories (e.g. layout, type of visual resources used, portrayal of subjects, modality). To analyze *interactivity features* I have drawn from information systems literature (e.g. Singh & Zhao & Hu 2003, Hart-Davis 2005) and have come up with nine categories (among them HTML forms available on a homepage, ICT tools like chat or bulletin boards present, and depth of transactions supported, if any). The preliminary list of categories was initially drawn directly from the literature of the above fields, and iteratively refined as analysis on websites proceeded, finally stabilizing into 21 categories and 84 sub-questions, which were then used to “interrogate” each homepage. This process of analysis is known as *discourse analysis*, a methodology that calls for systematic qualitative investigations of discursive units called “texts” (in this case, not just words, but also visuals and interactivity elements like dropdown menus). Discourse analysis also looks into exploring how systems of texts constructs aspects of reality, linking the methodology to strong social constructionist assumptions (Philips and Hardy 2002). The categories/ sub-questions were used to generate a detailed description of observable features of each of the homepages. The analysis of each homepage was documented on a separate table, each divided into rows, with one row being devoted to each category. Each row was then divided into two columns: in the first column I recorded the observable data for a given website under a specific category (actual words written, descriptions of pictures, HTML forms available, etc.), and in the second column I recorded my interpretation of such data, fully explicated in sentence form. The items in the interpretation column were subsequently examined in an iterative manner for major themes.

4 EXPLORATORY FINDINGS AND DISCUSSION

There are three findings that have emerged at this stage of the research. First, the items in the interpretation column could eventually be seen to cluster into three themes: the metaphors of *community* (discursive resources/ strategies being linked to sharing, collaboration, discussions, relationships, exchange, dialogue, coordination, bringing together”, being heard), *expert* (building up specialized knowledge on a given domain), and *market* (providing transactional/ informational support that would facilitate the sale, transfer, donation, or promotion of goods and services). Interestingly, these metaphors do not map neatly onto the popular organizational metaphors (machine, etc.) which, I have argued, had so significantly underpinned the discourse on e-governance ideals. Second, each of these three metaphors is nuanced enough to take on diverse forms: a single metaphor can underlie several websites, with each website playing a different role or having a different personality. Third, these root metaphors and the different “roles” they enact also have distinct implications for processes like participation.

4.1 The root metaphor of expert authority and its variations

For purposes of this paper, I limit myself to the root metaphor of expert and how it plays out in three portals. The metaphor of expert can be seen to straddle, but not map neatly onto, two popular metaphors: the brain metaphor and the instrument of domination metaphor. The expert metaphor is seen to underpin at least three websites: the Development Gateway, the Croatia Country Gateway, and the China Country Gateway (see Appendix 1 for URLs and access dates). All three sites are information- or knowledge intensive sites, rich in text, and all three sites present this information with

a pronounced degree of influence and credibility; hence they are all positioned as sources of robust information in a particular field that users can expect to depend upon. However, each website, while playing an expert, does so in a unique manner.

For example, the Development Gateway's expertise comes largely from the site's portrayal of itself not only as a technical development professional, but also as a bureaucrat and manager which oversees and controls the supposedly collaborative process of creating and disseminating development knowledge. The portal presents English content like reports and technical articles in language peppered with technical development terms such as "aid harmonization" and acronyms like "MDGs", presumably equivalent to the development community's scientific language (Kress & Van Leeuwen 1996). The site comes across as defining problems convincingly ("Hurricane Katrina, as well as floods and drought across Africa, require fast and effective humanitarian assistance"), as well as defining the solution authoritatively ("Among them food and water are paramount") then moves on to implicitly suggesting that it has the solution ("Read more in our 29 online communities, currently featuring Food Security"). This strategy, of authoritative problem/ solution formulation, is an example of a discursive strategy, a manoeuvre that mobilizes resources in a certain way. The Development Gateway also makes use of formal, third person, detached, technical, official-sounding statements. In doing such it becomes authoritative and positioned as beyond interrogation. The Gateway's use of visual resources adds to, or perhaps sets the stage for, this image: it conveys a serious, professional, systematic, linear, streamlined, methodical text producer. It uses visual materials sparingly, mostly abstract, decontextualized icons and simple frames, and makes little use of color: a white backdrop, black non-playful fonts, and sparing, highly restrained and careful use of yellow and blue. All of these give the portal an air of serious, official credibility; hence the Gateway becomes a natural voice of authority spreading technical knowledge on development matters. It makes provision for contributions, but in a heavily regulated manner. It largely pushes out knowledge resources, specifically articles, reports, books, and statistics which "offer the kind of knowledge which, in our culture, is most highly valued --- objective, dispassionate knowledge, ostensibly free of emotive involvement and subjectivity" (Kress & Van Leeuwen 1996, p. 126). Overall it comes across as a *technocratic, bureaucratic professional*.

The Croatian site plays a different role: that of a rather *outspoken and rebellious IT geek* that sees technology as a panacea for all ills, yet notably also one that professes to be willing to discuss just about anything. The site's content is jargon-laden ("Blu-ray", "Phish"), hinting at a user with some specialization in technology. The slogan of one of the syndicators, "News for nerds, stuff that matters", could very well be the slogan of this portal as well. But because language is informal (laden with contractions like "advert", "preps" and "demos") and colorful ("hunkers down"; "eye-popping", "baring it all"), it conveys this knowledge in a way which is not bureaucratic or managerial, but instead through the language of a young, hip IT genius or nerd. The modality and colors of the portal (the background mostly in red), its language, as well as its use of photographss (one of few being that of a young girl in trendy clothes in a confident pose), make it appear vibrant and striking, alluding to a confident, unreserved, perhaps even rebellious personality, not a restrained manager or professional. The expertise of the Croatian site appears to emanate from its portrayal of itself as a nerd who knows what s/he is talking about. Yet the site does not seem to claim to be "the" sole knowledge source; the portal proclaims "Write for us!" and asks for "unsolicited work" from those who have something to "shout out to the entire world".

The China site's expertise and authority appear to be that of a *bureaucrat with a track record of accomplishment*. Development is portrayed in the background as a set of problems (disasters like flooding; the need for water conservation), and what is foregrounded would be the *solutions* that China (i.e., the Chinese government) has provided to these development issues. Hence issues are not portrayed as problems (like poverty and water shortage) but as solutions ("poverty relief" and "water conservancy"). The main characteristic of knowledge in this site is not its robust technicality and global focus, as it is with the Gateway, or its high specialization, as it is with Croatia; furthermore, the main source of authority is not by virtue of the site coming across as a technical professional, although

it does come across as “official”. Expertise comes in the form of success stories and lessons learned about development that have worked for China, and authority hinges largely on an underlying claim to a history of success and credibility (rather than position or genius).

4.2 Implications for participation

Having argued that websites are underpinned by certain metaphors and play key roles, what are some of the implications? It appears not only that the single metaphor of expert can be enacted in multiple ways (“roles”) through varying uses and combinations of discursive resources, but also that these roles have repercussions on processes like participation. I have found, for example, that the three portals underpinned by the expert metaphor vary in terms of participation dynamics: the bureaucratic expert (the Development Gateway) heavily regulates an arena of *non-participation*; the IT geek (Croatia) opens an arena for pluralist *participation*, and the incumbent official (China) maintains an almost conflict-free arena of *symbolic power* (Hardy 1994).

This notion of different dimensions of participation draws from a model that examines power in decision-making. Building on the work of Lukes (1974), Hardy (1994) suggests that there are multiple dimensions of power, three of which are power in decision-making, power to force players into non-decision-making, and symbolic power. Participation and decision-making are inseparable in that under democratic government arrangements, participation is marshalled precisely so that stakeholders (for example, citizens) can take part in formulating collective decisions (Hague & Harrop & Breslin 1998). In analyzing websites, therefore, these power dimensions are harnessed as analytical devices, the result being that websites can be examined as to whether they are open arenas that any player can access (participation), arenas where players can be so heavily controlled through lack of access or through a predetermined agenda (non-participation), or arenas where a hegemonic power has managed meanings, ideals, and values to the point that conflict is largely absent (symbolic power).

The Croatia Country Gateway appears to be an arena for *participation*. It portrays itself as an open electronic environment which welcomes just about any topic and player. The portal makes a broad invitation, saying “We promote independence and creativity, innovation and openness and we welcome unsolicited papers, articles, columns...Write to us - so you can start writing for us...” Information technology (IT) appears to be a common topic, but there are no fixed categories that seem to demarcate the acceptable from the unacceptable, hence the wide variety of subjects, ranging from an open letter to George W. Bush concerning the war on Iraq to an article on breast cancer. The seemingly anything-goes arena appears to position itself as a pluralist community where everyone gets a say. In this context, even the seemingly “most powerful” players (George W. Bush, the US government, the World Bank) get criticized, even lambasted. The portal thus presents itself as an open, though not necessarily level, playing field (all are welcome, but information technology geeks, for example, may feel more “at home” and hence be more vocal).

The Development Gateway appears to be a context for *non-participation*. Its heading is inviting, confidently beckoning people to “connect, collaborate, change your world”, and it readily presents a number of interactive mechanisms that allow for immediate participation (dropdown menus, search facilities). However, there are filters that restrict access (membership, technical difficulties, and editorial filters), and there are built-in taxonomies that shape the “agenda” or type of knowledge that comes to be published on the Gateway. Filters and predetermined agendas are characteristics of the second level dimension of power discussed earlier (Hardy 1994). A potential contributor once wrote a series of messages, complaining of technical difficulties in posting, the lack of a category (for example on anti-corruption) for her piece, and the perception that topic “guides” were screening out “unknown” people or were “blowing their own horn” on the Gateway (Von Struensee 2001). Hence while the Development Gateway portrays itself through its visual and verbal resources as a collaborative participant enmeshed in a network of multiple stakeholders, it has nevertheless “defined” the arena by controlling access and defining the contours of the environment via predetermined topics and by forcing smaller participants into heavily regulated participation that could border mere spectatorship.

The China Country Gateway appears to be the most closed of all three, and can be seen as a domain for symbolic power. Much of the site's resources appear to have been internally generated by the Chinese government for the sake of being disseminated, hence information flow can be better described as being mostly uni-directional, rather than as exchange. There are no conspicuous invitations for contribution. The Chinese government is the source of, as well as the topic of, many resources. Topics and news seem slanted to portray a government that is a strong planner, "in control", and on top of things. Problems are moved to the background; solutions are emphasized. An offshoot of this is that the government, and hence the website, subtly makes a case for China as a desirable, well-managed place; it comes as no surprise that the website is also equipped with features that play up China as an attractive travel ("Travel in China") and investment destination ("Investment FAQs). In the case of the China Country Gateway, the issue of participation and the need for plurality do not even appear to come up as major issues. It is taken for granted that the arena belongs to a single player, the government, who is both major knowledge source and primary solutions provider. There is no debate, for example, on the government's approach to solving development problems; their solutions are presented and accepted unproblematically.

5 CONCLUSION

I have argued that metaphors underlie ICT phenomena, specifically websites, in ways that fundamentally configure their discursive resources, such that they play different roles, which in turn has implications on processes like participation. There are three points that I wish to conclude with. First, having argued that the root metaphors that have emerged do not map onto the organizational metaphors that underpin e-governance ideals, I now suggest that theoretical work must be done to try to explain why these popular organizational metaphors break down in practice, yet nevertheless persist in ICT literature, even in light of their decreased presence and explanatory power. Second, having shown how a single root metaphor like the expert metaphor can be enacted in different ways, I would suggest that future stages of this research would have to include broadening the data pool (to include more websites and perhaps discovering or verifying metaphors and roles) and deepening the analysis (going beyond the home page to get a more robust reading of each website's character). Considerable insight can also be derived from going beyond the websites themselves, and looking into the processes of (social) construction behind them that bring a new portal into being, to understand the decisions and judgments that underlie the choice of discursive resources. This process can be studied using interviews, observations, and other ethnographic methods. Finally, I propose that succeeding stages of the study focus on tracing the constructive effects of these metaphors in other domains, for example closely examining what subject positions have been created (the notion of a victim or a beneficiary), analyzing how metaphors and roles have influenced the shape of other processes like knowledge-sharing, or perhaps theorizing on how metaphors and roles may they have affected the allocation of material resources like monetary aid or manpower.

Appendix 1: List of Gateways Accessed

Development Gateway	http://www.developmentgateway.org/	3 October 2005
China Country Gateway	http://www.chinagate.com.cn/english/index.htm	7 October 2005
Croatia Country Gateway	http://gateway.hr/	3 October 2005

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