INTENTIONS, ETHICS AND SOCIAL MEDIA RESEARCH

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ABSTRACT

Social media are influencing our communications, collaborations and creating vast research opportunities in business and the social sciences. Many are mining massive continuous data flows to understand and predict human behavior. Mavericks in the research community claim that traditional utility-based explanations are far too simplistic, limit understanding, and lead to poor insights and predictions. Further, they point out that many questionable management practices have their roots in these amoral, value-free theories of human behavior. We present a similar critique of recent frameworks for social media research. Based on this analysis, we suggest that social network designers adapt pattern languages used successfully in designing buildings, physical communities and software objects. Such adaptations will require explanations of human intentions, morals, and ethics and will not be amenable to causal models proposed for social media research.

INTRODUCTION

Social scientists and business researchers salivate over opportunities provided with "big data" available through social media. Several frameworks have been recently proposed to guide efforts to build a richer understanding of human behavior within on-line social networks that lead to better predictions and media design choices. The analysis of these frameworks below suggests broadening their philosophical underpinnings include human intentionality guided by morals and ethics.

The development and philosophy of the scientific approach to the study of business appears in the next section along with a critique and limitations to explanations derived in such a manner. These limitations require us to consider alternatives that consider human intentions when studying social phenomenon. With this background, recent social media research frameworks are critiqued in the following section.

The next section provides a discussion of the cultural impacts of technology and social networks that many see weakening important interaction skills. On-line social networking can have externalities if designed with narrow goals that fail to consider such problems. Finally, we show how ideas from architectural research and moral foundations theory can be used to provide insights into social media research that could not be found with current research frameworks.

SCIENTIFIC MANAGEMENT RESEARCH – THE PRETENSE OF KNOWLEDGE

Ford Foundation sponsored papers claimed that practice demanded a scientific approach to the study of business (Gordon & Howell, 1959; Pierson, 1959). Business school academics altered their approach to research by adopting the scientific approaches taken by the physical, natural and social sciences.

The creation of new knowledge in the physical sciences relies exclusively on causal explanations while the life sciences also admit functional explanations (Elster, 1983). These functional explanations often demonstrate that

companies as they approach bankruptcy (Akerlof, Romer, Hall, & Mankiw, 1993). These results are at odds with agency theory prescriptions for aligning management incentives with shareholders. Others have blamed agency theory for excessive executive compensation via stock options and decreased trust between stakeholders with different incentives within the organization (Ghoshal, 2005).

The economist Frederich von Hayek used his 1974 Nobel Prize lecture to issue a famous warning about the harm that can be done through the "Pretence of Knowledge" (von Hayek, 1989). While his warning mainly concerned harm to society from bad economic theories, they apply to management research equally. He asserts that complex phenomena cannot be predicted or understood because of difficulties ascertaining an appropriate fact set. While many researchers hope that they can use social network experiments and data to address social contagion and perhaps reduce destructive behaviors, we must remember that these phenomena are far more complex than we will be able to model.

The practice of management has become dependent on simple metrics to inform complex decisions (Webber, 2006). Performance-based compensation is one such area. Predictably, these metrics are gamed often to the detriment of the organization, especially in the financial sector (Akerlof et al., 1993). Metrics tend to encourage short-term individualistic thinking at the expense of the long-term health of the organizational community. While many bemoan the lack of influence of management research, there can be little doubt that data-driven decision making, now common in industry, has its roots in academic theory. When these theories are applied to complex human processes, there is reason for skepticism. As von Hayek suggests, such theories likely suffer from the "pretense of knowledge."

SOCIAL MEDIA RESEARCH AGENDAS

In this section, we review social media research agendas from researchers in the social sciences and information systems. These agendas explicitly dismiss moral, ethical, or mental phenomena in their social media frameworks and theories. While they claim to provide a "rich and empirically verified understanding of some of the central phenomena of behavior in social settings" they also admit that "the theories are incomplete; they offer no guidance on some important design choices" (Kraut, Resnick, & Kiesler, 2012, p. 12). Some believe social media research will lead to functional or causal explanations of why people using on-line social networks are so willing to reveal valuable personal information (Grabner-Kräuter, 2009).

Social scientists also provide social media design guidance based on causal and functional explanations (Kraut et al., 2012). They derive their theories and explanations by observing behavior, controlled experiments, and mathematical models. However, this approach cannot inform moral judgments about which goals lead to desirable online communities. Rather, they are satisfied with "identifying the likely effects of particular design alternatives in meeting the fundamental design challenges of online communities" (Kraut et al., 2012, p. 9). However, despite efforts not to make moral judgments, they admit that their social media design theories start from a premise that individuals "increase their own utility"(Kraut et al., 2012, p. 11). As described in the section above, this premise is essentially a moral judgment. It is especially questionable in community building where people are often willing to give up their lives in war for the benefit of society.

Information systems and business researchers also salivate over opportunities provided with "big data" available through social media. In particular, Information Systems researchers have established a framework for such research (Aral, Dellarocas, & Godes, 2013.) The entire March 2013 issue of one of the leading information systems research journals, Information Systems Research (ISR), was dedicated to articles spanning the breadth of the research framework.

The framework describes research questions across four activities: design/features, strategy/tactics, management/organization, and measurement/value. For each activity, it calls for analysis at three levels: users/society, platforms/intermediaries, and firms/industries. It does not consider cultural impacts, desirable design goals, or explanations of human intentionality.

At the tactical level, social network adoption probabilities are derived from data and complex classification models (Fang, Hu, Li, & Tsai, 2013). They claim their model can help identify "seeds" for viral marketing. While the model might provide a useful tool for designers, one wonders how such models will stand the test of time. Humans learn and once they see how they are being manipulated they can change behavior, potentially making such models worthless or worse.

Human intentions and mental processes are essential to the understanding of social phenomenon within on-line settings. Recent social media research frameworks from information systems and the social sciences dismiss these efforts and rely on assumptions of utility maximizing actors and empirical data in building causal and functional models. These frameworks will have little to offer design practitioners seeking to create healthy communities that benefit society.

CULTURAL IMPACTS OF SOCIAL MEDIA AND TECHNOLOGY

Sherry Turkle's research shows that while we are becoming increasingly connected through social media and related technologies we are creating emotional voids that leave us feeling lonely everywhere, even when physically among friends (Turkle, 2011). Declining social engagement and decreased intimacy are among the impacts of electronic communications on our relationships. Her research suggests that empirical academic studies are unlikely to produce convincing evidence to change unhealthy communications behaviors for many of the same reasons described above. Labeling a set of communications behaviors as unhealthy requires judgments not found in amoral theories.

Internet-connected devices can be used to stay connected and maintain social capital. Unfortunately, as Turkle's research suggests, these devices have decreased our ability to communicate face-to-face in a meaningful way. Increased texting and social media use means that we spend much less time in personal, face-to-face discussions. Without non-verbal cues and context, many electronic messages are misinterpreted. Public use of the devices takes us out of the moment making us much less likely to interact with people in our physical presence. Important discussions are deferred or never occur. Relationships become frayed and social capital is lost.

Moreover, empathy among college-age students has dropped by 40% between 1979 and 2009 (Konrath, O'Brien, & Hsing, 2011). Developing empathy requires deeper, more emotional conversations that Turkle says are not occurring today. These kinds of conversations are simultaneously deeply desired and yet avoided at all costs. Electronic devices can be addictive and may require interventions similar to those used for alcoholics and other addicts (Roberts & Pirog, 2013). Many of the most effective approaches to understanding and treating addiction require "intentional" explanations – causal and functional explanations provide little assistance. Group talk therapy is common. Unfortunately, for the vast majority of people, there is no way to "quit" internet-related activities cold turkey as one might with drugs, alcohol or gambling. Healthy uses of technology are often required for livelihoods. Those who "unplug" from electronics may become even more isolated than they are with the devices. Unfortunately, the "abstinence" approaches used to treat other addictions is probably not realistic for ubiquitous newer technologies including social media.

Robert Putnam describes the declining levels of civic and interpersonal engagement in the United States from the mid-1960s through the mid-1990s. He summarized his research and potential public policy cures in the best-selling book *Bowling Alone* (Putnam, 2000).

In the book, Putnam warned that social capital needed for thriving communities was declining at an alarming rate and made several public policy recommendations to reverse the trend. Social capital refers to the total value of social networks that foster cooperation, reciprocity in giving, trust and information. When social capital is present, one has a place to "belong" and can rely on others for support and encouragement.

Even in its earliest days, America has been envied for having high levels of social capital. By 1840, Alexis de Tocqueville had attributed much of the success of American democracy to the thriving social institutions and civic associations he describes in the early 19th century classic *Democracy in America* (De Tocqueville, 2004). While the

(Christopher Alexander, 1979; Crumlish & Malone, 2009). These ideas and theories will necessarily involve moral judgments and intentional explanations that the information systems community have avoided in their research (C. Alexander, 1999). It is not likely that they will have causal or functional explanations in a "scientific" sense. However, as Alexander has shown, there can be widespread agreement on many of the most critical patterns.

In recent years, Jonathan Haidt's Moral Foundation Theory may provide clues to why researchers go awry when modeling complexity. He asserts that people make complex decisions on intuition then later justify their actions with empirical evidence (Haidt, 2012). This implies that people will not believe anything that violates their intuitions so you need to understand their passions to build influential messages and healthy relationships. It is a message that flies in the face of causal empirical research but has huge implications for developing social networks.

Haidt also suggests that humans can transcend self-interest and temporarily immerse themselves in a "hive." Those seeking to build successful groups should accentuate similarities rather than diversity to increase such behavior. Synchronicity and team competition build trust and morale needed to build cohesive groups. Transformational leaders motivate isolated individuals to see themselves as members of a larger group. While Haidt does not apply his theories to social media design, his results complement Alexander's community building efforts.

In contrast to the other societies, Western, Educated, Independent, Rich, Democratic (WEIRD) people perceive a world of objects rather than a world of relationships. Their morals emphasize concerns about harm and fairness to protect individuals and their rights. However, these concerns are not sufficient to build healthy relationships and thriving communities. Successful groups have moral capital that enhances social order. That capital is built on moral foundations such as authority, loyalty and sanctity in addition to caring and fairness. On-line designers can consider these foundations as critical for establishing community.

Diversity reduces both bridging capital (between groups) and bonding capital (within groups) by creating social isolation or anomie. While diverse perspectives should theoretically improve problem solving, building cohesive diverse groups requires extra effort to establish bonds. This insight also has implications for media designers. It is clear that many on-line social networks appeal to very narrow audiences and support homogenous groups.

Resistance to authority can undermine cohesiveness of groups. However, unchecked power can lead to abusive within group and between-group behavior. Certain tribes of hunter-gathers demonstrate the possibility of healthy egalitarian cohesive groups (Haidt, 2012). As with all relationships, on-line community developers must strike a delicate balance between authority and its potential for abuse.

Haidt and Alexander provide pattern languages and moral theories that explicitly consider human intentions when explaining many phenomena of interest to social media designers. They provide two rich sources of insight to guide these efforts.

CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

Insights from Alexander and Haidt could lead social media researchers in vastly different directions from those envisioned by the information systems and social science research agendas described in this paper. While not as scientific or grounded in causal or functional explanations, their pattern languages and moral foundation theories provide a foundation for the study of ethical and moral issues surrounding social media. As we facilitate many of our communications through technology and social media, we must consider whether the changes in culture and our ability to interact in richer face-to-face contexts will create undesirable externalities.

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