Social Media Meets the Modern Mission Agency

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Abstract:

This paper examines the process of a modern mission agency's transition from desktop and server-based systems to social media and cloud-based solutions. Mission agencies have existed since the 1850s and represent early implementations of globally distributed collaborative groups. This study examines the process of one mission agency working through the transition to modern social computing to create and share knowledge between the home office, missionaries, donors, and churches.

This study provides a unique glimpse into the process of one mission as it has worked through this transition. The goal was to investigate the use of Web 2.0 technologies, social media, learning management system (LMS), and customer relationship management (CRM) type personnel systems within a globally distributed modern mission agency in light of three theoretical perspectives.

The theoretical perspectives of Pask's conversation theory, Wenger's communities of practice, and Weick's sensemaking merged to form a multilevel epistemological framework to examine the social construction of knowledge in technical systems. The multiple case study approached each system as a single case. Successes and failures were examined to look for commonalities and best practices. These systems were within a single organization sharing a common cultural and technical context. This context served as a control for these factors creating a natural experiment. The researcher conducted interviews with a wide range of individuals across all levels of the organization to collect data on the implementation and usage of these systems.

Keywords: mission agency, social media, constructivism, Gordon Pask, conversation theory, Karl Weick, sensemaking, Etienne Wenger, community of practice, participatory network

Introduction

The purpose of this paper is to examine the use of social media from the perspective of a modern mission agency. Mission agencies typically have a home office in the United States, but the majority of their workforce is distributed around the world and in remote locations. The researcher conducted interviews with almost 30 employees over a two-week period with follow-up discussion for clarification on specific issues. Seven systems were identified, and interviews were conducted about each system, treating each system as a case. The intention in this paper is not to provide the details of each case and each system but to provide a high-level overview of such systems in the context of a mission agency. In essence, this provides an overview of this research project in terms of context, theory, and history. Subsequent publications will examine the findings in greater detail. There are a growing number of studies on religion in the digital realm. Special editions of various journals have focused on this theme: *Journal of Computer-Mediated Communication* (2007-2008), *Communication Research Trends* 25:1(2006), *Cybersociology* 7 (1999), and *The Information Society* 21:4 (2005). There is also one journal dedicated solely to the topic of religion and the Internet, *Online – Heidelberg Journal of Religions on the Internet*. However, these tend to focus more on the perspective of religious practice (Cheong, 2012) than organizational behavior or system architecture. This paper intends to survey a single religious organization as it attempts to integrate these technologies into its daily operations. Since some readers may not understand the nature of a mission agency, discussion will start with a brief overview. Second, there will be three theoretical perspectives which provide three lenses to explain the behavior within social media. A narrative of the

organizational process will then provide an overview of one mission's usage of social media. Finally, the paper will conclude with insights that can assist other mission agencies or similar organizations.

Context of Modern Missions

General Context

The last words of Jesus were, “Go therefore and make disciples of all nations...” (Matthew 28:19, all biblical quotes are from the English Standard Version of the Bible). Since that time, Christians have worked to take that message “to the end of the earth” (Acts 1:8). This process has involved most branches of the church to one degree or another since the first century. The context of this paper is the modern phenomenon of mission agencies within the Protestant branch of the Western church. Modern mission agencies have existed for over 200 years, beginning in the late 1700s with the London Mission Society that sent William Carey to work in India. Since then, hundreds of organizations have sprung up with the purpose of mobilizing people to continue this mission. As such, mission agencies were some of the first globally distributed organizations of the modern era. From the start, mission agencies faced the challenge of sharing information and knowledge across the globe. The organizational office was typically in a developed Western country while missionaries were in remote parts of the world. These locales often lacked communication systems, roads, postal services, and sometimes even a written language. While mission agencies have worked through these issues for 200 years, they have frequently lacked the necessary resources to implement modern information systems. The majority of mission agencies are funded through donations and normally work on very tight budgets. Communication with donors has been key to their financial survival as the agency makes financial needs known to individuals, churches, and denominations. The “free”

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technology of social media has been viewed by many mission agencies and missionaries as an answer to prayer for its ability to improve communication. However, the adoption of these technologies has not been without difficulty. Agencies often lack the technical savvy to use these tools and frequently possess a social conservatism which tends to be skeptical of new technologies.

Specific Context

The specific context for this study is WorldVenture (www.worldventure.com), a Protestant mission agency located in Littleton, Colorado. WorldVenture's home office oversees approximately 500 workers in dozens of countries across six continents. Although WorldVenture missionaries use social media extensively, this study will concentrate on the organizational headquarters and its use of social media. The agency uses social media for three main purposes: 1) recruiting future missionaries, 2) communicating with existing missionaries, 3) developing relationships with current and potential sponsors. Between approximately 2005 and 2011, WorldVenture attempted to deploy well over 20 examples of social media. Some were useful and have remained, but the majority were never fully adopted and subsequently abandoned. The goal of this paper is to provide deeper understanding of these systems by developing a theoretical framework, a more accurate definition of these systems, a narrative of usage, and suggestions for improved usage moving forward.

Theoretical Construct

When examining social media, the most common approach is to start with a specific website or set of websites in which people interact. For example, "How do people do X on website Y?" Over time, frameworks have developed. However, the focus of these frameworks still tends toward description of narrow phenomenon rather than deep theory that could have

predictive value. There remains an emphasis on tautology over theory. Without some explanatory theory, there is a danger of research simply following fads without making a lasting contribution. This section describes a theoretical construct which has the potential to provide not only descriptive but also prescriptive power. A full description of each theory is beyond the scope of this paper, so this paper presents only the conceptual highlights of each theory. After a survey of each of the three theories, the significance of this perspective will be addressed for the usage context. Discussion will move from the general to the specific, looking at the organizational level, the group level, and finally the individual level. The approach used here is based on constructivist ontology and epistemology as reflected in sensemaking (Weick, 1995; Weick, Sutcliffe, & Obstfeld, 2005), communities of practice (Lave & Wenger, 1991; Wenger, 1999, 2005, 2005, May 5, 2010, November 20; Wenger, McDermott, & Snyder, 2002; Wenger & Snyder, 2000; Wenger, White, Smith, & Rowe, 2005), and conversation theory (Pask, 1973, 1975a, 1975b, 1976a, 1976b). Each theoretical perspective will be separately described, synthesized, and applied to the organizational context.

Sensemaking - The Organization

A mission agency is an organization with all the typical components: employees, a board, executive leadership, policies, and so forth. It provides a broad context for system usage. As such, it is a bounded context with a specific purpose and defined borders. There are insiders and outsiders and a broad array of stakeholders. From the perspective of sensemaking, individuals within an organization are attempting to work together to *make sense* of their environment, their situation, and each other. This form of sensemaking should not be confused with *Sense-Making* as described by Brenda Dervin (Dervin & Nilan, 1986). *Sense-Making* in her approach focuses primarily on an individual process, as opposed to a group process, in attempting to make sense of

the situation. In contrast, the *sensemaking* referred to is primarily a group activity as described by Karl Weick (Weick, 1995). Weick conceptualizes the activity of multiple people trying to make sense in a participatory fashion which involves both the individual and the group.

As the individual and the group interact in an organizational setting, Weick identifies seven distinguishing characteristics of the sensemaking process:

1. Grounded in identity construction
2. Retrospective
3. Enactive of sensible environments
4. Social
5. Ongoing
6. Focused on and by extracted cues
7. Driven by plausibility rather than accuracy (Weick, 1995, p. 17)

For sensemaking, the iconic question is “How can I know what I think until I see what I say?” (1995). Speaking and listening is the core of the process for creating identity and making sense. There is both a speaker and a listener, the self and the others. No one makes sense alone even when listening to oneself speak. The retrospective aspect “involves the ongoing retrospective development of plausible images that rationalized what people are doing”(Weick et al., 2005). Because this interactivity is a social activity, “the social context is crucial ... because it binds people to actions that they then must justify, it affects the star of information, and it provides norms and expectations that constrain explanations” (Weick, 1995, p. 53). The activity is not something that starts and stops; it is always in process and always ongoing. “Sensemaking never starts. The reason it never starts is that pure duration never stops” (Weick, 2006, p. 43). As people move through time and space in these environments, they cannot help but try to make sense. “Once people begin to act (enactment), they generate tangible outcomes (cues), in some context (social), and this helps them discover (retrospect) what is occurring (ongoing), what needs to be explained (plausibility), and what should be done next (identity enhancement)”

(Weick, 1995, pp. 54-55). Finally, as individuals seek to make sense they are not looking for perfection and accuracy, rather they are looking for plausibility. While sensemaking, people “read into things the meanings they wish to see; they vest objects, utterances, actions and so forth with subjective meaning which helps make their world intelligible to themselves” (Frost & Morgan, 1983).

This survey is brief, but it does present the kernel of Weick’s meaning. He describes an interactive process whereby the individual and his or her organization make meaning together in a symbiotic, iterative process. In more recent descriptions, Weick refines this to five aspects of sensemaking: redoing, labeling, discarding, believing, and substantiating. Regardless of the labels, it is a never-ending process where no person operates alone, and sensemaking is a cooperative process of constructing meaning. This process typifies the activity of the mission agency as a whole as it defines the recruit, applicant, appointee, and missionary as described below. The mission agency is making sense about the candidate and the fitness of the candidate for the missionary role. In doing so, the agency is also making sense about itself internally and with its donors externally.

Community of Practice - The Group

Just as sensemaking examines the construction at the organizational or supra-group level, Etienne Wenger examines the construction of meaning at the group level. For Wenger, these groups are tight-knit communities that share three specific dimensions: “mutual engagement,” “a joint enterprise,” and “a shared repertoire” (Wenger, 1999, p. 73). Each group represents more of a team than simply an organization. They are subunits within the organization that have already bonded and can more efficiently create and share meaning because of their participation in

reification. The common experiences in the context and the shared meaning in which has been negotiated demonstrate the duality of participation and reification (Figure 1).

Figure 1: The Duality of Participation and Reification, adapted (Wenger, 1999, p. 63)

As communities of practice construct meaning, there is a significant element which has special significance for social media, and this has to do with participation. There is a social construct of meaning which is embedded in systems of artifacts, whether physical or digital.

Communities of practice are bounded sets which have four levels of participation, three main levels (peripheral, active, and core group) and outsiders or nonparticipants (Wenger et al., 2002, pp. 55-58). As such, these levels of participation in social media are nothing new and are simply a reflection of normative human behavior. The variance in levels of participation is widely recognized in studies of social media (Preece & Schneiderman, 2009). However, Wenger has a fuller, richer description (Figure 2) which described this phenomenon of basic human behavior long before social media became popular.

Figure 2: Degrees of Community Participation, adapted (Wenger et al., 2002)

From Wenger's perspective, humans systems always have various levels of participation. One should not expect that everyone would become an active participant. In actuality, the majority of members will always be peripheral participants and the core group will always be a minority.

For Wenger, communities of practice are about learning. Wenger's definition of learning has three dimensions: it consists of continuities and discontinuities; it is an integral part of practice, and it creates emergent structures (Wenger, 1999, pp. 93-97). As community members make sense and negotiate meaning together, they are learning. The practices of the community are not simply rules that the community chooses to obey, the practices "evolve as shared histories of learning" (Wenger, 1999, p. 87). Wenger states that "communities of practice can be thought of as shared histories of learning" (Wenger, 1999, p. 86). Wenger would even go so far as to say that without learning, according to his definition, there can be no community of practice. In other words, "[t]o assert that learning is what gives rise to communities of practice is to say that learning is a course of social structure ... not an object, which exists in and of itself and can be separated from the process giving rise to it. Rather it is an emergent structure" (Wenger, 1999, p. 96).

Summarizing Wenger, a community of practice is a bounded set of individuals who engage in participation and reification as a means of co-constructing meaning. This activity is essentially a practice of learning resulting from mutual engagement and a shared repertoire in a joint enterprise. The practices of the community serve as a boundary between the community and the environment, and the other communities in its environment.

Conversation Theory - The Individual

Gordon Pask's conversation theory is the final theoretical perspective. Conversation and conversing in this context are not simply metaphors, as Luppigini pointed out, and should not be

confused with interaction or communication (Luppicini, 2008). Conversing is a label used to describe a certain type of interaction between two participants for sharing representations of meaning to the point where they reach an agreement. Agreement here includes: agreeing to disagree, agreeing to cease the conversation, and agreeing to continue the conversation. There are several concepts in conversation theory that are essential to understanding; first is the process of conversing and second is the product of conversing, the entailment mesh.

Conversing is a process that requires at least two *voices* that can be *psychological* or *mechanical* according to Pask. Pask states these two voices can be inside one's head (psychological individuals), or the two voices can represent two physical entities (mechanical individuals) such as two people, two groups, or two nations. Pask refers to this ability to be conversing as the source of consciousness (Luppicini, 2008; Pask, 1979) which reflects an *I-Thou* relationship within a single human being. While one may not think this is obvious, human beings do converse with themselves and have internal interactions between differing viewpoints as they process ideas and construct meaning. Persons sometimes debate ideas or courses of action with themselves. They deliberate. They can reflect on their existence, question themselves, congratulate themselves, ask themselves questions and so forth. The conversations between two people, two groups, two companies, or two countries are simply a scaling up of the phenomenon. According to Pask, one cannot not be conversing. Humans are processors that are always processing. "This means that learning cannot *not* occur, that conversation cannot *not* take place" (Scott, 2008). In the world of social media, voices are represented by individuals who are constructing meaning. As they converse back and forth in a forum, by sharing and commenting, and through all manner of engaging others online.

The second essential contribution from conversation is the product of the conversation, the entailment mesh. This entailment mesh consists of all the comments on various topics in a conversation. It is the product of the interactions and is essentially emergent or inductive as opposed to deductive. If one saw an entailment mesh in raw form, it would include every utterance in the conversation and it would be almost unintelligible depending on the complexity of the discussion, the duration of the conversation, and the number of participants. The network or concept map that lies on top of the social network is the semantic network. It consists of the meaning created by the connections between the knowledge and information which are interconnected. While the semantic network may be difficult to visualize, a simple example is a discussion forum. As members of the forum contribute to ongoing discussions, they are creating a mesh of comments on various topics and relating them to previous comments. The product of this conversation becomes an instantiated memory of sorts which other individuals can use to navigate and follow the conversation, entailment mesh, after the fact. The result is a network of topics and comments. The conversing in the social media software creates the *stuff* that is the network.

Theoretical Synthesis

Together, the perspectives of Weick, Wenger and Pask represent a constructivist epistemology which provides explanatory power at the organizational, group, and individual levels. It also gives guidance in the understanding of the activity at various levels within a single organization (Figure 3).

Figure 3: Three Levels: Organization, Community of Practice, and Conversation

In combination, these three present sympathetic perspectives for investigating the organization at three different levels. The three elements are the organization as a whole, the set of communities of practice (participatory networks) within the organization, and the activity (conversing) between the members of those communities. From Weick's perspective, group sensemaking "is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs" (Weick, 1993, p. 635). According to Wenger, "a member of a community of practice embodies a long and diverse process of what I will call participation. Similarly ... an artifact of certain practices embodies a long and diverse process of what I will call reification" (Wenger, 1999, p. 55). According to Pask, "communication in a meaningful learning environment (i.e., the world we design and/or find ourselves in) can only be by means of conversation (circular, feedback, computing) matching responses, agreement – including the vital agreement to disagree with personal and personality generated meanings and understanding..." (Glanville, 1993, p. 214). These three conceptual frameworks represent three levels or three viewpoints (organizational, group, and individual) which are all necessary perspectives for social media in an organizational context.

These perspectives are especially helpful in the context of WorldVenture because no user uses alone. Whether the systems are internal or external, there is always a context. For example,

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a user may use Facebook, but their personal behavior in Facebook may or may not be related to their involvement with the mission. However, even with a system like Facebook, there is a social network that users engage. Theoretically, there could be Facebook users without friends, but the whole point of the system is social interaction. Because there is a context for usage in the mission agency situation, one can and one must have a model that addresses the organization and its communities of practice. Otherwise, how could one account for usage that varies from department to department. This dynamic was especially evident in the personnel systems, described below, which contained socially constructed knowledge that was used differently by various departments. In such cases, focusing strictly on a user individually fails to reveal the whole situation. As demonstrated by Figure 3 above, conversing is taking place within and between communities of practice. Because of the complexity of usage and the nature of the systems in WorldVenture, it was important to look carefully at the popular conceptions of social media to see if they could serve as appropriate descriptions of the systems that were used for the social construction of knowledge.

Social Media

The terms “social media,” “Web 2.0” (O'Reilly, 2005, November 4), and “Web 3.0” (Markoff, 2006, November 12) are so common that they have become passé and have been a topic of investigation for almost a decade (Allen, Rosenbaum, & Shachaf, 2007, August). While these terms do represent a cultural meme, there remains to be found a commonly accepted scientific definition. The impact of these technologies has been so far reaching, and the adoption has been so broad that it is easy to forget that most of these systems are less than ten years old. Facebook just had its tenth birthday and took several years to become publicly available: 2004 – Harvard, 2005 – companies, 2006 – public. While most people today would know what one

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means when someone says “social media,” most would find it harder to get people to define it. While definitions have been proposed (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011), there is still a tendency to focus on categorizing the social phenomenon in select systems instead of constructing a definition and model which has a theoretical framework to help explain the human behavior.

This study looked at networked technologies, including social media. In each case there were definite boundaries to the systems, the users, the groups, and the organization. The activity in which people engaged was conversing. It is the core of the acting as defined by the earlier described theories, especially conversation theory (Figure 4).

Figure 4: Conversation in Web 2.0, adapted (Solis, 2010, January 19)

Even those who take a phenomenological approach admit that the conversation is an essential component of social media (Kietzmann et al., 2011). The technology at WorldVenture included four homegrown systems, a professional donor management software, a virtual community site, a learning management system (LMS), and Facebook.

For the sake of discussion, *social media* as used in this paper refers primarily to the popular examples such as Facebook, Twitter, Foursquare, and the like. However, these are just a subset of systems used for the social construction of knowledge. Elsewhere, this has been

referred to as “participatory networks” (Lankes & Marshall, 2006, August; Lankes, Silverstein, & Nicholson, 2007; Marshall, 2009, May, 2011). One could think of *social media* as a popular definition of these open systems and *participatory network* as an attempt at a more precise scientific definition which encompasses systems that are broader in scope. In this sense, social media is one popular example of a participatory network. From this point on, the term *participatory network* will be used instead of *social media* for this larger set of systems.

A participatory network is a network where each member has the potential to converse with other members through technology that creates an entailment mesh to address problems within a given context. There are nine components to this definition: 1) a network topology, 2) people, 3) membership, 4) potential to participate, 5) conversing, 6) intermediating technology, 7) an entailment mesh, 8) a problem set, and 9) a specific context. This definition involves three networks that are stacked on top of each other in a given context (Figure 5).

Figure 5: Constituent Parts of a Participatory Network

In the WorldVenture context these participatory networks crossed the boundaries of communities of practice within the organization as each department, shown below, and worked on its own problems as well as larger organizational problems (Figure 6).

Figure 6: Constituent Parts of a Participatory Network across Departments

The result was three networks that crossed departmental boundaries within the mission. The communities of practice shared a common, technical, social and information network. The created knowledge is the entailment mesh as described by Pask, i.e., a set of connected facts, data, information, and knowledge. At the highest level, the entailment mesh or semantic network was a group product even though no department had access to all the information. The middle network is a social network. This is a network of people and their relationships that may cross the boundaries of several communities of practice. Finally, these networks rest on the technical network which includes the software and hardware that enable the process. These three networks are distinct and should not be conflated as too often happens in discussions of social media.

Mission Processes

As with all organizations, the mission agency was formed around a problem set that was a process. The general process was that of recruiting applicants, vetting and training applicants, helping applicants raise their financial support, and then the sending of applicants to their international place of work. As Figure 7 demonstrates, the process involved multiple communities of practice within the organization and a change in identity for the applicant.

Figure 7: The Organizational Process at WorldVenture

Within the organization there were five departments: Recruiting made the initial contact with recruits, Mobilization vetted the applications, the Paraclete Centre which trained the appointees, Church Connections assisted with fund raising, and the International Ministry Department supervised the missionaries on the field. As the potential missionary moved from one community of practice (department) to another, their status changed from recruit to applicant, to appointee, to missionary. This is a classic example of identity construction through an iterative process which involves conversing between the applicant and the organization and its various communities of practice. As these interactions occurred, knowledge was constructed in the minds of the applicant and the home office employees. This reification in this complex process defined and shaped the meaning. Therefore, the ability of systems to record that meaning was critical for the process to function and the organization to fulfill its purpose.

For short-term workers, six months or less, this process could take only take a few months. For a career missionary, this process may have taken several years. This process normally began with recruiters visiting churches and college campuses. Recruiters had information sessions and met potential recruits over coffee or a meal. The information gleaned about these contacts was very rich but only the most basic contact and demographic information made its way into organizational systems. It was a basic paper, and later digital, contact form that

the contact filled out. Neither the form nor any organizational systems had the capacity to record the valuable metadata about the recruit. As a result, recruiters devised personalized systems to retain this metadata. Once the contact form was created, it was passed on to the Mobilization Department staff who had the form but lacked all the surrounding contextual data or metadata. As the Mobilization Department members worked with applicants, they also created a system for capturing metadata about the recruit that could not be recorded in formal organizational systems. This was the case as the candidates passed through each department. The actual formal organizational databases contained only a thin representation of what employees knew about a candidate. Sometimes this information was vital for decision making but the information existed only in someone's head, maybe a notebook or an ad hoc departmental system.

The complexity of the process and the inability of departments to create significant organizational disconnects. These hindered the application process and resulted in extra energy being spent because of incomplete or inconsistent data about candidates. Because of the religious nature of the mission the background information about a candidate's history, family, work, beliefs, church activity, behavior, habits, character and so forth were critical to the mission's decision about whether or not to accept the applicant and move them on to the next step. Such information was difficult to capture in traditional systems but yet it was vital to the process. This is the dynamic that drove the mission to seek out participatory networks and social media as a means of collecting and retaining the richer metadata.

Mission Systems

When first looking at WorldVenture's participatory networks, there were four internal systems, six organizational websites, and eight Facebook groups or fan pages. There were other social networking tools that had been the subject of experimentation, but none of them moved

beyond the initial prototype stage. Finally, seven systems were selected for review. Four were internal systems, two were websites, and one was the collective set of Facebook pages (Table 1).

Table 1: WorldVenture Participatory Systems – Selected Cases

Internal Systems	WorldVenture Websites	Facebook Group/Fan Pages
<ul style="list-style-type: none">• Prosnotes• Ad Hoc Mobilization System• WorldVenture Personnel System• Raiser's Edge	<ul style="list-style-type: none">• Missions on the Frontline• WorldVenture Training	<ul style="list-style-type: none">• Facebook as a single system

The internal systems were for formal organization personnel and financial purposes. The two websites were designed to stimulate learning, externally and internally. Missions on the Frontline (<http://frontline.worldventure.com/>) sought to develop an online community, and WorldVenture Training was an LMS. Facebook was treated as a single system because that was the mental model of the interviewees.

Initially, WorldVenture had a more traditional system architecture that had one primary database which then created reports and populated data to departments. This was a legacy system, BIZAPS, running on an IBM AS400. It was not a participatory network but served as the central data repository for the systems described below. In this system, communities of practice could pull information from a central source but they could not share between departments (Figure 8).

Figure 8: Early WorldVenture Participatory Networks

As a result, each department created its own informal and unofficial system to facilitate sharing within its own department: Prosnotes for recruiting (a Microsoft Access database), Ad Hoc Personal Information Form system for Mobilization (shared Microsoft Word documents), and WorldVenture Training for the Paraclete Centre (Moodle LMS). While these home grown participatory networks in each departmental silo were necessary measures, they were very cumbersome, and there was no connection between these systems, other departments or formal organization databases. For example, the AD Hoc system used a Microsoft Word document for each recruit. It contained every single email to or from a given candidate as well as notes from every phone call with that candidate. These were stored in a departmental shared drive space. While this did allow the conversing with candidates to be recorded, it was not easily navigable or shareable.

When faced with this situation, WorldVenture eventually decided to create its own formal system which allowed each community of practice to contribute information to a centralized system in a fashion which allowed for the cross sharing of all information that was necessary for that department to address its own problem set. WorldVenture accomplished this through a customized interface that had appropriate fields and permissions for each user resulting in the architecture as described in Figure 9.

Figure 9: Updated WorldVenture Participatory Network

The change in this architecture and the resulting benefits were obvious. Rich information about candidates was now storable in a system that facilitated sharing and preserving of important organizational information. These were the participatory networks which served as the foundation for organizational operations and became the sole system for storing personnel information. While these ad hoc systems morphed into a single personnel system, a separate application (Raiser's Edge – www.blackbaud.com/raisersedge) was brought into the organization to provide a richer picture of the semantic and social networks around donors. Raiser's Edge was an industry standard in the nonprofit world. Although it could be a standalone solution for tracking all aspects of fundraising, it was only being used in a limited capacity almost as an interface for the larger accounting systems.

In parallel with the evolution of formal systems, participatory networks arose which were along the lines of popular social media. One example was the Missions on the Frontline website which combined photos, videos, blogs, groups, forums, and events. The goal was to engage the larger community of missionaries and donors and engage them in conversations about the work of missions. The mission struggled to foster engagement and even after several years there were only 18 groups with approximately 120 total members, some of whom were duplicates. Between February 2013 and May 2014, there were no new postings.

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The training of missionaries was the responsibility of the Paraclete Centre and took place in face to face meetings at the home office, occasional training events around the world, and elsewhere as needed. An LMS was viewed to be an ideal venue for training in such a setting. With that in mind, WorldVenture deployed an instance of the Moodle LMS. However, because of staff changes and a lack of experience with online learning systems, the LMS served only as a file repository and not as a tool for facilitating conversation.

During initial investigation, at least eight Facebook groups or fan pages were identified. Organizational groups and fan pages had come to life before the organization adopted a social media strategy and had an official presence. Some groups were ephemeral, ranging from WorldVenture Coffee Drinkers to the Appointee Class of a given year. There were also a number of WorldVenture groups revolving around specific countries where missionaries worked or ministries associated with the mission. Over a five-year period, the WorldVenture group page (<https://www.facebook.com/worldventure>) had 5,623 likes but only 23 friends. Another issue with Facebook was significant variance in usage from department to department. The recruiters relied on Facebook heavily as they sought to broaden their networks and make connections, especially with students. However, Facebook was not a suitable tool for other departments dealing with sensitive communications. While members of those communities may not have used Facebook at work, they were power users in their personal life. In such cases, the context made all the difference in usage. In any case one would expect such a large organization with a global reach to have a more substantial number of Facebook friends.

Conclusion

As a modern mission agency, WorldVenture has wrestled with the implementation of social media and participatory networks. The identity construction of recruit, applicant,

appointee, and missionary is a complex organization endeavor as described by Weick. However, there are various communities of practice from departments to donors to churches that play a role. Each community has its own values processes, documents and roles. The perspective of Wenger's communities of practice model provided a framework for this dynamic. Finally, Pask pointed out that the most basic element is the conversation within a person and between persons. The approach used in this investigation was to build a theoretical model of group activity so that all three levels could be understood. The constructivist epistemology employed by Weick, Wenger, and Pask provides conceptualizations that describe the iterative process of creating an identity, participating, creating and sharing knowledge, and describing the resulting knowledge. Together this explains the role of the organization, the group, and the individual. These theoretical descriptions demonstrate the need for a definition of systems that moves beyond the popularly elastic term of "social media." The definition of "participatory network," as described above, provides a framework for investigating the co-construction of knowledge by WorldVenture employees as they work with internal and external communities of practice. As WorldVenture's needs evolved, the agency increasingly needed systems that facilitated the social construction of knowledge across the organization among various communities of practice. Hopefully, the following points can help provide some guidance as other organizations work through this same transition.

1. **Consider the context.** Usage of a given system by a given user will change from context to context. One should not assume that all departments will need to use the same system in the same fashion.
2. **Communities of practice have defined problems.** The system should match the problem set, not just in general, but as it pertains to the needs of that community of practice. Not two communities of practice have the same exact problem set.
3. **Traditional systems tend to miss the metadata.** Metadata from all members of the community can be only be preserved when systems are designed to capture the conversing. While the metadata can be the most valuable organizational resources, its acquisition and preservation is frequently overlooked.

4. **The entailment mesh has tremendous value.** While the typical facts about candidates and their backgrounds have value, the relationships and interconnectedness between that information is invaluable. Most systems are not designed to allow these links to be navigable.
5. **It is easier to create a participatory network than to keep it alive.** Just because you build it does not mean they will come or that they will use it. Systems that do not meet user needs will suffer from poor adoption.
6. **System design should match the form of the communities of practice.** It is vital for organizations to understand their internal business processes and organizational behavior in order to design and deploy systems effectively.

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