The Knowing Model: Encouraging Behavior Change in Organizations Through Awareness, Integration, and Knowing

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Abstract. Leadership is often responsible for behavior change in their organizations. This paper outlines a context-based model—utilizing existing theories and models in Knowledge Management and Library and Information Science—to increase leadership’s effectiveness in this area. The Knowing Model approaches behavior change as an issue of information content, dissemination, and use of that information—all within a complex environment with additional social barriers. A behavior—one that an organization has unsuccessfully attempted to change in the past—is identified by leadership. These previous attempts serve as a baseline from which to measure success of the proposed model. The target behavior change is one that is considered beneficial by both leadership and other organizational members. Leaders analyze the existing social field and context surrounding this behavior. They consider whether or not individuals are aware of previous efforts to change the behavior, the extent to which they integrated this as knowledge, the extent to which individuals actually changed their behavior, and perceived threats related to not adopting the behavior. Through a careful analysis of a variety of factors surrounding these issues, the Knowing Model proposes strategies for a new information dissemination campaign that should be more successful in changing behavior. As leadership learns more about organizational members, they can change the content of information about a behavior change to account for barriers to its adoption. The model includes ways to measure various stages and strategies to take at each stage. There is extant literature about how to provide access to information that people want. This model continues research about information people do not want—information avoidance—by outlining strategies for overcoming it in organizational
contexts. In addition, it adds an action element that suggests the possibility that information—when strategically informed and developed—can change organizational behavior.

Keywords: Leadership, Organizational Change, Information Campaigns, Behavior Change

1. Introduction

It is no secret that people in organizations often behave in ways that seem to go against their best interests and the interests of their organizations. For instance, it has been shown that knowledge sharing is beneficial to organizations, as it increases innovativeness (Sáenz, Aramburu, & Rivera, 2009). It is also personally beneficial in terms of career advancement, increased reputation, and emotional and intellectual payoffs (Amayah, 2013). Yet, in spite of the mutually beneficial nature of knowledge sharing behavior (Reychav & Weisberg, 2009), numerous barriers keep people from sharing (Denning, 2006). This is a matter of complex organizational culture, in which underlying assumptions often cause the organization and its members to act in ways that contradict what it says about itself (Schein, 2010).

And there is no shortage of advice on how to handle this. A search for books on WorldCat with *organizational behavior change* in the title retrieves close to 500 results. Many of these are based on seminal models from Lewin (1947); Hersey, Blanchard and Johnson (2012); Kotter (1996) and others. A similar search in the Knowledge Management (KM) literature reveals several studies of organizational behavior, looking at the impact of culture (Suppiah & Sandhu, 2011), intention (Reychav & Weisberg, 2010), perceived self-efficacy and technological barriers (Lekhawipat, Wei, & Lin, 2018), and Intellectual Capital (Lönnqvist, Kianto, & Sillanpää, 2009).

The Knowing Model proposed in the current paper outlines a process for changing behavior through strategic and well-informed information campaigns, coupled with structural
changes when necessary. The uniqueness of this model comes from its assumption that information dissemination—when it accounts for issues beyond the information itself—can actually change behavior. The ability of information campaigns to change behavior is well documented in the public health literature (Wakefield et al., 2010). Yet, there is little research on its use within organizations. It is likely that information campaigns are not central to an organization’s attempts to change behavior because leadership recognizes that information alone is insufficient. Models of behavior change, instead, tend to focus on how leadership can model behavior to encourage its adoption (Sims & Manz, 2008); or how transformational leadership can encourage willing change (Bass, 2010). Librarianship—a discipline and profession for which information is integral—is also realizing that access to information is not sufficient. And it is shifting its focus toward the facilitation of knowledge creation (Lankes, 2011). Even public health itself has cast doubts on the utility of information campaigns. In Livingston et al.’s (2012) analysis of an information campaign to increase awareness of information about mental health issues, they concluded that the campaign did not significantly change attitudes toward mental health issues or behaviors.

The current paper does not disregard modeling, transformational leadership, or the emphasis on knowledge creation—as these tend to be successful and represent positive changes in these disciplines. Rather, the current paper suggests that it would be unwise and hasty to conclude from these shifts that information dissemination as a strategy has lost all value. Rather, the information that is disseminated should be collated and developed with knowledge and action in mind. It is here that the Knowing Model becomes useful, as it focuses on the creation of information that can account for how people develop knowledge and turn that into action. This focus on information content is an important contribution, as it tends to be missing from the
literature, replaced by a focus on better packaging: “The persuasiveness of a communication can be increased much more easily and dramatically by paying careful attention to its content . . . than by manipulation of credibility, attractiveness . . . or any of the other myriad factors that have caught the fancy of investigators in the area of communication and persuasion” (Fishbein & Ajzen, 1981, p. 359). The approach outlined in the Knowing Model can be useful in organizations and in entire communities.

2. Overview

2.1. Previous models

Several models have been proposed to manage the process of behavior change within organizations. Kotter (1996) outlined eight steps for change, from establishing urgency to creating a vision and communicating it. Aladwani (2001) outlined a three-phase framework for change management when implementing enterprise resource planning systems, including an evaluation of resistance to change, and the use of this knowledge to develop strategy to overcome resistance through communication. The field of public health has long considered how information can be disseminated in ways that improve the health behaviors of individuals, e.g. the Extended Parallel Process Model (Witte, 1992). Manz and Sims (1981) outlined the role of behavioral modelling in changing behavior, suggesting that “much behavioral change in organizations is accomplished through day-to-day modelling” (p. 112).

Lewin’s (1947) planned change model looked at unfreezing, moving, and refreezing. He suggested that changing behavior requires an awareness of one’s social field, as what one does “is viewed as occurring in, and being the result of, a totality of coexisting social entities” (p. 14). Planned change must consider the current social field, rather than merely the end goal. There are forces within this field that push individuals toward and away from certain behaviors. Nurses, for
example, may experience the driving forces of complaints from patients and arguments based on evidence, while restraining forces may include tradition, fear, and a lack of confidence (Kassean and Jagoo, 2005). The drive to substitute dark bread for white, Lewin (1947) noted, may be met with an “inner resistance to change” (p. 32). In Lewin’s model, change may start quite dramatically: “To break open the shell of complacency and self-righteousness it is sometimes necessary to bring about deliberately an emotional stir-up” (p. 35). Individuals are then moved toward “a higher level of group performance” (Lewin, 1947, p. 34), after which the behavior is refrozen within a new social field that supports the behavior.

Organizational culture is central to behavior. Schein (2010) considered organizational culture, as well as a means for deciphering the deepest layers in an attempt to change it. Artifacts include visible behavior; espoused values include what the organization says about itself; underlying assumptions include the unconscious beliefs and values that—in spite of what an organization says about itself—is the actual determinant of behavior (Schein, 2010). Thus, it is necessary to get to this deeper layer. In Schein’s (2009) approach, a group of employees associated with a given problem are brought together. Members list artifacts, identify espoused values, and outline inconsistencies between the two. This discussion can reveal underlying assumptions: “The way to deeper cultural levels is through identifying the inconsistencies and conflicts you observe” (Schein, 2009/1999, p. 85).

2.2. Definitions

A debate with a long history within LIS is among definitions for data, information and knowledge. Zins (2007) found 130 definitions of these terms from 45 scholars. The definition of information itself has been debated and has no universally agreed upon definition (Limberg et al., 2012). Buckland (1991) outlined three ways to define information, adding knowledge and
similar terms in these very definitions. These terms are fundamental to the Knowing Model, and thus require precise definition. The reader need not agree with these definitions; instead, they are offered to more clearly articulate the model’s stages. Data is not included, as it is not of interest to the model. Definitions of data tend to suggest that it is something objective (Rowley, 2007). Because the proposed model deals with humans who process this data, it is no longer possible to discuss their actions in terms of data. Thus, the model’s definitions begin with information.

- The current paper adopts the view of information-as-thing (Buckland, 1991). Information, thus, only includes “objects, such as data and documents, that are referred to as ‘information’ because they are regarded as being informative” (p. 351).

- The current paper adopts Davenport et al.’s (1998) definition of knowledge as “information combined with experience, context, interpretation, and reflection” (p. 43). Knowledge, thus, only includes that which exists in the human mind. It is not a thing (Stacey, 2001). It impacts external behavior but is not itself external behavior. One can have knowledge of something without that knowledge impacting what they do. It is certainly true that mental processing is itself a behavior, though the current paper is concerned with outward behavior.

- The current paper adopts Cook and Brown’s (1999) definition of knowing as “the epistemological dimension of action itself” (p. 387). The introduction of this term provides the actionable change outcome that is not noted in knowledge itself. It suggests that something else must happen after something is learned in order for change to occur. Knowledge is merely “a tool at the service of knowing,” (Cook & Brown, p. 388) and this knowing is synonymous with the behavior change at the core of the proposed model

2.3. Behavior change
Because the goal of the Knowing Model is behavior change, it is essential to identify and define the nature of this behavior. The behavior targeted in the model is defined as what helps an organization achieve its mission, and what increases the happiness and satisfaction of organizational members. Both leadership and broader membership have to agree that the behavior is positive and helpful from their unique perspectives. In Kassean and Jagoo’s (2005) study, there was clear intention in the direction of this change: “There was a shared vision about the worth of the proposed change” (p. 2).

This is to stave off use of the model by nefarious leadership to change behaviour that further alienates workers—though this is still a potential. This is also to remind leadership that good intentions are not sufficient. In other words, what leadership may consider to be beneficial to organizational members may, after further research, be determined to be harmful or negative. This is true of any top-down approach to change, as the nature of the change may be more harmful than good. Medical anthropology has shown the negative consequences of such assumptions of beneficial behavior (Fadiman, 1997). The qualitative approach of the model allows for the conversation necessary to identify what actually is beneficial: “You don’t want a command from a general, you want a colloquy” (Fadiman, 1997, p. 261).

It may be possible to begin this conversation about the nature of targeting behaviour with organizational citizenship behaviour (OCB). This is behaviour that goes beyond prescribed roles: “An organization which depends solely upon its blue-prints of prescribed behaviors is a very fragile social system (Katz, 1964, p. 132). It includes voluntarily helping others, a sportsmanship to maintain a good attitude and willingness to sacrifice, and loyalty to the organization that protects it and promotes it (Podsakoff et al., 2000).
However, this must be a specific kind of OCB to avoid the simple encouragement of behaviors that “maintain or strengthen the status quo” (Choi, 2007, p. 480). This is change-oriented OCB (Choi, 2007) or challenging OCB (Grant & Mayer, 2009). It recognizes that the behaviors that should be changed and supported are those that allow all organizational members to “regularly come up with ideas and express them to improve existing methods, procedures, and policies” (Choi, 2007, p. 480). This primarily involves a member’s “level of voice” in communicating opinions to others in spite of disagreement (Grant & Mayer, p. 905).

2.4. The model

Using these three definitions, the Knowing Model (Figure 1) can be outlined in three stages. To achieve the goal of changed behavior, information must be distributed in such a way that people are aware of it (stage 1), it must be internalized as knowledge (stage 2), and there must exist the motivation to do something with it, i.e. engage in knowing (stage 3). It suggests that behavior change occurs as people become aware of information, integrate that information as knowledge, and put that knowledge to use.

The arrows in the model show potential problems or barriers with each stage that could prevent the final intended outcome. Analysis must identify whether or not each stage is successfully completed. In other words, it asks whether or not people are aware of information, whether or not they have integrated it as knowledge, and whether or not they have engaged in knowing. If the answer to any of these questions is no, the model outlines a strategy for overcoming the problems and moving on to the next stage. If the stage has been met, the information campaign has achieved its goal. The application of the model, then, requires an in-depth analysis of an organization as it pertains to information about a target behavior change. Uncovering the nature of barriers at each stage provides information strategies that can be used
in a future information campaign to move people through all three stages. This can be combined with intentional changes in the social environment or organizational structure to support informal discussions of formal information dissemination.

Figure 1: The Knowing Model

Aspects of this model are present elsewhere, but the model is unique in its combination of elements along with strategies and methodologies expressly focused on behavior change. For instance, Thompson and Afzal (2011) outline a tripartite model of information access, which simultaneously includes physical, intellectual, and socio-cultural access. In the Knowing Model, awareness is akin to physical access, and integration is akin to intellectual and sociocultural access. The Knowing Model goes beyond this to consider action based on information. Another similar approach can be noted in Savolainen’s (2009) overview of information use. He combined a cognitive and human information processing approach to conceptualize use as how informational cues are interpreted, and the cognitive means employed during this interpretation. What this model adds is specific attention to knowing, i.e. what one does with what they know as evidenced in their behavior. Thus, although models exist of behavior change (Lewin, 1947),
information access (Thompson & Afzal, 2011), and information use (Savolainen, 2009), the Knowing Model uniquely ties these all together while adding specific attention to the actions inspired by information. The model is also unique in its provision of specific strategies for overcoming barriers at each stage, suggesting that a deeper awareness of the social fields of individuals is required to effectively disseminate information in a way that sparks behavior change.

3. Stages and Strategies

This section will outline the various stages of the model. This includes a more in-depth conceptual overview of each stage, the primary question to consider at each stage, strategies for overcoming problems or barriers at each stage, and an articulated goal for each stage to ensure movement toward behavior change. Some stages require additional structural changes as well that can supplement the information campaign.

3.1. Stage one: awareness of information

In order for information to change behavior, organizational members must first be aware of it. In the current model, to be aware of information is to be in a position to learn it. One prominent barrier to this awareness is mere access. This is similar to the physical and intellectual access in Thompson and Afzal’s (2011) model. One potential barrier to awareness in organizations is poor documentation practices. Awwad, Souki, and Jabbour (2016) found that the lack of government documentation—and thus physical access to—information about accidents and fatalities in the Lebanese construction industry led to a lack of awareness that “renders safety the least of owners’ and contractors’ concerns” (p. 9). Information may not be as widespread as leadership assumes, and thus physical access is a barrier to consider.
Yet, following Thompson and Afzal (2011), physical access itself is not enough to ensure awareness. One can have this physical access and still not be able to learn from it—thus, they may still lack awareness. One prominent way in which this manifests itself in organizations is through low levels of information literacy. For instance, in spite of educational achievement and the access to information that education provides, many young adults still struggle with financial literacy. Bassa Scheresberg (2013) found that only 49% of participants with a college education could answer simple financial questions, leading to increased high-cost borrowing and decreased savings. And for several reasons outside of their control, librarians have struggled to provide adequate information literacy instruction. ProQuest (2017) found that 44 percent of librarians think their library is not adequately supporting information literacy instruction. In higher education, information literacy tends to be in the form of one-shot sessions, which “just barely allows [the librarian] to instruct students on how to locate and retrieve information” (Conley & Gill, 2011, p. 223). The information literacy required to be effective members of a knowledge economy, then, cannot be assumed. Effort must be taken to ensure organizational members have full access to information about desired behavior changes, and this includes information literacy.

3.1.1. Stage one information strategies

There are two primary means of increasing awareness. First, access can be increased. This can include simple physical access, but also includes facilitating ease of access through a better presentation of information. Information architecture, for instance, posits ways to make the complex clear (Wurman, 1997). Not only must proper documentation practices be observed, but information must be presented in a way that is easily consumed. Second, awareness can be increased through information literacy instruction such that organizational members understand the information presented to them.
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<tr>
<td>Awareness</td>
<td>Physical and Intellectual Access to Information</td>
<td>Are organizational members aware of information about the desired behavior change?</td>
<td>Information architecture, information literacy</td>
<td>Increased quality of presentation supplemented by increased information literacy</td>
</tr>
</tbody>
</table>

Table 1: Overview of the Knowing Model’s Stage 1

3.2. Stage two: integration

Though important, the mere provision of access to information is insufficient, as it does not assume meaningful integration of it. Livingston et al.’s (2012) analysis of a health campaign reveals this as, although awareness of information increased, “The distal outcome of the campaign, to improve attitudes towards mental health issues, was not successfully achieved” (p. 971). Integration is, thus, an essential second stage of the model. It refers to the intentional allowing of information to enter one’s mind and impact what is already known. It is the completion of Brookes’ (1980) *fundamental equation* of information science, as one’s existing knowledge structure is altered through the addition of information. It is a process of learning: “The process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 38). It is *internalization* in Nonaka and Takeuchi’s (1995) SECI model, as explicit knowledge is converted into tacit knowledge by individuals—"which bears some similarity to the traditional notion of ‘learning’” (p. 19).

Integration is an inherently social process. In this way, it is similar to *socialization* in the SECI model, where individuals integrate knowledge “not through language but by observation, imitation, and practice” (Nonaka, 1994, p. 19). It is also similar to socio-cultural access to information in Thompson and Afzal’s model, in which relationships impacts information flow.
Viewing information behavior through a social lens goes back to Chatman (1999), who outlined a theory of small worlds and the *roundness* of life. Here, social norms determine what information is relevant for affiliates of a group to seek. Only information that helps this life continue to make sense is utilized, and this is determined by accepted social norms; common worldviews; the adoption of roles within these worlds; and the sharing, rejection, avoidance, and other behaviors related to information (Burnett & Jaeger, 2008). And individuals are part of several of these groups—i.e. they have broad lifeworlds (Burnett & Jaeger, 2008)—increasing the complexity of this stage. They have large social *fields* with a variety of restraining and driving forces that need to be accounted for in order to change behavior (Lewin, 1947).

Two prominent barriers exist to the integration of information. First, due to either personal preference or social norms—or most likely a combination of both—people in an organization may simply not care about information presented to them about a desired behavior change. They may not elaborate on information. This elaboration—"when a person makes mental connections between new information and previously learned or experienced knowledge" (Cortese & Lustria, 2012, p. 1572)—is central to what is depicted in stage 2. A strategy for increasing elaboration is provided by the Elaboration Likelihood model (ELM). ELM posits that the acceptance of any persuasive message is a function of an individual’s willingness to engage in deep thinking about the information contained in the message, which includes closer scrutinizing of arguments within the message and its relation to other related arguments from an individuals’ past experience (O’Keefe, 2002). The attitudes and behaviors that result from increased elaboration are more likely to *stick*. And this increased elaboration comes from information that is more relevant. Thus, a strategy for stage 2 is using increased understanding of
organizational members to tailor information that is perceived as more relevant and, due to increased attention, more logically solid.

Second, the presence of counter-beliefs can easily block new information, and these beliefs often develop in groups. Researchers have long argued that beliefs impact rational information processing, such that this processing is neither “rational” nor “dispassionate” (Batson, 1975, p. 176). Chatman’s (1999) small worlds—and the information behavior within them—are defined by these beliefs and worldviews. Not only can these beliefs direct what information individuals encounter, they can impact what they do after they encounter disconfirming information. Festinger, Riecken, and Schacter (1956) suggested that an individual faced with clear evidence that they are wrong about a belief to which they strongly hold—and from which they took irreversible action—will often “emerge, not only unshaken, but even more convinced of the truth of his beliefs than ever before” (p. 3). Batson (1975) found empirical support for this, as individuals who accepted as true disconfirming information about their religious beliefs increased their commitment to these beliefs.

3.2.1. Stage two information strategies

There are two primary means of increasing integration. First, elaboration must be increased. Increased elaboration requires a tailoring of information to a given population. This is fundamental to learning, as individuals perceive new information in several ways (Kolb, 1984). Public health contexts require the “creation of customized messages and feedback that consider factors that may influence an individual’s health behaviors” (Cortese & Lustria, 2012, p. 1567). Increased elaboration also requires an increase in perceived personal implications embedded in information. Petty et al. (1981) reasoned that an increase in personal costs require individuals to approach information more carefully.
Second, individuals must be more open to a change in beliefs about the target behavior. This requires bringing mental models to the surface—ones that often have been held for generations without questioning—so they can be checked for accuracy (Senge, 1990). The strategy for encouraging this questioning is similar to the strategy for increased elaboration—individuals must perceive a personal cost to maintaining beliefs that close them off to new information. Caplan’s (2001) posited that individuals choose to be irrational in their approach to information about beliefs, because these bliss beliefs are important to them and have little costs associated with being wrong. To inspire a more rational approach to information—and to belief change and the questioning of mental models—the information should highlight the costs of being wrong.

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<tr>
<td>Integration</td>
<td>Adding information to modify one’s existing knowledge structure</td>
<td>To what extent is information being integrated?</td>
<td>Tailor information to increase relevancy; highlight personal costs</td>
<td>Information is perceived more relevant and important</td>
</tr>
</tbody>
</table>

Table 2: Overview of the Knowing Model’s Stage 2

3.3 Stage three: knowing

The awareness and integration of information as knowledge is still insufficient to enact behavior change. The final stage of the Knowing Model is knowing. While it requires information, knowing is more than information use. It is concerned with the entirety of behavior: “We use the term ‘knowing’ to refer to the epistemological dimension of action itself” (Cook & Brown, 1999, p. 387). It is similar to Meacham’s (1990) definition of wisdom: “The essence of wisdom . . . lies not in what is known but rather in the manner in which that knowledge is held and in how that knowledge is put to use” (Meacham, 1990, p. 187). It represents the goal of the Knowing Model.
The addition of this third stage suggests that the integration of information is merely the platform for the intention to act, and further analysis and effort is needed to turn this intention into actionable behavior change. It articulates knowing problems—when someone has knowledge of a behavior and its benefits but does not bring themselves to engage in the behavior.

The barriers to knowing have been considered by researchers in public health. The US Public Health Service faced a knowing problem as they tried to understand why people failed to engage in screenings and take actions for the prevention of diseases (Rosenstock, 1974). The Health Belief Model (HBM) was developed to help understand this phenomenon. It is similar to other behavior models in suggesting that behavior is dependent on beliefs individuals have about that behavior, i.e. is a certain end-state valuable, and will this behavior help me get there? This is similar to Fishbein’s (1963) outline of attitude as a “function of . . . beliefs about the object . . . and the evaluative aspect of those beliefs” (Fishbein, 1963, p. 233). The HBM applied this to health, considering an individual’s desire to not get sick and belief that a specific health activity will help them not get sick: “The individual’s estimate of the threat of illness, and of the likelihood of being able, through personal action, to reduce that threat” (Janz & Becker, 1984, p. 2). It used Lewin’s field theory to position individuals within a field where they are pulled and pushed among several positive and negative values. Diseases may be assumed to be negative values that “exert a force moving the person away from that region,” which is good so long as movement was not to an even more negative region (Rosenstock, 1974, p. 329). The HBM suggests that individuals will take action to avoid a sickness if they believe themselves to be actually susceptible to contracting it, if they believe that contracting the sickness would be at least somewhat severe, and if they believe that the given action will reduce susceptibility or severity (Rosenstock, 1974, p. 330).
3.3.1. Stage three strategies

The HBM suggests that, in order for people to change, they must perceive some threat to themselves, i.e. there are negative consequences to my behavior. In the example of knowledge hoarding, it is important to identify—from the perspective of organizational members themselves—potential benefits of decreasing this behavior. This might include unity, better organizational performance, and promotion. These benefits can be translated into consequences, e.g. disunity, poor performance, and job stagnation. To change knowledge hoarding—the goal of the Knowing Model—organizational members must believe that they are actually susceptible to a given consequence by not changing their behavior, and that this consequence is severe. New information dissemination should target one’s susceptibility to the consequence—or the severity of the consequences—as needed. This should increase one’s intention to engage in a behavior, thus—according to the Theory of Planned Behavior (TPB)—increase actual engagement in this behavior (Ajzen, 1991).

There are several possibilities for how organizational members could view susceptibility and severity. And each possibility has a different strategy:

- Susceptibility and seriousness can be positively correlated, e.g. individuals feel susceptible to a given negative consequence if they do not adopt the target behavior, and that negative consequence is considered serious. In this case, the new information should highlight the negative consequence itself, as both susceptibility and seriousness are already assumed.

- Susceptibility and seriousness can be positively correlated e.g. individuals do not feel susceptible to a consequence nor do they think it serious. This is the most difficult to overcome, as it is a complete rejection with no motivation. New information should
highlight that it is both serious and that individuals are susceptible.

- There may be a negative correlation in which individuals view themselves as susceptible to a certain negative consequence, but do not see that consequence as serious. This represents a potential blind spot, given that these consequences come from reversing what individuals see as benefits, i.e. they should see it as serious. It comes out of their social fields. In this case, the new information would highlight the seriousness of these negative consequences.

- There may be a negative correlation in which individuals view a negative consequence as serious, yet do not view themselves as susceptible to it if they do not adopt the target behavior. This is another potential blind spot, given that individuals are failing to see the connection between the behavior and the consequence in spite of the initial analysis suggesting that these benefits were directly related to this target behavior. Thus, one would expect individuals to see a connection. In this case, the new information would highlight the links between the given consequence and the target behavior.

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<tr>
<td>Knowing</td>
<td>Engaging in behavior as a result of what is known</td>
<td>To what extent is integrated knowledge converted into action?</td>
<td>Tap into susceptibility and seriousness related to target behavior.</td>
<td>Information increases susceptibility and threat perception to motivate action.</td>
</tr>
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Table 3: Overview of the Knowing Model’s Stage 3

3.4. Moderating variables

It is certainly possible, however, that no barriers exist in these three stages, yet behavior change still does not occur. Thus, it is important to consider potential moderating variables that may influence the posited flow of the Knowing Model toward behavior change. Several of these
variables were outlined by Webb & Sheeran (2006) as they considered why intentions to engage in a given behavior may not actually lead to that behavior: “Intentions have less impact on behavior when participants lack control over the behavior, when there is potential for social reaction, and when circumstances of the performance are conducive to habit formation” (p. 262).

Organizational members must first believe they have control over the target behavior, and they must actually have this control. Regardless of the previous analysis of information, if participants do not see themselves as able to control their behavior, they will be less likely to turn knowledge into knowing. Lacking the “requisite resources and opportunities” (Azjen, 1991, p. 196) to engage in the behavior—either perceived or actual—will limit one’s engagement in that behavior. In many cases, they represent actual barriers that the individual cannot overcome simply through a changed message. And this is different from barriers to information awareness. In these cases, leadership would need to invest time in training efforts aimed at increasing perceived and actual control. This could include efforts to increase resources, opportunity, availability, cooperation (Web & Sheeran, 2006).

Behavior change must also be focused on the entire organization, rather than individuals, such that the changed behavior constitutes a new social norm. Lewin (1947) suggested that any behavior change must be refrozen. If someone quits smoking in a treatment facility, but goes back to a habitually smoking family, this behavior may not last long. A meta-analysis of intention—part of TPB—revealed that this link between intention and behavior is not as strong as previously thought (Webb & Sheeran, 2006). A crucial aspect of strengthening this link is increasing intention stability (Webb & Sheeran, 2006), and this stability comes as organizational culture supports the new behavior (Kassean & Jagoo, 2005).
Just as there are strategies for the three stages in the Knowing Model, there are strategies for moderating variables. Yet, these strategies are more focused on structural changes within the organization rather than the information disseminated. The current paper does not assume that information dissemination alone is enough to change behavior—only that it can be an important tool in this effort. It must be supplemented at times by structural changes. For instance, if perceived behavioral control is low, it will be necessary to provide more resources. The nature of these resources will be determined through a closer analysis of the initial questionnaire of perceived barriers to adopting the behavior. The nature of a barrier is that it keeps someone from doing something—thus it is akin to perceived behavioral control.

4. Methodology

The previous sections outlined the theoretical and conceptual elements of the Knowing Model, along with potential barriers and strategies for overcoming these barriers to spark behavior change in organizations. The model requires an analysis of organizational members, as the new information about the behavior change must be created with them in mind. This next section will outline a proposed methodology for this analysis. This will provide researchers and practitioners with a means of applying the model to their own behavior change initiatives.

4.1. Process

Figure 2 outlines a broad process for application of the knowing model by information and knowledge professionals. The first step is to identify, with organizational leadership, the target behavior change. This is a behavior that is mutually beneficial for the organization and its members and is tied to the organization’s strategic mission. The identification of this requires an in-depth focus group (FG) with leadership that engages in discussions of mission and perceptions of current behavior impacting this mission. It is important that efforts focus only on a known
behavior about which information has been disseminated in some way—informally or formally. This allows leadership to ask members about how they have perceived this information in terms of awareness, integration, and knowing.

The second step is a series of FGs with organizational members. Members are asked about information disseminated about the target behavior. This includes the extent to which they were aware of it, how highly they elaborated on it, their beliefs about the behavior, and perceived benefits of the behavior. This provides insight into how information about the behavior can be changed to overcome barriers in stages 1 and 2 of the model. To assess the barriers in stage 3, the benefits of the behavior outlined by members are restated as consequences. Members are asked to consider the extent to which they see these consequences as serious, and the extent to which they are susceptible to the consequence by not engaging in the target behavior. For instance, members view lost relationship development opportunities as a serious consequence, and they view this as a likely result of knowledge hoarding. This provides direction for what the information campaign should emphasize.

Step 3 includes the analysis of member FGs and the creation of the new information campaign. Analysis will direct decisions about dissemination, content, and related structural changes to supplement the information. This is presented to leadership for approval. This campaign then runs for 2 months. Finally, in step 4, measurement of success includes additional rounds of FGs with leadership and organizational members. Analysis should look for increases in awareness, integration, and the extent to which individuals adopted the target behavior. This can then be repeated looking for additional behaviors and variables.
5. Discussion

The Knowing Model outlines an approach to behavior change using information campaigns, supplemented as needed by structural changes. It is important to note that this shift to a focus on information content does not constitute a shift back to previous generations of KM that were focused more on existing information (McElroy, 2000) and did not account for “the value of human factors” (Serenko, 2013, p. 777). Rather, it suggests that information is still an important tool in newer generations of KM that consider “an increasing complexity of the knowledge domain” (Casteaneda, Manrique, and Cuellar, p. 301). The novelty of the proposed model for organizational behavior change, then, is in its utilizing of first-generation KM information dissemination approaches in the context of more recent approaches that recognize human complexity. It situates the information campaign as the locus for behavior change, yet this campaign is informed by complex human issues and accompanied by efforts to fix larger structural issues.

Although adaptation in complex systems is generally self-emergent and organic (McElroy, 2000), there will still be times when members avoid a behavior in spite of its benefits to both themselves and the organization’s adaptation. In these times, leadership needs to provide direction in a way that is not threatening, and in a way that accounts for human complexity.
Rather than a universal approach, the Knowing Model provides an approach that engages leadership in the contextual realities of their own organizations. In this way, it is not intended to be another best practice model for behavior change. Rather, it is a way of approaching this complex task with matching complexity. Knowing cannot occur without access, integration, and motivation. As organizations learn more about the social fields of their members, they can focus on the content of information about a behavior—and the structures that surround this behavior—in such a way that it sparks the positive changes that influence organizational success.

6. Summary

This paper outlined the Knowing Model—a model for organizational behavior change. It puts leadership in the position of learning more about the social fields and information behaviors of organizational members. As they do, they are in a position to change the content of information related to the desired behavior change—as well as structural and moderating barriers to adoption—to increase the likelihood that this behavior will be adopted. It posits that behavior change comes only as organizational members are aware of information about the behavior, are integrating this information, and are motivated to translate this into action. In addition to providing a conceptual overview of the model, this paper providing practical means of measuring each stage, and strategies for overcoming barriers.

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