Literature Review: Effectiveness in Enterprise Portals

to Guide Improvement for the Community Workspace

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November 24, 2015 Professor

Kern
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Via Dropbox

Dear Professor Kern:

I am the lead for knowledge management (KM) on the service desk project. The project operates a call center that supports multiple online systems for one government agency. The most significant tool that KM provides to the team is the online portal. This letter is meant to introduce my proposal for improvements to the Community Workspace (CW), which is the online portal and a major tool utilized in the service desk project.

This online portal was initially very well received by the agents on the project. Over the years, it has become less utilized and its effectiveness has diminished.

The goal of the proposal is to provide sufficient details obtained from both primary and secondary research to drive recommendations regarding the online portal to the management team. The paper provides a review of published articles on the topics of determining effectiveness of online portals for enterprises. In addition to discussion on findings from these papers, I have also included some results from agent surveys. The agents, main users of the online portal, were surveyed for feedback.
Analysis of the survey results has provided guidance for next steps to improve the online portal. The proposal identifies the priority areas that need improvement, and the steps needed to make those improvements.

Warm Regards,

NAU Student

Abstract

The Knowledge Management (KM) portal, known as the Community Workspace (CW) for the Service Desk project, requires changes to increase its effectiveness. Since the tools are not being used daily by many of the staff, it is evident that the current content and design need to be evaluated to locate opportunities for improvement. Analyzing effectiveness of a portal requires multiple approaches, including user surveys and secondary research. It is important to know what an ideal portal is comprised of before areas of improvement can be identified.

The content of a successful enterprise portal must be in alignment with KM strategy and organizational strategy to have leadership endorsement. The most successful portal components are those that build value for the end-user and engage the employees in knowledge sharing. A successful portal helps the end-user complete job tasks with increased efficiency. Both primary and secondary research point to a need for strategic alignment of the CW with the goals of the project and KM, specifically. Changes to the CW will support continuous process improvement.

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Background Information

Existing KM Portal

The current online KM resources for the Service Desk project are not being accessed daily. The employees are required to access these online tools daily, through access of the online portal. There are some employees who use the tools every day, but this is not the majority. The main benefit of the tool for the employees is that it helps them provide accurate information to customers with great efficiency. The usage reports show that many employees are not using the portal regularly – some employees haven't accessed it in months, while others login about once a week.

KM Portal Timeline

The Service Desk has been active since August 2009. Employees were not initially provided with any online tools. Information was shared via memos, meetings, and supervisor conversations. Each week, Quality Analysts would have a meeting with each team to discuss common findings. The Supervisory team would also have a meeting. It was regularly recommended that the employees remove all paper and discontinue use of paper resources. However, until an online tool was made available, many of the staff on the Service Desk relied on paper resources as well as their own electronic documents to keep their job information available. When the first portal became available, its purpose was to provide a single online source for all necessary job material. Many staff resisted the transition and continued use of their own personal documentation. Occasionally, staff would access the portal and copy the

information to their desktops so it would always be available. A redesign in 2011 created more interactive space for the staff on the Service Desk. This redesign gave a new name to the tool.

The portal became known as the CW – or, the Community Workspace. The Community Workspace has gone through several design improvements and now contains several pages that are used by different staff on the Service Desk. The staff delivering the services are known as agents. The agents have a Forum, a Library and Scripts pages. The Supervisors have access to daily agent production statistics as well as all the content the agents have access to. The Quality Assurance team has a place to house their reviews which the Supervisors have direct access to. Knowledge Management personnel have access to editing the content and managing user access. A page for reporting technical outages alerts the management staff, technical personnel and other key shareholders that something needs to be addressed immediately. Although the CW has undergone many changes to offer additional information to the agents, it seems that many of the agents and even some of the supervisors, are not accessing the tools it offers on a daily basis.

Improvement Plan

Since the tools are not being used daily by many of the staff, it is evident that the current content and design need to be reviewed to locate opportunities for improvement. The online tools on the CW need to be engaging and beneficial for employees who work on the Service Desk project. The plan is to make the tools more desirable and facilitate the work the agents and supervisors need to complete each day. The purpose of this proposal is to offer recommendations that encourage general employee use and interaction of online community tools, as well as functions that motivate employees to share information about their roles and tasks with other team members.

Research Findings

In review of several articles it became clear that measuring the success of a portal is not a new concept, but it is believed by many that the methods widely-used are insufficient to provide an accurate picture. Many researchers have come up with methods to gauge performance and impact of a portal in an enterprise setting. Some of these methods include the use of newly developed software tools, others rely on analysis of identified categories.

One set of researchers has designed a model that breaks down the portal into segments. From there, it offers suggestions for measuring effectiveness and efficiency and it explains how the two factors, effectiveness and efficiency are separate, although closely related. Jacoby and Luqi present their model as a new standard for measurement of portal. It is called the IEEM (Intranet Efficiency and Effectiveness Model). In their paper, the researchers assert that the metrics need to come from a strategic management viewpoint. To achieve high value from the online tools, there needs to be a representation of critical business requirements. This statement mirrors many other researcher opinions. If the intranet is not providing information that helps employees to meet business requirements, it cannot be more than an optional tool. The minimum standard for an intranet portal is that it helps an employee carry out their job tasks with increased efficiency. While there are many models and opinions for measuring effectiveness of intranet portals, much of them miss the end-user viewpoint. Statistical information is easier to analyze, but without user feedback through well-designed surveys, key information is lacking. Assumptions have to be made about the statistics and use of the portal. As an example, survey of the Service Desk agents resulted in many new pieces of information never before understood. "Surveys offer many benefits and can lead to obvious but overlooked additions such as providing an online employee manual equipped with a search engine, reducing the amount of time people

spend looking for the manual and the information in it." Jacoby and Luqi (2007, p.49). When

Kathy Parker reviewed the survey results of the Service Desk agents, she learned that many of

the agents do find the tool useful. The agents who haven't reviewed the tool in months, are on

leave or other projects. This pointed to a problem of user administration, which is a back-end

feature of the CW. This knowledge from the survey provided much needed insight to better

discern areas of improvement for the CW. Although the active agents are using the tool weekly,

and inactive agents are the only ones neglecting the portal, there are still many ways the portal

can be improved. The IEEM offers multiple types of feedback that can be measured, including

front end (user experience, design/layout, business requirements) and back end (architecture of

information, content, usage statistics). Jacoby and Luqi find that in these realms of measuring the

intranet, there are soft metrics, hard metrics and derived metrics that can be used together to

facilitate quality analysis (2007).

One important aspect of the user experience on a portal is the way different users interact

with each other. As online communities mirror real communities, it requires some moderation

and filtering of communications. Without guidelines and rules of engagement, communities can

become toxic and unwelcoming. In an online portal, the interaction of the users contributes to the

knowledge base. When one employee shares a new discovery, an example of best practice, or a

unique circumstance, other employees can learn and benefit from this knowledge-share action.

The different personalities represented will be demonstrated in an online forum; some people

who aren't vocal might contribute more frequently since it is a written format. When employees

ask questions, it is important to get those questions answered well, and quickly. If timely

responses are not given, people will tend to quit asking questions. A leader will emerge, and the

community will either embrace the leader, be neutral or possibly demonstrate a lack of respect.

The style in which the leader communicates will differ based on the type of community. In a more technical forum, the leader is likely to offer more factual and less emotional commentary. In a social-based forum centered on fun activities, a leader is likely to be more interested in other's opinions and bringing people together through thoughtful posts vs. instructional commentary. Parker anticipates identifying a CW ambassador (or several) who has great social skills as well as technical knowledge. Although the Service Desk selects supervisors based on performance and skill, the leaders on the CW would not necessarily be supervisors. Any agent who has knowledge, skill and social savvy would be able to show leadership potential on the portal. Part of being a respected leader is the ability to show interest in others, and help them grow. On the CW, agents can share their shortcuts, or workarounds, with other agents. If one agent is struggling with how to solve a problem, another agent could answer that question directly. The more agents engage with others in a positive and effective manner, it would increase the likelihood of being seen as a leader. "Our study shows that, to be recognized as a leader, it is not enough to post messages or be sociable; one must also contribute to the community's central task, in this case, dialoguing about technical topics. At least in online communities where the focus is on knowledge collaboration, high participation and sociability may not be sufficient for one to be recognized as a leader." (Faraj, Kudaravalli, & Wasko 2015). Faraj, Kudaravalli and Wasko agree that technical conversation must be present to be considered a leader and they also state that sociability and frequency of engagement are not enough. Parker believes that with the CW, frequent engagement might create an impression that the person posting is over confident and knows everything. Humility is an important cultural and organizational value that needs to be expressed in the CW portal and agent forums. Through focus groups and online collaboration in the agent forum, different personalities of the staff will

arise and perhaps, predict the leaders. It is important to refrain from assigning leaders without first observing behaviors and seeing how the various contributors interact. Initially, a higher level manager and/or knowledge management personnel can serve as moderators while allowing agents to answer each other's questions. It will be challenging to allow the agents to answer questions online when they already have plenty of resources that have answers. If the agents answer a question incorrectly, the moderator will have to step in without sounding arrogant.

Agents are the end users of the intranet portal and they need to feel safe with commenting and responding, as well as asking questions. End users are a key shareholder of the intranet portals used for Knowledge Management. If the tool does not serve the end users well, its effectivity score will be extremely low. If the end users are engaged and pleased with the job-specific content, you have a great foundation. Rustad and Vikst0l indicate through their research on implementing intranet systems, that it is important to select people to become ambassadors of the tool who can then facilitate training others (2014). This recommendation is significant for the Service Desk even though the portal has already been implemented. Agent usage of the forums is stagnant, but there are a few agents who have posted on the forums regularly. Despite the fact that there isn't much activity, Parker has identified a few users that could be considered as champions or ambassadors of the tool. Aside from making direct changes to the portal, getting people to talk about it is another way to create interest.

Although Rustad and Vikst0l's focus was on implementation of intranet systems, many of the points in their article is applicable to the project. For example, the three types of knowledge they define as critical for implementation: Technical, Organizational, and User profile knowledge are important for the CW as well. In order to implement any technical solution - large or small - it is important to know the limitations and capabilities of the system,

and infrastructure. In implementing the CW, one requirement was that it would be made

available on the internet because there is more than one site, and more than one company

delivering the services. In cases of inclement weather or other emergency, employees may need

to work from home and they will still need access to the CW. If the CW requires a lot of

system memory, it could cause slows for the users or it might not update fast enough to get

information out to everyone in a timely fashion. If growth is not planned-for, implementing new

modules will prove difficult. These are just a few examples of why it is important to understand

the technology of the CW in order to implement it.

　　　Organizational knowledge is important in the implementation of any process or

technology. Alignment with the mission and objectives of the organization is important for the

success of implementation. Understanding organizational requirements with regard to the CW is

key to design and layout. The CW currently provides statistical information used by multiple

departments including work force management, quality, operations (agent supervisors), service

desk management, and KM. The information on the CW has to align with organizational

strategy and KM strategy as well as provide value for the agents. In order to help the agents with

their processes, the tasks have to be understood.

　　　The agent's role is very clear and the information they need is apparent by those who

understand the Service Desk. Cultural considerations need to be evaluated as the delivery occurs

in the Southeast region of the U.S. and most of the users have similar behaviors and language

habits. It is important to understand the regional phrases used, when posting information, and

creating training documents. The profile of the end user is important to identify for other reasons

as well. It is important to understand how the agents think and what information they seek and

how they seek it. While a technician might think it makes sense to structure the content one way,

the agents might be able to perform better if it is formatted differently. Through surveys, the agents responded that some of the business processes are difficult to follow because of the information dependency. If the information isn't available on the home page, the agents are less likely to apply the correct procedure. The agents have to be invested in knowledge management practices in order to be willing to apply complex processes and take time to navigate to the various locations on the site. Making the CW content easily accessible will make it easier for the agents to comply with the requirements to visit the portal daily, or each shift they work.

An effective Knowledge Management strategy will likely utilize an enterprise portal, but the portal is not meant to be the only evidence of KM in an organization. Cloete and Snyman (2003, p. 47). The company culture must embrace the functions of KM that the portal is intended to facilitate for it to be effective. In three case studies, it was noted that the most successful portal components were those that built value for the end-user and engaged the employees in knowledge transfer. It is widely agreed that knowledge management is divided in certain activities: knowledge exchange, also called knowledge sharing; knowledge capture; knowledge re-use; and knowledge internalization. These four activities need to be supported through corporate strategy in order for knowledge management to succeed as a part of an enterprise. In business, setting measurable goals is important for gauging success. Measuring the success of the portal is important to promote value. Table 1 below, compares the CW against several best practices identified by Cloete and Snyman (2003, 55). The categories given are defined as Needs Improvement, Not Met, and Satisfied. Needs Improvement indicates that while the activity is currently occurring, there are facets of it that need to be refined in order to meet the example of best practices being evaluated. Not Met means that the item in discussion is not representative of the service desk environment. The activity or practice is not present. When the

practice is identified as Satisfied, it means that when the CW was compared against the

description, it effectively meets the criteria.

Table 1

Best Practice (summarized)	How the CW Compares
Identify functions that will drive repeat usage	Needs improvement
Make tool immediately useful, then add features that make it essential	Satisfied
Conduct focus groups to identify needs of end-users	Not Met
Establish target audience before implementation	Satisfied
Leadership Agreement and Endorsement	Needs Improvement
Address values and cultural issues that exist in the Service Desk to encourage employees (target audience) to contribute	Not Met
Make additions incrementally so implementation is not daunting	Satisfied

To further explain how the CW compares, Parker looked first at where the CW needs

improvement in order to better align with best practices. The CW needs executive endorsement

on a recurring basis. One way to accomplish this would be to have the site supervisor mention

the tool in an address to the new agents being trained, and for the supervisors and trainers to

regularly refer to the CW as a respected tool. The need is to identify functions that will drive

repeat interaction which will create a need from the agent's side and motivate them to access the

tool. Best practices that are not met currently: focus groups and cultural values. Careful

consideration for phrasing of content is essential. Information that is reviewed with this in mind

before it is posted, will be aligned with the regions where the users work. Through focus groups,

the needs can be better determined and the barriers identified. The Service Desk CW has

satisfied the requirements in three of the seven best practices identified in the table above. The

audience was identified, the portal was immediately useful, and functionality has been added

incrementally. What has been lacking, is continual assessment of the needs, and providing value

for the agents to constantly contribute to the content.

In the review of the CW and how to increase the collaborative aspects, one statement

from the literature review has summarized the need quite simply. "Collaborative tools will never

become part of the culture until people get used to using them. Support a culture of sharing and

integration, especially when sharing knowledge informally does not come easily to users." Pike,

Yarnal, MacEachren, Gahegan & Yu. (2005, p.20). The frequency of use is one of the main

barriers to overcome. The culture of sharing and integration is present verbally, as the agents to

speak to each other and their customers. However, this activity of knowledge sharing is very

seldom recorded. At the Service Desk, people are able to share easily, but not in the online

forums. Many of the agents aren't comfortable putting things on the record. Management needs

to foster a sharing culture that makes it less intimidating. The agents will know that it is ok to

post questions, and there will not be negative consequences, if the guidelines and culture of the

project demonstrate that.

Recommendations for Action

Review of the KM strategy. Looking at the overall KM strategy of the organization is one

of the next steps to determine how the existing portal fits in. Another step will be to determine

how to add value to the current features that capture agent knowledge. Incentives may need to

be put into practice to encourage the agents to utilize the knowledge capture and knowledge

sharing features of the tool that potentially provide the most satisfaction for the agents and fulfill

the current KM strategy.

Interviewing staff and gaining their support. Existing staff need to be involved in future decisions regarding incentives, content, interactive tools, and the benefits of knowledge sharing. Surveys and other methods of capturing information and feedback from the agents need to be considered. It will be important to demonstrate to the staff that their input won't be ignored.

The survey that was given to the agents is located in Appendix A. Through the survey results, the agents have identified the areas of the CW that they find most useful, and what they like most. A total of 95 surveys were completed. Four questions demonstrated a majority opinion. This is shown in Chart 1, Agent Feedback.

Chart 1
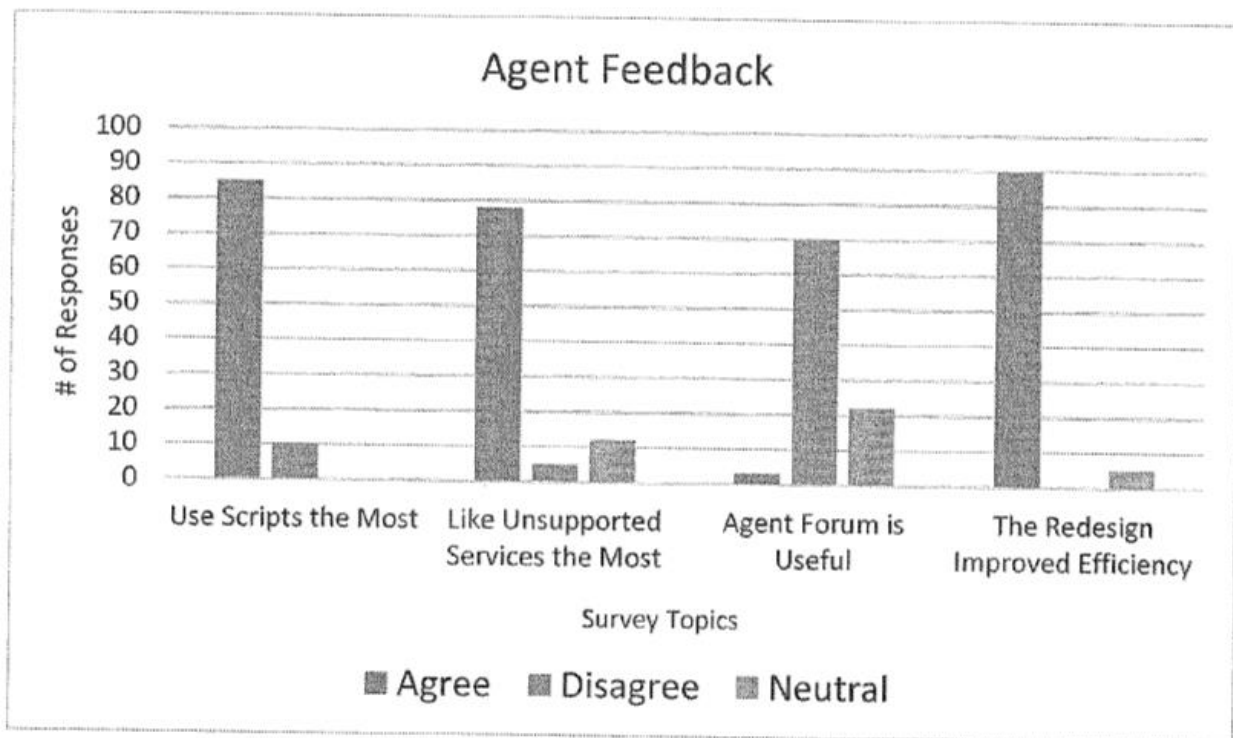
Question 1, "What tool of the portal do you use most often?" was a ranking question. Out of the available tools, the agents were asked to rank their usage time for each. The agents use the scripts tool the most. We recently made some script changes, so all agents have an increased need for these pages. The results of Question 2, "What tools of the portal do you like using?" showed that agents like the unsupported services tool the most. When agents can't help the

customer, they can access this tool to obtain contact information for systems that aren't supported. Question 6, "Do you believe the Agent Forum pages are useful for knowledge sharing?" was initially a "Yes/No" question. Management decided that there should be a neutral option to the "Yes/No" questions, in case agents didn't feel strongly one way or the other. This proved to benefit, as some agents did give neutral responses. "The Scripts pages were recently re-organized. Has that improved your efficiency?" was Question 7 on the survey. Most agents agreed that the redesign has improved their efficiency. The survey results provide evidence that the agents do see a value in the online portal, and they are using it.

Identifying and implementing Best Practices. To focus improvement efforts, Parker reviewed the agent feedback in reflection of the literature review and identified four key areas that can be addressed immediately. Effectiveness of the CW portal measured against best practices provided in literature, identified four areas of improvement.

Table 2

Issue	Solution Identified	Priority
Weak Leadership Endorsement	Involve Leadership in the Portal. Leadership will post on the agent forums once a month. Leadership will introduce the training on the Portal and discuss its benefits and features to new agents.	First
Infrequent Usage	Create repeat usage daily by providing content that is both necessary and appealing. This will be done through content ambassadors who will offer guided, expert content in the agent forum.	Second
Values and Cultural Concerns	Make it easy and comfortable to share information on the Portal. Give an anonymous option for feedback. . Produce a guide for all users to address etiquette.	Second
Continuous Improvement	Make the Portal an essential tool. Continue the relationship with the agents through observation and focus groups to build efficiency into their routine.	Third

Leadership agreement and endorsement. The the KM strategy will align with the organizational objectives. In analyzing the secondary research through review of agent comments, it became apparent that leadership is not actively endorsing the use of the various

pages available on the CW.   The most effective way to produce a convincing recommendation or endorsement is through participation. Each person on the management team will be engaged in creating one post on the agent forums during every month. Having the management team get involved in using the portal will provide the necessary proof that management encourages use. In addition, Leadership will become engaged in new agent training. When the CW will be presented to new agents, either a supervisor or someone from management will provide a brief overview of the benefits of the portal. When the agents see that management is engaged in discussions about the portal, and when they hear first-hand from management why it is beneficial, this will serve as a strong foundation for the continued success and increased effectiveness of the portal.

Infrequent usage. Identifying the agents who found the agent forums useful will give KM a pool of people to consider for content ambassadors. Using existing personnel to champion use of the tool and foster engagement will promote more frequent use. Providing guidance through topic/content suggestions will support the ambassadors with creating new posts. Feedback from customer surveys and quality analysis can be reviewed to determine what areas the agents are doing well in, and struggling on. Providing necessary and appealing information on the agent forum pages will promote frequent use and engagement. Once the agents become engaged on the agent forums, they will be exposed to new techniques and information that can then be used in resolving issues. KM will be able to capture this information and make it available to everyone, providing more opportunities for success for new agents. When the agents see first-hand that engaging in the CW is beneficial and promotes effective incident handling, they will use it more often.

Values and Cultural Concerns. The agents expressed concern over asking questions on the forum. In a few historical instances, agents were given negative feedback when they asked questions or provided suggestions in the agent forum. By providing an etiquette guide for all users of the CW, it will ensure that everyone understands the rules of posting and responding. By providing the information to everyone and providing examples that reflect actual reactions, it will aid in creating and endorsing a team atmosphere. The etiquette guide will include topics regarding composition, such as: professionalism, tone, using emoticons, choosing appropriate upper-or-lower-case font, and proper grammar usage. The guide will also provide examples and samples of the content-focus of the agent forums. Questions about location-related policies will need to be addressed outside of the agent forums since the agents are located in more than one place. Questions about system functions, troubleshooting and documentation are appropriate and encouraged in the agent forums.

Some people will never feel comfortable asking questions in a public forum. We have a few agents who expressed concern about posting comments for everyone to see. Some topics are better addressed confidentially. In order to accommodate the request for anonymity, the CW will have a feedback option that will send an email to KM. Providing this direct line to KM will benefit the agents and persons who want to ask a question or provide a suggestion that they aren't confident about, without scrutiny from their peers. It will be optional for the agent to include their name along with the feedback. Anonymous concerns can still drive content for posting. It would be beneficial to use the anonymous feedback as content suggestions for ambassadors or management personnel.

Continuous Improvement. Mold the CW into a tool that the agents categorize as essential. KM will constantly learn what the agents deem vital to build efficiency into their routine, by

observation. Reviewing agent CW engagement, conducting future surveys, and facilitating focus groups are the best ways to learn from the agents what they think is important and helpful. Reviewing the agent performance metrics and the overall helpdesk performance metrics will also provide insight into increased agent efficiency. When the agents notice that they achieve faster call resolution through use of the CW, it will become clear that they can increase their productivity by engaging with others and using information contained in the portal. Taking user feedback and designing improvements or guiding content will provide for future opportunities to enhance the portal and keep it relevant.

In conclusion, Parker has identified key solutions and priorities for implementing them. First, the leaders and management will engage themselves in use and endorsement of the CW. Next, the etiquette guide and content ambassadors will facilitate and promote positive interaction. Providing an area for anonymous feedback will offer multiple benefits and possibly identify areas of improvement. Engaging the agents and demonstrating that the CW is their tool by listening to them and addressing their needs will make a large impact towards increased portal effectiveness. The CW must be assessed against industry and agent standards on an annual basis to ensure that the focus remains on its effectiveness.

References

Cloete, M. & Snyman, R. (2004). Are enterprise portals -knowledge management?. *South*

   African Journal of Libraries & Information Science, 70(1), 47-57.

The proposal seeks to evaluate the existing portal and determine its effectiveness as a KM tool.

In order to determine this, the various KM aspects must be considered as the tool is evaluated.

This article describes the relationship between enterprise portals and knowledge management

(KM). The authors intend to clarify for the reader that enterprise portals are a technology tool

used in knowledge management. The portal is a demonstration of one of seven key KM

elements that are identified in this article - Technology. The article further expresses that

technology alone will not meet the KM needs of the organization. They use case studies to

produce relevancy to their conclusions.

Faraj, S., Kudaravalli, S., & Wasko, M. (2015). Leading collaboration in online communities,

   MIS *Quarterly 39(2),* 393-412

The proposal seeks to identify ways to motivate the users to collaborate and share information

with each other using the portal. One hypothesis is that the online forums are the best tool of

online portals that encourage knowledge sharing. This article analyzes how leaders emerge and

gain respect in online communities. The article reviews the different facets of leadership and

which traits weigh heavier. Is contribution more important, or is sociability more important when

a group of online collaborators identify their leaders. The information in this article is relevant in

that it studies the structure and interaction in various online forums and behaviors of the

collective. Identifying and assigning leaders or ambassadors (based on researched criteria) for

the online portal, will provide opportunities to further encourage and motivate all users.

Rustad, E. & Vikst0l, T. (2014). Implementing Intranet 2.0: A study of knowledge requirements

        for external consultants in enterprise systems. *Procedia Technology, 16,* 694 - 703. doi:

        10.1Ol6/j.protcy.2014.10.018.

The proposal intends to identify the means necessary to create successful interactions on the

online portal. The agent forums are a key part of knowledge share, and they are stagnant, with

infrequent activity from the same handful of agents. This article provided better understanding

and definitions for success of implementation. Although the English grammar of the article is not

flawless, the concepts are still conveyed well. This article covers implementation of various

portals using SharePoint, a Microsoft product. The implementation is carried out by consulting

firms, not the actual companies being studied. The point was to understand the challenges present

when consultants are implementing the portal, and what was required of the consultants

to ensure a successful implementation. The authors concluded that there are different types of

knowledge that is required for successful implementation of enterprise portals: technical,

organizational and knowledge about the portal users.

Jacoby, G. A. & L. (2007). Intranet model and metrics. *Communications of the ACM, 50(2),* 43-

        50. doi: 10.1145/1216016.1216019

As the proposal seeks to evaluate the existing tool and determine ways to enhance the

effectiveness, this article is highly relevant and useful. The authors argue that the KM methods

put in place by most executive and managerial staff are ineffective and measure its performance

by the wrong metrics. The authors make a strong case for a strategic approach towards

evaluation and implementation of KM intranet tools. Using the IEEM (Intranet Efficiency and

Effectiveness Model) to dissect and analyze each piece of a portal as well as the three user

groups is demonstrated to be critical in understanding how the intranet contributes to sustained

productivity and supports the requirements of the business. Their model measures the intranet tool against the organization's needs vs. measuring the intranet's information by itself.

Pike, W., Yamal, B., MacEachren, A. M., Gahegan, M. & Yu, C. (2005). Retooling

      Collaboration. Environment, 47(2), 8-21.

The proposal seeks to increase use, collaboration and sharing amongst the key users, who work in more than one physical location. While this article is written for the environmental science industry, it discusses the challenges inherent in sharing information with colleagues with consideration to multiple locations, and security of the data. As the employees rankings are very competitive, some employees prefer to retain and hold information as a form of job security. It is critical to the success of the service desk and entire organization that employees share their knowledge openly, in a way that becomes useful to other employees. This paper addresses some of the challenges around effective and readily available collaboration. It also highlights the point that the tool itself must be effective. It is not enough to simply have a tool.

Ryu, C., Yong Jin, K., Chaudhury, A., & Rao, H.R. (2005). Knowledge Acquisition via three

      learning processes in enterprise information portals: Leaming-by-investment, leaming-

      by-doing, and learning-from-others. *MIS Quarterly, 29(2),* 245-278.

The proposal identifies ways to enhance the online portal as a KM tool that supports collaboration and learning. This article delves into the learning aspect of the enterprise portal for a specialized labor force. The project is highly specialized. Although the skills are general, the knowledge is very specific. As one employee documents knowledge or asks a question, another employee will be able to review the information or respond to the question. This is demonstrative of learning from others as described in the article.

Syed Mustapha, S. (2012). KFTGA: A tool for tracing knowledge flow and knowledge growth in

      knowledge sharing environment. *Information Knowledge Systems Management. 11(314),*

      205-224. doi: 10.3233/IKS-2012-0208

The proposal seeks to further analyze the existing tool and determine ways to enhance its use and create more effective ways of capturing and organizing knowledge. The information contained in this article directly relates to these areas. This article describes an analyzer tool that seeks to codify knowledge, measure growth of organizational knowledge, and organize the knowledge. The knowledge that is put through the KFTGA (Knowledge Flow Tracer and Growth Analyzer) would be documented and tagged with key words, for ease of future access. The KFTGA is an added-tool to an existing KM platform where knowledge sharing already takes place. Whether this is the primary tool used to measure effectiveness, or not, it will be important to be able to tag and organize the data that is input into the online portal.

Appendix A

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Questionnaire for Online Portal

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       The purpose of the questionnaire is to gain insight from the agents of the Service Desk project about the value they currently see in the online portal's various tools, and potential changes that may enhance agent productivity and encourage collaboration.

       <u>Important Note:</u> When answering the questions, consider each time frame to only apply to the days you work. Example: If you only work 3 days a week, do not consider the days you do not work when answering.

1) What tool of the portal do you use most often? (Rate the pages 1-5, 0 = Not Applicable, 1 = Use Several Times daily, 2 = Use at least once daily, 3 = Use more than once a week, 4 = Use Once a week, 5 = Use less than once a week.) **Circle your rating.**
   a. Script Requirements
      1. 0   1   2   3   4   5
   b. Alerts
      1. 0   1   2   3   4   5
   c. Business Rules
      1. 0   1   2   3   4   5
   d. Agent Forum (Tier 1)
      1. 0   1   2   3   4   5
   e. Agent Forum (Tier 2)
      1. 0   1   2   3   4   5
   f. Cannot Help Scripts
      1. 0   1   2   3   4   5
   g. Unsupported Service Scripts
      1. 0   1   2   3   4   5
   h. System Scripts (SAM, CFDA, eSRS, FBO, FPDS-NG, FSRS, WDOL)
      1. 0   1   2   3   4   5

2) What tools of the portal do you like using? (Rate the pages 1 - 5, 1 = Significantly dislike, 2 = Do not like, 3 = Neither like nor dislike, 4 = Like a little, 5 = Significantly like.) **Circle your rating.**
   a. Script Requirements
      i. 1   2   3   4   5
   b. ****Alerts
      i. 1   2   3   4   5
   c. Business Rules
      i. 1   2   3   4   5
   d. Agent Forum (Tier 1)
      i. 1   2   3   4   5
   e. Agent Forum (Tier 2)
      i. 1   2   3   4   5
   f. Cannot Help Scripts
      i. 1   2   3   4   5

     g. Unsupported Service Scripts
          i. 1   2   3   4   5
     h. ***System Scripts (SAM, CFDA, eSRS, FBO, FPDS-NG, FSRS, WDOL)
          1. 1   2   3   4   5

3) Circle your Answers for Questions 3-8 and 10

4) Have you ever posted a query or comment on either of the Agent Forum pages?
    a. (Yes or No)

5) Have you ever responded to a query or comment on either of the Agent Forum pages? (Yes or No)

6) Do you believe the Agent Forum pages are useful for knowledge sharing? (Yes or No)

7) If there was a place on the portal to provide feedback for FAQs and Standard Text, how often do you think you would use it? Please answer with a number from 0 - 5. (0 = Not Applicable: I don't think I would use it, 1 = Use Several Times daily, 2 = Use at least once daily, 3 = Use more than once a week, 4 = Use Once a week, 5 = Use less than once a week.) Circle your rating.

                          0   1   2   3   4   5

8) The Scripts pages were recently re-organized. Has that improved your efficiency?
    a. (Yes or No)

9) Are you currently using any other tools besides the online portal and system websites to help you answer customer queries? (Yes or No)

10) If you answered "Yes" to Question 8, please list the item(s)/tools and how you access them. *(if you need more room to provide your answer, type the question and answer on an extra page.)*

11) If there was an incentive for accessing certain areas of the online portal, would that encourage you to use it more frequently? (Yes or No)

12) If the online portal allowed for personalization, what would you change? Please provide specifics, including how the change would impact the agents. Please provide at least one suggestion. *(if you need more room to provide your answer, type the question and answer on an extra page.)*

13) Please share any additional thoughts you have about the online portal. *(if you need more room to provide your answer, type the question and answer on an extra page.)*