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on Usage-Centered, Task-Centered,
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Larry L. Constantine, Editor

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[T13]

Performance-Centered Portals

Gary Elsbernd and Matt Hummel

Abstract

Performance centered portals provide access to content, data, task structure, job aids, and tools needed to support the organizational goals. Performance centered portals go beyond navigation and centralization of information to directly promoting organizational values and individual performance through focused and customizable presentation of corporate resources available at a click. Performance centered design can be an attribute of commercial, learning, or corporate portals, but few portals have taken the steps to design to enhance individual performance. In this article, we will look at how performance centered portals can be designed to enhance individual employee performance and make a direct impact on an organization's bottom line

Introduction

Bill Jones is a specialist in a large call center. Still somewhat novice, Bill has only been on the job for six months. His work focuses on helping

customers resolve issues and questions they have regarding the services Bill's company provides.

On the phone is a caller who wants to determine if he can receive a particular benefit. Bill is immediately flustered. He really doesn't know much about the question the customer has; to date he's mostly handled calls with simple requests such as an address change. Bill looks through the customer's account information on his system. Nothing. He moves through several of the customer account screens. In one of the systems, Bill finds a list of the benefits, but doesn't tell him how to determine if someone is eligible to receive it. As calmly as he can, Bill says, "Is it okay if I put you on hold while I reference your account?" The caller agrees and Bill quickly taps the hold button. "Now, where do I look?" Bill considers going back to some of his training manuals; there are two large three-ring binders on his desk. "But I haven't had the benefits training yet...it's scheduled for next month...everything in these binders is how to use the system," he thinks to himself. There is also the intranet; he hasn't used it much even though he did go through training on it. "Hmm... did I see an email alert about this last week?" he wonders.

Meanwhile the customer waits....

Bill decides his best bet is searching on the intranet. Clicking the icon, the browser displays. Bill chooses the link for his department. The next page appears and he's presented with many choices. Several seem relevant: Policies and Procedures, Policy Updates, Customer Benefit Plans, and Service Eligibility Requirements. Bill chooses the last option; a sub menu with more options appears. Bill scans through the long list. None of them seem to relate. He selects the most appropriate link he can find. A new page appears. It is paragraphs and paragraphs of text. Bill's quick scan reveals the content is about eligibility for the service itself, not for the particular benefit.

The customer continues to hold...

Quickly, Bill clicks the Back button repeatedly. Now, he tries a different option. He clicks two, three more times and reaches a page that explains the policy. Bill reads through the text. It keeps referencing criteria that must be used to determine eligibility, but it never mentions what the criteria are. Finally, the text tells him to use an Eligibility Determination for Benefit worksheet if he is having trouble deciding. Bill scans the page top to bottom. There is no link to the worksheet and he has no idea where to find it.

Bill takes the customer off hold to pardon the delay. “It will just be a minute longer,” he promises.

Rolling backwards, Bill scoots his chair to the edge of his cubicle where he can see his neighbor, Joe. “Can you look at something for a minute?” Bill asks. Joe moves over to Bill’s desk and reads the page on the screen while Bill explains the situation. “Oh,” says Joe, “that worksheet, yeah, it is impossible to find out there. I printed it out a couple of months ago. It’s at my desk. Let me grab you a copy.”

Bill takes a copy of the worksheet and begins to fill it out. The questions are confusing. “I haven’t even had this training yet,” Bill thinks to himself. “Why do I have to handle this call?”

The customer waits...

Bill considers escalating the call, but he already has done that twice this week. It won’t look good in his review, specialists are measured by how many escalations they have. Bill begins to fill out the worksheet, transcribing data from the client’s account screen onto the paper worksheet. He is about to take his customer off hold when Susan, Bill’s supervisor, pops in. “Joe said you were having trouble; any thing I can do to help,” she asks. “I’ve got it,” Bill replies, “Joe gave me the form.” Susan looks it over. “This one’s out of date; it changed a few weeks ago. Remember the email?” She leans over and clicks into the portal. 3, 4, 5 clicks later, she has the worksheet and selects Print.

“I’ll go get the worksheet,” Susan says. “Better bookmark that page and apologize to your client.”

Bill takes a deep breath and taps the hold button. No one is there. The client had hung up. Frustrated, Bill closes all of the screens and manuals opened on his desktop and prepares for the next caller.

- How to start?
- Who should be in the modeling team?
- Which information is needed to start?
- How to deal with information from marketing, sales and product definition team?

What is a Portal?

Bill is in the situation a lot of people are in. The variety and wealth of systems available to them exceeds their capacity to use it effectively. Bill is using several systems to find the answer, if and when he thinks of them.

Bill needs a simple way to collect the information to get his job done. He needs a portal that is more closely aligned with the way the service center's work is done.

Portals are commonly thought of as an initial starting point on the Internet or system offering a broad array of resources and services. In an organizational setting, they provide a centralized place from which people can access company files, locate information on the Internet, and communicate with a community of users. Portals are not generally intended to be a destination, rather a launching point that funnels users into the useful resources amidst the overwhelming volume of available information.

Portals are far beyond the static page of links. Today, portals are commonly used for reference (basic information sources, policies, best practices), learning (online training and administration, tutorials, refreshers), and communication (news and updates, online forums, contact information). More advanced portals offer self-service applications and collaborative workspaces. Even with these rich features, many portal efforts are still failing.

What is Wrong?

This time last year, the majority of software industry analysts were predicting that portals would continue their trend as one of the hot sectors this year. Unfortunately, sales for most portal providers are not meeting expectations, and even portal insiders are suggesting that the cause may be a growing disappointment with portal implementation results. An estimated 30% of portal efforts in 2001 failed due to low user acceptance and/or lack of supporting infrastructure. Companies are finding technology-based solutions without usability will not (or cannot) be used. Further, usable solutions that do not address one or more valuable problems in an organization are unacceptable to management. Jakob Nielsen estimates "the world economy will lose roughly \$100 billion because of bad intranet usability" (Nielsen, 2001).

To increase user acceptance, designers must start with what portals can do for an organization and for an individual. Common issues include:

Clarity of purpose or goal.

Portals must be targeted to enable employees to perform valuable tasks, or they will be marginalized, ignored, or subverted. Gloria Gery summarizes this situation as “the cognitive load placed on the individual exceeds the perceived value.” Too many organizations create portals using the wrong models, based on the wrong goals.

Traditional commercial portals, such as Yahoo! Or Excite are intended for the general public. Commercial portals provide a medium for advertisers and content providers to shout their message.

Traditional learning portals are targeted at increasing knowledge within an organization. Learning portals centralize and coordinate learning tasks and administration in an easy-to-use location. The problem with learning portals, as they are envisioned most often, is that they isolate training from the actual work and are seen as an adjunct. Learning portals provide a more convenient delivery, but do not improve the value or quality of the learning.

Legacy corporate intranet portals have often evolved from departmental databases with integration and standards being applied as an afterthought. The structure of the information for search and navigation tasks and the focus of the tool itself are splintered.

None of these models deal with performing tasks that are immediately relevant and valuable to the task at hand. These portals provide indirect resources that must be mentally integrated and synthesized into the individual’s work. To be useful, the goals of the organization must be analyzed and specific tools and tasks must be determined to support those goals. Individual performance is the goal of performance centered portals, providing any and all resources necessary in the right to effect it.

Attention to results.

Lack of return on investments from portals can be caused by a failure to align with business objectives and the inability to prove, articulate or even estimate the value of the portal versus the significant costs associated in developing and maintaining one.

Critical to a portal’s success is the sponsorship at high levels. Only sponsors at the highest level can support the resources and reengineering of processes required for a true performance centered approach. To build this sponsorship, a portal must be solving problems that are relevant to sponsors and users alike. It must align with business objectives and have

measurable goals determined up front to “prove” success and value to the organization.

Focus on capability (not information alone).

Performance centered portals focus on creating and/or supporting the ability or potential to accomplish worthwhile tasks in an organization. While information is one aspect of this support, it is by no means sufficient in and of itself.

Portals without a focus on capability become storehouses for information but are only marginally better than books and still more difficult than asking a neighbor or guessing. Without a clear reason for users to return (e.g., enhanced productivity), the portal will be doomed to being another toy in the closet once the novelty wears off.

Another issue with information-centric portals is a tendency to be document-based. Having a document repository is appropriate in many situations, but it does not work well within an application framework. Performance centered portals provide information in appropriate forms for the task need. Sometimes that is a graph or diagram in the portal itself, just enough to provide some sense of the information, other times it is a detailed task description, giving everything needed for a novice to complete a task.


Customized to appropriate level,

Portals, by their nature, should be customizable and customized to a role, a task, and/or an individual. When portals are defined narrowly, they cannot become part of the organizational culture, and become a single-purpose tool instead of a collaborative environment.

On the other hand, if the portal is defined too broadly, it cannot serve the needs of the various audiences. A performance centered portal must be focused on a task, role, or function to provide the level of support needed for the range of users, from novice to expert. It makes no sense for a portal to provide the same information to the CEO as it does to a line worker. Their jobs are different, so must their support be.

Tied to the work,

People do not grow up dreaming of sitting in front of a computer forty hours a week. They use computers to accomplish tasks that would be impossible or more difficult without one. Likewise, portals must make



tasks possible or easier if they are to be used. Portals can help users perform in many ways, from providing task structure and reminders, to providing data, to monitoring task progression and suggesting best practices. Portals that are part of the work and support tasks valued by the organization will be appreciated and used.

Many portals provide little more than a librarian function, providing document-based information within a text-driven search engine. This requires the user to identify a situation as having a need, leave the work context to enter the information portal, find and interpret the information found, and apply the information correctly when he or she returns to the task. In the words of Ray Merrill of Ariel Performance Centered Systems, Inc., “That’s a whole lot of knowing required.”

Past the “premature satisfaction” factor, if the portal is designed to match people’s work and it significantly enhances their ability to perform their tasks more quickly, more comprehensively, and/or with higher quality, then the portal becomes the means to complete the task, not something else they have to utilize or do to get the job done.

Easy to use,

Early portals were cobbled together by programmers based (hopefully) on discussions with the intended users and what data was easy to integrate. They were hard-coded and impossible to change without the intervention of the programmers. The fact that they were not relevant to the users and impossible to update led to dissatisfaction and abandonment. Users do not easily embrace “one more tool” they are required to use to do their jobs, and organizations prefer workers and programmers to focus on development tasks, rather than updating existing tools.

Performance centered portals are easy to use and intuitively provide what is needed throughout a task. The task flows with tools, knowledge, and data integrated into a seamless presentation of the work. The design is customizable and supports updates as processes change, not by programmers, but by the workers who know the work best. In this way, the portal becomes a living part of the task, not an external tool.

What is a Performance Centered Portal?

A simple definition of a performance centered portal is one designed with specific performance in mind to achieve intended results. As defined above, performance centered portals are:

- Clearly defined with specific performance objectives;
- Focused on enhancing knowledge and capability;
- Customized to the audience, even a sole audience if the need exists; and
- Integrated into the fabric of the work, not an adjunct to the work.

With performance as the objective, performance centered portals may encompass the following features:

- Knowledge management
- E-learning
- Collaboration
- Personalization and tracking (security)
- Application integration
- Scalability
- Content management (search and index structured and unstructured data sources)

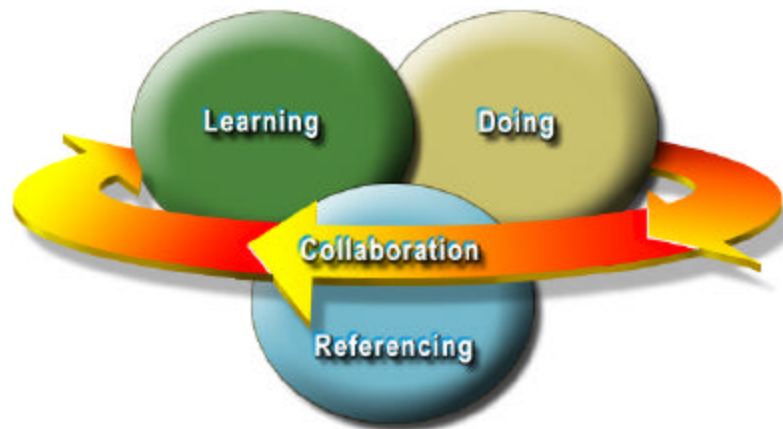


Figure 1 – Functions of a performance-centered portal.

Performance centered portals are about more than just referencing, learning, collaborating or even doing. They are the convergence of these modes. These portals provide access to knowledge, data, task structure, job aids, communication and tools needed to support the organizational goals. Performance centered portals go beyond navigation and centralization of information to directly promoting organizational and

individual performance through focused and customizable presentation of corporate resources available at a click.

Example of a Performance Centered Portal

Bill Jones is a specialist in a large call center. Still somewhat novice, Bill has only been on the job for six weeks. His work focuses on helping customers resolve issues and questions they have regarding the services Bill's company provides.

On the phone is a caller who wants to determine if he can receive a particular benefit. "No problem," Bill thinks confidently to himself. Bill looks through the customer's account information on his system. Nothing. He moves through several of the customer account screens. The system lists the benefits, but doesn't tell him how to determine if someone is eligible to receive it. Calmly, Bill says, "I'll need a second to determine your eligibility, Mr. Perkins. How's the weather down in Florida?" As the caller complains about the heat and humidity, Bill quickly displays his Benefits Specialist Portal that was running in the background of his system. "Now, let's see if we can help this gentleman," Bill thinks.

From a "How Do I" menu (which was designed by a group of customer service representatives from the history of typical inquiries out of the service center call logs, and kept in the "voice of the customer" to make it easy to understand and rapidly interpret to the situation), Bill selects "Determine if a client can receive a particular benefit." The cascading menu allows him to immediately choose the benefit the client mentioned.

A screen appears with a diagram illustrating the process of determining the eligibility criteria. Unsure of the meaning of one of the criteria, Bill clicks the word (which is underlined as a link). A pop-up displays a clearly written definition as well as an example. Bill nods his head in understanding. "Oh really," he responds to his client's weather complaints. "Do you get to play much golf?"

Bill is still concerned about making the correct decision so he clicks another link titled "Help Me Decide." A screen appears asking Bill to verify with the client that the information pulled from the client account record is correct. Bill validates the information with the client. The information is correct.

The display then prompts Bill to enter some other information, one question at a time. Bill politely asks the questions to client and makes the selections according to his company's best practice. At the last question,

Bill clicks the final button and the system informs him the client is indeed covered, to Bill's surprise. Another pop up is displayed. It informs Bill the client can also qualify for another benefit of the service if he submits his paper work in the next thirty days. Bill informs the client of all the information, including where to send his paperwork to receive the additional benefit. The client thanks Bill and hangs up. Bill then looks at the screen and clicks a link to "Rate the Usefulness of this Tool." He gives it five stars and writes a note to others informing them it kept him from making a mistake.

Bill is about to put himself back into the phone queue when his supervisor Susan stops by. "Bill," she says smiling, "I just wanted to let you know I was reviewing the escalation reports and you didn't have any in the last two weeks. That's great work. Keep it up."

Bill smiles to himself and readjusts his phone headset as he readies for his next call.

Strategic Attributes of a Performance Centered Portal

Bill is successful in this example because the portal was designed with the goal of assisting customer service representatives in helping customers. The designers took into account the needs of the user and the end customer, as well as business objectives such as short call time and reduced escalations. The portal provided the information needed, in the right amount, using the right language, when Bill needed it to do his job.

The overarching perspectives and design viewpoints of performance centered portals are rooted in analysis of the work context and organizational objectives. Thorough scrutiny of the work environment, the way the work presents itself, and the capabilities of the worker lead to a tool that supports valuable efforts for the organization. The cornerstones of this perspective include:

1. **Focus on capability.** The portal must be deliberately designed to support tasks and requirements. Task structuring, knowledge, evidence of task progression, etc. should all be related to achieving business goals.
2. **In line with business objectives.** To be truly effective, a portal must be usable at the individual level and support objectives at the organizational level. The portal must focus on the key strategic competencies of each level or group to support the overall goals of the organization.

3. **Relevant to the intended audience and their work context.** The audience must see the portal as vital to their work, or the tool will be ignored. Users who see the link between the portal and their own proficiency/efficiency will embrace a performance centered portal and maintain the information and processes contained within.
4. **Redefines the work.** Performance centered portals become “part of the work” or “the work itself.” If a portal is just yet another information system, it will be seen as a hindrance and ignored. The intent is for the portal to cease being a discrete tool and become a performance environment. The portal is not “for reference” or “for learning,” rather, it is “for use.”

Tactical Heuristics of a Performance Centered Portal

The design heuristics of a performance centered portal are the same as those for any performance centered design application. Portals, however, allow additional features to be available and prominent within the design.

- **Personalized.** The performance centered portal is filtered for context and relevance to the person completing the work. Through identification of key characteristics of the performer, the environment, and the task, the most relevant information can be provided for the task at hand.
- **Dynamic.** Performance centered portals must remain fresh, timely, and accurate. Access to organizational databases, collaborative tools, and feedback mechanisms allows the information to grow and evolve over time.
- **Direct Support.** Supporting information and knowledge within a performance centered portal is architected and written to directly support the task at hand in the appropriate amount, presentation, and tone. This is different than traditional documentation or reference, written to include all knowledge on a topic, regardless of relevance to the immediate task.
- **Establishes Clear Goals.** Performance centered portals aid in goal establishment by providing succinct performance measures at a glance. Performance indicators are measured and provided to the user in an easy-to-understand format along with thresholds established for the task and prescribed recommendations. In this


way, the portal provides not only what is, but also what should be, and how to achieve it.

- Establishes Work Context. Personalized displays of tasks and work in a performance centered portal enable users to quickly identify status of various tasks and responsibilities and suggest actions in language that supports how the work presents itself. Translation is minimized through the use of natural language, making the tasks intuitive and innate.
- Promotes Best Practices. Performance centered portals support tasks with knowledge, tools, resources, and collaboration to support best practices in the organization. These recommendations are provided with natural progressions and rationale to enable the user to learn as he or she completes the task.
- Integrated. All necessary knowledge, systems, and applications are seamlessly integrated in a performance centered portal to enable the user to complete the task or solve a problem without leaving the system.

What it takes to build one

Building a performance centered portal is more than tactics and design. Front-end analysis, user-centered design, and development are critical in any effort, but there is also the political process of getting such a project approved and the long-term process of maintaining and enhancing the system once implemented.

1. **Clarify the need and the vision.** Educate management to the goals and methods of the performance centered portal effort. Show them the pain current systems are causing and the solution to that pain. Having executive cooperation and building ownership provides funding, consolidation of portal resources and can define measures of success that will be used as inputs in the design process.
2. **Build the case.** Align the work to business objectives. Ensure that both workers and the executives who provide the funding see the value the portal brings in solving critical issues. Establish clear metrics and checkpoints to ensure the value of the portal can be articulated and communicated regularly.

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3. **Understand the user, the work, and the essence of the intersection.** Complete a thorough front-end analysis to ensure understanding of business objectives, work environment, audience groups and the work itself. This understanding of the work leads to a natural affinity for designs that solve problems holistically, rather than work on one symptom at a time.
 4. **Design from the right perspective.** The intersection of referencing, learning, collaborating and doing is where the power of the portal will come from. Starting with the premise that organizational and individual performance is the highest goal allows many design issues to be dealt with simply through user assessments of designs and functionality.
 5. **Iterate.** Visualize it early; prototype often. The more users can review the design, the more closely it will meet their needs and expectations. Designers must be willing and able to abandon designs that appeared promising, but tested poorly. The users are the utmost experts in the work. User representation is vital to validating designs that will solve problems. If it doesn't feel right, they will tell you.
 6. **Prepare.** Don't underestimate the "change management" that must occur to support the new way of working. Long before the designs are completed, a change management process must be started to prepare users and the company for the changes coming. Workers will have new tools and processes, and the company will have new expectations and requirements for design as a result of these efforts. The portal is only as valuable as the knowledge, information, and tools that are delivered. This knowledge, information, and tools are created and exist in most cases within the organization, but the owners will now have to incorporate them into the new portal, which is most likely, a change to how they are doing it today. The challenge is to make that work easier and natural too. Planning and communicating the efforts and value of the effort early will pay off enormous dividends during implementation.
 7. **Measure.** Critical to any development effort is measuring the results against the performance goals established in the business case. The results will "prove" the value of the portal versus the

significant monetary and human resources needed to implement it. They will also identify areas for further refinement or expansion.

Organizations must acknowledge that performance centered design is not a single effort to a destination, but the journey itself. The users, the work, and especially, the designs will not stay static, so the design must continue to evolve and change to meet the changing needs.

Conclusion

While portals are almost mandatory in companies these days and everyone is trying to get into the act, true performance centered portals are rare. According to a Merrill Lynch Report published November 16, 1998 and reported in InfoWorld magazine, revenues from the Enterprise Information Portals market could top \$14 billion by 2002 (Fitzloff, 1999). Portal development tools and articles about how to build intranet portals are hot topics in IT magazines. Most companies and consulting organizations are aggressively pursuing these strategic developments. Unfortunately, the technology has developed much more quickly than the thinking about portals.

This article has described the convergence of technology, individual performance needs, and organizational goals. This is where learning occurs while users perform their tasks. This article didn't try to answer the question of how to develop a portal technically. Instead, this article dealt with what to consider when designing them, and more importantly, "why" to develop them. As instructional and performance technologists it is up to us to determine why portals will be built and what they will bring to our organizations. Creating a portal that exemplifies performance centered design benefits the individual and the entire organization. More importantly, it just makes good business sense.

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