Towards an Integrated Digital Workplace

The enterprise’s digital workplace has evolved radically over the past decade. Beginning with a client-server model, an e-mail client, a primitive intranet and few business applications, it has now become a highly sophisticated digital work environment with several different applications and tools to enhance workplace efficiency.

While workplace efficiency focus over the years has been on making information available, information sources have simultaneously mushroomed as silos of applications in enterprise. Many digital workplace tools and applications are disconnected, requiring the knowledge worker toggle between various applications and systems using various toolsets to complete a single task. The toggling across applications and tools deprives the users of a seamless experience and results in an impact in task efficiency to a significant level.

Digital workplaces need to be viewed as strategic assets that can deliver more value by cutting business process cycle times, increasing process quality, enhancing user satisfaction, improving user adoption and engagement levels, while boosting agility and improving efficiency.

Therefore it is crucial for enterprises to look for ways to integrate the various workplace tools and business applications to provide a seamless, personalized and contextual user experience that can have a tremendous impact on the overall performance of the organization.
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# Table of Contents

Introduction 5

Challenges in today's Digital Workplace 5

- Scenario 1: Disconnected sources of information to tap organizational expertise 7
- Scenario 2: Notifications across multiple disconnected applications 8
- Scenario 3: Disconnected e-mail and document systems 9
- Scenario 4: Disconnected collaboration and core business applications 10

Business Benefits 12

Way Forward 13

Reference 14
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPO</td>
<td>Business Process Outsourcing</td>
</tr>
<tr>
<td>CIO</td>
<td>Chief Information Officer</td>
</tr>
<tr>
<td>CRM</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>DMS</td>
<td>Document Management Systems</td>
</tr>
<tr>
<td>E mail</td>
<td>Electronic mail</td>
</tr>
<tr>
<td>ERP</td>
<td>Enterprise Resource Planning</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resources</td>
</tr>
<tr>
<td>IBM</td>
<td>International Business Machines</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>RSS</td>
<td>Really Simple Syndication</td>
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<tr>
<td>SSO</td>
<td>Single Sign-On</td>
</tr>
<tr>
<td>TCS</td>
<td>Tata Consultancy Services</td>
</tr>
</tbody>
</table>
Introduction

The Online Digital Workplace consists of intranets, productivity tools, e-mails, and core business applications that have evolved into extremely large, complex and heterogeneous entities and pose challenges to the efficiency with which the tasks are performed. From a business value perspective, a significant scope remains within many organizations to enhance the knowledge worker’s digital workplace by integrating disconnected applications and toolsets. These integrations can provide more contextual, personalized information at the right time without requiring the knowledge worker to toggle across applications and tools.

Integrating Workplace applications and tools can aid in completing tasks quicker and can lead to substantial productivity gains considering the number of knowledge workers within the organization and the number of tasks that an employee performs by toggling across applications and toolsets.

A focused effort on understanding the business impact of integrating tools and applications such as core business applications, expertise locators, personal productivity, collaboration, communication and search can help unearth possibilities of providing a more contextual, personalized and seamless digital workplace.

Challenges in Today’s Digital Workplace

While examining the evolution of the workplace, it is noticed that the number of business applications that have been added to the workplace cache has increased gradually. On an average, an information worker uses approximately 14 different applications and tools on a weekly basis. Intranets do solve a part of this problem through the aggregation of multiple applications and sources. However, there still remain many tools and applications that lie outside of the intranet framework.

“Computer users at work change windows or check e-mail or other programs nearly 37 times an hour” (1)

The harmon.ie survey of 515 e-mail users working at U.S. companies reveals that “nearly 60% of work interruptions now involve either using tools, such as e-mail, social networks, text messaging and IM, or switching windows among disparate standalone tools and applications. In fact, 45% of knowledge workers work only 15 minutes or less without getting interrupted, and 53% waste at least one hour a day due to all types of distractions.” (2)

While the necessary tools are readily available in the workplace, to accomplish a single task, the knowledge workers have to navigate across repositories, office application, intranets, core business applications and other information sources. This happens with little context and little coherence and compounds the impact on productivity and increases the effort and time.
Although the required tools and applications are available in workplace, the tools are not presented to the user when it is required for activity completion period. This necessitates the knowledge worker to toggle to the appropriate application for each task. Such manual toggling to each application and tool compounds the impact on productivity and increases the effort in completing the task.

In addition to an increase in the time to transact, the disconnectedness could also contribute to an increase in time to find information, increase in time to respond to notification and a reduction in user satisfaction levels.

Enormous possibilities for enhancing efficiency through integrations exist. Some of the integration possibilities are illustrated in the following section.
Scenario 1: Disconnected Sources of Information to Tap Organizational Expertise

In the process of completing a particular transaction, the employee might need additional information. Some of the information lies within well-structured repositories, some lie within unstructured repositories, while the significant portion remains as tacit knowledge. This gives rise to the question of how to tap the tacit knowledge or the knowledge that lies within the mind of experts. You need to find the experts.

How to find the experts? The answer to this is expertise locators which help identify experts in a particular area of expertise.

An expert could be defined as a knowledge worker:

- who is acknowledged as an expert by a community, or
- who provides useful answers to queries on community forums, or
- who blog posts are widely read and acknowledged by several members of a community, or
- who is identified by the organization as an expert based on his/her competencies, or
- who is identified as an expert based on prior project expertise, or
- who is identified as an expert based on the current role being performed, or
- who is a self proclaimed expert capable of providing help in certain knowledge areas or a combination of any or all of the above apart from other similar traits.

Given the proliferation of knowledge within unstructured repositories, it is possible to utilize useful information to identify the right expert. Activities and interactions that occur in blogs, wikis also provide vital inputs that can be used to identify the right expert.

The current day expertise locators predominantly identify experts based on the information available within a single source, namely the user profile database. However, more important information about experts lie scattered across various other structured and unstructured repositories.
The expertise locator should be well-integrated with the structured and unstructured repositories to extract information, apply business rules and identify the right expert. This would have substantial impact in reducing the time taken to identify and reach out to experts to solve business problems.

**Scenario 2: Notifications across Multiple Disconnected Applications**

Consider a scenario that is common across several enterprises.

Due to the way the systems have evolved and organization is structured, several platforms have come into existence. Most of these platforms may have their individual notification systems. Under such circumstances wherein the notifications are spread across multiple sources, the knowledge worker will have to continuously scan multiple applications for notifications. Also, as organizations are exploring the option of utilizing activity streams as a way to provide updates the various events that occur within the core business systems.
The lack of a unified view of the notifications across multiple systems necessitates a knowledge worker to constantly scan various notification lists and workflows. This could lead to longer transaction times and could result in diminished organizational productivity.

Integration across e-mail, Instant Messaging, Business Systems, Activity Streams and Collaboration Systems to provide a unified view of the messages/notifications across various systems can help reduce the toggling across various applications thereby improving the overall user experience and productivity.

**Scenario 3: Disconnected E-mail and Document Systems**

On a typical workday, a knowledge worker performs multiple tasks. Consider the tasks that require information to be extracted and updated between the e-mail client and the document management system.

In the current state, as it is in most organizations, the e-mail client and the knowledge management systems are disconnected. This requires the knowledge worker to jump back and forth between the e-mail client and the document management system.

This jumping across the e-mail client and the document management system, introduces a certain amount of friction in the process of executing the tasks thereby impairing the productivity levels. Consider the number of similar tasks compounded by the number of knowledge workers that perform such tasks the impact could be significant.
One way to reduce the friction would be to provide the knowledge worker with the ability to view and use document management system as a single entity.

This can be achieved by integrating both the document management system and the e-mail client, thereby providing a unified view of the required information. (6) (7).

The integrated solution can help in reducing the friction that arises due to jumping across two different entities thereby making it a lot easier for the knowledge worker to complete the task at hand.

**Scenario 4:Disconnected Collaboration and Core Business Applications**

While several organizations are heavily investing in collaboration tools, the adoption of the collaboration tools is below the expected levels. This challenge is common across organization of varied sizes. A deeper look into the reasons for the low adoption of the Collaboration tools reveal that knowledge workers do not embrace these tools effectively as in most cases they are disconnected from the core business process or workflow.
For instance, consider the case of a knowledge worker who, while performing a task, needs to collaborate with his/her colleagues, experts, check notifications and subsequently complete the task with the inputs collected. In most cases, the collaboration systems are disconnected from the business applications, due to which the knowledge worker will need to go out of the core business system, to perform task such as reaching out to colleagues, experts, and check notifications. This introduces a certain amount of friction and knowledge workers have historically shown resistance to using any system that lies outside of their workflow.

Should the collaboration tools provide these functionalities well-integrated with the business functionalities, the knowledge worker will not have to jump across multiple applications.
Collaboration functionalities can be made available along with Business workflows with the help of appropriate integrations. This in turn will help increase the business value delivered. Several metrics can help define the success of a particular integration initiative.

**Business Benefits**

The business value derived by transforming existing workplace into a well-integrated digital workplace can be enormous depending on the context in which the integrations help. Some of the benefits are illustrated in the following figure:

- **Productivity Gains**
  - Better expert findability resulting in quicker access to right inputs
  - Reduced time to respond to notifications
  - Reduction in time to complete transactions

- **Cost Optimizations**
  - Reduction in storage costs
  - Better utilization of network utilization

- **Increased Adoption Levels**
  - Increased adoption of systems leading to better utilization of investments

- **Intangible Business Value**
  - Ease of use leading to increased user satisfaction
  - Increased engagement levels

Identification of the right metrics would be crucial to evaluate the benefits yielded by each of the integration initiatives.

**Figure 7: Business Benefits**

**Figure 9: Key Performance Metrics**

Integrating collaboration system with business system will increase the business value delivered.
Key performance metrics should be directly aligned towards the business goals of the organization.

**Way Forward**

The journey towards an integrated and effective digital workplace can begin by putting together an integration framework that will ensure changes to the digital workplace are aligned to the overall business objectives. The framework should address improvements in defined cycles that would encompass detailed assessment of the existing state, and type of changes to be brought-in to deliver the identified set of business benefits. The details are represented in the figure below.

![Figure 6: The journey towards an Integrated Work Place](image)

The integration options and sequences are prioritized based on the business value delivered and the implementation risks and costs associated with the change that need to be monitored and measured.

Integrations to the digital work place can be deployed by way of parallel runs. With this approach a pilot can be launched for select set of knowledge workers. Based on the usage pattern, the impact of the change and the feedback obtained, the integration solution can be refined prior to the launch to a wider audience. (7)

Digital workplaces need to be considered as a key asset that can deliver more business value by improving business cycle times, enhancing user satisfaction, enhanced user adoption, effective organizational expertise leverage & user engagement levels and effective infrastructure utilization, while increasing agility and improving efficiencies.

Therefore it is critical for enterprises to identify potential opportunities to integrate the various workplace tools and business applications to provide a seamless, personalized and contextual user experience that will have a significant impact on the overall business outcomes.
References

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