

An Eedo Knowledgeware White Paper



New Reality: Workplace Collaboration Is Crucial

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Introduction

New Reality: Workplace Collaboration is Crucial

Work has changed dramatically in the last decade. Factors which have influenced this change include economic, technical and organizational drivers. For example, consider: the flattening of hierarchies; geographical dispersion; the growth of tele-working; rapid technological change; and the emergence of hypercompetitive markets created by globalization and the new mobility of capital. All of these factors have meant that organizations need to be more flexible and agile than ever before. By extension, workers have been faced with constant change and the need to re-tool themselves and adapt to evolving circumstances. Competition, indeed survival, is dependent on continuous learning at the individual, group and organizational levels.

Workplace Collaboration is Crucial

The stresses placed on organizations and individuals in this scenario are significant. While many problems and issues emerge, there are those analysts who also believe there is enormous potential to transform work in a positive way. The well-known commentator Thomas Malone, in his book, *The Future of Work*, has suggested that organizations can now combine the benefits associated with large organizations (efficiencies and economies of scale) with those associated with small enterprises (greater freedom, autonomy and motivation). The key to realizing this vision is IT, ICT or, more narrowly, collaborative technologies.

None of this is really very new, in some respects. Commentators and researchers in the fields of human performance, organizational science and human resources have emphasized the significance of team-based work and grappled with the challenges associated with building and managing effective teams for the last two decades. In the field of Computer-Supported Collaborative Work (CSCW), there is vast literature concerning the nature of collaboration and how to support and encourage collaboration through technology. A wide range of tools has emerged: social networking applications, conferencing applications and collaborative team workspaces, to name some. Meanwhile, the field of Knowledge Management has, more recently, brought its own particular focus on technology for knowledge-sharing, also a form of collaboration. At a more mundane level, obvious and more ubiquitous technological developments like the web, email and VoIP have made greater levels of communication and collaboration more affordable and convenient.

The simple truth is that the contemporary worker is much more likely than her counterpart of the past to be functioning in a project-oriented, team-based environment, moving from team to team, learning and applying new skills and knowledge as a routine requirement in the workplace, and functioning with a great deal of autonomy and responsibility. Use of ICT to support work, often in a situation involving geographical separation of team members, is to a degree now commonplace. As a result, communication and collaboration skills are also widely recognized as a core competence of workers, and as important objectives in contemporary school curricula.

Collaborative Technology

Paradoxically, to date the growth of collaborative technology in the working world of instructional development, even where the end products are web-based applications, has been fairly slow and limited in scope. While other fields - engineering, medicine, and manufacturing, to name some - have seemingly embraced ICT and collaboration tools of various sorts, instructional development has lagged behind.

Clearly, instructional design, development and production cry out for tools to support the collaborative nature of the work, and also the complex workflow that characterizes even more modest-scale projects. A typical project may involve collaboration among subject matter experts, instructional designers, graphic designers, production staff, information architects, programmers, legal staff, project managers, business owners and end-users. Activities exhibit a high degree of interdependence; some are sequential while others may be concurrent. In many scenarios, the individuals involved are geographically dispersed and may even be several time zones removed from one another. This type of

work could surely benefit from tools to manage and track workflow, for version control mechanisms, and for technology to encourage and facilitate collaboration, both in real time and asynchronously.

Still, today learning systems are most often created using stand-alone authoring tools, facilitated with only very limited technology for collaboration (email and phone conferences, typically). The dangers inherent in any distributed publishing system that lacks integral version control and version history mechanisms are obvious. But, less obviously, there is a definite cost in terms both of quality and efficiency of the work that is related to the restricted ability of participants to learn from one another, given the limited tools available for collaboration.

Commonplace of Collaborative Tools

What accounts for this situation? Why is instructional development mired, to some degree, in an older, more industrial-age paradigm? Why is instructional design and development not a field at the forefront of using collaboration tools and applications that are designed to accommodate distributed, team-based work?

This is not an easy question to answer. Part of the answer is the reluctance to invest in tools to perform this work. This must, in turn, be due partially to the position of training, which in most organizations is still viewed as a cost, rather than an investment. This hardly encourages expenditures to implement additional tools. Another factor may be tradition. Historically, standard instructional development process models have depicted instructional systems development as a very linear, lock-step activity. Each process or stage is presumed to restrict choice and refine specifications further. Tasks are carried out independently, with the output of each step functioning as input to the next stage.

Of course, more recent views of instructional development emphasize the nature of the work as a design activity, per se, marked with all the characteristics of design work. This means a more creative, iterative process with greater emphasis on the need for collaboration in order to problem solve and innovate. Unfortunately, the training of instructional developers, and the tool set that is typically provided both to designers and developers and their managers, tend still to reflect the older culture and ethos. While some workbench-type tools have been on the market for some time, these are not necessarily widely used, and tend to reflect the older process models mentioned above. A well-known example is a tool that can be used to develop an instructional design from stage one (either a task analysis or a needs analysis perspective is supported) through to storyboards. This can be viewed as a step forward, but this is a relatively expensive product that addresses steps pre-production and is typically used by a solitary instructional designer to manage his or her assignments within a project.

New Tools for Collaboration

The emergence of Learning Content Management Systems (LCMS) that include features for distributed publishing - configurable workflow engines, version control and version history, check-in/check-out - addresses some of the issues raised above. However, there still remains a need for true collaborative workspace tools.

Ideally, one should be able to manage all the materials related to a project in one web-accessible environment, with the ability to distribute material and provide access to multiple designers, developers and production staff. Imagine a facility in which you could maintain research notes, plans, design documents, specifications, project reports, various source documents, intermediate deliverables (like storyboards, through different versions), source graphics and any other project-related material. The files and objects available in this facility would not be restricted to what eventually will be presented as online content; for example, it could also include, and coordinate, all the resources involved in the off-line portion of a blended solution.

Quite apart from the efficiencies such a workspace tool might bring to projects and to distributed work, especially when combined with workflow capabilities, there is also the enormous potential for developing better solutions through the benefits that come with increased collaboration. There is also the dimension of learning to consider on the part of instructional systems designers and developers. A collaborative workspace could provide access to the full history of a project, with all the component pieces and chronology intact. Thus, for example, junior designers potentially would be able to hone their craft by viewing the work of more senior designers, together with much of the collateral material that reveals the rationale behind various design decisions.

Apart from the use of generic virtual meeting tools, stand-alone development tools and familiar media like email and teleconferencing there has been little available in the instructional systems development arena to support collaboration, and to concentrate and manage the artifacts related to projects. Finally, however, true collaborative tools are emerging. Among the first is Eedo's own Workspace(tm), a facility that combines task management, document/file management, content and asset management, storyboard development and distribution management. With this innovation, Eedo is transforming project management, speeding the process of work and raising the quality of output.

Improved Workspace Facility

Eedo's Workspace is a facility within our LCMS, ForceTen, that combines task management, document/file management, content and asset management, storyboard development and distribution management. Workspace will transform the jumble of email and attachments, electronic documents and reports, media files and objects, work instructions and updates and sticky notes associated with any development project. Traditionally, this collateral is organized across a variety of directory structures folders and in hardcopy, located in several places, and managed with a variety of burdensome manual procedures. A small number of gatekeepers have access to the bulk of this material, while most workers share only the minimal number of documents necessary to their current tasks.

Now, with Workspace, project-related materials can be concentrated in a central repository, and made available conveniently through distribution via an end-user portal. Project management overheads will be reduced; workflow and distribution management will bring efficiencies to speed the progress of work; and increased scope for sharing, collaboration and learning from project artifacts will lead to higher quality work and contribute to the development of instructional systems designers and developers and project managers.

Workspace was introduced in version 4.0 of ForceTen. Since its inception, interest in features which support collaborative work has grown, and customer feedback together with our own experiences have lead to a number of improvements to Workspace with regard to functionality and usability, in v. 5.0. Here are some of the requirements we have concluded are essential in a collaborative environment, or a workspace, for instructional design and development:

1. Well-integrated storyboard application
2. Workflow engine: custom and multiple workflows, group sequencing of tasks
3. Fully integrated document management workflow
4. Batch upload of documents to the environment
5. Project overview screens for different levels of project management
6. Ability to revise and version documents (e.g., MS Office docs) directly within the environment
7. Capability to control distribution of content within the environment (security, permissions, distribution lists)
8. Ability to manage ownership of the environment
9. Possibility of previewing courses that are in production within the environment
10. Collaborative tools for courseware development, such as wikis
11. Web-based architecture to simplify access

Workspace currently represents a major step in the evolution of collaborative tools and practices within the world of learning systems development. Workspace is both tool and metaphor. As a metaphor, the term supplants an earlier concept, the "workbench", which informed a previous generation of productivity tools designed to support instructional development. The notion of a workbench suggests a collection of tools specific to a given trade or profession, wielded by an individual expert who possesses specialized knowledge. In contrast, the term "Workspace" implies a collaborative endeavour, with a focus on the interdependencies among a group of individuals with varying degrees of professional training and experience, and different disciplinary backgrounds.

About the Author

As Chief Learning Officer, Steven Shaw has been instrumental in forging the vision that has helped propelled Eedo to a leadership position in learning content management technology. While contributing significantly in product development, Steven also provides Eedo, and Eedo customers, with valuable insights on how to extract maximum performance improvement benefits and ROI in their knowledge transfer initiatives. Steven's experience in learning and performance technology spans more than 20 years.

Steven has a Doctorate in Educational Technology, is Associate Professor of Educational Technology at Concordia University, and teaches courses in the areas of elearning, organizational learning and knowledge management.

EEDO KNOWLEDGEWARE CORPORATION

Eedo Knowledgeware is a leading provider of learning and knowledge systems to drive productivity and efficiency. Eedo offers a set of powerful, adaptable and easy-to-use tools for business people and learning experts, addressing practical knowledge management requirements including; learning content management, dynamic delivery, rapid authoring, assessment, knowledge sharing, performance support and indexing and search. Eedo's award winning products are utilized in a broad range of industries and enterprises such as American Management Association, Convergys, Internal Revenue Service, Foreign Commonwealth Office, and Lufthansa. Eedo is privately held, with offices in the U.S.A., Canada, Germany, the Netherlands and the United Kingdom.

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