

Improving Organizational Learning through Social Software System

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Abstract

Continuous organizational learning is one of the keys goals of the learning departments of all organizations. This paper proposes and details a software system which incorporates a number of social software paradigms such as ambient awareness, 360 degree feedback, sentiment analysis, captology in order to deliver a unique and powerful learning experience. The paper will go into ways in which organizational learners, particularly those who belong to distributed, long distance class rooms can interact in interesting ways which improve peer communication and as a side effect, learning, as a whole. Application of game paradigms and reward systems to enhance student participation is also discussed.

Keywords: Web 2.0, Social Software, Social Networks, Knowledge Management, Gameful Design

1. Introduction

Organizational learning is a fundamental part of keeping an organization in sync with developments in industry. Organizations all over the world are aware of the need to keep their employees in a state of continuous learning and development in order to keep them abreast of the changes in their respective fields. In this milieu it becomes necessary for us to understand the needs of learners and design systems which augment their learning process by applying various paradigms that have originated in the social web.

2. Web 2.0

According to Wikipedia [1], Web 2.0 is “is associated with web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. A Web 2.0 site allows users to interact and collaborate with each other in a social media dialogue as creators (prosumers) of user-generated content in a virtual community, in contrast to websites where users

(consumers) are limited to the passive viewing of content that was created for them. Examples of Web 2.0 include social networking sites, blogs, wikis, video sharing sites, hosted services, web applications, mashups and folksonomies.” While the term itself can be said to be overused and has gained the unsavoury connotations of a buzzword, there is tremendous value to be derived from applying the core values embodied in this definition of Web 2.0 in our applications. The consumer web is streets ahead in terms of useability, innovation and overall quality when compared to enterprise applications. One of the fundamental reasons for this, is that the consumer web has been quick in adapting the innovations and enhancements embodied by the Web 2.0 culture because of the nature of the competition and development cycles in the consumer web. Learning applications, especially those in the enterprise space have lagged behind in this crucial aspect. As a result many of the qualitative gains which consumer web applications have achieved are yet to be seen in the enterprise web.

3. Organizational Learning

Organizational learning in the enterprise is typified by silos of disorganized approaches, unintuitive interfaces and primitive approaches towards engagement, recognition and interaction. The pace of innovation and the advanced interaction patterns embodied by the applications in the social web that people are exposed to on a daily basis such as Gmail, Facebook and Twitter have increased the amount of disillusionment which users face when exposed to the poor quality applications which populate the enterprise web. To satisfy the next generation of users who have been exposed to the Internet from a very early age, we need to come up with innovative patterns and design in our enterprise applications if we are to attract eyeballs and boost interest in our tools.

4. Social Software

Social software includes a wide number of communication and interactive tools which aid in communication and interaction amongst users. The aim of most social software is to build an ongoing conversation which adds value to the content being shared by focusing on mapping the interactions in the form of a social graph. This aids in modeling real world relationships as colleagues and collaborators in the virtual space. Social software tools include instant messaging, forums, wikis, blogs, deliberative social networks, prediction markets and social cataloging. All of these tools can make valuable additions to augment the learning experience on collaborative online learning systems.

5. Ambient Awareness

Ambient awareness is a form of peripheral social awareness. According to Clive Thomas of the New York Times, ambient awareness is "very much like being physically near someone and picking up on [their] mood through the little things [they do, such as] body language, sighs, [and] stray comments..."[2]. Ambient awareness in applications relies on features such as activity streams or news feeds. By displaying information such as "John Thomas completed the review exam on Section 4.5 – Credit Card Processing System" to all the learners who are "friends" with user John Thomas on the learning system, we are able to fortify relationships among learners in the system. This kind of stimulation has various positive side effects when it comes to an online learning system.

By posting updates from the social circle of the user, we are able to increase the awareness among the userbase about the various features in the system and the learning opportunities in the system. This kind of information propagation through the social network of the user is much more powerful than opaque notifications about the system which lack the social relevance of activity updates of the users that the learners are familiar with in a social context. The updates of users with such social relevance aid in the formation of a virtuous cycle where positive activities necessary for the augmentation of learning activities are reinforced. The potential for valuable information to bubble up and propagate in the system is enhanced by such interaction patterns aimed at enhancing ambient awareness.

6. Social Q & A

Social Q&A (Question and Answer) systems are in vogue again with the blossoming of systems like Quora and Stack Overflow, which have gathered a tremendous amount of mind share. The success of such platforms in the consumer web provides some valuable insights for enterprise web systems. One of the key principles behind the success of such systems is the model of voting up / down of questions. By enabling users to vote up and vote down questions and answers the system provides valuable filtering mechanisms. The filtering mechanisms can also include more complex patterns such as rating a question or answer, tagging it to a question category, allowing users to submit clarifications to the questions and answers in the form of comments and even submit edits to the actual question or answer which can then be approved by the users to enable the refinement of posted information to a very high extent. Stack Overflow has also built in very high quality additions to its social q&a platforms such as real time web based chatrooms which load inside the browser itself, without requiring the installation of additional client side software. This removes the

complexity involved in bringing together a real time discussion forum for people interested in specific topic areas.

While many of these patterns may appear to be overtly complex and top loaded for an enterprise learning system – many of the patterns inherent to these systems are of value when it comes to enhancing the knowledge sharing. A key focus area for many knowledge sharing systems is how to capture the tacit knowledge present inside the organization. Tacit knowledge is knowledge that poses challenges for propagating to others by means of writing or verbalising it. In most cases tacit knowledge also poses the challenge of taxonomy – difficulty in classification of the information into specific buckets of categorization, so that it becomes difficult for both the learner and the teacher to arrive at a juncture at the outset, to recognize the value of a particular piece of knowledge to be transmitted. In such cases, ongoing learning accomplished by organizational learning systems can benefit from the inclusion of a social Q & A system which can aid the people in getting hold of specific pieces of knowledge which may have slipped through the cracks at the first instance from the formal learning process.

7. Gameful Design

The influence of computer games on the demographic of learners of today is “akin to that of the cultural influence of music, political movements and even religion on youth culture of the past.” [3] Gameful Design is an up and coming paradigm of application design which focuses on four criteria [4] summed up by the mnemonic PERMA – Positive Emotions, Relationships, Meaning and Accomplishment. A follow up to the concept of Gamification, which was focussed on extrinsic awards such as points, levels, leaderboards and achievement badges, Gameful Design instead focusses on intrinsic awards. Intrinsic awards are means of encouraging participation and amplifying engagement a system without resorting to mechanisms like badges and leaderboards which have very limited potential compared to the alternative offered by the PERMA strategy.

The keystones behind the intrinsic awards concept include urgent optimism, blissful productivity, social fabric and epic meaning. While these concepts appear to be superficial and made up of loaded words, the principles behind them are indeed well founded. Urgent optimism is based on the concept of presenting a voluntary goal and provoking curiosity, which stimulates the user to complete the goal. Blissful productivity is based on giving participants a concrete new ability – something small that adds up to a bigger set of skills. Social fabric is based on helping players to be of service to others and to collaborate from a position of signature strength (an inherent

strength of the player.) [4] Epic meaning relies on building narratives and scale to the activity at hand, which presents a background to the learning tasks in the system. While these mechanism appear to be unrelated to the goals and processes of a learning system, they are indeed applicable at various levels of the learning methodologies in a system. The responsibility of making relevant narrative and design elements which contribute to these specific goals lies with the builders of these systems.

8. Recognition Systems

While the over reliance of mechanisms such as badges and leaderboards has been advised against in the previous section about gameful design – a reasonably limited system of badges and leaderboards can prove to be valuable to enhancing the user experience in learning systems. Users gain badges by accomplishing various number tasks and badges can also follow a tiered system for reward. Activities which do not get rewarded by normal criteria, but are essential for the growth of the system can also be recognized in this manner. For e.g., the Stack Overflow Social Q & A system has a badge called “Tumbleweed” for users whose questions have not received any votes, answers, comments or activity of such nature. While at the outset this kind of a participation may not have added much value to the over all system, it is vital that such building block activities, which are necessary for participation in the system over all, be recognized.

9. Conclusions

Online learning systems in the enterprise as they exist have tremendous scope for improvement. By judicious adoption of the mentioned paradigms such as social software, ambient awareness, gameful design and recognition systems, we can augment their adoption, growth and over all efficacy.

10. References

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