# JOURNAL OF OBJECT TECHNOLOGY

Online at www.jot.fm. Published by ETH Zurich, Chair of Software Engineering @JOT, 2007

Vol. 6, No. 4, May - June 2007

# Situational Teams

Mahesh H. Dodani, IBM Software, U.S.A.

### 1 SUPPORTING SITUATIONAL APPLICATIONS

"Making the simple complicated is commonplace; making the complicated simple, awesomely simple, that's creativity." – Charles Mingus

In my last article (<a href="http://www.jot.fm//issues/issue\_2007\_03/column3">http://www.jot.fm//issues/issue\_2007\_03/column3</a>), we discussed the emergence of enterprise situational applications, which are built to solve an immediate, specific business problem. These applications are built by blending externally available services, applications and data with enterprise specific content and services. Situational applications usually also information centric, focusing on manipulating static and increasingly dynamic content. Situational applications development are accelerated by community-based collaborations.

Besides the technologies and approaches needed to build and support such situational applications (which we discussed in the previous article), we need to facilitate the enterprise to use and derive value from these applications. In particular, we need to focus on the ability of a team of practitioners to come together very quickly and effectively in the context of the situation, and have everything they need to handle the situation. At a minimum we need to be able to support the following needs of the situational team:

- Team Formation: The ability to determine the skills and proficiencies needed to solve the problems raised by the situation, and the capabilities to quickly locate the members of the team that have these skills at the right levels of proficiencies, who can participate and contribute to solving the problems. Note that some of the skills and proficiencies can be provided by communities of practice that represent the collective intelligence of the enterprise focused on a particular area and that can be leveraged effectively by the team to help solve their problems.
- Team Collaboration & Problem Solving: The ability for the team to work effectively with each other to solve the problem at hand. The capabilities needed include knowing the members of the team (including their skills, capabilities and experiences), establishing the approach the team will take to solve the problem, providing the tools and applications that will be needed to support the team work, facilitating the team to collaborate with each other, and capturing the team work effort and results.

/o<del>/</del> \_\_\_\_

SITUATIONAL TEAMS

• Insights & Feedback: The ability to monitor and measure the effectiveness of the situational team appliance as well as the capabilities to harvest and use best practices. This is a key requirement in ensuring the team the associated tools and applications are continuously optimized and kept vital.

The key technology enablers to support the situational team are shown in Figure 1. Social network analysis software assists in forming networks of relationships and contacts for creating teams. Scheduling and reputation systems assist in finding the best available resources for the job. Virtual presence systems (e.g. instant messaging systems) support instantaneous discussions and to finalize team formation.

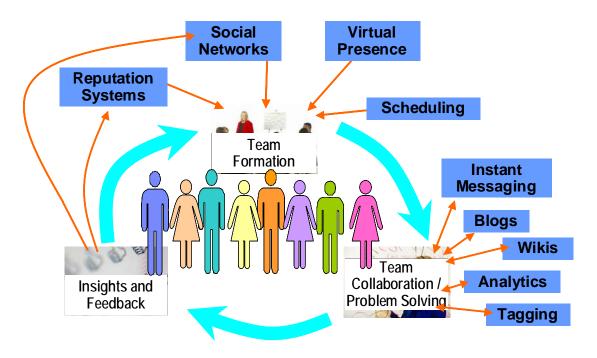


Figure 1: Technologies to support situational teams

To support team collaboration and problem solving activities, we need effective supporting technologies. Profiles are a "white pages" directory that helps the team reach members. Communities are a listing service for groups of people. It helps people organize around a common interest. The blog service allows individuals and teams to blog, and attracts readers who can then connect by commenting on their blogs. Dogear is a social bookmarking service. It makes it easy for people to organize bookmarks and share them with others as they work. Activities are a simple collaboration service that helps individuals to organize their work and coordinate their collaborations with other people.

Another important technology is the supporting infrastructure to establish a team workspace and for managing and sharing everyday content. Finally, feedback, scoring,

/ot

lessons learned and best practices are collected and analyzed to enhance the social networks and reputation systems. Note that there is an overarching need to support governance for the situational team.

For the rest of this paper, we dive into some of these technologies to get a better understanding of the capabilities needed and the current tools available to support these needs. We also outline some of the basic tenets of situational teams – and show what needs to be put in place to support these as we evolve the supporting technologies.

## 2 SITUATIONAL TEAM TECHNOLOGIES

To make our discussion realistic, lets look at the collaboration technologies above as they are supported in real products – in this case, <u>IBM Lotus Connections</u> which is a social software for business that empowers practitioners to be more effective and innovative by building dynamic networks of coworkers, partners and customers. As we indicated above, Lotus Connections supports five major capabilities:

- Profiles: Among Web 2.0 companies, there are many providers of tools for sharing personal profiles, such as FaceBook or MySpace. Profiles is analogous to these, but oriented toward the enterprise rather than college students. It fills the same need to assist people in making connections. While many large companies already have undertaken directory consolidation products, surprisingly few of them have an application that even comes close to the utility of Profiles. Specifically, Profiles includes corporate directory data and user-provided photo, and content as wells as links to the person's communities, blog, bookmarks, and activities.
- Communities: The idea of Communities is to facilitate self-managing groups, where participants can join, leave, or observe the activity in a particular group of professional interest. Communities facilitate user-defined information and listings, members to collaborate and communicate, and identification of experts on particular topics.
- Blogs: Blogs allow practitioners to have a direct outlet for expression and sharing of knowledge. Many practitioners are more comfortable with blogs than with email. Blogs can be very influential and successful even when there is only a small number of contributors and a large number of readers. Blogs could be used in either an internal fashion, or they can be used externally as a conduit to a company's partners and customers. Blogs enable a practitioner to self-publish thereby enriching their personal profile. As an interesting side-effect, blogs can help build social networks through cross-references to other bloggers.
- Dogear (social bookmarks): Dogear is for sharing bookmarks, by storing them and tagging them on a server, rather than keeping them locally in a browser. Dogear is very good at organizing large numbers of bookmarks, so it is useful

/ot \_\_\_\_

SITUATIONAL TEAMS

even when used privately, without any sharing. The larger value emerges over time, as users discover other people's bookmarks, and new resources they might not have found on their own. The bookmarks have tremendous value as information assets, as well as for connecting people or discovering experts. Dogear has a very high reward for participation, and it is an excellent example how a high-value data source can be created by community mechanisms.

• Activities: Activities bring structure to tasks performed by a team which are informal and highly collaborative. Much of what takes place in businesses today is "artful" work, where the processes are not easy to codify. The process often depends on who does the work, making it difficult to teach or to communicate results. Activities add more discipline, structure and tools to artful work, thereby bringing more value to the situational team. Activities help small groups collaborate in private on producing deliverables, as well as in capturing and reusing best practices. Activities focus on simple tools, which can be integrated into existing applications.

These five lightweight independent services are synergistic – there are no interdependencies, and the combinations of the parts are much more effective than each. For example, the combination of communities and profiles allow for much more focused searching of expertise and experience.

Finally, the Lotus Quickr (shown in Figure 2) provides the support for managing and sharing everyday content and for building flexible team workspaces. Quickr provides services include file sharing, team collaboration and workspaces, as well as connectors that enable practitioners to work directly with desktop applications. The content can be stored on a variety of storage systems. Quickr is designed to be self-service so that business users can create a Quickr place or team workspace very quickly. Quickr provides a number of components that a practitioner can select from to create a team place. Most places will start with a content or document library. Practitioners can add team calendars and milestones for the project. Practitioners have options for creating content that include wikis, discussion forums, and blogs. The content library itself allows the team to store and share content securely and includes support for check-in, check-out, and version control; multi-level security at the library, folder, or document levels, search capabilities across multiple libraries, support of workflow for routing & approving content, and feeds to share or consume content. Practitioners also have the ability to subscribe to content in the library so that it is published to any reader.

36





Figure 2: A Platform for Supporting Team Collaboration

Each of the five services described above can be integrated within the team workplace, thereby allowing the situational team to have all of tools needed to support their collaboration and communication.

#### 3 THE SITUATIONAL TEAM MANIFESTO

Let us end by laying out some basic tenets of situational teams to get a better understanding of the underlying characteristics and behaviors:

- Tools, not rules: Situational teams require methods and governance to establish the rules by which team is able to work and progress effectively. However, the rules of collaboration and work must be facilitated by and incorporated into the tools that are used by the team this approach allows the rules to be lightweight.
- School, not prisons: Situational teams require great flexibility in addressing exceptions to the "rules of engagement." Instead of complex exception processes that can delay the progress of the team work as they "sit in prison awaiting sentence", what is needed are "learn from your mistakes" capabilities and support that allows the team to quickly change and adapt their processes to address exceptions.

/o<del>/</del> —

SITUATIONAL TEAMS

- Wisdom of practitioners, not wisdom of crowds: Situational teams require wisdom and help from practitioners who have experience relevant to the situation. This wisdom can be derived from communities of practice however, these communities must have direct involvement in deriving the wisdom that is applicable to the situation and problem being solved.
- Opportunistic, not deterministic: Situational teams have to be opportunistic in forming the team, determining the set of applications needed, and the tools and assets that are needed to solve the immediate problem.
- RAD-DAR, not NIH: Situational teams can only succeed if they adopt an asset mindset, and break away from the Not-Invented-Here (NIH) syndrome that is faced by so many teams. The asset mindset requires both Reusing Assets for Development (RAD) as well as the ability to Develop Assets for Reuse (DAR.)
- Mashups, not pre-integrated applications: Situational teams require applications and services that are meaningful for the problems that they are solving in the context of the situation which can not be served by pre-integrated applications or services.

We are definitely at the cusp of a very interesting change in the way that we work together as a team to solve problems. The key to our ability to take advantage of these approaches and supporting technologies is a re-tooling of the practitioners themselves, changing their minds and their behaviors, from a practitioner on a team to a team of practitioners!

#### About the author



**Mahesh Dodani** is a software architect at IBM. His primary interests are in enabling communities of practitioners to design and build complex business solutions. He can be reached at <a href="dodani@us.ibm.com">dodani@us.ibm.com</a>.