

**Collaboration Consortium
Adoption Working Group
2011 Report**

July 28, 2011

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Introduction

The Adoption Working Group meets regularly to share experience introducing new business processes supported by collaboration and technology. Such changes are typically intended to foster increased collaboration, either within the organization or between organizations, such as supply chains or customers. The Group has been governed by a non-disclosure agreement aimed at encouraging candid discussion. The goal of these discussions has been to share lessons learned and identify best practices.

The purpose of this document is to summarize projects discussed by the Adoption Working Group. The details of these discussions were facilitated by presentations given by individual Collaboration Consortium members describing example projects. The key ideas extracted from four of these presentations are summarized here, and the presentations from three of the participants (BG Group, Cisco and Statoil) are publicly available to support the report. The other participant presentation (RAND Corporation) is privately available for members of the Collaboration Consortium under the terms outlined in the non-disclosure agreement.

The audience for this material comprises the executive sponsors of the individuals participating in this Group and others interested in the topic of collaboration and technology adoption practices. This document should provide readers with supporting material that can be adapted as examples for use in their organizations' internal discussions of collaboration.

Problem Statement

The examples discussed by the Adoption Working Group dealt primarily with collaboration internal to an enterprise. The participating organizations are all global, require collaboration among their component parts, and such collaboration must deal with the impediments created by time and distance. Many of the participating organizations are motivated by a desire to maintain cohesion and a sense of belonging in a global enterprise. Many are extending the search-centric ideas of *Web 1.0* to help the enterprise to find expertise, *relevant* information, and to create results together and with others. All have an objective to help their organizations become more agile.

Such alternatives need to provide flexible support for the evolution of an enterprise's organization structure and information assets. Both will change and the nature of such change is difficult to predict. Generally, this requires business processes and technology that can adapt to changes as needed. The Group conceives of such adaption as an evolutionary process, and not one that is amenable to a one-time, all-encompassing solution. The technology needed to support this can be conceived of as an "ecosystem" of evolving products and services used to support evolving business processes.

The members of the Adoption Working Group recognize that enterprises have inertia that makes change difficult, and also recognize that some resistance is appropriate to assure that changes add value. Members generally characterize their organizations as follows.

- Adoption of collaborative technologies differs between corporate and remote user groups. For some members, employees at remote locations seem to be more open to adopting new approaches, anticipating the upside potential to address their needs. While for other members, it was the corporate (headquarters) employees who demonstrated higher levels of adoption.
- For some, the corporate employees seem to place a higher value on co-location and face-to-face communication, and are often unwilling to embrace changes with the same enthusiasm or pace as a remote location.
- The corporate view often favors standardized solutions (over tailored practices).
- The corporate view of collaboration may not be "hands on" enough to fully understand how work is really done, or how tools and practices of collaboration may benefit work done outside of a centralized setting.

Background

Many of the organizations represented in the Adoption Working Group initially introduced *Web 1.0* technology by aligning web pages with organizational elements of an enterprise, or product and services offerings. Often the initial intent of such webs was to make information, already available in other media (e.g., an employee directory), available on the desktop - making it easier to search, update, and use. Organizations within the enterprise typically owned and maintained each such unit of information (web page).

Experiments with document sharing, announcements, enterprise and group calendaring and address books, and discussions implemented by more dynamic web pages followed. Ownership and maintenance of web pages diffused to include projects, ad hoc communities of interest, and individuals. Most of the organizations represented in the Adoption Working Group use or have used Microsoft's SharePoint to implement such capabilities.

Many of the current efforts of the organizations comprising the Working Group now seem to be experimenting with people-centric *Web 2.0* capabilities. The focus on the individual includes ideas like a *mypage* customizable portal—a user's point of entry to an enterprise web—presenting to a user the most important information and tools needed to perform his or her job. Capabilities often include support for the formation of project-centric, interest-oriented, and ad hoc groups/communities that evolve much faster than a more static enveloping organization structure. These groups are supported with technologies that facilitate synchronous (e.g., videoconferencing), and asynchronous (e.g., Facebook-like capabilities) collaboration. Users can easily generate content and register interest in topics to have information pushed to them (e.g., by an RSS feed), and some firms are experimenting with automation in pursuit of a vision to enable "information to find you." [Note: Web 3.0 and the semantic web were out of scope for this paper.]

Common Ideas and Lessons Learned

The participants in the Adoption Working Group discussed projects that span the entire spectrum of adoption along the Collaboration Evolution Curve, which was identified in the first year report of this consortium (see References). The Group discussed efforts that ranged from investigative to transformational. The Group observed that the more experienced and larger firms typically have concurrent collaboration initiatives. Not all of these concurrent initiatives are in the same phase of adoption.

In general, we observed the following common traits among the collaboration initiatives discussed by the Working Group members:

1. The Working Group members prefer to pilot initiatives with parts of the enterprise before full-scale deployment. This contrasts with some experts that advocate rolling out collaboration services to all employees at once.
2. Efforts to adopt a new process or technology require being able to articulate the value of doing so to the enterprise. It must be possible to formulate and explain how an adopting organization is expected to benefit from the change (i.e., the hypothesis), the measures that will be used to demonstrate that the benefits are achieved, and the goals such measures are expected to achieve.
3. The concept of a group must be adaptable; a group may represent a project team, community of interest/practice, a social network or formal departments. It seems impossible to anticipate groups that may form in a collaborative organization. The business processes and technologies used to support them must remain flexible enough to support new conceptualizations of collaboration within and between enterprises.
4. Collaborative groups are relatively easy to create. The challenge is securing and nurturing participation in them that delivers value. Groups, similar to a business process or technology, when introduced need to be able to articulate value to the participants and the corporation. The requirement to do so seems to be an important part of a governance process, and fundamental to curating information that collaborators find useful.
5. Email (as a technology) is notable by its absence in Working Group discussions. We speculate that this capability has become an "expected" and ubiquitous capability of enterprises. However, it does not appear to be adequate for collaboration. This suggests understanding how an organization's use of email fails to fully meet its collaboration needs may be a useful starting point in formulating the value of a new process or technology.
6. Many corporations are adopting Web 2.0 technologies (e.g., a Facebook page or Twitter) for activities, like public relations, investor relations, and executive communications. These are typically carefully crafted and moderated discussions. This raises the need for governance and acceptable use policies/guidelines where employees begin engaging in external communications.

7. Internal facing Web 2.0 technologies are unique in their one to many broadcast nature that makes it different from email communications where the audience is usually well defined and known. Unlike email, communications can be read and commented on by anyone, so employees need to be aware of this open forum and be sensitive to a new set of assumptions about who can read and respond to a communication. Employees have less control over who may read and respond, and must think differently about how their statements may be understood, and the appropriateness of those statements for a wider audience. Employee reputations will be judged based on not only what they say, but how they respond to others.
8. Personal and corporate uses of Web 2.0 technology are difficult to differentiate and separate. It may be important not to do so. Consumer experience appears to be the most common way employees first gain experience with public forums using Web 2.0 technologies. In some applications, ideas for corporate use of this technology will follow from personal experience.
9. People-centric profiles seem to hold an important place in the thinking of Working Group members. Finding the right expertise (e.g., someone who can identify the most relevant information, given a problem description) is as important as basic search capabilities. In some of the examples discussed, the concept of a profile can be usefully extended to include business objects fundamental to the enterprise, i.e., a business object (e.g., a project) with its own profile.
10. Search must be augmented with capabilities that include ideas like subscriptions (to sources of updated information), using mechanisms like RSS feeds, activity streams and customizable filters. These are necessary (but not sufficient) to have "information find you" and to avoid information overload by letting the recipient shape what information is deemed to be *relevant*. Filtering mechanisms are closely related to taxonomies (see below). Filtering mechanisms may include rating and ranking recommendation systems that enable groups to identify and find the most relevant information.
11. Both synchronous and asynchronous communications are needed for groups to effectively collaborate across time and distance.
12. No member of the Working Group has found an obvious way to organize and index information. Web 2.0 capabilities open the possibility of folksonomies as an alternative to fixed taxonomies, but member experience to date finds neither (yet) fully meets their needs. This is also an important governance issue.

Member Examples

BG Group Example: Connecting People and Communities

Snapshot:

- Business objective: ensure employees are able to connect, share knowledge/expertise, and learn/collaborate with each other
- Technology: customized version of Connect collaboration platform
- User audience: all internal employees and contractors
- Geography: globally distributed
- Collaboration Framework Focus: training and adoption, organizational model, collaborative behaviors, metrics and measurement, selection process and integration
- Collaboration Evolution Curve phase: crossing the chasm to Performance

In 2006, BG Group implemented the first version of their collaboration platform to support a growing distributed employee population. It was an early experiment using several integrated collaboration and social media capabilities provided through a customized collaboration platform developed in partnership with Addept. Over the years, the platform was expanded to incorporate additional functionality and today provides a comprehensive platform for BG Group employees to share expertise and knowledge via an employee profile, forums, wikis, blogs and other capabilities.

Although a comprehensive platform is in place, the effective adoption and use by employees still has room for improvement. To date, 70% of employees have entered profile information but only 25% have a fully complete profile with skills/expertise and a photo. There are 90 active communities but only 30% are performing well, with a further 30% performing adequately and the final 30% underperforming.

The community moderator role is informal and performed above and beyond an employee's regular job. The original adoption strategy for the platform was informal with the greatest success gained from using the platform as an employee directory. The project team documented very specific lessons learned and best practices that include providing clear guidance on why and how to use the platform, ensuring ease of use, and securing executive support. They also recommend implementing a cultural change program in parallel with the collaboration platform deployment.

Today, the team uses a direct approach to engage users with targeted campaigns that focus on particular organizational areas or that coincide with organizational events such as an office move. The adoption strategy moving forward involves engaging senior stakeholders early, and implementing incentive programs to encourage and reward collaborative behavior. The team will continue to develop the platform capabilities to better meet user needs, incorporating better measurement and reporting capabilities, and will document stories about successful communities to promote the benefits realized when best practices are followed.

See “BG Group Adoption Case Study” for more information.

Cisco Example: Accelerating Product Development

Snapshot:

- Business objective: accelerate time to market and time to revenue for a new product
- Technology: Cisco Quad integrated with other team applications
- User audience: cross-functional product team at all levels
- Geography: globally distributed
- Collaboration Framework Focus: process improvement, communication, collaborative behaviors, metrics and measurement, and integration
- Collaboration Evolution Curve phase: Performance

Within the Cisco engineering organization, the Enterprise Collaboration Platform Business Unit (ECPBU) faced a common development imperative: to accelerate both time to market and time to revenue generation for a new product. The distributed ECPBU group also wanted to engage various stakeholders across Cisco, while controlling costs. In 2010, ECPBU was developing Cisco Quad™, a new collaboration platform, and they used it to change how they communicated and performed their work. An added challenge included deploying a new development methodology as part of the project, which involved two third-party software development and management tools.

The team analyzed their pain points and challenges, and developed best practices using various platform capabilities to address each of the problem areas. The solutions covered practices for program and project management, engineering, quality assurance, user experience, and executive communications. The adoption approach involved a top-down mandate from management, process changes, and old-fashioned peer pressure to follow the team and their new mode of working. Success was achieved early with almost 100% of the team logging into the platform on a daily basis. There was increased employee engagement across the distributed team because members felt connected no matter where they were physically located.

The quantifiable results were impressive, with the first major release achieved within 12 months versus the 24 to 36 months that it usually takes; reducing the time to market with an estimated \$89M increase in net present value (NPV) over five years. The group achieved an average 12 percent productivity gain per employee within the development team and greater cross-functional and executive visibility, enabling a new way of collaborating with greater business value.

See “Transforming Product Development with Quad” for more information.

Statoil Example: Enabling a Mobile Workforce

Snapshot:

- Business objective: increase video communication effectiveness for global and mobile workforce
- Technology: Microsoft Communicator integrated with Cisco room-based video systems (formerly Tandberg)
- User audience: all employees and contractors
- Geography: operations in the United States
- Collaboration Framework focus: training and adoption, communication, metrics and measurement, integration and infrastructure
- Collaboration Evolution Curve phase: crossing the chasm to Performance

Statoil's IT organization has a well-defined collaboration portfolio and roadmap that included several Microsoft upgrades, and they wanted to take advantage of additional communication capabilities. Their objective was to test the adoption of new Communicator capabilities within North American locations (approximately 500 employees), prior to scaling up and deploying it to other global locations. The adoption strategy was planned and executed in three phases: create awareness and knowledge, build skills locally, and create local capability.

The adoption focus for phase one involved generating a high degree of awareness of communicator features prior to the launch through the use of email messages from executives, news articles, and digital signage. The goal was to facilitate interest and increase participation, particularly through the introduction of a "Be an Ambassador" program. Phase two involved providing a variety of learning options to develop the skills needed to use the new features. The final phase focused on development of Communicator "Ambassadors", who volunteered to be subject matter experts and would assist with knowledge sharing and adoption in the local offices.

The project received local management sponsorship and commitment, and succeeded in generating an office buzz before the launch. In particular, the invitation email from top management to recruit ambassadors created a fantastic response with just over 10 percent of employees in the region volunteering to be ambassadors for the new capability. The introduction sessions (in person and virtual) in phase 2 were attended by 86 percent of users, with 94% stating their skills were improved by the session. The other learning options (quick reference guide, tips and tricks, etc.) were very well received and the usage trends increased, validating the adoption strategy. Finally, over 50 percent of ambassadors attended the advanced training sessions. The project team intends to keep working with these ambassadors to ensure continued excitement and increased adoption.

Not only was Statoil's communication and training execution important for success, so was the adaptation of the technology to fit into Statoil's existing infrastructure. With over 2,000 Cisco equipped videoconference rooms across all of Statoil's offices, high adoption of Communicator would depend on integrating it with what users were already experienced in using to conduct meetings. The Communicator integration enabled a user to call a specific

video-enabled conference room, which is a recognized contact in a user's contact list. Alternatively, a user can call an assigned conference number, which any user can call into from any location and any device.

In Q3 2011, Statoil's PC replacement program will deploy powerful new laptops with built-in webcams. This mobile environment, paired with the new Communicator capability, creates the possibility for new flexible and remote working arrangements. It will enable virtual meetings using secure video via any Internet access point, while an employee is at home or in transit. This new capability provides HR and facility management leaders with many strategic options to evolve to the Transformation phase along the Collaboration Evolution Curve.

See “Statoil Case Study – Ensuring Communicator Adoption” for more information.

RAND Example: Identifying Expertise Location

Snapshot:

- Business objective: increase the ability to find expertise needed to staff projects
- Technology: search engine with customized profile pages
- User audience: all employees, with emphasis on research staff and business unit managers
- Geography: global
- Collaboration Framework focus: process improvement, metrics and measurement, and infrastructure
- Collaboration Evolution Curve phase: Performance

In any given year, RAND undertakes several hundred unique analysis projects for clients around the world. These typically require a multi-disciplinary team, often with particular academic disciplines, and experience in business sectors, policy questions, or research areas. Staffing a project requires matching projects with experienced personnel, and enabling its research teams to work independent of the locations of members. During the year, employees depart and new employees arrive, constantly changing the pool of capabilities available to a new project. These teams require ready access to digital tools and databases that facilitate analyses, and these tools and databases typically vary by subject matter.

The matching of people and projects requires that researchers be able to make their interests known, and project leaders be able to search for qualified staff, interested in contributing to a new project. Once formed, project team members need to be able to quickly find the information resources and analytic tools they need to conduct the analysis.

This project is extending an existing enterprise directory service in several ways. The content of the existing directory service is primarily populated by data captured by personnel management software. The extensions to the directory include improved search, the ability to customize content (e.g., to express current interest and activities), follow changes in content made by other research staff, and to create a customized portal to tools and information most

relevant to an individual. The project is currently in the testing phase and will be called PeopleFinder.

The adoption approach utilizes participatory design principles and is governed by an advisory board. Participatory design utilizes a team of researchers (drawn from multiple disciplines) to advise the web development team. This advice includes developing use cases, making choices about the types of content to include, and the layout of information presented to the user. Since this effort builds upon personnel data, and has implications for both business and personal practices, an advisory board of business and human resources managers plays an important governance role by anticipating and avoiding potential business and HR problems that might be introduced. Both the participatory design team and research managers are expected to explain these new capabilities to the larger community, advise their peers about ways in which these capabilities are intended be used, and gather insights from uses of the capabilities that were unanticipated. The product will be launched as a "beta" version for people to get acclimated to the tool. Eventually, full adoption of the tool will be ensured by retiring the old staff directory and making PeopleFinder the one place to find people across the organization.

See “Expertise Location” for more information. [Note: Only available to Collaboration Consortium members.]

Recommended Best Practices

The snapshots of member efforts described above are varied in nature and scope. They cover different phases along the Collaboration Evolution Curve but they all have a similar objective: to drive employee productivity and efficiency within their organizations. In general, the Group recommends the following best practices for adoption based on the experience and learnings of the Working Group members:

1. **Secure executive sponsorship early:** When executive stakeholders are engaged early in a planned collaboration effort, it helps ensure the effort supports the top business priorities and drives adoption from the top down. Sponsorship also needs to come from both the business and IT.
2. **Recruit champions:** Champions may take the form of early adopters, volunteer ambassadors, team influencers or vocal pilot participants. These users have a passion for change, and are role models to encourage others to adopt the capability and work differently. These individuals drive adoption from the bottom up. They are willing to provide feedback and become the local "feet on the street" to help promote your effort.
3. **Keep it simple:** The less complexity of the user interface and the tighter integration with other business applications, the greater chance of adoption success - period! This also applies to the development of any virtual training material, quick start guides or other forms of training.
4. **Seek opportunities to enable business process:** Business value and adoption from any Web 2.0 and collaboration effort will usually be higher when it supports an

existing workflow or business process. Keeping it "in the flow" also helps to establish a baseline and track progress.

5. **Formalize community roles:** Successful communities require active moderators who are assigned the role as part of their formal jobs. The moderators should be incented and rewarded based on the success of the community. Much has been written on this topic.
6. **Manage the cultural change:** Change management is an important component of successfully implementing any collaboration effort. There are many approaches that can be leveraged and the specific methodology is not as important as selecting one, then implementing it as part of your collaboration initiative to achieve the desired end state.

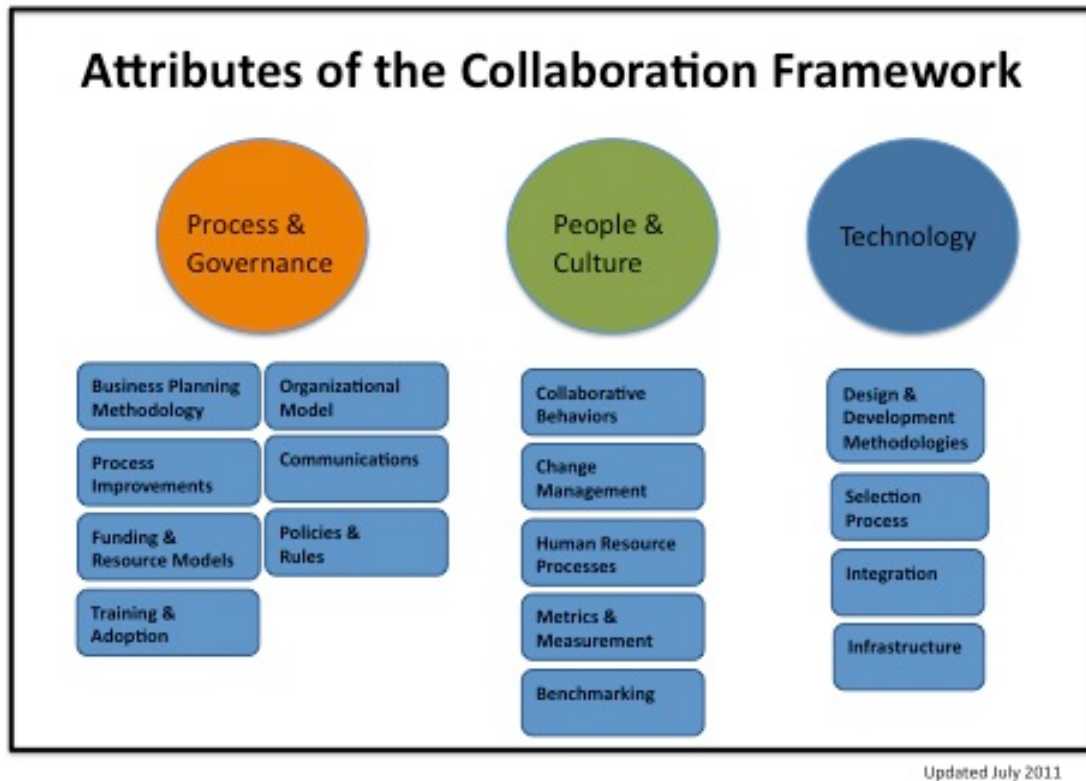
Updates to the Collaboration Framework

The Group discussions and the findings in the case studies identified two areas requiring modifications to the Collaboration Framework. The first update is to add “Change Management” as an attribute of the People & Culture element, and the second update is to add “Design and Development Methodologies” to the Technology element (see Figure 1).

In the first year report, organizational **Change Management** was a small component of the Collaborative Behavior attribute, stating change processes and messaging should support and leverage the established collaboration vision. Based on Group findings, a focus on change management to support adoption should be a fundamental part of any formal collaboration initiative. As such, change management practices should be applied where change to an end user’s work process, practices and behavior are expected to achieve a future state. A methodology should be selected and then implemented in parallel as part of a collaboration effort to help drive effective adoption. Both BG Group and Cisco recommended using a change management approach in their case study recommendations.

Based on RAND and Cisco experience, the use of **Design and Development Methodologies** is recommended to identify requirements and create the right user experience, and to do so in a very timely manner. The application of participatory design principles in establishing the collaboration strategy and solution for RAND Researchers is a key component to ensure adoption success. Cisco also applied user experience practices to the development of their internal collaboration platform, contributing to their adoption results. Cisco also leveraged agile development practices and tools, which contributed to developing the software in less than half the time of previous projects.

Figure 1: Attributes of the Collaboration Framework, July 2011



Closing: Assessing our Collaboration Effectiveness

Apart from members assessing their internal collaboration efforts, the Group also decided to assess our inter-company collaboration effectiveness as a Consortium. Participation in this past year's community effort, which involved monthly forums and the Adoption Working Group study, was lower from the prior year's more formal research agenda. We knew from our year 1 research that moderating and motivating an external community of practice is difficult, particularly when there are no specific internal benefits or rewards tied to a multi-organization Consortium objective (i.e., sharing information or publishing a deliverable). However, when members were all collaboration practitioners within their own organizations, we wanted to better understand why our collective participation in the community was still a challenge

To better understand our lower level of adoption, we worked with the Department of Informatics, University of California, Irvine to study our collaboration effectiveness. The

UCI Team developed a Collaboration Success Wizard (see reference) based on 20 years researching scientific collaboratories across multiple organizations and distributed teams.

Members were invited to opt-in to a survey conducted during the last six weeks of 2010 and results from 10 members were collected. The questioning was similar to the Collaboration Readiness Assessment conducted by the Culture Subgroup in Year 1, and covered process, culture and technology topics. Analysis of the results identified the following strengths: a sense of collegiality and trust among members; and advice provided by members was considered to be high quality.

The analysis also identified vulnerabilities in several areas where improvements were necessary:

- Asymmetric participation – the level of participation varied across member organizations;
- Core group of active participants – participants were limited to a small core group and English as a second language was a limiting factor;
- Technology readiness – mixed results on level of comfort with use of a variety of collaboration and Web 2.0 tools;
- Non-routine work – clarity was required on deliverable communications, direction and decisions;
- Predicted success – neutral expectation of Consortium success without addressing vulnerabilities.

During Group discussion of the results, members added they obtained value from leveraging the community of peers and sharing real experiences. They agreed the original mission of the Collaboration Consortium would remain unchanged. Members also agreed there are different ways that every member can contribute, regardless of where they are on the Collaboration Evolution Curve – this should not be a factor in level of participation. Although the technologies were identified as reliable and benefit all equally, more discussion is required to understand why some members were uncomfortable with their use and why they perceived others as being uncomfortable too.

Based on the Success Wizard results and group discussion among the core members, the Consortium agreed to implement the following recommendations in Year 3.

- Rotate the host organization for each monthly forum to share responsibility for agenda, presenters and documentation.
- Encourage members to contribute one new collaboration related item each month using any collaboration or social media tool (i.e. blog, discussion thread, documents, video, etc).
- Incorporate meeting best practices across the community: more time for Q&A, use of group chat to ensure understanding of content, post meeting summaries and recordings.
- Review the Consortium governance model at the start of each year.

Given results and lessons learned this year, the active members are eager to continue discussions in September as a community of practice. The research theme for Year 3 will

focus on process enablement through collaboration and social media. Besides monthly forum and workgroup virtual meetings, a face-to-face meeting is recommended in the fall to define details of the research agenda and to expedite introduction and participation of new members.

Organizations interested in joining the Collaboration Consortium should contact fbrych@cisco.com. Membership requires signing a multi-party non-disclosure agreement (ensuring a secure environment to share experiences) and participating in monthly forums. There are no membership fees or dues.

References

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Expertise Location, RAND Corporation, 2011

Collaboration Success Wizard, School of Information and Computer Science, University of California, Irvine (funded by NSF)

<http://hana.ics.uci.edu/wizard/>

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