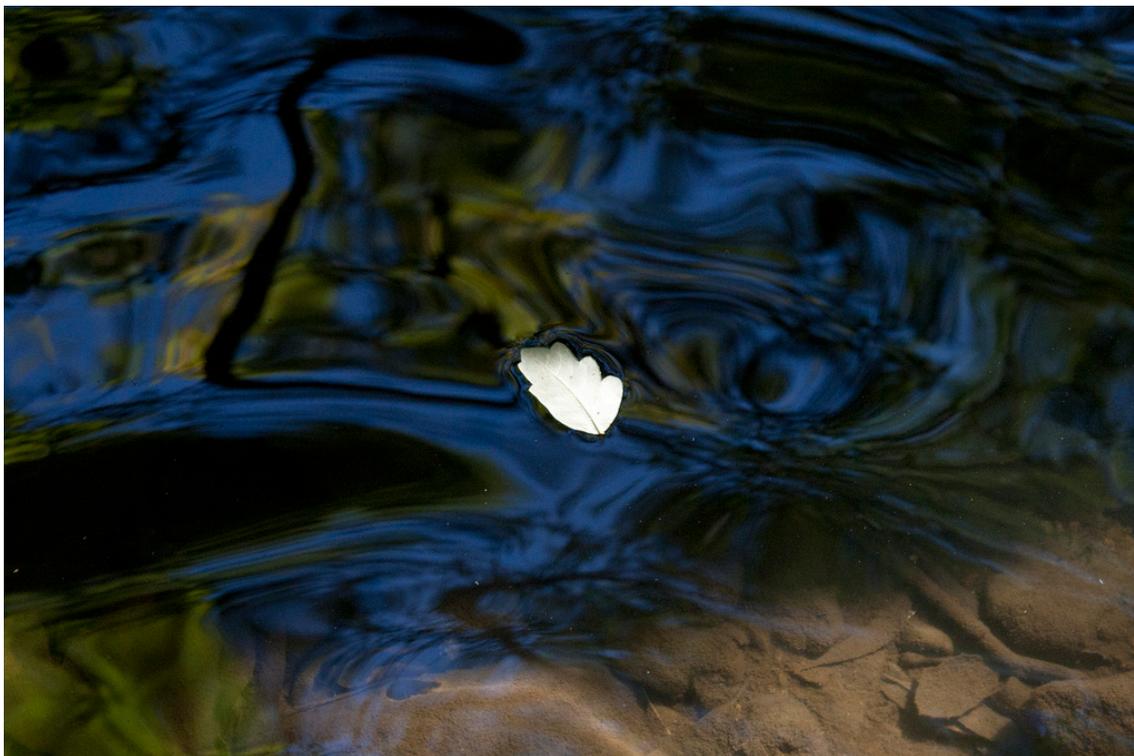


Adrift in the Current

**Effective Business Collaboration
Requires More Than an
Activity Stream**



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Adrift in the Current: Effective Business Collaboration Requires More Than an Activity Stream

We often speak of ‘collaboration’ as if it has a single, universal meaning. However, there are different styles, types, and patterns of collaboration. While all of these fall under a common definition – “*People working with other people towards a common outcome.*”¹ – the reality is that collaboration is not a one-size-fits-all proposition. If we accept that, a second insight emerges: no single technology – including the presently popular combination of status updates and activity streams – can support all of an organization’s collaboration requirements.

This paper highlights two extreme styles of collaboration: structured and emergent. It also makes the case that they are not mutually exclusive and, in most instances, characteristics of both collaboration styles should be blended to achieve desired business outcomes. The paper then presents a framework that may be used to determine the absolute and relative importance of each collaboration requirement an organization may have.

Next, the paper presents a comprehensive list of technologies that should be included in a platform used to support the full spectrum of collaboration. More importantly, it also communicates the reason that each collaboration technology should be used and the key business activities that they support. Finally, the paper examines the role and limitations of status updates and activity streams in supporting the collaboration activities that occur in most organizations.

Structured vs. Emergent Collaboration

Structured collaboration involves *people working with other people towards a common outcome, in a way that is mostly or completely defined*. Parameters that may be defined (usually before actual collaboration begins) include scope; desired outcome; starting and ending dates; participants and their roles and relationships; and work environment (including technology used)², processes, modes, security, and transparency or observability. The collaboration may be structured in one or more of the following ways: hierarchical relationships, sequential process, or issue-centric.³

One common example of a structured approach to business collaboration is a software development project team. An IT manager forms a team to build software that will meet expressed business requirements. The scope is either fully or partially known before the team is formed, as is the desired outcome. The IT manager sets a project starting date and estimates an ending date, based on previous experience with similar projects. He or she chooses the IT staff members that will work on the project, usually based on a combination of their skill sets and availability. The manager is likely to appoint a team leader (if he or she doesn’t assume that role) and dictate the roles of the other team members. The manager or team leader will choose the development method (e.g. waterfall, scrum, sprints) to be used by the team, as well as the tools with which the software will be coded, reviewed, tested and deployed. All of these decisions will usually be made before any work begins on the project.

Emergent collaboration may be defined as *people working with other people towards a common outcome, of their own initiative and in a way that is self-guided*. Details of a structured collaboration that are often pre-defined by a manager or executive sponsor (such as those listed above) are considered by an individual worker faced with a business problem or opportunity. That individual pulls together on-the-fly the human and information resources needed to best resolve the situation. The collaboration is self-initiated; which participants become involved, where and how they interact, and the final outcome all emerge during the collaboration.

A good example of emergent collaboration is the resolution of a unique equipment service issue. Suppose a photocopier service technician receives a report of a customer experiencing problems with their copier/scanner and investigates the issue on-site. He or she encounters a problem that has not been seen or previously documented by anyone else. The technician could turn to a collaboration tool, most likely one that included some social software components (e.g. profile directory, communities, blogs, discussion forums) to identify someone with helpful expertise and contact them. Alternatively, the technician could publish a status update to broadcast a description of the problem to a broad, yet relevant, set of people (fellow technicians, product designers, sales force, etc.) and hope that one or more would reply with helpful information or knowledge. Once they were communicating, the participants could jointly design one or more potential solutions to the problem, which could then be deployed and tested by the initial technician. The collaboration would continue, perhaps bringing in new human and technology resources, until the copier/scanner was successfully repaired.

Note several characteristics of this scenario. While the repair technician was assigned by someone to investigate and repair the customer’s broken copier/scanner, no one directed him or her to collaborate with someone else to get the job done, much less with whom and how to work together to solve the problem. The collaboration was self-initiated; which participants became involved, where and how they interacted and the actual design of the solution all emerged during the collaboration.

Table 1 presents a summary of how structured and emergent collaboration styles differ.

Parameter	Structured	Emergent
Initiation	Superior	Self or anyone else
Scope	Superior	Collaborators
Desired Outcome	Known	Unknown
Duration	Usually defined by superior and longer-term (weeks, months or years)	Usually imposed by business process as immediate or ASAP (hours or days)
Participants’ Roles	Predefined and assigned	Undefined and variable
Participants’ Relationships	Defined	Opportunistic
Leadership	Appointed or elected	Shared and dynamic
Work Environment	Common place	Communication channels
Work Process	Defined and inflexible	Undefined and variable
Typical Work Mode	Asynchronous	Real-time
Technology Use	Rigid	Flexible
Access Control Level	Environment	Shared object
Observability of Work	Low	High

Table 1 – Contrasting Characteristics of Structured and Emergent Collaboration

Blended Collaboration

As we previously noted, structured and emergent collaboration are extreme styles in their purest forms. Viewing them as endpoints on a continuum of collaboration design (see Figure 1) makes it clear that most business situations will call for a mix of the characteristics that define and contrast structured and emergent collaboration.



Figure 1 – Collaboration Design Continuum

Emergent collaboration is placed on the left side of the continuum, because it has no advance requirements. Structured collaboration appears on the right side, because its requirements must be considered before actual collaboration begins.⁴ Thus, this continuum reflects a growing level of complexity of collaboration, moving from left to right. Collaboration designers must understand the characteristics of each collaboration element for their business situation and should complete a prioritized inventory of collaboration requirements related to those elements.

Table 2 lists the collaboration elements that must be considered, then details their respective, opposing characteristics in structured and emergent collaboration scenarios. The final two columns of the table may be used to assign a value to the strength of an organization’s collaboration requirements and their relative priority.⁵

Element	Structured	Emergent	Requirement Strength	Relative Priority
Strategic Importance	High	Low	4	1
Time to Outcome	Long	Short	3	4
Key Stakeholders Identified	Necessary	Unnecessary	5	3
Subject Matter Experts Identified	Necessary	Unnecessary	5	2
Potential Team Size	Large	Small	4	10
Co-location of Collaborators	Together	Distributed	2	8
Availability of Collaborators to Work Synchronously	Always	Never	2	7
Routine Nature of Situation	Routine	Novel	3	5
Serial Nature of Work Process	High	Low	3	6
Availability of Supporting Technologies	Few	Many	1	9

Table 2 – Sample Collaboration Requirements Identification and Prioritization Framework

In this example, which is reflective of a typical small or medium-sized enterprise, the organization’s collaboration initiative started at the senior management level, indicating that its overall Strategic Importance was very high and could be scored a 5. However, on a day-to-day basis, collaboration was concerned with operational problem solving, not strategic issues, so the requirement score for this element was lowered to 4 (moderately high).

In terms of relative priority, the Strategic Importance element ranked highest in comparison to the others. It was assigned top priority because the collaboration mandate came from the highest management level at the organization.

All other collaboration elements considered at the organization were assigned a requirement score and relative priority ranking in the same manner as was the Strategic Importance element. A weighted score was calculated for each of the individual requirements; from these an average weighted score was determined. As shown in Figure 2, the average weighted score of the organization’s collaboration requirements was 3.98, indicating that their requirements called for a collaboration design that featured a mix of structure and emergence, with a fairly strong bias toward structure.⁶

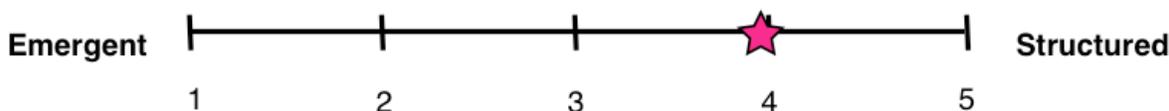


Figure 2 – Weighted Average Score of Requirements on Collaboration Design Continuum

Technologies in a Comprehensive Collaboration Platform

The varying requirements of blended collaboration suggest the need for a wide mix of available supporting technologies, especially when collaboration is conducted virtually and requirements are skewed toward the emergent collaboration style. An appropriate set of technologies would include both the design construct of a common workplace associated with structured collaboration and a variety of communication channels and social tools to support emergent collaboration.

Table 3 presents elements that a platform intended to support blended collaboration might include (or provide standards-based API integration with). It is advantageous to offer as many as possible of the following components, each of which is designed to support specific business activities, as summarized in the table.

Collaboration Component	Expertise Location	People Connection	Data, Information and Knowledge Transfer	Work Completion	Innovation	Description of Business Activities
Profiles	✓	✓				Find and follow relevant subject matter experts regardless of their role or location
Communities	✓	✓	✓	✓	✓	Locate, and connect and share with, individuals and groups with common interests, expertise, roles or goals
File Storage			✓			Store documented data, information and knowledge in a common location to simplify discovery and access
File Sharing and Sync			✓	✓		Automatically (or manually) transfer latest version of documented data, information or knowledge to those who need it. Collaboratively author, edit and approve content.
Blogs	✓		✓		✓	Publish data, information, knowledge or ideas and collect feedback from others. Identify subject matter experts based on primary topics in their blog.
Wikis			✓	✓	✓	Collaboratively create and share content, as well as its structure. Log project task/ activity progress and issues, and respond to same from others. Asynchronously brainstorm and evaluate ideas.
Shared Bookmarks			✓			Point others to valuable web and intranet content related to specific topics and interests
Shared Calendar		✓	✓	✓		See schedule availability for potential collaborators. Embed data and information in meeting or task entries. Communicate status of project tasks, activities and milestones.
Threaded Discussion Forums		✓	✓			Engage asynchronously with one or more individuals to ask and answer questions, discuss topics or solve problems
Webconferencing		✓	✓	✓		Engage individuals or groups in real-time to share data, information or knowledge. Get work done together (e.g. make decisions, co-author documents).
Status Updates and Activity Streams		✓	✓	—		Broadcast questions and task/activity status to either a broad or targeted group. In some cases, act on a task (i.e. approve a document)

Collaboration Component	Expertise Location	People Connection	Data, Information and Knowledge Transfer	Work Completion	Innovation	Description of Business Activities
Tagging of System Objects	✓		✓			Automatically-generated or manually-applied keywords that describe an individual or piece of content. Tags facilitate search, information filtering and expertise recommendation.
Search	✓		✓			Seek and find needed expertise, data, information and knowledge
Information Filters	✓		✓			Manually or automatically screen content that is not immediately relevant to an individual's role or the task at hand
Notifications		✓	✓	✓		Receive automated notifications of new connections, new and updated content, and community or project activity in email and/or activity stream
Analytics	✓		✓			Proactively mine collaboration activities to identify and recommend influential people and subject matter experts, as well as valuable content
Recommendations	✓		✓			Receive automated suggestions of individuals and content sources that are relevant to your work, in the context of a specific activity
Presence Indication		✓				See when an individual is online and available to connect
Instant Messaging		✓	✓			Synchronously engage individuals who can help you by quickly providing needed data, information or knowledge
Idea Management					✓	Record, share, discuss and prioritize new and existing ideas for products, services, process improvements, etc.
Goal Management				✓		Record, share and track creation, progress towards and completion of corporate, group and individual goals
Task/Activity Management	✓			✓		Record, share and track creation, progress towards and completion of project tasks/activities

Table 3 – Blended Collaboration Components and the Business Activities They Support

Activity Streams Offer Limited Collaboration Support

Activity streams have become the face of enterprise social software. Mimicking the user interface of popular consumer social networks such as Facebook and Twitter, the design and screen layout of nearly every enterprise social software offering places the activity stream front and center. Many legacy business applications have also been redesigned to present system events and data in an activity stream.

While activities streams are an important and useful collaboration component, they do not support all (indeed, most) of an organization's collaboration requirements, as shown in Table 3 above. The closely-knit combination of status updates and activity streams are most useful for connecting people within (even between) the organization(s) and for sharing links to Web- and document-based data, information and knowledge. The brevity of status updates makes activity streams less-than-ideal for expertise location. The lack of conversation structure in activity streams severely limits their usefulness in proposing, discussing and acting on innovative ideas.

Activity streams *do* support communication and emergent collaboration well. Individuals can post and see status updates from community members and other colleagues that quickly help resolve pressing business issues, for which neither the answer nor its source is known in advance. Questions may be asked and answered by individuals previously unknown to each other. Structured data, as well as information in unstructured documents and on the Web, can be shared with people that need it or are able to provide relevant insight and expertise.

However, activity streams have limitations, even in support of emergent collaboration. They can be used to conduct *ad hoc* conversations, but may not provide the rich context available in a threaded discussion forum. Activity streams allow for easy sharing of links to documents and data, as well as communication of relevant comments, but they lack the fundamental controls of basic content management systems – features such as document check in/out and content versioning. Activity streams are also prone to the same information overload issues as email inboxes, which greatly diminish their effectiveness as a collaboration tool.

Of greater concern is the activity stream's nearly complete lack of support for structured collaboration activities. From a process perspective, structured collaboration follows fairly well-defined patterns, if not actual process flows, that are not supported by the *ad hoc* communication flow of status updates and activity streams. Additionally, first-generation activity streams offer no mechanisms for collaborating on what is being communicated within them. Cutting edge streams allow very limited actions to be taken by individuals, but they provide no means for teams, groups and communities to complete work together.

In short, activity streams are useful for addressing the real-time communication and information sharing requirements of emergent collaboration, but must be used alongside other tools to meet the broader collaboration needs of an organization.

Summary

In their purest forms, structured and emergent collaboration are extreme styles that feature diametrically opposed characteristics. Structured collaboration characteristics include strong direction from a superior as to scope, desired outcome, and duration; predefined team leadership, other roles, and relationships; rigid work processes, mode, and observability; and tightly controlled availability and use of supporting technology. The extreme emergent style puts control of these characteristics in the hands of the collaborators, who make most of the decisions about individual characteristics on-the-fly.

Structured collaboration is most appropriate in situations of relatively high strategic importance, in which an immediate or quick outcome is not necessary. Structure is also desirable when large numbers of potential collaborators, and their roles and relationships, may be identified before collaboration begins. Structured collaboration works best when work processes are known, standardized and sequential in nature. Finally, structure should be imposed when the set of supporting collaboration and communication technologies deployed by the organization and available to the potential collaborators is limited.

Emergent collaboration is a good choice when the collaboration design characteristics are the opposite of those requiring structured efforts or they are unknown. Strategic importance is low, but the collaboration must be completed in hours or days. There will be relatively few collaborators involved and their roles will be dynamic, if any are assumed or acknowledged. How and where (including both virtual places and communication channels) the people involved work together will be determined as they proceed.

Most business situations will call for a mix of the characteristics that define and contrast structured and emergent collaboration. Therefore, collaboration designers should decide the right mix of stylistic characteristics for their business situation by completing a prioritized inventory of collaboration requirements.

The varying requirements of blended collaboration suggest the need for a wide mix of available supporting technologies, especially when most collaboration is conducted virtually and requirements are skewed toward the emergent collaboration style. An appropriate set of technologies would include both the design construct of a common workplace associated with structured collaboration and a variety of communication channels and social tools to support emergent collaboration.

The combination of status updates and activity streams alone is not enough to support the blended collaboration requirements of an organization. Activity streams *do* support communication and emergent collaboration well, but with limitations. The activity stream's nearly complete lack of support for structured collaboration activities necessitates the consideration and use of other, complementary collaboration technologies to achieve desired business outcomes.

Structured Collaboration:

People working with other people towards a common outcome, in a way that is mostly or completely defined.

Emergent Collaboration:

People working with other people towards a common outcome, of their own initiative and in a way that is self-guided.

Endnotes

¹ Michael Sampson, *The Practice of Collaboration – Resource Center*. <http://www.michaelsampson.net/practiceofcollaboration.html>

² When considering collaboration elements, ‘work environment’ has traditionally been thought of as a physical place, such as a conference room or group of adjacent cubicles in an office building. Off-site meeting spaces have been popular choices for highly focused, structured collaboration efforts such as corporate strategy retreats for executives and enablement sessions for a company’s sales force. However, collaboration increasingly is done in and across other distributed physical places (multiple corporate office locations, home offices, co-working spaces, even coffee shops) as well as in digital environments. All of these work environments must be integrated and provisioned with the physical and/or digital information and tools needed to successfully collaborate (e.g. voice communications, displays for formatted documents and areas to capture ideas).

³ These structural types are based on teaming models presented in James Highsmith, *Adaptive Software Development: A Collaborative Approach to Managing Complex Systems*. Dorset House, London, 1999.

⁴ Note that even emergent collaboration is designed; much of it is merely done on-the-fly instead of pre-planned.

⁵ The requirement for each element of the collaboration design is scored on a scale of 1-5, where 1 = Low and 5 = High. The value expressed in this numerical ranking is a contextual judgement (a 4 assigned to Potential Team Size means that the team of collaborators will be larger than average, while a 2 assigned to Colocation of Collaborators indicates that there is a relatively weak requirement for the people involved to be in the same physical space. Note also that the requirement value of a single element intentionally corresponds to the increments shown on the collaboration design continuum in Figure 1.) Next, a rank order relative priority is assigned to each requirement, with 1 being the most important and X (determined by the exact number of requirements listed) the least critical. Whereas requirement scores are assigned in the context of an individual element, relative priority ranking involves comparing the importance of each element to the others.

⁶ The following table shows the assignment of Requirement score and Relative Priority for each collaboration element, as well as its calculated Weighted Score and Weighted Average, and the Weighted Average Score:

Element	Requirement	Relative Priority	Weighted Score	Weighted Average
Strategic Importance	4	1	40	4.44
Time to Outcome	3	4	21	2.33
Key Stakeholders Identified	5	3	40	4.44
Subject Matter Experts Identified	5	2	45	5.00
Potential Team Size	4	10	4	0.44
Co-location of Collaborators	2	8	6	0.67
Availability of Collaborators to Work Synchronously	2	7	8	0.89
Routine Nature of Situation	3	5	18	2.00
Serial Nature of Work Process	3	6	15	1.67
Availability of Supporting Technologies	1	9	2	0.22
Weighted Average Score				3.98

ABOUT THE AUTHOR



Larry Hawes is the Principal and founder of Dow Brook Advisory Services, where he advises enterprise software vendors on their market strategies. He is also an internationally recognized analyst, consultant, author, speaker and educator on the application of information management technologies to drive high-value business transformation.

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