

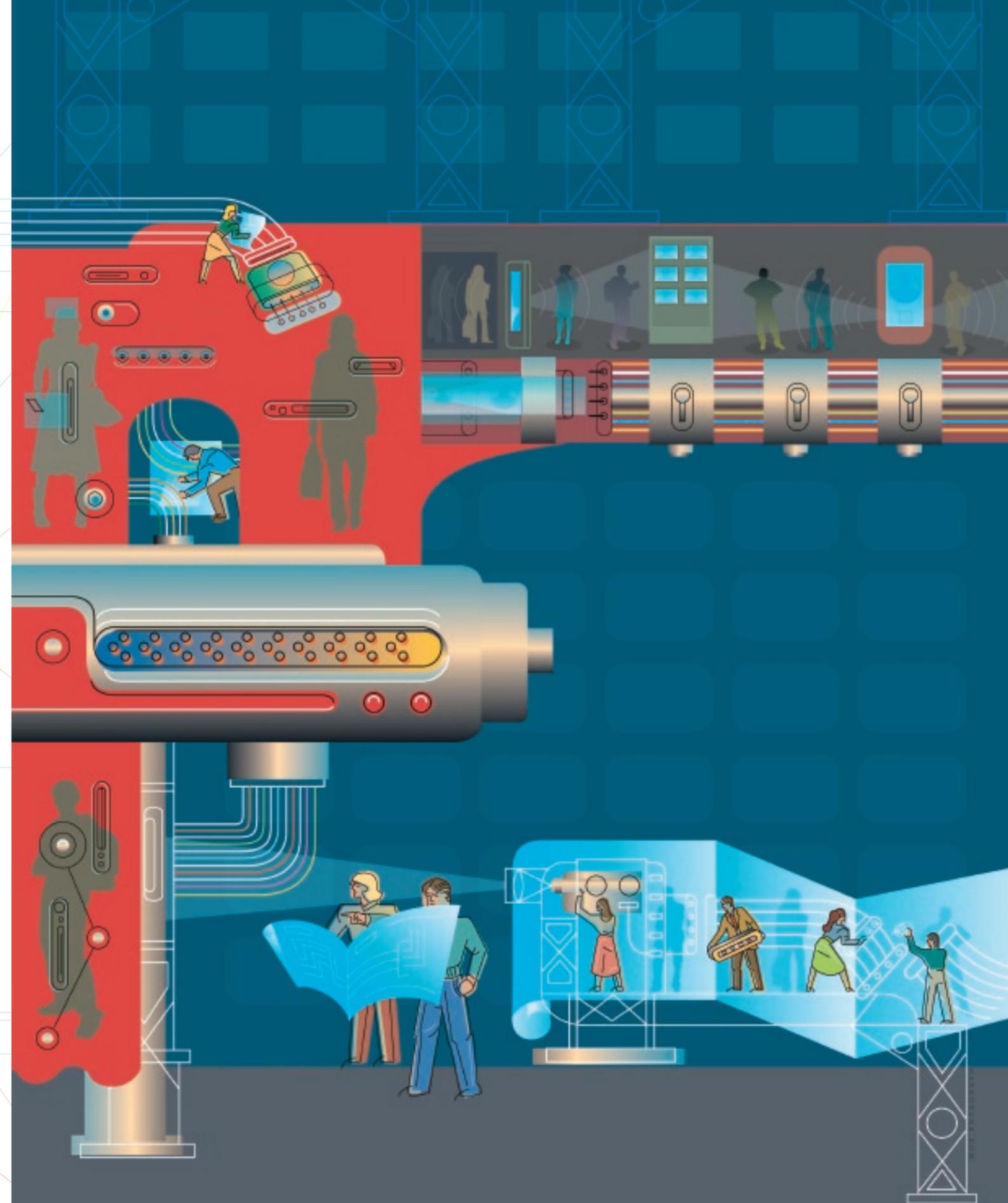
## Conference Connections

# Rewiring the Circuit

By George Siemens, Peter Tittenberger, and Terry Anderson

In late 1971, several “entirely forgettable” messages were sent between two machines (today we would call them *computers*, but the word *machines* more accurately reflects their size at that time) located only a few feet from each other.<sup>1</sup> Like the first telephones and televisions, e-mail would soon grow in popularity, astonishing even the most optimistic proponents of the new technology. The rudimentary origins of a new medium often belie the substantial shift in perspective and practice afforded to subsequent researchers and users.

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## The real emphasis should be less on technology and more on the affordance of the open dialogue that now defines the primary value of conferences.

Educators who have experimented with using technologies in classrooms will likely recall the *domino of possibility effect* of providing a web page with reading materials. Access creates possibilities, which in turn shape students' expectations. The course web page developed into learning management systems, which have since morphed into increasingly decentralized, distributed, and modular teaching tools. The plethora of tools—blogs, wikis, podcasts, social bookmarking, Skype, Twitter, Facebook—can be intimidating. But for many educators, these tools form the basis of new approaches to, and means of, interacting with students, each other, and information.

Having gained prominence in geek culture, e-mail and social tools have moved into classrooms, corporate training programs, and more recently, spaces of academic dialogue including journals, books, and—our focus here—conferences.<sup>2</sup> Conferences are designed to meet the ongoing educational and training needs of professionals. A secondary and, some would argue, primary function is to facilitate networking, informal learning, and socialization among professionals. Conferences are short-term (time-bounded), in contrast to ongoing work programs or distributed mailing lists. They are often paid for by the employers of professionals, with the expectation that both the formal and the informal sessions will enhance the professionals' performance in the workplace. Conferences are accessible (usually for a fee) to all members of the profession and often to the general public as well.

Conferences are also expensive. Attending face-to-face conferences is costly not only because of the high and increasing price of hotels, transportation, conference center bookings, and meals but also because of the disruption and

opportunity costs when professionals are not performing their normal work. The high ecological footprint of air travel can also be added to the expenses associated with face-to-face conferences. Finally, the personal cost of time away from family and community must be included to calculate the true costs of attending and also organizing this form of professional development.

These high—and increasing—conference costs are intersecting with the enhanced interaction, the shift in perspective, and the greater opportunities offered by the new social technologies. Anyone can now create and distribute content/information with free online tools. In field after field, the barriers of participation in global conversations have fallen: radio is giving way to podcasts, newspapers to online journalism, and geographical relationships to online social networking. So too are conferences being “remade,” with the decline in barriers and the addition of technology influencing not only how attendees participate but also how organizers host conferences today.

### Adding Technology to Conferences

Conference attendees often desire a voice—the ability to comment on keynotes and sessions and to discuss subjects that interest them. The voice of attendees has traditionally been shuttled into the hallway, where the rich conversation vanishes as rapidly as the words are spoken. A critical concern arises: “How can these discussions be captured so that they can spiral into increased dialogue and understanding for others not present?”

In his 2004 book *The Wisdom of Crowds*, James Surowiecki captured the spirit of the collaborative trends in media and society. The combined individual activities of many can provide an accurate understanding of even the most complex issues. “We all know something” is the underlying theme driving much technological and societal change. Although the well-crafted reasoning of experts will continue

to play an important role in conferences, the more informal discussions and presentations at “unconferences” offer valuable exposure to cutting-edge ideas.

The real emphasis should be less on technology and more on the affordance of the open dialogue that now defines the primary value of conferences. Whether a small-table discussion, a chat at the bar, or a contribution to the conference wiki, blog session, or Twitter-fest, the common defining theme centers on *control*. Instead of listening passively, conference attendees in each of these scenarios experience a high level of engagement and ownership. Web technology, to date, has best symbolized this important shift, since its decentralized structure does not reflect as strong a central position for the speaker or teacher.

Thomas Kuhn's focus on concept-induced innovations by thinkers like Newton and Einstein represents only part of the change experienced in information and knowledge environments. Freeman Dyson states that tool-based innovations are far more common. Although certain advances in science and society may well be driven by conceptual and theoretical shifts in thinking, the development of new tools creates new affordances and possibilities of use.<sup>3</sup> Consider how the following two elements are currently influencing conferences:

- The process of creating, validating, and disseminating information: who knows, who organizes, who speaks, who validates (i.e., Kuhn's conceptual/philosophical change)
- The use of technology to extend dialogue beyond barriers of time, space, and related cultural variables (i.e., Dyson's tool-based change)

These parallel changes are also reflected in traditional classrooms: the knowledge-authority of the instructor is increasingly balanced with the awareness of the social developments in learning. The social basis of learning is extended through pedagogies of exploration (problem-based learning, experience-based learning) instead of through an exclusive emphasis on presentation and lecture. These trends in learning theories

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and the pedagogy of exploration follow a progressive trend in education since the late nineteenth century. Though subject to criticism,<sup>4</sup> the shift in our understanding of learning and our approaches to teaching runs parallel to the growth of technology use in minimizing traditional control-based barriers.

Technology as a *tool for transforming practice* in conferences is largely our focus here. Computers, mobile phones, podcasts, blogs, Second Life, RSS, Google Reader, and many similar tools afford new ways of interacting before, during, and after conferences. Like general approaches to teaching and learning with technology, technology use in conferences runs on a continuum: augmented, blended, simultaneous-blended, online, and unconferences—with a corresponding level of participant control.

### *Augmented Conferences*

An augmented conference is one in which technology enhances face-to-face sessions and presentations. Of course, technology has been used to augment face-to-face conferences since the days of the famed magic lantern. Today, most conferences augment face-to-face presentations with projected PowerPoint slides or, for the more ambitious, with live web browsing and video clips. These technology-enhanced presentations mirror the format of the modern classroom, where technology plays a role in augmenting the delivery of content.

Also prevalent in most conferences today is the e-mail room and/or wireless access for laptops. This brings the office to the conference for many participants, allowing them to stay current with non-conference work (though some would argue that this is not entirely a positive development!). The last several years in particular have seen a significant rise in technology presence: overhead presentations have given way to PowerPoint, paper handouts have yielded to wikis, and blog comments on proceedings have risen in popularity. Wireless access during conferences has become even more important, since it affects how participants are able to interact with information. Participants can look up references, create shareable notes and comments, seek

additional resources, and connect with conference colleagues.

Along with the greater control offered to attendees by the inclusion of technology, participation is similarly increased. For example, Australia's eLearning06 conference used mobile technology to more fully involve participants in conference presentations.<sup>5</sup> Questions were posed to participants via SMS (each attendee provided his/her mobile phone information at registration), and keynote presenters responded, with aggregated questions and comments projected for others to see. Similar results could be achieved through the use of "clicker" student-response systems.

Less common is the use of technology to augment the sessions, presentations, and conversations that occur in the informal spaces of dialogue and networking. For example, a conference wiki or blog may be used during the conference. Conferences can also encourage the use of a conference tag to extend the conversations and commentaries into participants' personal spaces and can then bring them together through aggregation. For example, EDUCAUSE promoted the use of the "EDUCAUSE2007" tag for its annual conference, with attendees' tagged blogs, links, and photos aggregated on the association's website ([http://connect.educause.edu/term\\_view/EDUCAUSE2007](http://connect.educause.edu/term_view/EDUCAUSE2007)). Twitter (a micro-blog tool in which a writer describes current activities or resources to a network of friends and colleagues who have subscribed to the writer's Twitter feed), IRC, social tagging systems such as Diigo, and photo-sharing sites such as Flickr may be used to increase opportunities for participants to interact during and after the conference.

### *Blended Conferences*

Blended conferences have both online and face-to-face components. For example, a keynote presenter may compile an introductory or supplemental mes-

sage, via a wiki or podcast, and enable corresponding conversation ahead of and following the conference event. The additional opportunities to engage with presenters and other conference attendees before, during, and after the conference constitute the primary attribute of a blended conference. Wikis can be used for sharing conference resources with attendees, as was done by the Ohio Digital Commons for Education 2007 Conference (<http://www.ohn.org/conferences/ODCE2007/ODCE2007.php>). During its Global Summit 2006, education.au used wikis for recording small-group discussions that followed each presentation (<http://www.educationau.edu.au/jahia/Jahia/pid/305>). EDUCAUSE offered podcast interviews with many of the presenters at its 2007 annual conference ([http://connect.educause.edu/term\\_view/EDUCAUSE2007](http://connect.educause.edu/term_view/EDUCAUSE2007)). And Elliott Masie used similar blended approaches in his e-learning conference series, including a Second Life presence, wiki notes to capture conference proceedings, and podcasts before the event (<http://www.learningwiki.com>). Capturing key ideas in a wiki or podcast extends the value of the conference well beyond the physical meeting. Conference members who are unable to attend certain sessions because of scheduling conflicts are able to review the content of the session—or additional content—after the event.

### *Simultaneous-Blended Conferences*

A simultaneous-blended conference involves simultaneous live and streamed presentations. For example, conference proceedings may be streamed live online (audio, graphics, or video), allowing participation by attendees who are not able to physically attend. The University of Manitoba used this technique in January 2007 during the Personal Learning

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Environments symposium ([http://www.umanitoba.ca/learning\\_technologies/plesymposium/](http://www.umanitoba.ca/learning_technologies/plesymposium/)). Video of the event was streamed live, allowing remote participants to observe conference activities. Numerous conferences have adopted similar dual approaches—including virtual presentations broadcast to a face-to-face audience—to extend the reach of conference activities.<sup>6</sup>

Second Life adds additional opportunities for conference organizers to include remote participants. EduserV Foundation's Symposium 2007 (<http://www.eduserV.org.uk/foundation/symposium/2007/>) simultaneously streamed all conference proceedings into various Second Life locations, with each location permitting up to forty avatars to attend. The visual presence of others increases the sense of connectedness for participants: "A key aspect of virtual worlds such as Second Life is the sense of presence participants feel in the space." Similarly, the "power of presence" and the "enrichment of experience" have been cited as important sensibilities that enhance the learner's experience in alternative spaces (virtual worlds) such as Second Life.<sup>7</sup>

A word of caution is warranted, however. Conference organizers and presenters need to be aware of the increased complexity that results from the use of technology. Second Life has a history of delays, since the system often "bogs down" under the strain of too many users. Speakers must be able to attend to both face-to-face and virtual audiences. With the possibility of Second Life failures or disjointed conversations as speakers try to blend two audiences into one coherent presentation, additional technical and human facilitation support will likely be required.

### Online Conferences

Online conferences are delivered completely online. Conferences may include synchronous sessions delivered via a web-conferencing platform like Elluminate (with the sessions recorded for viewing by others in different time zones) and also asynchronous discussions hosted in mailing lists, discussion forums, or portals or learning management systems.

Terry Anderson (a co-author of this article) claims to have organized the first virtual conference held on the Internet, in 1992.<sup>8</sup> Most early online conferences relied exclusively on e-mail, often with volunteers porting messages beyond the early Internet to FidoNet, Usenet, and other bulletin board systems and private networks. In a second conference, in 1994, Anderson was the first to organize sessions in immersive contexts using text-based MUD tools. In 1995, the University of Maryland was the first to charge a fee for remote participants to attend a virtual conference.

Recent examples of online conferences include the following:

- **Webheads in Action Online Convergence** (<http://wiaoc.org/>): a multi-day online conference. Presentations are held in various platforms (Elluminate, webcast, audio, Skypecast, Flickr, Interwise). Question-and-answer sessions are held during the live event. Recordings are available for later listening/viewing. Post-session dialogue is distributed across attendees' blogs.
- **Online Connectivism Conference** ([http://umanitoba.ca/learning\\_technologies/connectivism](http://umanitoba.ca/learning_technologies/connectivism)) and the **Future of Education** ([http://umanitoba.ca/learning\\_technologies/conferences/foe/](http://umanitoba.ca/learning_technologies/conferences/foe/)): week-long conferences with approximately 1,700 registrants from more than sixty countries. Live presentations were held in Elluminate. Asynchronous discussions were hosted in Moodle. Conference tags were suggested for bloggers to use in order to aggregate the distrib-

uted conversation in Pageflakes. For example, the tag "OCC2007" would appear in blog search engines (e.g., Technorati, Icerocket, or Google Blog Search), as well as in various social bookmarking or personal information management tools (e.g., del.icio.us).<sup>9</sup>

- **K-12 Online Conference** (<http://k12onlineconference.org/>): a multi-week online conference with planned keynotes, informal "When Night Falls" reflections, and open dialogue and reflection on learning experiences. The conference served as a catalyst for many in the K-12 education sector to explore alternative views of teaching and learning. The coalescence of community around significant learning events (with K-12, global in nature) provides the foundation for sustained change far greater than what might be possible in a traditional conference.
- **EDUCAUSE Learning Institute (ELI) Web Symposium** (<http://www.educause.edu/eliws061>): a multi-day online symposium with presentations targeting academic leaders. The symposium was hosted in Horizon Wimba and moderated by Diana Oblinger of EDUCAUSE. Presenters delivered PowerPoint presentations to remote locations, with pauses for questions and answers during and following the event.
- **Technology, Colleges, and Community** (<http://tcc.kcc.hawaii.edu>): the oldest continuing online conference, founded in 1996 by Kapi'olani Community College (KCC) in Hawaii. Hosted annually by KCC and the University of Hawai'i at Manoa, Educational Technology Department, in association with Osaka Gakuin University (Japan) and in partnership with LearningTimes.org in New York, this virtual conference has been an innovator in the use of many synchronous and asynchronous conference tools.
- **NMC Series of Online Symposia**: a series of ongoing conferences held on the New Media Consortium (NMC) Second Life campus. The NMC events augment face-to-face and virtual conferences and have recently been held as stand-alone immersive-context sessions.

Though likely to grow in prominence, completely online conferences are still relatively obscure and appeal to individuals who are oriented to online environments. Although online conferences are very cost-effective, participants' propensity to provide only "continuous partial attention"<sup>10</sup>—in which the conference competes with unrelated demands from the home or workplace—may seriously degrade the attention given to, and thus the outcomes from, an online conference.

#### *Unconferences, BarCamps, and Open Spaces*

The most radical shift in conference planning has resulted in the *unconference*: a gathering that is held with no formal conference planning at all. Unconferences and their sister events—BarCamps (<http://www.barcamp.org/>)<sup>11</sup> and Open Space conferences (<http://www.openspaceworld.org/>)—are largely self-organized and are generally held face-to-face. These approaches to conferences are focused more on distributed control and informal organization and less on the medium of delivery. A recent *Business Week* article expressed the appeal of unconferences: "The loose structure helps ensure that ideas being batted around are relevant to people in the room and presented with minimal pomp."<sup>12</sup> Unconferences offer the greatest level of informality and participant organization. Conference organizers play a facilitative, rather than a presentation-filtering, role. Facilitating networking and self-organization are important cornerstones for today's unconferences. Traditional conferences can take advantage of unconference formats by creating space in conference agendas for participants to self-organize.

#### **Adding Technology to Conference Planning**

How should conference organizers use technology to address the diverse needs of participants? Currently, planning technology use in conferences is in a stage of flux. Generally accepted approaches for organizing and hosting participative conferences have not yet emerged. But guidelines are available from organizers of previous events. Vance Stevens has published a detailed description of his

experiences in planning the first Webheads in Action Online Convergence: arranging for sponsorship, speakers, technical details, conference logistics, and post-conference evaluation.<sup>13</sup> Additional guidelines specifically for the planning of unconferences and BarCamps are also available.<sup>14</sup>

The planning cycles for online conferences are shorter than for traditional, face-to-face conferences. And unconferences can be organized in a matter of days or weeks. But even unconferences don't work equally well in all locations. Larger communities—such as Toronto, London, or San Francisco—are able to draw on a larger population base.

Greater utilization of technology in conferences provides value for

- extending activities and dialogue,
- capturing content,
- supporting conversations,
- encouraging social networking,
- enabling tagging,
- fostering backchannel communication, and
- aggregating content.

#### *Extending Activities and Dialogue*

Planning to extend conference activities and dialogue with technology requires consideration of the intended audience and of the expertise of organizers. Fortunately, the use of podcasts, wikis, and blogs to promote conference events is not an overly challenging task. Many tools mentioned here are open source or are available for use without charge (though advertisements sometimes accompany the latter). The simply social nature of these tools is the cause of much of their success. When planning events, organizers should consider podcasts of potential speakers, wikis to capture or share presentations, and wrap-up e-mails and discussions (though in fairness, we should note that often the lofty aspirations of post-conference dialogue quickly give way to the reality of work pressures).

#### *Capturing Content*

Planned presentations, keynotes, and plenaries—whether delivered online or in a traditional conference—can be recorded via Elluminate, podcasting, or Camtasia

## Using Technology to Increase Conference Connections

Conference planning committees can substantially increase attendees' opportunities to connect with each other and needed information by adopting a few approaches:

1. Record presentations (with audio at a minimum, video preferred). Keynotes should be streamed and recorded. Ideally, all conference sessions would be recorded and made available online.
2. Permit flexibility in the conference schedule for "soft periods," when attendees are encouraged to self-organize on themes of personal interest.
3. Provide pre-conference interviews, podcasts, or online discussions with keynote speakers and thought leaders in the field.
4. Promote conference tags for bloggers to use so that discussions can be found and aggregated for those attendees who are less technically inclined or interested.
5. Aggregate conference discussions and centralize the many voices in a site such as Pageflakes. Distributed conversations can be overwhelming for many. Promote the conference aggregation page during introductory sessions and daily opening presentations.
6. Provide all conference notes, papers, and presentations in wiki form for others to review after the conference. Better yet, involve students or other interested parties in blogging and summarizing conference sessions.
7. Create opportunities for connections and networking through tools like introNetworks, Elgg, or similar networking services (by completing a personal profile, attendees can connect with others of shared interest), Facebook communities, Ning networks, and Second Life meetings.

## Organizers may want to establish a central web page to capture the multitude of voices, images, and information generated by attendees.

Studio. The low cost of recording and hosting makes audio a viable option for any conference. TEDTalks (<http://www.ted.com/talks>) has increased its already exceptional reputation through the release of conference video clips. The recording of sessions also allows attendees to listen to presentations they may not have been able to attend due to schedule conflicts.

### *Supporting Conversations*

If you build it, will they come? No. Conversation does not occur simply as a result of creating a social space. Much like an online course will not produce conversation without some direction and facilitation from the instructor, conference conversation in Moodle or other forums will not necessarily be successful. During the Online Connectivism Conference, various bloggers were approached to serve as perspective filters, commenting on presentations from the context of K-12, emerging countries, gender issues, and poverty. The intent was to raise the level of dialogue, rather than relying solely on dialogue to emerge. It is often easier to join a conversation than to initiate it.

### *Encouraging Social Networking*

Social networking is vital to effective conferences—whether held online or face-to-face. EventVue (<http://www.eventvue.com/>), according to CrunchBase, “builds online communities for conferences in order to improve conference networking amongst individuals. EventVue lets you see other attendees, search for others based on mutual interests, and also connect before the conference.”<sup>15</sup> Confabb (<http://www.confabb.com/>) provides a similar service by offering a central place to publicize conferences, connect with friends/colleagues, and broaden the social experience. Other tools, not exclusively focused on conferences, include Elgg, Twitter, or tools that are under the control of participants (e.g., personal blogs) but that utilize conference tags in order to connect with others.

Social network analysis—the exploration of connections between people, with the exploration often represented visually in map form—is frequently cited as important in understanding how

information transfer and communication occur within organizations.<sup>16</sup> Once network connections have been represented in a map, individuals can seek key nodes (or nodes of personal interest). In a conference, for example, through the use of introNetworks (<http://intronetworks.com/>), participants can actively seek out individuals with shared interests, in related fields, or with similar social connections. In online conferences, similar networking can occur through the use of attendr (<http://attendr.com>).<sup>17</sup>

### *Enabling Tagging*

Regardless of conference format, the use of a conference tag enables attendees to locate conference-related content and each other. When participants upload an image to Flickr, for example, the conference tag allows others to search for related images. When participants blog or post resources in a social bookmarking service like del.icio.us, tags allow the content to be found. Search services—such as Technorati—rely on tags to display aggregated activities in blogs and wikis.

### *Fostering Backchannel Communication*

Whether the conference is held face-to-face or online, social “microblogging” tools such as Twitter, Jaiku, and Pownce allow attendees to form their own social networks during conference proceedings. Previously, “backchanneling” (holding side conversations about conference topics or speakers) was handled through IRC or instant messaging. Conference organizers can participate, and make explicit, backchannel conversation by establishing a microblog identity (e.g., a Twitter profile can be used to post updates relating to the conference and can then be included on the main conference aggregation page).

Tool selection should account for the broadest interests of conference attendees. Many teachers, instructors, and academics have started blogging, but they still compose a small percentage of the field. To include others in the side conversations of the conference, conference

planners can consider the use of centralized services—perhaps a Moodle discussion board or a Ning network.

### *Aggregating Content*

When conference proceedings shift from the podium to the conference floor, a concern quickly arises for most attendees: how to follow the multitude of voices. Several tools are available to assist attendees in following the distributed conversations: conference tags, blog search engines (Icerocket, Google Blog search, Technorati), and aggregation sites (Pageflakes, Newsvine, and iGoogle). Organizers may want to establish a central web page to capture the multitude of voices, images, and information generated by attendees. Experienced bloggers may make little use of the aggregated page, but individuals who are less involved with reading information via RSS will find the resource useful.

## **Benefits of Adding Technology to Conferences and Conference Planning**

Incorporating technology into conferences and conference planning offers numerous benefits to presenters, attendees, and organizers.

*Costs.* Cost is a limiting factor for many would-be conference attendees. In addition to conference fees, the expenses for travel, accommodation, and time away from work are significant. Online conferences eliminate some of these expenses. In addition, environmental concerns are prominent today. Online conferences have the added benefit of reducing the ecological footprint. Many conference planners, already considering the environmental impact of activities, are using digital media instead of paper copies of proceedings. In Canada, for example, Tree Canada assists organizations in planning carbon-neutral events and

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maintains a list of conferences that have adopted zero-impact principles.<sup>18</sup>

*Depth of learning.* The rush of regular conference sessions often results in participants not being able to explore topics at a depth they desire. When conference proceedings are blended or online, attendees can spend significantly more time exploring resources and discussing ideas with presenters and other conference attendees. Interaction online also offers greater prospects for improved face-to-face dialogue.

*Quality.* The challenges of engagement in communities with many participants and few contributors are faced online as well. Those who do participate add significantly to the quality of dialogue. In-depth online discussions—not restricted by time and place—of key ideas, contrasting viewpoints, and multiple perspectives enhance the depth of the pre-, during, and post-conference learning experience.

*Retrievability.* Recordings of presentations can greatly extend the reach of conferences and the reputation of presenters. Audio and video recordings of conference keynote speakers are commonly available following events. These resources are particularly valuable to educators and also as learning resources. TEDTalks and EDUCAUSE offer conference recordings of their events. Educators, by relying on these recordings, can substantially improve the quality of their courses while reducing development costs.

*Access.* The bounded nature of face-to-face conferences can be at least partially overcome through streaming video and audio of keynote presenters. Offering opportunities for remote participants often does not substantially increase expenses for the conference but can help to raise awareness. MIT's OpenCourseWare (<http://ocw.mit.edu/>) functions on a similar principle of exchanging access for

recognition and service to the academic community.

*Exposure and Impact.* Organizers and presenters benefit from the increased exposure of freely shared conference resources. Conferences that stream or record keynote presentations often benefit from far greater numbers of viewers watching the archived sessions than the actual live conference. Presenters—hoping to bring about change through their work—benefit from increased attention and discussion around key ideas. Presenters can also benefit from a two-way flow of open conversations. The K-12 Online Conference, as mentioned earlier, coalesced educators in disparate locations around means to improve the quality of learning. The potential impact of a conference with at least a partial online presence is far greater than what can occur through traditional means. The increased exposure of conference activities is significant. For example, presentations of the University of Manitoba's Online Connectivism Conference have been viewed more than 15,000 times.

*Change.* Perhaps of greatest importance is the progressive growth of a discipline's ability to engage around key ideas and create conversational spirals to attend to emerging trends. The capacity for critical reflection, vision creation, and direction planning is important for education as a whole. The "record of dialogue" produced through augmented, blended, simultaneous-blended, and online conferences is a valuable resource for framing and exploring the opportunities and challenges facing educators today.

### Drawbacks of Adding Technology to Conferences and Conference Planning

Incorporating technology into conferences and conference planning can also produce a few drawbacks.

*Change of pace.* Conferences are opportunities for meeting new colleagues and enjoying a temporary reprieve from day-to-day workplace concerns. Com-

pletely online conferences do not provide attendees the opportunity to break from daily activities. Many conference attendees at both the Online Connectivism Conference and the Future of Education meeting felt that work pressures affected their ability to actively participate. Instead of a period of refreshment, online conferences may become a period of additional stress.

*Social aspects.* As defined by Vicki Suter, Bryan Alexander, and Pascal Kaplan in 2005: "Conferences are only partially about content."<sup>19</sup> The social experiences with colleagues—getting together for meals and beverages—are important lubricants for dialogue. Until we can stream wine online, the face-to-face engagement will still hold a priority billing. In survey results following the Online Connectivism Conference and the Future of Education conference, 76 percent (of 224 respondents) and 81 percent (of 56 respondents), respectively, stated that they were unable to spend the desired amount of time attending the conference. Concerns primarily centered on time zone (for attending the conference live), work demands, or schedule conflicts.

*Revenues.* The addition of technology to a traditional conference adds value for attendees. A purely online conference, however, results in a change in attendees' willingness to pay. In the surveys conducted after the Online Connectivism Conference and the Future of Education conference, 70 percent and 73 percent of attendees, respectively, stated they would not have attended if a fee had been charged. When asked about appropriate fees, most of those attendees who were willing to pay suggested between \$50 and \$100.

*Quality.* Additional concerns arise from the informal nature of unconferences. Like Wikipedia, the spirit of unconferences is found in democracy and openness. The inherent openness raises some concerns about quality. Traditional conferences rely on a review process to select papers and presenters. Although this system is by no means completely effective, it is an attempt to ensure a degree of quality for conference proceedings. The current success of unconferences is due to their small-scale presence, in an environment

where most individuals know each other. As growth continues, the concern facing Wikipedia—that pure openness translates into abuse—may become a concern for un-conferences as well.

*Distractions.* Educators who have instructed in classrooms where students use laptops are acutely aware of the opportunity for distractions. Certain instructors, even schools, have gone so far as to ban laptops (or at least block Internet access).<sup>20</sup> Research is required to evaluate the impact of multitasking in aiding or detracting from conference sessions.

## Conclusion

Vance Stevens has reflected on his experiences in organizing online conferences. In a statement that will likely resonate with educators, he noted that his goal is “to contribute to the archive of knowledge in our domain of interest, and to the concept that such knowledge should be free, easily accessible, and shareable in the spirit of creative commons.” He added: “Finally we (or to be more accurate, ‘I and a few of my most kindred spirits) simply seek to drive a cue ball into the network and enjoy the spectacle of watching all the pieces fly like particles of atoms generating higher quantum levels of energy through the ongoing chain reaction in the context of critical mass of participants in our converging networks.”<sup>21</sup>

The influences of the conceptual pressures of increased openness, two-way dialogue, and blurred distinctions between experts and amateurs have combined with numerous tools for dialogue, personal expression, networking, and community formation. For many, these changes have influenced how they listen to music, watch videos, read news, and even learn. Now, the rudimentary beginnings of two-way dialogue, greater accessibility, increased connections, and reduced costs are becoming evident in many conferences as well.

More than a decade ago, overhead projectors gave way to LCD projectors and PowerPoint presentations. Several years ago, wireless access moved from luxury to necessity status. Today, we are seeing a rapid increase in the practice of recording and broadcasting presentations for remote participants (and archiving

presentations for future listening and viewing). We are also seeing the emergence of tools for self-expression (blogs), “micro-dialogue” (Twitter), alternative reality (Second Life), networks (Ning), aggregation (Pageflakes), capturing and collaborating (podcasts and wikis), and participant-driven organization (unconferences). These tools form the basis for a substantial shift in perspective in the area of academic dialogue and information exchange. Although it is too early to fully understand the impact of increased access, heightened dialogue, reduced costs, and greater quality of engagement, the remaking of conferences may well be on a par with the seismic changes initiated in 1971 as messages were sent between two computers, separated by only a few feet. *e*

## Notes

1. Ray Tomlinson, “The First Network Email,” <[http://openmap.bbn.com/~tomlinso/ray/first\\_emailframe.html](http://openmap.bbn.com/~tomlinso/ray/first_emailframe.html)>.
2. Although open scholarship in journals and the cooperative development of books through wikis exhibit trends that parallel the changes in conference structure, they are beyond our consideration here.
3. Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962); Freeman Dyson, *Imagined Worlds* (Cambridge: Harvard University Press, 1997).
4. See Paul A. Kirschner, John Sweller, and Richard E. Clark, “Why Minimal Guidance during Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching,” *Educational Psychologist*, vol. 41, no. 2 (2006), pp. 75–86, <[http://www.cogtech.usc.edu/publications/kirschner\\_Sweller\\_Clark.pdf](http://www.cogtech.usc.edu/publications/kirschner_Sweller_Clark.pdf)>.
5. Robyn Jay, “Leading the Field at Randwick: A Conference with a Difference,” *ICVET eZine*, <[http://www.icvet.tafensw.edu.au/eZine/year\\_2006/nov\\_dec/conference\\_elearning.htm](http://www.icvet.tafensw.edu.au/eZine/year_2006/nov_dec/conference_elearning.htm)>.
6. ALT-C 2007 (<<http://www.alt.ac.uk/altc2007/>>); MoodleMoot (<<http://moodlemoot.ca/moodle/index.php>>); EuroCALL (<<http://vsportal2007.googlepages.com/home>>).
7. Robert J. Rothfarb, Paul Doherty, Robyn Higdon, and Aimee Weber, “Embedding Webcasts in Virtual Worlds to Enhance User Experiences,” International Conference on Computer Graphics and Interactive Techniques, Boston, Massachusetts, 2006, <<http://portal.acm.org/citation.cfm?id=1179622.1179828>>; Jay Cross, Tony O’Driscoll, and Eilif Trondsen, “Another Life: Virtual Worlds as Tools for Learning,” *eLearn Magazine*, <<http://www.elearnmag.org/subpage.cfm?section=articles&article=44-1>>.
8. Terry Anderson and Robin Mason, “The Bangkok Project: New Tool for Professional Development,” *American Journal of Distance Education*, vol. 7, no. 2 (1993), pp. 5–18, <<http://auspace.athabascau.ca:8080/dspace/handle/2149/775>>.
9. The continual flow of online conference activities is an important point of value for participants. After the event, however, some type of “artifact” or summary can become valuable for citation and review. Traditional conferences have a well-established process of papers and proceedings. Even though online conference proceedings can be made available for attendees after the conference, many will appreciate a synthesis. Creating a record of not only presentations but also discussions can be important for later review. The Online Connectivism Conference produced a conference book—edited and with commentary from participants. The Future of Education conference produced a special journal edition with *Innovate*, extending the focus beyond conference presentations and inviting contributions from anyone with a vision for education’s future.
10. Linda Stone, “Thoughts on Attention and, Specifically, Continuous Partial Attention,” *WikiHome*, September 12, 2007, <<http://continuouspartialattention.jot.com/WikiHome>>.
11. BarCamp sheds all emphasis on prior organization and embraces a “we’ll do it ourselves” approach. Though currently focused largely on technology fields, EduCamps offer the promise of greater engagement. The objective of BarCamps in general is to move conference attendees from spectator to active participant. Conference “rules” include the following: only three-word introductions, no pre-scheduled presentations, participants must blog the event, presentations run as long as needed or until the next scheduled slot, and so on (<<http://barcamp.org/TheRulesOfBarCamp>>).
12. Scott Kirsner, “Take Your PowerPoint and . . .,” *BusinessWeek*, May 14, 2007, <[http://www.businessweek.com/magazine/content/07\\_20/b4034080.htm](http://www.businessweek.com/magazine/content/07_20/b4034080.htm)>.
13. Vance Stevens, “Behind the Scenes at the Webheads in Action Online Convergence, November 18–20, 2005,” *TESL-EJ*, vol. 9, no. 3 (December 2005), <<http://tesl-ej.org/ej35/int.pdf>>.
14. “Ten Steps to Organizing a Barcamp,” *Clever Girl*, October 2, 2006, <<http://www.cleverclevergirl.com/?p=10>>; “10 Top Tips for Unplanning the Perfect Unconference,” *Euan McIntosh’s edu.blogs.com*, August 14, 2007, <<http://edu.blogs.com/edublogs/2007/08/10-top-tips-for.html>>.
15. See the profile on CrunchBase: <<http://www.crunchbase.com/company/eventvue>>.
16. Art Kleiner, “Karen Stephenson’s Quantum Theory of Trust,” *strategy+business*, vol. 29 (2002), <<http://www.strategy-business.com/39910>>; Duncan J. Watts, *Six Degrees: The Science of a Connected Age* (New York: Norton, 2003).
17. See, for example, the Future of Education participation map: <<http://attendr.com/foe>>.
18. Tree Canada website: “Lists of Certified, Carbon Neutral Events,” <<http://www.treecanada.ca/programs/climatechange/co2-neutral-events-list.htm>>.
19. Vicki Suter, Bryan Alexander, and Pascal Kaplan, “Social Software and the Future of Conferences—Right Now,” *EDUCAUSE Review*, vol. 40, no. 1 (January/February 2005), p. 48, <<http://www.educause.edu/er/erm05/erm0513.asp>>.
20. Jeffrey R. Young, “The Fight for Classroom Attention: Professor vs. Laptop,” *Chronicle of Higher Education*, June 2, 2006, <<http://chronicle.com/free/v52/i39/39a02701.htm>>.
21. Vance Stevens, “Some Reflections on the Future of Online vs. F2F Conferences,” *adVancEducation*, August 3, 2007, <<http://advancededucation.blogspot.com/2007/08/some-reflections-on-future-of-online-vs.html>>.