Today’s global workplace demands collaboration beyond the office walls. Virtual teaming is no longer a nice-to-have, but a necessity for organizations to thrive across space and time boundaries.
In Isaac Asimov’s robot novel, *The Naked Sun*, the characters can’t stand being in the same room with one another. They despise face-to-face interaction.

In this chilling story that takes place on the futuristic planet of Solaris, where personal contact alarms everyone, Solarians much prefer to be in touch virtually, viewing one another on wall-to-wall image panels, much like today’s telepresence screens. While earthlings are not yet Solarians in our own daily sci-fi home and work life, we now happily communicate at a distance, even playing Scrabble with strangers on our PDAs.

Harnessing the power of virtual worlds is now a necessity as industry penetrates every corner of our planet and workers are required to be in touch with teammates on the next block and on distant continents at any time. In most companies, participating in virtual teams is no longer an exotic exercise, but a bottom-line requirement. Education and training that takes full advantage of virtual teams not only provides essential skills, but engages learners in one of today’s most advanced workplace practices.
Asimov’s weird virtual life is no longer a spooky fantasy, but commonplace today. Millions are in constant contact by email, Skype, smartphones, social media, texting, and other remote technologies. At work, interaction is routine by teleconference, webinars, and groupware, and in some places, via Second Life and telepresence.

Opportunities to introduce virtual teaming are no longer limited by clunky technical means. Your workforce and you now have everything you need on your desktop or in your hand to participate in engaged collaboration on the job or in class. There are no longer any barriers to virtual teaming.

Following a decade in which corporate training introduced often alienating self-learning modules from which workers drop out at alarming rates, virtual teaming restores and extends collaboration, giving personnel the chance to interact with each other in engaged, project-based classes. Virtual teaming is a giant step ahead in e-learning and a promising leap beyond on-site, instructor-led classrooms.

E-learning instructor Edward Volchok says that cross-functional teams are essential for businesses to deliver superior value to their customers. Teamwork, says Volchok, is the key to engaging other departments to achieve company objectives. He adds that participants in virtual classes learn the art of debating, generating consensus, and delivering cogent proposals under tight deadlines.

**Overcoming virtual distance**

Practiced effectively, virtual teams can overcome what global teamwork experts Karen Sobel Lojeski and Richard Reilly call “virtual distance,” a consequence of a number of potentially alienating factors. When your co-workers are invisible, it’s not surprising if you become somewhat disoriented.

Often widely separated geographically and located in distant time zones, virtual teams are frequently composed of members from different cultures who work in different organizations with unfamiliar standards and models of behavior. Lojeski and Reilly claim that lack of affinity among team members is the greatest obstacle to getting jobs done. Reducing emotional estrangement in groups, they say, is the single most important task.

Building trust can be far more difficult virtually than face-to-face. According to Richard Dool of Seton Hall, mismatches can be more easily detected in a classroom than at a distance. Dool says that team conflict often emerges out of uncertainty about tasks and roles. To mitigate ambiguity, Dool encourages virtual instructors to introduce team structure, with clear expectations and standards of performance. Following a three-year study of more than 250 team assignments, Dool concluded that one of the best
ways to avoid conflict is for instructors to assign members to teams, rather than allowing them to decide on their own with whom they will partner.

In traditional classrooms, instructors practice techniques that can make stage actors riveting—rehearsal, scripting, improvisation, characterization, and stage presence. Exploiting tension, timing, counterpoint, and humor with dramatic effect, skilled face-to-face instructors exhibit qualities that can stimulate thought and action. In traditional classrooms, we’re like theater-goers in front-row seats. But sadly, not all instructors are gifted. Facing dull teachers, many of us doze off, get distracted, or spend the duration of the class on our BlackBerries.

Online instructors can no longer count on what they’ve been doing for hundreds of years. Team members are out there, but they must find their way. To stimulate virtual teams, instructors must orchestrate participants remotely, building “intellectual scaffolding,” by prompting students with projects, discussion topics, and questions to encourage them to think.

Virtual instructors must act as facilitators, urging participants to engage in discussion and argument to generate and link ideas. Ironically, moving from physical to online space often calls upon instructors to be far more engaged than they are in classrooms.

With virtual teams, teaching presence emerges from what University of Illinois professor Karen Swan identifies as engaged instructor-student interaction and feedback, exploiting email, chat, discussion boards, webinars, and other applications. At their best, virtual teams work together on shared goals, not only acquiring new knowledge, but practicing how to be talented partners—giving and receiving help, sharing and explaining content, and offering feedback.

In virtual teams, personnel perform highly valued workplace skills, including how to offer nuanced critique, how to challenge assumptions without alienating co-workers, how to argue your case without upsetting your peers, and especially how to manage conflict. You not only acquire new on-the-job competencies, but you learn how to interact with others, emerging not merely as a participant but with new roles as facilitator, reporter, and observer.

Curiously, online educators say that learning online can be far more engaging than sitting passively in classrooms. A multi-year United States Department of Education study found that students do better online than in conventional classes. In universities, instructor-led e-learning is routine and has been practiced successfully for more than a decade, now with more than four million participants in online classes.

Virtual tools
Fortunately, most corporations long ago introduced nearly every tool you will need to support virtual teaming across your company’s footprint. At most companies, virtual teams can be launched seamlessly without introducing exotic and often expensive new hardware and software and can communicate in highly sophisticated ways without spending vast sums on high-end systems.

Without adding a new line item in your budget or entering negotiations with vendors, virtual teams can be set in motion at your company today, exploiting currently installed commercial or freely available open-source software. “Without the numerous tools and technologies now available to communicate and collaborate, virtual teams might never have become so widely successful,” report Finnish global teaching experts Anu Sivunen and Maarit Valo.

Even with enhanced collaborative tools available, email turns out to be the most commonly used technology. Information sharing is also supported by text-based discussion forums, usually housed on widely installed companywide learning management systems or as part of groupware.

Many products offer a variety of other common features, such as document distribution and live chat, among other applications. Collaboration software suites may also include calendars, application sharing, time tracking, surveys, and content and workflow management, all designed to make it easy to share information.

Peer-to-peer learning
Perhaps the most intriguing and productive benefit of discussion boards is their value as peer-to-peer interactive communication tools. In discussion forums, team members interact with one another in ways usually limited in conventional classrooms. Some
experts believe that students can learn more from their peers than from absorbing lectures or reading textbooks passively. Online, members can engage in round-the-clock sharing, argument, and extended discussion—behavior rarely open to employees seated in classrooms.

Recently, blogs have emerged as a common web application, often replacing discussion forums with many of the same options, extending them by combining text, images, and hyperlinks. Even more recently, teams have adopted wikis as collaborative websites, permitting members to add and edit content.

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With remote learning emerging as a highly competitive marketplace, a wide variety of meeting software is now linked to commercial learning management systems or available from vendors separately or freely on the web. Virtual teammates can hold meetings using webinars with instructors and participants delivering real-time audio slide presentations. Webinars offer chat and hand-raising features aimed at stimulating engagement. Some instructors encourage employees to deliver their own webinars, giving them the chance to report on team projects in real time.

Most webinars can be archived, giving those unable to attend the option of retrieving presentations anytime. Podcasts give teams the opportunity to retrieve presentations on demand. With merely a microphone and recording software, podcasts are easily uploaded and available on mobile devices on the run. Personnel are often encouraged to produce their own podcasts to share their work with others.

Because workers are often dispersed among several time zones while traveling frequently for work and family, mobile phones have largely replaced landlines. With its SMS capability, texting has transformed the nearly ubiquitous cell phone into a text-based asynchronous tool.

Using Skype and other voice-over-Internet-protocol (VoIP) applications, computers now link to high-speed telephone connections with personnel able to call one another without charge. Many teams rely on teleconferencing as a common virtual team communication tool. More recently, without introducing groupware, social networking and social media sites—such as Twitter, Facebook, and LinkedIn—give teams alternative and engaging ways to keep in touch.

According to leadership expert Michael Ryan, virtual teams have been
adopted for many reasons—principally for their technological and economic advantages—but also “to enhance diversity, to engage human capital more effectively, and to pursue dynamic market possibilities.” With virtual teams, says Ryan, companies can more easily open up to diverse participation through exposure to a wide range of perspectives. Employees can now participate from practically anywhere, engaging in core business activities as well as joining strategic decision making.

**Virtual teaming across the globe**

Proclaiming that it “values teams within and across business units, divisions, and counties,” Standard Bank, a South African financial institution—the largest in Africa—operates in 18 African and 20 other countries. It recently launched a virtual course for intercultural team managers. Guiding participants in ways to improve virtual team effectiveness and increase productivity, it introduces team building, developing trust, cultural and linguistic barriers, and conflict resolution.

Instructor-led, remote classes employ a wide range of tools—blogs, podcasts, streaming video, social networking, wikis, collaborative software, and alternate reality worlds. Personnel are free to enter anytime from anywhere, participating whenever convenient.

Christine Uber Grosse, who led virtual sessions for SeaHarp Learning Solutions in Africa, said that compared with the broad possibilities open to global employees in virtual discussion, “the face-to-face linear format—where only one person can participate at a time in class discussion” now seems fairly narrow. At Standard Bank, participants agreed that, while working on a team may take more time and effort than doing things on your own, remote teamwork can be far more effective.

Across the Atlantic, Consolidated Edison of New York, the city’s giant electric and gas utility, launched a major, companywide virtual teaming effort more than five years ago to build a cadre of data-driven executives equipped to run the company with solid, decision-making tools. Still ongoing, executives, drawn from every corner of the company, engage in virtual discussions from just about anywhere—work, home, or even on the road.

Using sharply honed analytical methods, employees learn to attack the seemingly intractable business problems they struggle with every day. Over time, 17 teams collaborated on solving helpdesk, recruitment, construction, and other business process problems that ultimately lent themselves dramatically to productive solutions.

Investigating the steep rise in calls at the company's helpdesk, the team discovered that during a five-year period, call volume increased markedly, from 69,000 in 2001 to 83,000 in 2005. The length of each call also increased significantly, with an average call lasting more than six minutes. Using analytical techniques, a cross-functional virtual team collaborated on solutions to open self-service capabilities, reduce call volume, and shorten call time.

Following its study, the team proposed a number of solutions that led to the introduction of a self-service portal, customer service training, and other solutions implemented by the company almost immediately. Within a few months, calls per day started to decline. In 2006, the daily calls averaged 261. The next year, they fell to 226, and two years later, the average declined to 198. In 2008, of more than 20,000 password inquiries, more than 17,000 were seamlessly processed by the portal. Before it was mounted, the helpdesk fielded all of them.

ConEd senior vice president Luther Tai says that virtual teams, employing analytical techniques drawn from the course, produced “measurable and significant recommendations” that changed many of their business processes. Tai, who participated in ConEd’s first remote class, says that the success of virtual teaming was doubly valuable because it achieved companywide objectives “without the added travel expense and work stoppage of a conventional, on-ground classroom experience.” Summing up, Tai said, “The true benefit of working virtually is the flexibility it gives employees to complete projects and assignments from anywhere at any time.”

**Robert Ubell** is vice president of Enterprise Learning at Polytechnic Institute of NYU, where he also heads NYU-ePoly, the school’s online unit. He is the editor of Virtual Teamwork, due out this summer from John Wiley & Sons; rubell@poly.edu.
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