

10 Ways to Enhance Communication and Collaboration in Education

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Excellence through Collaboration

Novell is working with educational institutions around the world to drive excellence in education through enhanced collaboration.

Social networking has quickly become the communication mode of choice among young people. Students in middle schools, high schools and on college campuses are building peer networks, coordinating activities, sharing information and generating content through instant messaging, blogs and sites such as myspace.com and facebook.com. Young people figured out several years ago that social networking is an amazingly effective way to collaborate.

Leading-edge educators recognize that social networking and other next-generation collaboration technologies can also be applied in more structured ways to enhance education. Next-generation collaboration tools provide an effective way to connect, keep informed, share information and ideas, and get more done in less time at a lower cost.

Novell® is working with educational institutions around the world to drive excellence in education through enhanced collaboration. Our experience with these organizations has given us insight into the challenges they face. It has also helped us identify ten key ways educational institutions can further their mission with next-generation collaboration.

Challenges in Education

Meeting high expectations with limited funding continues to be a major challenge at every level of education. Current economic conditions threaten educational funding even further. With the ever-present financial imperative of doing more with less, schools are looking for innovative, cost-effective ways to enhance the learning process.

Demonstrating student performance is another challenge. In the United States,

legislation such as the No Child Left Behind Act compels primary and secondary schools to meet minimum standards. Such mandates require additional efforts on the part of teachers, administrators and staff to establish metrics, conduct testing, report on performance and establish strategies to address non-compliance. The associated bureaucracy takes time that can distract teachers from their primary mission.

At the primary- and secondary-school level, student diversity in terms of economic status, language skills, academic achievement and family support systems make it difficult to ensure that all students acquire appropriate knowledge and skills. Students and their families also have an unprecedented level of educational choice. With options such as public schools, private schools, charter schools and home schooling programs, enrollment and associated funding are more relevant than ever before.

Competition is fierce in higher education circles as well, as colleges and universities vie for students with the highest academic achievement. Tech-savvy young people understand the power of next-generation collaboration outside of school. They expect to be able to leverage that power as they move through the educational system. And while the vast majority of schools can't attract students with celebrity-level faculty or programs funded by wealthy donors, they *are* looking to differentiate themselves by offering a more innovative system for learning.

Finally, the nature of education itself is changing. At universities worldwide, the on-campus experience is important, but the off-campus learning process is becoming ever

more so. The broad movement toward online or distance learning has created a large population of virtual students who want the same rich and interactive experience as their in-class counterparts.

How Next-generation Collaboration Helps

New technologies can't address every educational challenge. Next-generation collaboration tools can, however, help educators and students communicate and collaborate in more innovative ways, stimulate organizational efficiency and cost savings and, ultimately, provide the means for enhanced student learning.

Novell delivers these benefits with Novell Teaming. With this innovative solution, faculty, staff and students use virtual workspaces to share and access documents, calendars, discussion forums and more. They can also leverage enterprise-class social networking tools to help them find the content or expertise needed for projects, research and other educational pursuits. Add-on conferencing capabilities enhance the functionality of Novell Teaming with real-time collaboration, including voice and Web conferences and instant messaging.

With these tools, all participants in the educational process can interact, share information and exchange ideas. The result: They learn more effectively, solve complex problems faster, develop effective educational materials in record time, and stay abreast of the latest and most compelling information in their fields.

And like all Novell collaboration solutions, Novell Teaming offers strong security to protect sensitive, confidential and private information. It also gives educational institutions strong controls to prevent unacceptable behavior or content. Workflow functionality can ensure that content goes through appropriate reviews and approvals

before publication. And content filtering and management systems can be integrated into system design to provide additional levels of protection.

Best of all, by simplifying the way students, faculty and staff create, share, discuss and manage information, educational institutions can drive productivity to new levels, which translates into getting more done with less. Read on for ten specific ways you can deliver these results to your educational institution.

No. 1—Bridge the Gap between Busy Teachers and Tech-savvy Students

Every year students become more tech savvy. And every year teachers struggle to keep up. It's hard to take time out of busy schedules to learn how to create a class Web page and keep it up to date with a calendar of events, homework assignments, class projects, useful links and other important information. E-mail is useful for many interactions. However, teachers at every level need more effective ways to provide students with the right information at the right time.

Fortunately, the latest collaboration tools are far more natural to use than traditional Internet technologies. These tools provide teachers with an effective way to bridge the technology gap and embrace the kinds of tools their students already use. Class workspaces are easy to set up, and they provide a single, easy-to-access place to publish information on special events, homework assignments, and individual and group projects. As a result, students can tap into this information at any time—even when they are cramming for an exam at midnight or putting the final touches on an end-of-term report on a Sunday afternoon.

Blogs and wikis help teachers collaborate on lesson plans and help students develop content for individual and group projects. Workspaces provide a central place for



“Teaming and conferencing tools are enabling us to work together more effectively on budgeting and finance, institutional effectiveness, accreditation, compliance, curriculum and other issues that involve running the business of the school and providing a quality education to our students.”

Justin Gatewood

Webmaster
Victor Valley College

Next-generation collaboration tools promote the free exchange of ideas and sharing of best practices, enabling educators to benefit from the knowledge and skills of others.

Using team workspaces, social networking tools and real-time conferencing capabilities, college professors can seek out and collaborate with colleagues at the same institution or at institutions around the world. They can also meet with students online, one-on-one or as a group, to address specific topics, special interests and student needs.

collecting and reviewing assignments, monitoring progress on projects and giving students feedback on their work. Calendars show when tests are scheduled, when projects and assignments are due, and what topics are being covered when. And unlike commercial social networking technology, all of these tools can be configured with the content filtering and related controls required by most educational institutions.

No. 2—Exchange Ideas and Share Best Practices

Finding just the right way to present a complex topic, reach a student with special needs or solve other educational challenges takes time and experience. Chances are, another teacher has already taken the time and gained that experience. Unfortunately, teachers are often limited in their ability to draw on each other's expertise and know-how.

Next-generation collaboration tools promote the free exchange of ideas and sharing of best practices, enabling educators to benefit from the knowledge and skills of others. Using team workspaces, social networking tools and real-time conferencing capabilities, college professors can seek out and collaborate with colleagues at the same institution or at institutions around the world. They can also meet with students online, one-on-one or as a group, to address specific topics, special interests and student needs.

At primary and secondary schools, teachers can communicate more easily with their peers at a given school and across the district as a whole to resolve problems and

gain insight into effective teaching strategies. These tools also provide the foundation for effective special interest workgroups and communities of practice that cross subject and grade-level boundaries.

Students benefit as well. They can use the same next-generation collaboration tools to study online with their peers, jointly develop materials for a group project, and locate content or expertise to enhance their own interests and work. Teleconferencing and whiteboarding capabilities enable them to meet at any time from the dorm, from home or from the local coffee house.

No. 3—Catch Up Absent or Struggling Students

It's flu season. Six students in your class have been out all week. They missed the entire module on the Industrial Revolution of the late-nineteenth century. And, while the three English-language learners in your class didn't miss school, they are still struggling to grasp the impact of this event on world socioeconomic conditions.

Catching up so many students when illness or other factors cause them to get behind has always been a challenge. If you put this responsibility on the parents, students might not learn basic concepts that lay the foundation for more advanced learning. If you use precious class time to go over these concepts again, you may not be able to cover all the scheduled topics for the school year.

Fortunately, a teaming and conferencing system has captured your classroom presentation each day, including the whiteboard content. Absent and struggling students can view it on a computer or download a podcast to play on an MP3 player. Using these resources, they can catch up at home or during the after-school homework club.

And what about the homework assignments? They are readily available through your classroom home page, a central workspace where students can quickly find out what they need to do and when each assignment is due.

No. 4—Onboard and Develop Employees

The new academic year starts in two weeks. The number of new faculty members is overwhelming this year. All of them need to be brought up to speed on policies, procedures, job requirements and expectations. The faster you accomplish this, the faster they can get on to the business of teaching.

Teaming and conferencing capabilities make it easy for team members to ramp up to full productivity with online orientation and training sessions. New people—from instructors and visiting professors to the bookstore manager and campus security director—can complete these sessions before their first day on the job. From day one, they will know how to request equipment, get approvals for an outside speaker, fill out time sheets and arrange for substitutes.

Behind the scenes, workflow manages the appropriate forms through review cycles so that everyone has the right equipment, supplies, badges, library cards, information access privileges and other resources. In addition, it helps administrators ensure that new people comply with requirements for health exams, fingerprinting, certifications, first-aid training and so forth.

These tools can help new people assimilate into the environment and culture much more quickly as well. How? By connecting new people with experienced ones through blogs, forums, myspace-style personal pages and other channels. Such connections incorporate new people into the informal network and

give them the opportunity to explore teaching strategies, classroom management experiences and other topics that help them excel.

Throughout the academic year, you can leverage these same capabilities to support employee development. Online training provides people with new knowledge and skills, preparing them to climb the career ladder or step into new positions that interest them. Again, workflow ensures that the right equipment and resources are allocated before a job change occurs and that all certifications and other requirements for the new job are in place.

No. 5—Meet (or Exceed) Performance Goals and Standards

In many parts of the world, mandates require schools to demonstrate their success in terms of student performance. And the desire to increase performance—mandates aside—is a hallmark of educational institutions worldwide. But many public school teachers today feel they spend more time preparing students to perform adequately on standardized tests than they spend on academic excellence. The pressure to demonstrate compliance with educational standards has never been greater.

Next-generation collaboration tools can help teachers deliver the best possible education by focusing on three important questions:

- *What do our students need to learn?*
- *How do we know they are learning it?*
- *What action can we take when they are not?*

Through blogs, wikis, forums and other collaboration tools, teachers can engage in discussions about how to deliver the core curriculum most effectively. With communication and conferencing tools, they can complement face-to-face faculty collaboration sessions with ongoing virtual dialogue.



“Our staff is finding that it’s much easier to share information and collaborate on documents using workspaces, wikis and blogs than it is with e-mail alone. Check-in and check-out features, versioning, indexing and other capabilities make it easy for people to schedule meetings, collaborate and find the information they need.”

Alex Korkishko
Systems Engineer
Weber School District



“Our emphasis on global business requires a collaboration model that facilitates continent-to-continent communication as well as it does face-to-face instruction. Using the next-generation collaboration capabilities in Novell Teaming, faculty and students can collaborate more effectively within and across disciplines. With this solution, we’ll not only streamline our operations, we’ll equip students with the knowledge and skills to become business leaders in a global, increasingly virtual world.”

John Carpenter
Chief Technology Officer
McDonough School of Business,
Georgetown University

Instant messaging and conferencing enable real-time communication to address not only academic performance, but other time-sensitive issues like illness, injury, safety threats, or weather conditions that affect student transportation. These instant meeting capabilities enable the appropriate people to come together quickly to take action. The result is faster intervention, enabling teachers to keep students on track and performing optimally.

Next-generation collaboration tools also make it easier for teachers to tailor classroom education to varying levels of knowledge and ability—from special needs students to non-native-language speakers to the highly gifted and talented. Teachers can collaborate to refine and implement strategies. They can leverage conferencing tools to provide opportunities for students to participate in accelerated classes not available onsite. For example, middle schoolers can participate in a high school math class online and high school students can learn a foreign language through a local community college.

The bottom line is that these next-generation collaboration tools keep the focus where it should be: on learning and instruction. Thus, students perform well on standardized tests because they have assimilated the required knowledge and skills; not because they’ve been drilled repeatedly on how to take a test.

No. 6—Streamline and Standardize Document Development

E-mail has become a staple for communication among faculty, staff and students. But the volume of messages has skyrocketed over the past decade, and many educational institutions suffer from e-mail overload. Thousands of messages clog up networks and inboxes, and important messages often become trapped in spam filters, thus interrupting the communication flow.

Moreover, because e-mail is such a convenient way to disseminate information, people rely on it to distribute documents for review and editing. E-mail, however, wasn’t designed for document management. Juggling document versions and ensuring that everyone is working with the most up-to-date drafts is difficult, if not impossible.

Educators need new collaboration tools that address the need for rapid creation of curriculum and lesson plans, grant proposals, research reports, academic papers and articles, conference presentations and more. They also need new tools for locating helpful resource material, reviewing and editing documents, getting them approved, organizing them and making sure they are readily available to the right people.

Workspaces with file and wiki folders provide an easy, efficient way to organize information on Web sites so that people can author and edit documents—and keep track of different versions—easily.

Blogs and forums allow people to provide commentary and discuss issues and ideas as document development occurs. Surveys provide a means of collecting and aggregating team ideas and opinions. Instant messaging and conferencing tools enable real-time communication to speed document creation and help the team meet critical deadlines. And workflow capabilities automate review and approval processes, ensuring that all stakeholders are in the loop and that approval cycles aren’t stalled because someone didn’t receive an e-mail message.

Educational institutions are already beginning to adopt these innovative tools to support committees and teams developing content on accreditation, campus safety, student government, institutional effectiveness, regulatory compliance and much more.

No. 7—Extend the Value of Meetings

A pre-eminent scholar in astrophysics will be a guest lecturer at your university for three weeks during the Fall term. For more than a year, a team of faculty and administrators has been working to arrange class presentations, faculty mentoring and a public reception. Informing everyone involved about relevant details hasn't been easy. But making the most of this scholar's visit—and ensuring that every detail is attended to—is well worth the effort.

Collaboration tools facilitate the successful completion of projects such as making arrangements for visiting faculty, preparing for reaccreditation or launching a master's program in a new field of study. Workspaces provide a central place for developing plans and providing supporting material. Blogs, wikis, calendaring, instant messaging, teleconferencing and whiteboarding help team members work together without traveling to a central place for face-to-face meetings. These same tools help the team disseminate information to keep other stakeholders up to date.

Online meetings have the potential to expand participation dramatically, engaging all stakeholders more fully. Instructors and faculty typically have widely varying schedules and often live some distance from the campus. Teachers of online classes may live hundreds of miles away. Online meetings accommodate varying schedules and geographic hurdles, allowing everyone to listen to discussions by phone, view presentations on a computer, and submit questions and comments through a chat window.

And by capturing the entire meeting and making it available online after the meeting is over, the educational institution can reach an even wider audience. A university could record a compelling lecture given to faculty

and share it with graduate students. Or a local school district could record public commentary on a proposed curriculum change and make the information available to all teachers in member schools. In this way, more people can participate in the information sharing process, and they can continue productive conversations long after a meeting is over.

No. 8—Complement Online Learning

Education has always been vital to career advancement, as well as a richer life. But hectic work schedules, long commutes on traffic-laden freeways and limited parking often make it difficult to pursue educational opportunities.

Effective distance or online learning tools overcome these obstacles. Many schools have adopted Web-based online course management software to distribute lesson materials and manage progress, making it easier for students to have what they need from any place with Internet access.

Team workspaces complement these solutions by providing Web-based tools to help students coordinate and collaborate. For example, students can use the Web-based training system to download a course assignment and study it to understand what research, study, writing or other work needs to be done. Then, as they work on the assignment, they can share ideas and work in progress with other students using file folders in the workspace.

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Next-generation collaboration tools enhance the ability of administrators to coordinate busy calendars and disseminate schedules of events and practices, travel itineraries, registration forms and other materials to the widest possible audience.

Coordinating and publicizing these extra-curricular events has traditionally required a tremendous amount of time, effort and paperwork. Next-generation collaboration tools enhance the ability of administrators to coordinate busy calendars and disseminate schedules of events and practices, travel itineraries, registration forms and other materials to the widest possible audience.

Replacing paper-based processes with online workflow and consolidating documents into easily accessible workspaces slashes paper usage, not to mention photocopying time. Instead of making dozens of copies of homework assignments, calendars and classroom handouts, teachers can make all this information available through a class workspace.

As students do their research and other work, they can post their ideas in wikis or blogs to share with their peers. Other students can read these blogs and post comments. They can use a threaded discussion folder to post lab findings, useful text references or thoughts from professors or advisors. The result is that work is amplified, allowing students to take their learning further than if they did the work alone.

Students can either use their personal workspaces to stage this sort of collaboration, or create a new workspace for a particular assignment. A study group can create a workspace to collaborate on assignments for the duration of the course. A calendar and task folder can make coordination for such a workgroup much more effective than the alternative of text and e-mail messages. And the dates and action items for study group members can all be stored in a single location where every member of the team can see them.

No. 9—Support Student Activities

Academic achievement is the primary focus of public education. At the same time, activities such as sports, band and choir, art programs, school newspapers and yearbooks are an essential part of a well-rounded education. So is participation in various clubs, community service events, competitions, conferences and symposia.

With these tools, student associations and administrators can make it easy for students to plan and participate in a variety of programs, groups and clubs. For example, the math honor society, soccer team or chess club can set up a workspace for maintaining membership qualifications, member lists, calendars, club events, sign-up forms and other relevant information. They can also use task folders to track action items like booking the photographer for team pictures, providing content for the school newspaper or submitting proposals for local fairs, competitions and symposia.

Moreover, when students are collaborating to develop papers and presentations for conferences, create mock-trial scenarios or work on other team projects, next-generation collaboration tools help them create a superior end product that highlights their efforts, skills and knowledge.

No. 10—Go Green

Students of all ages, from kindergarteners through doctoral candidates, are enthusiastically supporting green initiatives that promote environmentally friendly lifestyles. Next-generation collaboration fits right into the green philosophy.

Replacing paper-based processes with online workflow and consolidating documents into easily accessible workspaces slashes paper usage, not to mention photocopying time. Instead of making dozens of copies

of homework assignments, calendars and classroom handouts, teachers can make all this information available through a class workspace. By putting more information online, students can cut back on trips to pick up assignment sheets and other class materials. And by replacing face-to-face meetings with online collaboration, schools reduce fuel consumption and vehicle exhaust emissions even further.

Next-generation collaboration can even replicate one of the things people *do* love about paper: the ability to annotate with it. With teaming and conferencing capabilities, it's easy to make edits to a document, add content to a wiki or post comments to a blog. You can even use a shared whiteboard to brainstorm or jot down ideas during an online meeting.

The benefits of next-generation collaboration extend well beyond protecting the planet. These innovative tools also cut the costs associated with paper consumption and travel, which means educational institutions save time and money while being good citizens.

Novell Teaming

A longtime industry leader in workgroup communication, networking and collaboration,

Novell today delivers all the next-generation collaboration tools discussed above with Novell Teaming. Novell Teaming complements your existing solutions and features the security, cost-savings and scalability of Linux*. But most importantly, it fuels significant leaps in productivity for educators, administrators and students alike.

With Novell Teaming, it's easy to seek out expertise, share documents, create and manage versions, and access shared task lists and calendars. Faculty, staff and students can interact through discussion forums, wikis and blogs, regardless of geographical location. And with add-on conferencing capabilities, they can enjoy rich and real-time collaboration, which delivers the advantages of in-person meetings without the cost and hassle of traveling.

Novell Teaming harnesses innovative technologies to promote high levels of communication and collaboration that enhance education. So educators and students can share their vision, work in real time with their peers worldwide and save money while doing it.



“Novell Teaming provides a stable yet flexible framework in which our students can map out their own approaches to learning and build their own dynamic models. Using the e-learning environment is in itself part of the learning process. For us, e-learning was never about cutting costs, but rather about raising the quality of learning and the level of interaction between students and coaches.”

Michael Petterson

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Center of Market Economics
Copenhagen Business School*

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