AWARDS TO 23 FACULTY MEMBERS IN DECEMBER 2013

As in 2012, in 2013 the TAC (Technology Across the Curriculum) committee received a flood of applications; in the latest round of competition, the college was able to offer 23 awards. *The EdTech Edge* invited all of these award recipients to comment on their plans for these projects. Also, in this issue is an article by the Dean of Academic Technology, Michael Badolato, on the new technology classrooms (with photos); an article by Lance Eaton, Coordinator of Instructional Design, Academic Technology, on increasing use of Open Content in education including Open Textbooks; an article by Andrea Milligan, Director of Instructional Technology and Design, Academic Technology, on several new Academic Technology initiatives; and a list compiled by Andrea Milligan and Terri Whitney of free, scholarly electronic databases.

*Editor’s note:* The EdTech Edge, formerly known as Mousetales, is now available on NSCC’s public site. The editor wishes to thank Dave Houle and Kurt Eddy for the fine work they have done on Mousetales for many years (and their patience with the editor’s many requests). We are excited that in the future our publication will be able to take advantage of technology in a way that was not possible when the publication was located in NSCC’s student portal. The innovations by NSCC faculty, staff, and administration in the arena of academic technology will now be available to the general public.

**Credits**

*EdTech Edge* is a publication of Technology Across the Curriculum. The publication editor is Terri Whitney with layout by the NSCC Marketing Department. Contributors include Michael Badolato, Andrea Milligan, Lance Eaton, and Terri Whitney. Photography by Kurt Eddy, Jean Hodgin, and Joseph P. Modugno.
TAC PROJECTS: COMMENTS BY AWARD RECIPIENTS

JOHN BOSCO, Department of Business, writes:
I am developing an online version of BUSI06 Personal Finance. This course was approved by the Curriculum Committee in 2011, and is a required course in the Financial Services Certificate Program. This course has yet to run in the traditional classroom environment since being approved. The result is that the course is being fully designed to accommodate the online learning environment, without regard to past successes and failures in the classroom. While the use of a textbook will be required, the online environment allows for the use of web based personal finance to be incorporated into the class that may have been more difficult to do in the classroom.

JEREMY BRANSTAD, Department of Communication Skills, reports: For my TAC project, I plan to incorporate digital portfolios into my level one integrated reading and writing course. Digital portfolios should offer several advantages to print. Most importantly, they’ll help me integrate more in the way of multimodal projects into my courses: photo essays, audio essays, and that type of thing. I’ve found that working in more than one mode — not just text, but pictures and audio as well — helps students understand how to read and write more skillfully.

LANCE EATON, Coordinator of Instructional Design, Academic Technology, comments: My project involves using the hybrid flexible model to teach an American Literature 1 course. This means that the course has been designed for students to take entirely face-to-face, entirely online, or going back and forth, depending upon the individual students’ preferences. In the face-to-face environment, students will be exposed to short lectures mixed with various group work and activities, while in the online environment, students will have access to mini-lecture videos that I’ve created while also participating in an online discussion. All students will be coming together in a course blog. I’ve been working on this for the last year and am piloting the course currently.

ARTHUR BURT, adjunct, Department of History, Government, and Economics, is developing an online course which is a government elective concentrating on the Federal Branch of Government. Arthur says, “I am excited because this course will give our students a follow up to the local government course which is now offered online.” In his TAC application, Arthur explained:
“Teaching the one course I have online has already helped me to grow professionally. Prior to the ANGEL training and my first semester teaching online, I was a person who only used technology for basic things. I now see a news clip and immediately know where I can use it in my online course, and I am amazed that I really do feel like I know my online students, though I have never met them . . . The good news is that now I can teach a course I love and use multiple media tools to enhance the experience for the students.”
DEBORAH FINKELSTEIN, adjunct, Department of English, did not submit a report on her project, but in her application to develop a hybrid speech class she wrote: Currently there is an online version of this course and an in-person version of the course. In person, students present speeches to a classroom of their peers. Online, students record themselves giving speeches and present the recordings to their classmates. Both are excellent skills to have in the workplace, yet each version of the class only offers one skill. This is where a hybrid course comes in. It would allow the students to have the benefit of being able to speak in front of a live audience and being able to speak online.

PEGGY FIGGINS-HILL, Department of Human Services, writes: I am developing a hybrid class entitled Life Changes and Crisis: Adaptation and Intervention. This is a Human Services course that I have been teaching for several years in a face-to-face (F2F) format. Offering the class as a hybrid would be advantageous to those students who are not able to come to campus on a weekly basis. Many of the students taking this class are non-traditional students with extensive work and family responsibilities. This class will be designed to meet the needs of these students and others by offering most of the content information online and then meeting F2F to practice interviewing skills related to this content. An important piece of this course will also be a mandatory service-learning component. This will be aimed at helping the students connect their learning to the outside world. I am excited about this project and am looking forward to seeing it evolve.

CHRISTINE HEZZEY, adjunct, Department of Natural Sciences, reports: My project is to create module Prezis for use in my biology lecture. The goal is to take Prezis I had created last semester and put them into units so that students can review portions of material rather than having to cull through massive presentations. At the same time, the Prezis that I am creating are becoming clearer as I am becoming more proficient at using this tool to demonstrate connections.

Editor’s note: Prezi is a presentation software and storytelling tool based in the cloud (http://prezi.com).

“The goal is to take Prezis I had created last semester and put them into units so that students can review portions of material rather than having to cull through massive presentations.”

—Christine Hezzey
Dept. of Natural Sciences
shirley love kearns, department of practical nursing, writes: The project I am working on is converting my Nutrition course, PNR111, into a hybrid or possibly an online course. I am in the process of creating two new hybrid courses which will be offered at the same time during the spring of 2015. For example, I see both courses, HSPI14: Marketing the Tourism & Hospitality Industry and HSPI10: Planning Meetings, Conf. & Special Events, as being offered in the same time block (for example — one on a Tuesday and one on a Thursday at the same time). This would increase flexibility for students’ schedules and give them more choices. I plan to move some of the readings, research, quizzes, and other assignments online to allow more class time for industry-based case studies/scenarios and topics such as steps for a marketing plan and marketing budgets. For example, I will upload journal articles and YouTube videos to ANGEL and ask the students to discuss their relevance to the topic we are discussing in a class. Taking the online course [offered by academic technology] to learn what it is like to be an online student and to learn the many facets of teaching hybrid or online has been a great experience because it has allowed me to experience difficulties such as the pressure of deadlines, dealing with the technology not working at home, and learning ANGEL for the first time—all problems which my students may also face.

kristin hunt, project manager academic/career mapping, department of human services, states: My project for the Early College Program involves teaching students to use technology to enhance learning. Originally, we had planned to pilot the “Radix Endeavor” multiplayer online game for STEM designed by the MIT Scheller Teacher Education Program. However, after both the Early College Program staff and the academic technology staff investigated this game and discussed our findings, we decided that this was not the best tool for our program. As part of this grant, we were able to find other technology programs that more easily allowed our Early College students to learn about coding and creating apps. These have been well-received by our students, and we look forward to planning more interesting exercises for the students. Furthermore, the academic technology department has been able to support the use of the lenovo think pad tablets which our program has purchased for student use. They have helped us think about how to use these tablets to promote students’ familiarity with important technologies and integrate tablet use into our pedagogy.

betty kelly, department of tourism and hospitality, says: The TAC grant was to develop two hybrid courses. Currently the TGD (Travel, tourism, and hospitality) program doesn’t offer any hybrid or online courses. I am in the process of creating two new hybrid courses which will be offered at the same time during the spring of 2015. For example, I see both courses, HSPI14: Marketing the Tourism & Hospitality Industry and HSPI10: Planning Meetings, Conf. & Special Events, as being offered in the same time block (for example — one on a Tuesday and one on a Thursday at the same time). This would increase flexibility for students’ schedules and give them more choices. I plan to move some of the readings, research, quizzes, and other assignments online to allow more class time for industry-based case studies/scenarios and topics such as steps for a marketing plan and marketing budgets. For example, I will upload journal articles and YouTube videos to ANGEL and ask the students to discuss their relevance to the topic we are discussing in a class. Taking the online course [offered by academic technology] to learn what it is like to be an online student and to learn the many facets of teaching hybrid or online has been a great experience because it has allowed me to experience difficulties such as the pressure of deadlines, dealing with the technology not working at home, and learning ANGEL for the first time—all problems which my students may also face.

shirley love kearns, department of practical nursing, writes: The project I am working on is converting my Nutrition course, PNR111, into a hybrid or possibly an online course. The experience working with Lance [Eaton] and Andrea [Milligan] was and continues to be enlightening. I was surprised by the amount of technology available to help students and faculty and the organizational skills that are necessary to keep from falling behind in an online course. I have already begun to incorporate many of the teaching strategies I learned during this course into other courses I teach—so much rich and useful material.
Ann Koshivas, Department of Criminal Justice, states: After successfully bringing Criminal Law to the online environment, I am excited to be developing an online Juvenile Justice class. I have extensive experience in this area of law and hope to create a dynamic and interactive learning environment for my students. In particular, I want students to be comfortable sharing their thoughts on current trends in juvenile justice and ideas on how we can make positive changes to the system. In addition, this course fills a need as there are limited online course offerings in the Criminal Justice Program. More online CJ course offerings allow our students the flexibility to take courses either in the traditional on-site classroom or in an online environment.

John Kreeft, Coordinator of the Aviation Science program, did not submit a report on his project, but in his application to develop a hybrid course for Human Factors in Flight Operations, he said that “...the successful creation of a single hybrid course may be used as an administrative and curricular springboard to future online development of other aviation courses within the program.”

Marybeth Nelson, Department of Business, reports: My project is to supplement ACC203 Managerial Accounting by developing tutorials to support the course learning objectives. These tutorials contain formulas, illustrations, demonstration problems, and definitions. In addition, there are links to videos that offer a wide range of manufacturing processes which provide a foundation for discussing and analyzing the costing process. Thanks to the success of the fall 2013 pilot of these materials in one of my ACC203 classes, they are now available for all ACC203 sections on ANGEL.

Anne O’Shea, Department of Mathematics, writes: I am developing a Precalculus 2 online course. The technology available to support online teaching has changed tremendously since I first started teaching online in 2006. I’m looking forward to using many of the new apps available in hopes of creating a dynamic and interactive course.

“I am in the process of creating two new hybrid courses which will be offered at the same time during the spring of 2015...I see one course on a Tuesday and one on a Thursday at the same time. This would increase flexibility for students’ schedules and give them more choices.” —Betty Kelly, Tourism and Hospitality
MAria Pride, department of history, government, and economics, says: To create a hybrid World History 1 class, I have found myself in the position of an online learner. As a student I have never taken an online class so this [taking the online training class offered by Academic Technology] was a new experience for me. At first I felt a little overwhelmed and pressed for time. I think this was a very helpful experience because a student taking my hybrid class for the first time may have the same experience. I hope I am as good at relieving their anxieties as Lance [Eaton] and Andrea [Milligan] were with me.

PAM Quinlan, department of practical nursing, writes: My TAC grant is in full swing. I am working with Care Dimensions (formally Hospice of the North Shore) in developing a simulation for their staff regarding “Having Difficult Conversations in End of Life.” We are planning on doing this in March for their staff and I will develop curriculum around this for my Maternal-Child Health class. I plan on presenting this to the faculty next fall. This is a new collaborative effort for use with the sim-lab.

RICK Ponticelli, Department of Mathematics, explains: Finite Math is a newly developed and approved course offered by the math department, fully transferable to four year schools and one which is commonly required of students majoring in the business and social sciences. Because we anticipate a demand for it to be offered online, it was logical to obtain a TAC grant and move forward with this sort of curriculum development. This format will also promote students’ movement through NSCC’s college level math requirements more expeditiously, a goal of the DHE’s Vision Project.

RACHEL Roesler, Department of Criminal Justice, comments: I am developing an online course for CRJ208, Critical Issues in Criminal Justice. The TLO [Teaching and Learning Online] course instructors, Andrea Milligan and Lance Eaton, have done a fantastic job creating an online learning experience for the TAC grant recipients which mirrors what our own students will experience when they take the courses we are developing. The course resources and assignments have introduced me to new methods for teaching in online AND face-to-face environments. My biggest challenge has been developing the online course from scratch. Rather than modify my face-to-face class for an online environment, I am developing my online course as a textbook-free class which will require students to use podcasts, videos, news articles and scholarly journals for course content. Once my online course is developed, I plan to eliminate the textbook for my on campus sections and modify the course for the new content. It has been a great experience working with fellow educators at NSCC and learning from and collaborating with them!
Danielle Santos, Department of Communication Skills, reports: "The objective of this project is to implement a portfolio-based assessment piece to my writing courses through Digication (e-portfolios). I hope to use this technology in a way that will allow students to interact more personally and holistically with their own writing process by seeing their progression through drafting, research, and peer collaboration. The goal is to have all parts of the process maintained in one online component, easily accessed in and out of class, and assessed more thoughtfully by me when it comes to grading."

LeeAnn Soucy and Kathy Gallo, both of the Department of Human Services, explain: "The Child Development Associate (CDA) is a national credential for early childhood teachers. The CDA process has gone through a major transformation and requirements have changed. The two CDA courses at NSCC need to reflect the process and requirement changes at the national level. As part of this TAC grant, the ECE120: Intro to CDA course will be developed as a hybrid course because much of the information can be researched and viewed online rather than be delivered in the classroom setting. We are hoping that these adjustments will provide for more student reflection by using media, pictures and video outside the classroom setting."

Kevin Stanley, Department of Cultural Arts and Modern Languages, who is developing Great Religions of the World online, says: "World Religion online courses (like this one) are quite standard at nearly every college. Renewed interest in world religions increased after the tragic events of 9/11/2001. Of course, it has always been relevant in the health professions (and to anyone interested in expanding his/her knowledge of diverse world views). This course will assist students in not only learning the material, but also in sorting out the “official” from the “unofficial” web sites on the Great Religions of the World. I thank NSCC for supporting the TAC grant and helping me deliver this online course."

George Walsh, Department of Engineering and Industrial Technology, writes: "Energy has become a very important topic in our era. The Introduction to Energy course covers electrical and gas energy delivery services, generation, security, and government controls. I am developing an online version of the course which I hope will make it more attractive to a larger audience. There is an underserved demographic that would benefit from online access to this course. A large portion of this course material is best described with pictures and videos. I will use my extensive collection of utility and lineman photographs as instructional components in this course."
The average community college student spends over $1200 annually on classroom textbooks. That means that students who complete their learning in two years will have spent close to a single-semester’s worth of their money on textbooks. Nearly two-thirds of students at some point have not bought a textbook because of the cost (and that too has taken a toll on most of their performances within those courses). Though many of us are not aware of the specific numbers, we implicitly know and witness the result of expensive textbooks in our classes.

For many instructors, textbooks (and their often steep prices) are a necessary evil. Some will find ways of lessening the burden put on students by having copies available in the library for in-library use or allowing students to purchase earlier (and therefore, cheaper) editions. But in a given course section, we’re still likely generating hundreds if not thousands of dollars profit for publishers at our students’ expense.

But does it have to be this way? What if the course resources and materials can be made entirely free or significantly cheap enough so that no student is making a choice between books and life expenses? This possibility is not the future. It is now and it’s time we take advantage of it.

**WHAT ARE OPEN EDUCATIONAL RESOURCES?**

Open Education Resources (OER) are media-rich online repositories with content that faculty can use for free for their courses. This includes but is not limited to: textbooks, short-reads, videos, sound recordings, assignment guidelines, course notes, and even entire course packages. The purpose of these repositories is to make materials available for all students and faculty on all subjects so that we spend less time on “reinventing the wheel” of course content and more time on engaging with our students around the course content.

Many of them are in the public domain or have what is called a Creative Commons license (http://creativecommons.org/licenses/). Here are few examples:

- Open Education Resources Commons - http://www.oercommons.org/
- Community College Consortium for Open Educational Resources - http://oerconsortium.org/
WHAT ABOUT ACCESS?
An immediate question of access arises with OER as they are internet based, and not all students have access to a computer (though a 2012 NSCC technology study did show that 86% of students have laptops — to say nothing of any other devices). But let’s look at the logistics of this concern.

If a student does not have the $120 for the textbook, there is a good chance that he/she gets zero access. In that scenario, if the argument is that one can put the book on reserve at the library for the student to use — the same argument holds true for access for OER. Since our libraries have public-use computers, OER in this comparison is more accessible, because the student can access the online material from both campus libraries or any library that allows computer access (which is many, if not all, on the North Shore).

But if it is important to have the physical copy, many places offering free textbooks online, such as OpenStax (https://openstaxcollege.org), provide the student an opportunity to purchase a cheap print-copy of the book for $30. For many textbooks in the math and sciences that can mean over $100 savings.

Finally, there is no delay in access with OER. Students can access all of the content as soon as the course starts. Instructors no longer need worry about issues of financial aid delays, late shipping by the publishers, or other issues that regularly interfere with the course lift-off.

WHAT ABOUT STABILITY?
The belief that the internet is more unstable than the textbook industry might need some reconsidering.

**FIRSTLY**, it should be acknowledged that textbook publishing has its own instabilities, including the ability to cease publishing the book being used or to publish newer editions that may be inferior, pricier, or change things up enough to have to revise the course layout.

**SECONDLY**, even if the textbook arrives in the bookstore, many students may still have to leap through hoops to get their financial aid to cover the books (or even not have enough to cover it). The instability of those first few weeks leaves many faculty skipping or delaying the use of course content.

**THIRDLY**, OER content is often capable of being downloaded, edited, and inserted directly into a course shell. This means that their stability is much more assured than the textbook. If this is a significant concern, then one should make sure to make flexibility to download a criteria for selecting OER materials. Though in truth, this isn’t really much of a concern any more since content available in one OER repository is often duplicated into another—-that is, there are back-ups of back-ups across the Internet.

**FINALLY**, again, the content is present and ready to go from the start of the semester. Many of us have been caught in the situation where we don’t find out until too late that the textbook we want wasn’t ordered or not enough were ordered and are left scrambling to cobble together the rest of the semester. OER materials are available at the start and throughout the semester.

WHAT ABOUT QUALITY?
Some perceive OER as lower quality because they are free. Of course, psychological studies have shown that price influences perception. That $200 biology textbook must be awesome whereas that free biology textbook must be a poor comparison. Saying that there are a lot of poor selections in the OER somehow implies that this isn’t the case with textbooks, but of course, we know that’s not true. We can look to James Loewen’s famous book, Lies My Teacher Told Me: Everything Your American History Textbook Got Wrong and other similar research as a reminder of that.

WILL THERE BE POOR OER MATERIAL OUT THERE?
Absolutely. However, there will also be really great content. By using and promoting OER material, instructors will play an important role in helping colleagues sift out the good from the bad — just like they do already with textbooks.

However, OER also has the potential to deliver better content in three capacities.

1. Updating content: Updating content in OER materials is much easier than in a textbook and the beauty is that updated content will not require another new (and costly) edition.
2. Customizing content: Add, edit, or delete the OER resource so that it fits exactly how you want to use the material.
3. Shifting content: Why stick with just one OER object? Instructors can weave together the perfect course materials from numerous sources, rather than a one-size fits all source.

WHAT ABOUT TIME?

Converting to using OER materials will take time. There’s no question about it. But it is time well spent, not only for your students, but for the college and academia in general. Also, it doesn’t mean, however, that one must reinvent all of one’s courses in a single semester, but develop a strategy for how to do so in the long run. Start with replacing one item in one course and slowly grow from there. Faculty can also work with Instructional Technology and Design as well as the library who support such projects and will be releasing a LibGuide shortly on OER for faculty. It will take time, but so do these things:

- Finding new texts for a course (because the book went out of print).
- Dealing with new editions of the same textbook you’re using and updating course references to the textbook.
- Delays in teaching and learning because students don’t have access to the textbook.
- Answering questions about whether different versions of the textbook are acceptable.

Moreover, these things happen time and again, year after year.

Making students pay for any content beyond the course itself is the college’s means of externalizing costs at the expense of our students, and we do so for the profit of book publishers. The final analysis is that using Open Educational Resources not only empowers you as the instructor, it provides better access and fewer challenges to our students. OER also fulfills the community college’s vision for civic responsibility by using, sharing, and even developing open educational resources for the public’s benefit.

NEW INSTRUCTIONAL TECHNOLOGY RESOURCES AND SERVICES

by Andrea Milligan, Director of Instructional Technology and Design (ITD)

Instructional Technology and Design (ITD) has been hard at work this year implementing several exciting initiatives based on faculty input from Phase 1 of our Campus Instructional Technology Study. If you have any questions or comments on any of these initiatives or would like to learn more, please do not hesitate to contact us at itd@northshore.edu. We would love to hear your feedback on any of these projects.

1. ATOMIC LEARNING

In September, ITD implemented Atomic Learning: an online, on-demand technology and software training and professional development resource that provides faculty, staff,
and students 24/7 access to over 50,000 training tutorials. Through Atomic Learning, you can view short, easy-to-understand video tutorials to get just-in-time answers to your “how do I do that?” questions in over 200 software applications and technologies, such as Microsoft Office, Adobe Creative Suites, ANGEL, Google Apps, Windows and Apple operating systems, Web 2.0 tools and iDevices. Or you can view a series of videos to learn an entire software application. In addition to the technology training how-to tutorials, Atomic Learning also includes workshops on a variety of technology topics, such as avoiding plagiarism, computer literacy basics, using Microsoft Word to create MLA or APA citations, being an effective online student, Web 2.0, and effective presentation design.

Atomic Learning is available on and off campus and can be accessed through NSCC’s portal, Pipeline, by clicking on the My Course tab – just look for the channel called Technology Training Tutorials - Learning Made Easy. Click on the Atomic Learning web site link and enter your Pipeline username and password. Atomic Learning can also be accessed on an iPad. Just download the app at the App Store. You will need to use your full NSCC email address as your username.

Atomic Learning can be used in a variety of ways to support the teaching and learning environment. Here are just a few ideas.

- The how-to tutorials can serve as a resource to support students in completing projects that use technology by providing directions and answering questions.
- The technology workshops can provide multimedia materials to aid faculty in infusing 21st century skills into the curriculum.

Atomic Learning videos can also be easily integrated into an ANGEL course site to provide seamless access to the resources your students will need to complete a technology project. Instructions are available at http://goo.gl/pUaakY.

2. ONLINE LEARNING 101

In January, ITD launched Online Learning 101, a free online course for students to help better prepare them for their online courses. The self-paced course takes 2–4 hours to complete depending on the student’s technical proficiency. The goal of the course is to guide them through what is needed to succeed in online courses here at NSCC.

In this course, students will learn:
- Best practices for online students.
- Technical skills needed for online learning.
- Technical requirements for online learning.
- How to use ANGEL, the learning management system where the online course exists.

Information about Online Learning 101 is emailed to students taking online courses about two weeks before the semester starts. ITD hopes that online faculty will encourage their students to take this course by the start of the semester or incorporate it as an activity into the first module/week (the “Getting Started”/“Orientation” module).

If you are interested in looking at the course, please feel free to self-enroll as a student.

3. NSCC’S MOBILE APP GUIDE FOR TEACHING AND LEARNING

In early March, ITD announced NSCC’s Mobile App Guide for Teaching and Learning. a tool that we hope will be a valuable resource for faculty and students who wish to learn more about the role of mobile devices in the teaching and learning environment. This resource lists great apps to use both inside and outside the classroom in addition to other helpful information around integrating mobile devices. The guide also includes a section for NSCC specific apps (such as Ellucian Go to connect to various Pipeline functions or the various apps accessible with a library/Pipeline account). ITD encourages you to not only check out the many great apps listed there, but also recommend some of your favorite apps for teaching and learning. NSCC’s Mobile App Guide for Teaching and Learning is available at http://libguides.northshore.edu/NSCC_Mobile_App_Guide.

However, the guide can also be accessed on the NSCC’s Library Web site in their LibGuides section.
ACTIVE LEARNING CLASSROOM PROTOTYPES AT NSCC

by Michael Badolato, Dean of Academic Technology

A NEW APPROACH TO CLASSROOM DESIGN

If you have recently walked by room DB101 on the Danvers Campus, or LE304 in Lynn, you might have noticed some unusual looking furnishings not typically found elsewhere at NSCC (Figures 1 and 2). If you happen to be teaching in one of these rooms this semester, then you are a direct participant in the Academic Technology-sponsored Active Learning Classroom (ALC) Pilot. These rooms are serving as a prototype for possible future classroom designs as the College continues to explore ways to improve the educational experience and provide the flexibility necessary to accommodate rapidly changing and emerging instructional methods.

Like many other classrooms at NSCC, these spaces have tablet arm chairs, but with added wheels and adjustable work surfaces that can accommodate a variety of seating arrangements as well as adjust to student preferences. Seats can be arranged in distinct groups, circles, semi-circles, conference arrangements and more — including the traditional face-to-face lecture. Students can also adapt the chair to their personal comfort, as the work surface adjusts for use directly in front or to one side, with full accommodation of right- and left-handers. There is also space to put books and bottled water under the desk to help clear the aisles for movement.

Upon entering the room, you will notice that there are whiteboards placed around the perimeter. This is to provide opportunities for student engagement and presentations as well as additional teaching flexibility. In DB101, a lower profile podium system was installed to place less visual emphasis on the front of the room, as well as maximize overall space for greater flexibility.
ACTIVE LEARNING STRATEGIES

A casual web search will yield several, yet similar, definitions of “Active Learning.” Most variations are based on Bonwell & Eison (1991, p.2) who define the term using the following outline:

A. Some of the major characteristics associated with active learning strategies include:
   1. Students are involved in more than passive listening
   2. Students are engaged in activities (e.g., reading, discussing, writing)
   3. There is less emphasis placed on information transmission and greater emphasis placed on developing student skills
   4. There is greater emphasis placed on the exploration of attitudes and values
   5. Student motivation is increased (especially for adult learners)

B. In summary, in the context of the college classroom, active learning involves students in doing things and thinking about the things they are doing.

Schools and colleges that have implemented ALCs with supportive furnishings have done so in a variety of ways, including table and chair layouts, movable tablet armchairs or no desks at all (Figures 3–6). Multiple displays and whiteboards throughout the room are another notable characteristic of Active Learning Classrooms.

Figure 6 is the chair model that was installed in DB101 and LE304. An advantage to this solution as opposed to tables and chairs is that it occupies the same footprint as a standard tablet arm, whereas the bulk of tables and chairs takes up more space and require two sets of movement, even with wheels. While tables and chairs are still an appropriate solution for specific

“In DB101 and LE304, a lower profile podium system was installed to place less visual emphasis on the front of the room, as well as maximize overall space for greater flexibility.”

Should you find yourself teaching in one of these rooms in the near future – or if you’re teaching in one now, feel free to experiment and have fun – there’s no need to keep things in straight rows! Like any resource you use in your teaching, whether it’s an online course shell, media presentation system, or your smartphone, the very space in which you teach is an instructional medium in itself, capable of enhancing learning, communication and interaction as well as complementing anything else you bring into the room.

**RATIONALE**

The reasons for exploring classrooms designed and furnished in accordance with Active Learning approaches are many. According to a recent survey conducted by Academic Technology, many NSCC faculty members expressed a desire to be “untethered” to a particular point in a room to allow for greater interaction with the class. It is also not uncommon to walk among the classrooms and notice its typical tablet armchair inventory rearranged in various configurations, proof of the fact that many classes are already putting Active Learning to practice in one form or another (Figure 7). The growing interest in the “Flipped Classroom” approach, with its online lectures and didactic materials complementing an active and project-based set of classroom activities, have provided yet another compelling reason for more flexible learning spaces. Others are integrating more collaborative and self-directed approaches in the classroom, emphasizing the group work and communication skills that are becoming more expected of educated people throughout the workforce and the professions. Add to this the increasing prevalence of Open Education Resources (OER), the influx of personal mobile technologies, and the continuing integration of learner-centered instructional designs along an online/in-class continuum and the emergence of an education open architecture becomes evident.

**MOVING FORWARD**

The intent of the ALC prototypes is to provide a responsive environment that can change according-to-plan as well as on-the-fly. While this can certainly be done with standard tablet arms as depicted in Figure 7, a solution that is both mobile and accommodating provides for more seamless changes and flexibility, not to mention less physical effort. Further research and development over the course of the coming year will include better integration of mobile and wireless technology to allow presentation control from any point in the room for students as well as teachers.

“*The growing interest in the ‘Flipped Classroom’ approach . . . provided yet another compelling reason for more flexible learning spaces.*”
OPEN ACCESS JOURNAL DATABASES

The DOAJ (Directory of Open Access Journals) “aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content.” Probably the most well-known open access journal database.

http://www.doaj.org

DIGITAL COMMONS NETWORK

Free full-text scholarly articles.

http://network.bepress.com/

The Digital Commons Network “brings together full-text scholarly articles from hundreds of universities and colleges,” providing open access to “peer-reviewed journal articles, book chapters, dissertations, working papers, conference proceedings, and other original scholarly work.” This constantly growing body of publications is “curated by university librarians and their supporting institutions,” and it represents hundreds of disciplines and subject areas.
OPEN ACCESS JOURNALS
OMICS GROUP
http://omicsonline.org/open-access-journals-list.php
OMICS Group International through its Open Access Initiative is committed to make genuine and reliable contributions to the scientific community. OMICS Group hosts over 300 leading-edge peer reviewed Open Access Journals and organizes over 100 International Conferences annually all over the world.

INFORMATION ON A RANGE OF SUBJECTS

CORNELL UNIVERSITY EBOOKS
http://guides.library.cornell.edu/ebooks

IN THE FIRST PERSON
http://www.inthefirstperson.com
According to the online description, this site, published by Alexander Street Press, offers an “in-depth index of close to 4,000 collections of personal narratives in English from around the world. It lets you keyword search more than 700,000 pages of full-text by more than 18,000 individuals from all walks of life. It also contains pointers to some 4,300 audio and video files and 30,000 bibliographic records.”

LIBRARY OF CONGRESS DIGITAL COLLECTIONS

THE LIBRARY OF CONGRESS COUNTRY STUDIES
http://lcweb2.loc.gov/frd/cs/cshome.html
According to the online description, this site “presents a description and analysis of the historical setting and the social, economic, political, and national security systems and institutions of countries throughout the world.”

LIBRARY OF CONGRESS: SONIC
(Sound Online Inventory and Catalog)
http://memory.loc.gov/ammem/awhhtml/awrs9/inventory.html
Searchable database of a portion of the LOC’s audio collection.

MAKING OF AMERICA (MoA)
(http://quod.lib.umich.edu/m/moagrp)
According to the online description, this site offers “a digital library of primary sources in American social history from the antebellum period through reconstruction. The collection is particularly strong in the subject areas of education, psychology, American history, sociology, religion, and science and technology.”

SMITHSONIAN INSTITUTION LIBRARIES
Digital Library
http://library.si.edu/digital-library

Books Online
http://library.si.edu/digital-library/book

SPECIALIZED DATABASES

ART
NATIONAL GALLERY OF ART
http://www.nga.gov

NATIONAL PORTRAIT GALLERY
London: http://www.npg.org.uk
USA: http://www.npg.si.edu/

GUGGENHEIM MUSEUM
http://www.guggenheim.org

THE LOUVRE
http://www.louvre.fr/en

BUSINESS AND ECONOMICS
GPO (US Government Printing Office)
http://www.gpo.gov/fdsys
Economic indicators from January 1998 to present.

LAW AND HISTORY
THE AVALON PROJECT at Yale
http://avalon.law.yale.edu/
Documents in law, history, and diplomacy.

LITERATURE
DIGITIZED ERNEST HEMINGWAY
Family scrapbooks and items from the Museo Ernest Hemingway in Cuba. The John F. Kennedy Library recently announced that it has made available this material to the public as digital images.

MATHEMATICS
MATHEMATICAL ATLAS
http://www.math.niu.edu/~rusin/known-math/
According to the online description, this site “is a collection of short articles designed to provide an introduction to the areas of modern mathematics and pointers to further information, as well as answers to some common (or not!) questions. The material is arranged in a hierarchy of disciplines, each with its own index page....”

SCIENCES
GOOGLE SCHOLAR search engine
http://scholar.google.com
Useful for the sciences (including the social sciences), but not the humanities.

PUBLIC LIBRARY OF SCIENCE
(Online periodicals) http://www.plos.org