

The College of New Jersey Information Technology

To: Nadine Stern, VP for Information Technology & Enrollment Services

Purpose: End-of-Year Status Report for June, 2010

Submitted: Lynn Braender, Academic Computing Advisor

Introduction

The position of Academic Computer Advisor (ACA) was first introduced in the Fall of 2005 by the Vice President for Information Technology and Enrollment Services (IT& ES), Nadine Stern. The Academic Computing Advisor (ACA) is a faculty member who acts as a conduit between the academic community and the IT department. Nadine's vision for this position was to enhance communication between Information Technology and the academic community so that the college can continue strengthening its academic computing environment and tackle new opportunities and challenges brought on by changes with technology. In addition to communication, the ACA and the Assistant Director of Instructional Technology Services offered workshops on emerging technologies within the educational field.

To date, there have been three Academic Computing Advisors; Dr. Tom Hagedorn from Mathematics and Statistics, Dr. Felicia Steele from English, and, myself, Lynn Braender from Information Systems in the School of Business. I've held this position since September 2007 and will complete my term in June 2010. Because of the budget crisis in the state government and the affects this crisis has on TCNJ, the position for Academic Computing Advisor (ACA) will not be filled in the upcoming academic year.

The partnership between IT and the Academic Computing Advisor has proven to be effective in spearheading change. Because of it, conversations about academic needs, innovations, and potential opportunities have occurred across campus. During my term as the ACA, TCNJ has implemented Data Measures; a faculty activities database that can serve the college and its accreditation efforts. The college has implemented Qualtrics, an advanced survey tool that supports creative inquiry. We've also seen the addition of Word Press, an open source web development tool that enables the TCNJ community to quickly and easily build web sites that support progressive web technology.

During the past year, my efforts have been focused on developing a cohesive communication plan between IT and the schools, strategic planning, and, strengthening the IT mini grant assessment process. The next section will discuss these efforts and other accomplishments made by the academic community.

2009-2010 Activities & Accomplishments

Communication Plan – During the 2008-2009 academic year, I led the effort to revise the academic communication plans that were originally developed by Pat Pasinski, Executive Assistant to the VP for IT& ES. This plan identifies common IT tasks that need to be completed for a school throughout the academic year and during the summer months. In addition, the new communication plan identifies the responsible person(s), deadlines, and processes for completing each task. Feedback from the Deans was incorporated into the document and approval from the Deans and Nadine Stern was obtained in May 2009. The plan was implemented in September 2009; Andy Stutzman, Associate Director of User Support Services (USS), now manages this process.

In September 2009, Jeff Kerswill, Andy Stutzman and I presented the Communication Plan to the Deans. For the three new Deans, this was the first exposure to this communication plan. The initial presentation spurred much conversation about technological resources on campus, decision-making policies and practices, and future academic computing needs with regards to resources, education, and practices. Because of this conversation, the communication plan went into another revision cycle and conversations regarding strategic planning in the academic computing environment began. The communication plan has been revised so that common tasks and individual school needs are identified in the document. Andy Stutzman currently manages this process.

Strategic Planning – The current team of Deans in the college are more interested in using technology than any other team I've had the pleasure to work with. The Deans want to be involved in planning and decision making with campus-wide systems that affect their operations and academic community. In addition, they want to be informed of all IT activity occurring within their school. Because of ongoing discussions within IT and the knowledge of the Deans, the strategic planning process gained momentum this past academic year. The following discussion will present the activities occurring in the strategic planning process.

An inclusive committee, led by Andy Stutzman, Associate Director of User Support Systems (USS), will be formed to analyze the academic computing needs of the college. This committee will be represented by or will seek representation from Academic Affairs, the Center for Instructional Effectiveness, Human Resources, Public Affairs, Records and Registration, and Student Affairs. It is essential that this committee provide opportunities for discussion from the academic and administrative communities and that these discussions influence decisions made about future systems. The committee will be charged with examining the future of SOCS, E-Portfolio Systems, Assessment Systems, and E-Collaboration and Communication Systems.

- **SOCS** – The committee's first priority should be dedicated to analyzing SOCS. SOCS, our current Learning (Course) Management System needs to either evolve to provide more advanced assessment and reporting tools, Web 2.0 tools, and, course, team and student auditing features or be replaced with a system that can offer these

sophisticated tools. It is essential that whatever Learning Management System we use, PAWS must be able to populate, and collect data from, it. This data stream should include data on students, faculty, courses, and assessments. Finally, our Learning Management System must provide the TCNJ community with a secure and private site. The system must protect the integrity of its data and must provide students with a private place to hold discussions and store original work.

- **E-Portfolios** – The discussion and subsequent choice of E-Portfolios systems will be difficult, at best, because of the competing and opposing needs of these systems. On one hand, the schools need to be able to pull students' work from an E-Portfolio site to satisfy accreditation requirements; the need to access these files may outlive the career of a student. Students will also want to continue building their portfolio past their TCNJ career. On the other hand, students will want, at times, to delete files; files that may be crucial for accreditation. Students may also wish to keep some of their original work private and limit who can view their work. The choice of systems will not be an easy decision but the college needs to move on this issue so that schools can access all student work from a course being assessed and keep this work for analysis and accreditation efforts. In addition, students will need to learn how to create, manage, and organize their portfolios in a manner where a work is easy to locate.
- **Assessment Systems** – During the past academic year, the School of Education developed a tool that would populate SOCS with rubrics that the school needs to use for their accreditation process. This tool also collects assessment data from SOCS and populates Excel worksheets used for reporting. The School of Business is interested in using this tool as early as the Fall of 2010 for its accreditation efforts. Because assessment is such an important task in many schools, the task of updating SOCS or purchasing a new system is essential. SOCS has the ability to create rubrics to measure student outcomes but these tools are dated and, because of that, may not provide the depth of information needed by the college. Its user interface is easy but not sophisticated enough to quickly create rubrics and analyze data thereby reducing its potential effectiveness. SOCS can, however, easily attach rubrics to individual students, teams, and courses. It can automatically populate a course with the most current student information; give access to a course to other faculty, students, and assessment coordinators; collect and store student activity; create individual and team space that is managed by the student and/or team; automatically update a student's or a team's grade when a rubric is completed; and, populate PAWS and other systems on campus. SOCS has gained acceptance throughout the campus community and could be modified to suit our needs.
- **E-Collaboration and Communication Systems** – To support college and school committees, IT has created the shared drive to store documents. This has been helpful especially since any computer can securely access these files as long as the computer has access to the College's network and the user has a TCNJ account. But, we need to

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move to a more advanced and user-friendly system, one that supports collaboration, and, document versioning and management. We need to implement a system that allows the college to (1) determine access rights in shared committee space; (2) transfer and withdraw these rights when needed; (3) limit document access to an “as needed” basis, (4) secure and protect sensitive documents; (5) thread document to related documents and discussions about those documents; (6) archive documents; (7) allow team members to quickly communicate with one another; and (8) enable users to collectively create shared documents and calendars. The college could move to a cloud environment but that brings some risk with it such as the loss of administrative control over those documents. In addition, cloud environments are not as sophisticated as Office products. We cannot, however, continue the way we have. Our community, on the whole, is not computer savvy and does not know how to transfer files back and forth from the shared drive to off-campus sites. The Novel filing system manages the shared drive and users find it difficult to protect documents from unwanted deletion, duplication, viewing, and change. Too often, a campus leader stores documents on their office computer and does not transfer these files to the person replacing them once their term is completed. Because of this, duplication of effort and loss of organizational knowledge is enormous.

IT Mini Grant – The IT Mini Grant has come under criticism for the past two years. Some campus leaders were concerned about the relevance of some of the awards given to applicants. Since this is a new type of grant, the process for understanding grant requirements and assessment was not as clearly understood as it could have been. To help define the grant process including assessment, ITPC revised the process for evaluating grant applications. This included the development of a more sophisticated rubric using Qualtrics and an initial faculty evaluation before the IT evaluation. Once this cycle was complete, the VP of IS & ES would make the final decision based upon what was said by ITPC, IT, and the deans. I developed the rubric with Qualtrics incorporating feedback from ITPC and IT administration. The new rubric was used during this past grant cycle. In the upcoming academic year, Sunita Ahlawat has agreed to further enhance this assessment rubric to incorporate the feedback from this past cycle.

Digital Measures – This system has been designed, developed, and implemented; it is now ready to capture faculty data. Once stored, this data can then be organized to meet the college’s administrative and accreditation needs. Digital Measures will dramatically decrease the time and effort needed in the past to keep faculty vitas up-to-date and to pass this information over to administration. There have been many administrators and faculty involved in developing requirements, evaluating systems, and, in implementing Digital Measures. Within 1 ½ years from the conception of an idea, this system is collecting data and proving that we can be successful with creating needed change.

Lunch’n Learn Workshops – With the support of Ryan Gladysiewicz, Assistant Director for Instructional Technology Services (ITS), and Craig Kapp before him, the Lunch’n Learn

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workshop series have been a great success. These workshops provide opportunities for faculty to gain a better understanding of technology and how to use these technologies in courses. We've also discussed campus resources and showcased faculty and staff who successfully employ these resources. As a result of the Lunch'n Learn series, the campus community has extended its use of technology in the academic environment and has created worldwide learning environments. We've presented workshops on Clickers and Net Support, Mobile Devices, Web 2.0 technologies including those that can be integrated into SOCS, assessment tools, virtual teams and supporting tools, web tools, library tools, and resources for students who have some physical and/or learning challenge.

Because of the 15% loss in the college's operational budget, IT decided not to renew the Academic Computing Advisor (ACA) position. In the role of the ACA, I created and administered the Lunch'n Learn series for three years. Because I will not be replaced, this will result in the loss of the Lunch'n Learn series unless The Center for Excellence in Teaching and Learning takes on this responsibility. It was always my hope that the college would blend these workshops into The Center for Excellence in Teaching and Learning; I only hope that it does so without delay.

Emerging Technologies for the Academic Environment

Mobile Computing – According to the 2009 and the 2010 Horizon Reports published by The New Media Consortium and Educause, the Internet and mobile computing will change the academic environment; colleges need to prepare for this change quickly. The Horizon report warns the traditional educational community that the “abundance of resources and relationships made easily accessible via the Internet is increasingly challenging us to revisit our roles as educators.” (Initiative, 2010, p. 3) We need to teach our students to be literate with digital media; they need to be able to create online knowledge and understand the quality of information being presented by them and to them. We need to prepare our college for the competition that an online university, a distance learning program, and open content resources such as MIT's Open Classroom are presenting. We need to morph into an institution that takes advantage of technology and learning tools that improve learning without losing either the quality of our education or the benefits of a physical community. We need to realize that our incoming students are becoming increasingly more comfortable collaborating with each other whether that is in the classroom or in virtual space. These students will bring with them smart phones, net pads, and other mobile devices and will expect that classrooms are mobile ready. In fact, they will expect that all indoor and outdoor learning spaces are mobile ready. Students are used to being online anytime, anywhere, and, will be dissatisfied with the college when they discover that the campus is not as technically advanced in this area as other schools. They will also expect to watch TCNJ sports, music, and other events online and in real time.

Mobile devices allow students to access information just-in-time and record observations via voice, text, or multimedia, and access relevant source in real time. This instant access to information will change the classroom environment, research, and reporting. We need to be ready to support this type of learning environment and to assure that students are prepared to

recognize the quality of information they are obtaining and producing.

Due to mobile computing, blogging, and web authoring, faculty and students are creating new forms of professional work that are falling outside of the norm of conventional publication methods. The authors of the current Horizon report state that “New forms of peer review and approval, such as reader ratings, inclusion in and mention by influential blogs, tagging, incoming links, and retweeting, are arising from the natural actions of the global community of educators, with increasingly relevant and interesting results.” (Initiative, 2010, p. 7) We need to formally acknowledge these forms of publications as evidence of scholarly activity and create a culture where these are accepted.

E-Books – E-books are gaining in popularity. With the development of the simple augmented reality, and mobile devices such as the smart phones, netpads and the smartbooks, we will see widespread adoption of E-books in the next two to three years. Students will be able to carry hundreds of books without the weight of their backpack. Using augmented reality, they will easily be able to create their own E-books that incorporate text, images, and sound in a 3-D model. TCNJ should begin to seek out ways to pilot these systems and then showcase these experiences to the campus community.

Issues Placed on Hold

Colleagues Committed to Redesign (C2R) – The National Center for Academic Transformation provides colleges and universities an opportunity to obtain grant money for transforming a core course with heavy student enrollment. The goal for this course would be to utilize technology in the course to improve student learning while reducing operating costs. After consultation with faculty and administration, it was decided that the application process would be postponed until the Teaching and Learning Center was developed and the director of that center could lead this effort. Hopefully, we will be ready to apply for this prestigious grant in the 2010-2011 academic year.

Internet2 and the Philadelphia Orchestra –The College shares a regional optical network with other NJ colleges and institutions through NJEdge.net, New Jersey’s Higher Education Network. Through this, we have access to Internet2 providing us with faster access for global research and collaboration. During the 2007-2008 AY, we were presented with an idea from Richard Kroth and Teresa Marrin Nakra to stream in five live performances from the Philadelphia Orchestra into the Mayo Music Hall or Kendal Hall. Because of bandwidth requirements for these performances from NJEdge and the College, we were not ready to undertake this endeavor. The amount of bandwidth for TCNJ increased this past academic year from 72Mbps to 200Mbps. This amount of bandwidth will allow us to host the Philadelphia Orchestra live performances on campus.

Internet2 and Broadcasting Sports – There is an affiliate to the Sarnoff Corporation located in West Windsor, NJ that has developed a system that would record sports events for Division 3 colleges and broadcast these events over Internet2. These smart recording systems are self-

directed and need minimal human support. If installed at TCNJ, they would allow alumni, family and friends to watch our students compete at home games. Currently, there is very little interest from the academic community to install these devices. This is a mistake, especially since sports groups, college and universities are moving in this direction. The college will eventually need to broadcast its sports events over the Internet. At some point it will be expected of us. Regardless of this, the goodwill created by broadcasted sports events is great. The college should explore this technology and find a champion to support it. This champion(s) should come from the Athletics and/or Public Relations & Communications departments.

Continuing Issues

Faculty Technical Knowledge

During my conversations with campus leaders, I discovered that there is a perception that faculty knowledge of current and emerging technological tools, applications, and issues in their area is stagnant. This perception was also discussed in the conferences that I attended. Many TCNJ leaders see the technological and cultural gap between faculty and students growing. With dwindling resources and increasing demands on faculty time, we need to develop effective strategies to enhance faculty academic computing knowledge.

During the past academic year, The Center for Excellence in Teaching and Learning has begun to help with the growing gap between the technological knowledge that we need to be effective teachers and the shared knowledge we possess. The following list of suggestions stem from activities that the college has embraced from my last report.

1. Early Adopters of Technology - Identify, encourage, and support early adopters of technology. Ensure that early adopters have knowledge of local and online resources that support continuing education. Examples of this type of resource could be the conferences and focus groups supported by NJEDdge and webcasts provided by Educause and the Society for College and University Planning. Have these early adopters speak to our college community about their experiences through campus workshops.
2. Focus Groups – These groups may be a means to support interdisciplinary conversations, providing a learning mechanism to faculty, and spurring innovative academic uses of emerging technologies (e.g. Wiki builders, Internet2, etc.).
3. Guest Speakers – Schools, programs, and groups need to bring in speakers from outside the college to discuss specific technological issues (as compared to global or high level topics) that affect them directly. The school has enjoyed success with internal presentations and workshops; we need to complement this activity with leaders from peer and aspirant schools, and, from industry. We should also take advantage of local Information Technology conferences such as NJEDge and webcasts.

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4. Workshops – These may include Lunch’n Learn, IT, and regional workshops. It is important to provide a convenient and ongoing method for faculty to learn about net technology and how to utilize it to enhance the learning environment.
5. Podcasts, webcasts, and web conferences are also emerging as an effective learning environment that allows people to attend workshops from their home or office. The college could rely more on these to reduce travelling costs and increase the knowledge of its community. Whenever possible, I will also identify and promote podcasts and webcasts through the faculty discussion list.

Ethics and Security

Technology creates new ethical challenges that require our community to act responsibly, professionally, and intelligently. We need to build a culture that requires the academic community to prepare students to live and work in a techno-community and to behave in ways that support TCNJ’s vision. To address this issue, we need to ensure that the appropriate courses are teaching students the social, legal, and ethical use of information resources. I have developed an interactive website discussing these issues. If a TCNJ faculty would like to use this in their course, they can contact me.

Funding and Resources

To stay competitive, the college, schools, and programs will need more money to fund their future information technology needs. The budget for IT has been reduced in recent years and it appears it will continue to operate with a minimalistic approach. The college needs to identify creative ways to fund individual, interdisciplinary, and school projects. To date, the IT department is funding mini-grants; this process has earned favorable feedback from faculty, administration and external constituents. In addition, many of these mini-grants are involving students in research, thereby supporting the college’s goal to provide students with research opportunities. If the college wishes to spur innovation in academic computing and raise the technological skill, knowledge, and usage of its community, it needs to continue funding these mini-grants. With greater demands for resources by the schools, funds for mini grants have been cut in half and are at risk of being eliminated.

Schools will also need to fund special projects involving technology. Some may be small; for instance, a mobile device. Some may be large; for instance, creating or renovating a lab to support an innovative program or purchasing GPS systems for students traveling into unsafe communities for projects, journalistic endeavors, and service. The college might think about creating alumni and industry donation opportunities to fund special projects. The college may also seek out corporate grants for building wireless space in classrooms, offices, learning environments, and communal areas.

Concluding Remarks

The challenges facing the college are enormous. With dwindling resources, greater competition from non-traditional learning institutions, and the fast pace of technological change, we are standing in a moment of time where our responses could make us stronger or weaker. We will either forge ahead into a learning environment that uses technology to create more effective ways of learning or fall so far behind that we lose all of the notoriety that we have gained in the last two decades. If we hope for success, we will need to rely on new people coming forth to challenge old ways of thinking. We will have to create an environment that allows students to help faculty with their technological needs. We will need faculty to educate our students about the culture they will enter into once they leave the college. We will need to change the way we evaluate faculty scholarship so that new forms of publishing that take advantage of technological and cultural changes are rewarded. Finally, we need to shift our learning environment so that, rather than continue in tradition only, we discover ways to improve learning in a cost effective manner.

Bibliography

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