Technology Support Strategies Implementation Team

June 1, 2014

COMMITTEE MEMBERS

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Sue Hodges Moore, V.P., Institutional Effectiveness
Vickie Natale, Executive Director, Planning and Performance
INTRODUCTION

The Technology Support Strategies Implementation Team was formed to guide the technology efforts that support the goals and objectives of the 2013-18 Strategic Plan. Team members were asked to focus on academic computing as well as administrative computing needs and provide a comprehensive approach resulting in cost effective and efficient use of the university’s information technology resources, including infrastructure. In addition to supporting the technology needs of all other priorities of the 2013-18 Strategic Plan, the Technology Support Strategies was specifically asked to identify approaches to:

- Expand faculty capability to engage in technology-enabled learning;
- Advance technological solutions that support integrated student services; and
- Improve administrative systems and data governance.

Challenged with the strategic objective to provide technology that supports effectiveness and innovation across campus and specifically in the areas bulleted above, the committee identified the following four themes for the implementation plan.

- Enhance the support to students through technology solutions and services;
- Support the educational experience through technology-enabled learning;
- Optimize university operations by improving administrative systems and data governance; and
- Strengthen the IT infrastructure.

CURRENT ASSESSMENT

Higher education institutions’ needs for technology are rapidly increasing and ultimately its impact is felt across the entire mission of the university. In 2011, the university collaborated to create the first Campus Technology Plan to provide a clear and unified direction for prioritizing technology resources. As a background for the implementation plan that follows, the current assessment includes recent progress made by the university within these identified strategic themes. Additional industry assessment information has been provided in the Appendix.

Enhance the support to students through technology solutions and services

Students’ expectations of a technologically infused education both inside and outside the classroom are evident in their desire for mobile friendly websites, targeted communications and help with various technology resources. Significant points of progress follow.

- The Norse Tech Bar launched as an in-person technology support and resource center for students. Since its launch in July 2013, we have processed 2,429 service requests and had 1,087 requests for checkout of laptops/tablets.
- Several mobile applications have been developed and enhanced including: iNKU providing real time grades, class schedules, registration window, account balance, holds, advisor and campus information, Go Norse for Athletics providing schedules, ticket information and event promotions, n@NKU for perspective students including application information,
checklist and important dates, and other program specific apps: ELOC, CINSAM, International, etc.

- Continued improvements to the myNKU system for students include course registration improvements, online graduation application, and online change of program/major.
- Assisted the College of Arts and Sciences with deployment of the Successful Online Learning Tutorial (SOLT) for their online students.

Support the educational experience through technology-enabled learning

Explosive growth in a variety of academic technologies puts a higher need for training and consultation with faculty from technology resources, as well as improved communication about resources available.

- The Center for Innovation and Technology in Education (CITE) was created to assist faculty in using technology resources available. CITE provides instructional design, academic technology assistance and training.
- Smart classroom upgrades take place annually through a planning process with colleges. Upgrades are based on the combined total of available funds from dedicated recurring and one-time funds.
- The academic software portfolio has grown to include lecture capture, online meeting applications, plagiarism protection, professional creative suites and more. Updating Blackboard and plugins regularly allow use of the newest technologies.

Campus feedback indicates a need to change the technology support model to be more personalized and “just in time.” Additionally, the pace of growth has forced a shift in some level of responsibility for self-education of technology to the individuals in the campus community.

- The IT Help Desk is available 24x7 and offers phone, in-person, chat and online forms to request assistance.
- The placement of academic technology analysts expanded to additional colleges to provide personal technology assistance to faculty.
- Invested in video tutorial software services like Atomic Learning to provide immediate instruction on hundreds of software titles.

Optimize university operations by improving administrative systems and data governance

The opportunity that technology brings in terms of collecting, analyzing and proactively using data to aid in student success from both an academic and support perspective is massive.

- Administrative systems were enhanced to improve business processes and efficiencies including grade change requests online, Blackboard grade upload to myNKU, degree audit for undergraduates, online employee benefits enrollment, travel reimbursement, PARs and time entry for employees.
- Integrated campus systems for enhanced information and reporting functionality (OrgSync, Residential Management System [RMS], IMLeagues), created application for operational reporting for department chairs and grants management and provided Intercollegiate Athletics with a web application to monitor and maintain data on athletes for NCAA.
• A data governance committee was established to design a framework that will provide accuracy, consistency, flexibility, validation and governance. New technologies such as card swipes were implemented to collect additional data.
• A new business analytics committee was formed to determine where using data is most beneficial in impacting the university.

**Strengthen the IT Infrastructure**

Faculty, staff and students come to campus with expectations for access anytime, anywhere from their devices.

• Virtual environments and cloud services include a virtual computer lab and desktop for faculty, staff and student use regardless of the kind of device they have. Student email was moved to the Microsoft cloud for significant cost savings. Adobe Enterprise License software licensed to provide campus with more Adobe software products cost effectively.
• Disaster recovery efforts now include a natural gas powered generator to protect the data center, backup of critical systems via an agreement with Murray State University and increased internal monitoring and efforts to prevent data loss and breach incidents.
• Bandwidth increased on main campus to 500 MB; residential village bandwidth increased to 300 MB. Wireless improvements include 1,224 access points supporting 9,000 concurrent users.

Although NKU has made significant effort and progress in regards to impacting the campus through information technology, we continue to face growing demands and must look for opportunities to be more efficient and reduce costs. Focused efforts and leveraging the latest technology trends (see Appendix) need to continue to meet these growing demands for analytics, mobile access, bandwidth, and academic technology and provide the “just in time” support and training desired by the campus.
## IMPLEMENTATION STRATEGIES

### A. Enhance the support to students through technology solutions and services

<table>
<thead>
<tr>
<th>Implementation Strategies</th>
<th>Lead Sponsor</th>
<th>Collaborators</th>
<th>Timeline</th>
<th>Fuel the Flame</th>
<th>Priority Matrix</th>
<th>Resources Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot a personalized student experience (portal) enabling easier access to campus resources &amp; targeted messaging and communications.</td>
<td>Provost</td>
<td>Student Affairs, Academic Affairs, IT</td>
<td>2014-2016</td>
<td>5.6.b</td>
<td>3 – Difficult implementation/high impact</td>
<td>$$</td>
</tr>
<tr>
<td>Provide student technology support through the Norse Tech Bar expanding &amp; changing services per student input.</td>
<td>Director of Academic Technology Group (IT)</td>
<td>IT</td>
<td>2014-2018 (ongoing)</td>
<td>1 – Easy Implementation/High Impact</td>
<td>$</td>
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</table>
| Enable student mobility by promoting access to services, expanding virtual computer lab offerings, and rolling out additional functionality in NKU mobile apps (NKU, Chase, Go Norse, CINSAM, International, n@NKU) with focus on smartphone rather than tablet. Examples of functionality that have been requested by students include:  
  - creating advising appointments,  
  - requesting All Card balance & digital card,  
  - requesting IT services,  
  - viewing dining info,  
  - paying bills,  
  - viewing parking garage status, and  
  - registering for classes. | CIO                                    | Marketing & Communications, IT              | 2014-2018 (ongoing) | 5.6.b          | 1 – Easy Implementation/High Impact | $$              |
<table>
<thead>
<tr>
<th>Continue to issue the annual IT student survey determining changes to services and offerings per student input.</th>
<th>CIO</th>
<th>IT Advisory Council, IT</th>
<th>2014-2018 (ongoing)</th>
<th>1 – Easy Implementation/High Impact</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support efforts to improve student readiness as it relates to technology. Examples include the following.</td>
<td>Provost</td>
<td>Library, College of Informatics, IT</td>
<td>2015-2016</td>
<td>2.5.</td>
<td>1 – Easy Implementation/High Impact</td>
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</tbody>
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### Technology Support Strategies Implementation Team

#### B. **Support the educational experience through technology-enabled learning**

<table>
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<tr>
<th>Implementation Strategies</th>
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<th>Timeline</th>
<th>Fuel the Flame</th>
<th>Priority Matrix</th>
<th>Resources Needed</th>
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</table>
| Support the faculty with development and delivery of high quality, engaging and rich learning materials through CITE. Examples include the following.  
  - Norse Course Clips (multimedia elements)  
  - Simulations  
  - Interactive quizzes | Director of Academic Technology Group (IT) | Academic units, IT, Academic Affairs | 2014-2018 | 3.1.d  
  3.3.a, b  
  3.4.b  
  3.5.a, b  
  5.1.a  
  5.6.a | 1 – Easy Implementation/High Impact | $$ | HOD |
| Support faculty with using alternative delivery methods and pedagogies through CITE. Examples include the following.  
  - Courses taught “concurrently” (face-to-face and online sections taught as one course)  
  - Flipping the classroom  
  - Additional hybrid/blended course models | Director of Academic Technology Group (IT) | Academic units, IT, Academic Affairs | 2014-2018 | 3.1.d  
  3.3.a, b  
  3.4.b  
  3.5.a, b  
  5.1.a  
  5.6.a | 1 – Easy Implementation/High Impact | $$ | AI |
| Assist faculty with the exploration of new technology and provide faculty with resources to maximize creativity and innovation through the use of technology using CITE. Examples include the following.  
  - Innovation Room  
  - Augmented reality  
  - Google Glass | Director of Academic Technology Group (IT) | Academic units, IT | 2014-2018 | 3.1.a  
  3.1.d  
  5.1.4 | 3 – Difficult implementation/high impact | $$ | AI |
| Foster collaboration and share best practices relative to technology through CITE. Examples include the following. | Director of Academic Technology Group (IT) | Academic Affairs, IT, CPE, other institutions, TEEC | 2014-2018 | 3.5.b  
  5.1.4 | 1 – Easy Implementation/High Impact | $ | AI |
Technology Support Strategies Implementation Team

- Coordinate best practice workshops including external subject matter experts when possible
- Sponsor Learning Communities

<table>
<thead>
<tr>
<th>Provide technology innovation that will support the transdisciplinary efforts. For example, develop a centralized, searchable repository of faculty publications, research interests, education, etc.</th>
<th>Director of Academic Technology Group (IT)</th>
<th>Academic Affairs, IT, Library</th>
<th>2014-2018</th>
<th>1.1.b 3.1.a, c, d 5.6.a</th>
<th>3 – Difficult implementation/high impact</th>
<th>$</th>
<th>AI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore Learning Analytical tools with faculty to measure student performance. This can be used to target at-risk learners in an effort to improve student retention as well as support course redesign and personalized student learning.</td>
<td>CIO</td>
<td>Academic Affairs, IT, Student Affairs</td>
<td>2015-2018</td>
<td>5.6.a</td>
<td>3 – Difficult implementation/high impact</td>
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### C. Optimize university operations by improving administrative systems and data governance

<table>
<thead>
<tr>
<th>Implementation Strategies</th>
<th>Lead Sponsor</th>
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<th>Priority Matrix</th>
<th>Resources Needed</th>
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<tbody>
<tr>
<td>Automate and enhance business processes to improve efficiency, service and usability.</td>
<td>CIO</td>
<td>IT Policy Council</td>
<td>2014-2018</td>
<td>2.1.a,b</td>
<td>3 – Difficult implementation/high impact</td>
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<tr>
<td>(myNKU projects will continue to be prioritized through the project request processes with final approval from IT Policy Council). Examples include the following.</td>
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<td></td>
<td></td>
<td>2.2.a</td>
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<tr>
<td>• Automate more undergraduate admissions applications.</td>
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<td></td>
<td></td>
<td>5.4.a,d</td>
<td></td>
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<tr>
<td>• Automate PLUS loan processing in Financial Aid.</td>
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<td>5.6.b,c</td>
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<td>• Enhance transfer processing.</td>
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<td>• Provide course demand/scheduling.</td>
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<td>• Enable mass advisor assignment.</td>
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<td>• Implement course waitlisting.</td>
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<tr>
<td>• Enhance student recruitment.</td>
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</tr>
<tr>
<td>Mature data governance practices as determined by the Data Governance Committee.</td>
<td>Asst VP of Institutional Effectiveness &amp; CIO</td>
<td>Data Governance Committee, University Records Manager, HR, Provost, Student Affairs, Registrar</td>
<td>2014-2019</td>
<td>5.4.c</td>
<td>3 – Difficult implementation/high impact</td>
<td>$$</td>
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<tr>
<td>(See Appendix F for Data Governance Committee charter.)</td>
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<td></td>
<td></td>
<td>5.6.c</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Implement the Business Analytics and Reporting Strategy (ex. Executive Dashboard, prioritization of analytical work, tools) as determined by the Business Analytics Committee. (See Appendix G for Business Analytics Committee charter.)</td>
<td>Senior VP of Institutional Effectiveness &amp; CIO</td>
<td>Business Analytics Committee, IT, Academic Affairs, Registrar</td>
<td>2014-2018</td>
<td>5.4.c</td>
<td>3 – Difficult implementation/high impact</td>
<td>$$</td>
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</table>
Create College/Unit Dashboards to help monitor a variety of operational metrics for internal decision-making as determined by the Business Analytics Committee. (See Appendix G for Business Analytics Committee charter.)

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementer</th>
<th>Institutional Effectiveness</th>
<th>Timeline</th>
<th>Rating</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus trainings on business challenge and lesson on software tool to enhance “just in time” training approach, improve help resources, and support professional development. Software tool examples:</td>
<td>Director of Academic Technology Group (IT)</td>
<td>Business Analytics Committee, IT, Academic Affairs, Admin Units, Institutional Effectiveness</td>
<td>2014-2016</td>
<td>5.4.c 5.6.b,c</td>
<td>3 – Difficult implementation/high impact</td>
</tr>
<tr>
<td>Strengthen communications. Examples include the following.</td>
<td>CIO</td>
<td>IT, Marketing and Communications</td>
<td>2015-2018</td>
<td>5.4.d</td>
<td>3 – Difficult implementation/high impact</td>
</tr>
<tr>
<td> Push notifications regarding system status; campus notification of system issues.</td>
<td>CIO</td>
<td>IT, Marketing and Communications</td>
<td>2015-2018</td>
<td>5.4.d</td>
<td>3 – Difficult implementation/high impact</td>
</tr>
<tr>
<td> Develop Faculty/Staff portal.</td>
<td>CIO</td>
<td>IT, Marketing and Communications</td>
<td>2015-2018</td>
<td>5.4.d</td>
<td>3 – Difficult implementation/high impact</td>
</tr>
<tr>
<td> Push notifications to students via email and mobile for appointments, holds, registration window, etc.</td>
<td>CIO</td>
<td>IT, Marketing and Communications</td>
<td>2015-2018</td>
<td>5.4.d</td>
<td>3 – Difficult implementation/high impact</td>
</tr>
<tr>
<td> Consider micro surveys for student engagement and feedback.</td>
<td>CIO</td>
<td>IT, Marketing and Communications</td>
<td>2015-2018</td>
<td>5.4.d</td>
<td>3 – Difficult implementation/high impact</td>
</tr>
</tbody>
</table>
D. **Strengthen the IT Infrastructure**

<table>
<thead>
<tr>
<th>Implementation Strategies</th>
<th>Lead Sponsor</th>
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<th>Timeline</th>
<th>Fuel the Flame</th>
<th>Priority Matrix</th>
<th>Resources Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reevaluate the baseline hardware technology that faculty should have and other alternatives such as subsidizing personal purchases and explore bring your own device opportunities including policy, support and acquisition.</td>
<td>VP Admin and Finance &amp; CIO</td>
<td>IT, IT Advisory Committee</td>
<td>2015-2017</td>
<td>5.6a</td>
<td>3 – Difficult implementation/high impact</td>
<td>$$</td>
</tr>
<tr>
<td>Expand university bandwidth and improve the wireless experience to support learning and efficiencies to meet the growing demands.</td>
<td>Director of Infrastructure and Operations (IT)</td>
<td>Academic Affairs, IT</td>
<td>2014-2016</td>
<td>1.4.c 3.2.a, c 3.3.a 3.5.a, b 5.4 5.6.a, b</td>
<td>3 – Difficult implementation/high impact</td>
<td></td>
</tr>
<tr>
<td>Expand the Virtual Desktop program and software available online.</td>
<td>Director of Infrastructure and Operations (IT)</td>
<td>IT</td>
<td>2015-2016</td>
<td>5.6.a,b,c</td>
<td>3 – Difficult implementation/high impact</td>
<td>$$</td>
</tr>
</tbody>
</table>
| Enhance IT support to meet the specific technology requirements of different colleges/units through a hybrid technology support model, combining centralized and decentralized support services/resources, and expanding IT Help Desk services. For example:  
  - Add additional Academic Technology Analysts.  
  - Consider expanding to video chat.  
  - Expand self-help knowledge base.  
  - Provide support for Faculty/Staff personal devices. | CIO                                              | IT                                      | 2014-2016   | 5.6.a, b        | 3 – Difficult implementation/high impact                                        | $$               |
Develop roadmaps by evaluating technology software and service sourcing strategies that encourage cost efficiencies and keep technology current. Examples include the following.

- Adobe Enterprise License
- Consultant development services
- Computer replacement
- Classroom technology
- ERP/Data Warehouse

<table>
<thead>
<tr>
<th>CIO</th>
<th>Purchasing, Budget, Legal, IT</th>
<th>2014 - 2018</th>
<th>3.2.c</th>
<th>3.3.a</th>
<th>5.3.a, b, c</th>
<th>5.4.d, f</th>
<th>5.6.a,b</th>
<th>3  – Difficult implementation/high impact</th>
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HIGHER EDUCATION TECHNOLOGY ASSESSMENT

The significance of technology is evident in how it has changed the expectations of how we educate, communicate and conduct business. The speed of innovation and increasing demand of technology resources are significant challenges presently. The demands for flexibility in products, applications and connectivity are vast and ever-changing. Consequently, the demands for support and guidance are growing.

Educause research shared in their “Be the Change You See; Top Ten IT Issues in 2014” report echoes the concerns we experience at NKU (see Appendix A). A few examples of shared challenges we face include improving student outcomes by leveraging technology; assisting faculty with the instructional integration of information technology; using analytics to drive critical institutional outcomes; and addressing access demand and the wireless and device explosion.

*Improving student outcomes by leveraging technology*

Students’ expectations of a technologically infused education both inside and outside the classroom are growing. Students desire mobile friendly websites, targeted communications and speedy internet connectivity (feedback gathered during Strategic Planning Student Forum in 2014, see Appendix B). We also see an intense knowledge of social applications from incoming students, but faculty/staff feedback from the forums indicate a lack of student knowledge of necessary business applications and systems.

*Assisting faculty with the instructional integration of information technology*

Additional feedback from students indicates a desire for faculty to increase their use of and comfort level with technology (including Blackboard, smart classrooms, software) to aid in the interactivity and variation of education delivery. This is supported by industry research focusing on how the introduction of resources like the Khan Academy or popular K-12 models such as “flipping the classroom” are evolving education (NMC Horizon Report “2014 Higher Education Edition,” see Appendix C). This explosive growth in such a variety of methods puts a higher need for training and consultation from technology resources, as well as improved communication about resources available. The Center for Innovation and Technology in Education (CITE) was created to assist faculty in using technology resources available. Campus feedback indicates a need to change our support model to be more personalized and “just in time.” Additionally, the pace of growth has forced a shift in some level of responsibility for self-education of technology to the individuals in the campus community.

*Using analytics to drive critical institutional outcomes*

The opportunity that technology brings in terms of collecting, analyzing and proactively using data (referred to as “big data” in the “Gartner 2013 Hype Cycle for Education,” see Appendix D) to aid in student success from both an academic and support perspective is encouraging. We are currently implementing new technologies to more effectively collect data (such as card swipes) and have a committee dedicated to data governance. Designing a framework that will provide accuracy, consistency, flexibility, validation and governance will be necessary going forward. Additionally, we
see an increase in requests to use technology to streamline and/or automate existing processes that will continue to produce gains in campus efficiency and effectiveness. A new business analytics committee is working towards determining where using data is most beneficial in impacting the university.

**Addressing access demand and the wireless and device explosion**

Never before have consumers had such personal access to technology resources. Our students come to campus with these same expectations – access anytime, anywhere from their devices (feedback gathered during Strategic Planning Student Forum in 2014, see Appendix B). Smartphone apps, cloud storage resources, working remotely and constant mobile access have changed how we work and live. The more dependent we become on technology, the more important the currency, stability and security of the infrastructure becomes (Educause “Be the Change You See; Top Ten IT Issues in 2014,” see Appendix A). This "behind the scenes" work requires significant investment to keep up with emerging technologies. Our need for routine reevaluation of the changing landscape of software as a service, virtual environments for our environment requires consistent attention.

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**APPENDIX A**

**EDUCAUSE “BE THE CHANGE YOU SEE; TOP TEN IT ISSUES IN 2014”**


Excerpt of Top Ten IT Issues for 2014:

- Improving student outcomes through an institutional approach that strategically leverages technology
- Establishing a partnership between IT leadership and institutional leadership to develop a collective understanding of what information technology can deliver
- Assisting faculty with the instructional integration of information technology
- Developing an IT staffing and organizational model to accommodate the changing IT environment and facilitate openness and agility
- Using analytics to help drive critical institutional outcomes
- Changing IT funding models to sustain core service, support innovation, and facilitate growth
- Addressing access demand and the wireless and device explosion
- Sourcing technologies and services at scale to reduce costs (via cloud, greater centralization of institutional IT services and systems, cross-institutional collaborations, and so forth)
- Determining the role of online learning and developing a strategy for that role
- (tie) Implementing risk management and information security practices to protect institutional IT resources/data and respond to regulatory compliance mandates
- (tie) Developing an enterprise IT architecture that can respond to changing conditions and new opportunities
Overall satisfaction of technology on campus

- Most students said they thought technology on campus was a real positive
- Some had friends at other universities and the NKU students felt like from that they have heard that NKU is much farther ahead technology wise. Griffin Hall was mentioned in particular.

Mobile was a large topic of interest for the students

- They would like to do almost everything from their iPhone/Android (fewer have iPads).
- Desired features of apps –
  - Create advising appointments
  - Pay bills
  - Register for classes
  - See parking garage status (full or could we indicate % full)
  - See dining info on the app
  - Notifications (based upon categories selected like athletics, …)
  - Submit IT service request
  - Digital all card (show phone and scan all card vs having to bring it everywhere ** very popular **)
- Want website to be mobile friendly
- Really like new NKU mobile app – want more

Wireless on campus

- Wireless was the second most talked about topic (next to mobile)
- Overall wireless is good – understand it is a challenge to meet demand
- But, they “bring their life” with them to NKU and need everything connected all the time at any place on campus (XBox, Nintendo, tablets, phones, laptops, TV).
- Classroom buildings are in pretty good shape
- Want more coverage outside
- SU at peak times has its challenges
- Residence halls need more bandwidth and reliability

Notifications/communication/web

- Most thought email communication was productive and they check it consistently
- Use websites quite a bit. Some broken links in department sites (scholarship site as well)
- Would like a central events website to see everything that is going on in one place (and on the app)
- Push notifications are fine. Would like to be able to filter based upon their preferences (athletics, vs …). They like timely notifications. For example, the push that went out earlier in the day reminding of the Forum
- Like NorseNews
myNKU

- Degree Audit does not always have current info
- Browser support is important
- Make myNKU easier to navigate
- Wait Listing would be a great feature
- A module Plan for all 4 years baked in system would be awesome

Blackboard

- Is much better now
- Almost everything was very positive
- They are disappointed that not all faculty use Blackboard or use it fully. They think NKU should require faculty to use Blackboard based upon a set of standards
- Some faculty use Blackboard but also require students to submit assignments via email which they think is duplication of effort
- Wish they could get Blackboard info on NKU mobile app or make Blackboard app free
- Like calendars, notifications (would like to see in NKU mobile app, File Share, chat)

Help Desk/General Support

- Help Desk is received positively
- Like the chat feature
- Like the local IT folks that help the faculty
- IT responds quickly to calls/chats/coming to classrooms
- Would like to submit IT service requests from NKU mobile app

Norse Tech Bar

- Not all students had used it
- The ones that had were very positive. 1 student thought it was only for apple products
- Need more loaners of iPads. Seem to be out of them sometimes
- Would like to be able to borrow phone/tablet/laptop chargers as well
- Like the LCDs for collaboration
- Like that students work in the NTB
- Want more and more services
- Need to advertise more

Printers on campus

- Sometimes out of ink/paper
- Please put a nice stapler next to each printer as students are always borrowing one after they print

Labs/Computers in other locations

- For the most part, labs were seen as positive
- Some labs/computer were considered outdated (like the ones in UC 3rd floor)
- Would like longer hours for labs. Access is too limited
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- When is Windows XP being eliminated (Landrum, Law)

Classrooms

- Technology was deemed positive but would like faculty to be able to use it better. Think more training is needed or faculty need to accept technology in the classroom
- Students have to help faculty too much with technology
- Students have to help faculty scan documents

Cable TV

- Students spend a lot of time on campus, would like to see more places where they can watch cable TV to keep current, etc. (SU is only good place today)
- One student said cable TV in their apartment in Woodcrest was currently not working

Power outlets

- Would like a lot more power outlets all over campus for charging/working
- Like the Power Banks that have been installed. Want more.
- Would like power banks to support iPhone 5 connections

APPENDIX C

NMC HORIZON REPORT: 2014 HIGHER EDUCATION EDITION


Excerpts:

*Low Digital Fluency of Faculty*

Faculty training still does not acknowledge the fact that digital media literacy continues its rise in importance as a key skill in every discipline and profession. Despite the widespread agreement on the importance of digital media literacy, training in the supporting skills and techniques is rare in teacher education and non-existent in the preparation of faculty. As lecturers and professors begin to realize that they are limiting their students by not helping them to develop and use digital media literacy skills across the curriculum, the lack of formal training is being offset through professional development or informal learning, but we are far from seeing digital media literacy as a norm. This challenge is exacerbated by the fact that digital literacy is less about tools and more about thinking, and thus skills and standards based on tools and platforms have proven to be somewhat ephemeral.

*Making Online Learning Natural*

Asynchronous voice and video tools are humanizing online learning. Historically, one of the major concerns people have expressed about online courses is the lack of interaction. People desire digital learning opportunities that mimic face-to-face experiences. Learning management systems and other services are beginning to incorporate recording features that allow both faculty and students to communicate more authentically online. For example, Canvas includes audio recording from text
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and Blackboard enables recordings that upload directly to YouTube. Media production and sharing is already inherent in a host of other free, easy-to-use social media platforms, such as Vimeo, Instagram, and Vine. Increasingly, faculty are creating videos for more than just lectures; they are using them as tools to introduce themselves, make announcements, and provide brief background or examples of assignments.

**Flipped Classroom**

The flipped classroom refers to a model of learning that rearranges how time is spent both in and out of class to shift the ownership of learning from the educators to the students. After class, students manage the content they use, the pace and style of learning, and the ways in which they demonstrate their knowledge, and the teacher becomes the guide, adapting instructional approaches to suit their learning needs and supporting their personal learning journeys. Rather than the teacher using class time to lecture to students and dispense information, that work is done by each student after class, and could take the form of watching video lectures, listening to podcasts, perusing enhanced e-book content, collaborating with their peers in online communities, and more. Students can access this wide variety of resources any time they need them. In the flipped classroom model, valuable class time is devoted to more active, project-based learning where students work together to solve local or global challenges — or other real world applications — to gain a deeper understanding of the subject. Teachers can also devote more time interacting with each individual. The goal is for students to learn more authentically by doing, with the teacher guiding the way; the lecture is no longer the expected driver of concept mastery. The flipped classroom model is part of a larger pedagogical movement that overlaps with blended learning, inquiry based learning, and other instructional approaches and tools that are meant to be flexible, active, and more engaging for students. It has the potential to better enable educators to design unique and quality learning opportunities, curriculum, and assessments that are more personal and relevant to students’ lives.
GARTNER 2013 HYPE CYCLE FOR EDUCATION


Excerpt:

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**Figure 1. Hype Cycle for Education, 2013**

Source: Gartner (July 2013)
APPENDIX E

NKU Student Survey Results 2013

Full compilation of results: http://oit.nku.edu/content/dam/oit/docs/misc/NKUStudentITSurvey2013-Results.pdf

Excerpts:

19. What technology devices do you own?

30. What technology do you find helpful in the classroom?
DATA GOVERNANCE COMMITTEE CHARTER

Full charter: [http://oit.nku.edu/content/dam/oit/docs/misc/DataGovernanceChargeFinal.pdf](http://oit.nku.edu/content/dam/oit/docs/misc/DataGovernanceChargeFinal.pdf)

Excerpts:

**Charge to the Committee:**

Given the university's desire to be a data-driven institution, NKU must take a more strategic view of its institutional data. The purpose of the Data Governance Committee is to recommend and oversee the implementation and management of a formal data governance program that functions across the enterprise. This will entail an agreed upon common set of policies, standards, methodologies and processes enacted to safeguard that institutional data is managed in such a way that the interests of the university and individuals are addressed in a fair, legal and appropriate manner. It will also necessitate plans to communicate and execute these procedures. Education of campus constituents will play an important role in success of these efforts.

The Data Governance Committee will address the following areas:

- Data policy, standards and strategy
- Privacy, compliance and security
- Data quality
- Architecture and integration
- Business Processes relating to data integrity
- Reporting Models

This committee will be an ongoing effort and will bring in other parties as needed to ensure that overall data management & policy is inclusive of all who have perspective in this initiative. Working subgroups will be created as needed to focus on certain areas or projects.

BUSINESS ANALYTICS COMMITTEE CHARTER

Full charter: [http://oit.nku.edu/content/dam/oit/docs/misc/AnalyticsCommitteeCharge20140224.pdf](http://oit.nku.edu/content/dam/oit/docs/misc/AnalyticsCommitteeCharge20140224.pdf)

Excerpts:

**Charge to the Committee:**

For NKU to achieve its desire to be a data driven university, it should strive to apply analytics in such a way to improve institutional performance. The purpose of the Analytics Committee is to oversee the use of analytical application projects to align with and support the university's strategic goals. This implies endorsing or sponsoring analytical initiatives which foster the gain of valuable
knowledge from our data to provide insight to recommend action or to guide executive decision making. The committee should be involved in activities such as, but not limited to:

- Develop overall strategy and plans for reporting and analytics
- Inventory campus requests for analytical application projects and make recommendations for priorities to the IT Policy Council (ITPC); coordinate analytical activity across the institution
- Review of formal business requirements for approved analytical projects
- Oversight on approved analytical projects to ensure institutional initiatives are properly scoped, executed, and communicated
- Understanding the use or purpose of the existing analytical software products & recommending additional analytical software products
- Advising on administrative issues related to analytics projects (security, training, campus communication, etc.)
- Research best practice measurement practices to ensure ROI
- Function as a source for issue escalation and facilitate resolution of matters negatively impacting analytical project progress
- Promote analytics at an executive and senior management level
- Approving presentation standards and best practices for the licensed analytical software products