Information Technology at UK

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Agenda

- Teaching and learning technology
  - Learning management system (LMS) adoption
  - Lecture capture, class web conferencing, student retention
  - Mobile access to courses and university information

- Infrastructure
  - Wireless improvements, VoIP, campus and regional networks

- Looking towards the future
  - Cloud computing
  - iPads, e-textbooks and open content
LMS (Blackboard) Adoption

- 51% growth in instructor use in 2 years, 29% growth in total student enrollments
- Improvements in support, ease of use planned for 2011-2012

![Graph showing growth in students, instructor enrollments, and course sections from 2008-2011]
Distance learning enrollments

- Provost incentives, dean leadership and faculty interest are causing growth

![Distance Learning Online Course Enrollment FY 05-10](chart)

- FY 05-06: 3629
- FY 06-07: 4625
- FY 07-08: 4188
- FY 08-09: 5143
- FY 09-10: 6679
Course Capture

- Makes a recording of class audio, video, what the PC projects, allows students to playback the class numerous times. Piloted in the College of Medicine.
- Installed in 40 rooms sprinkled across campus, 55 by this summer
- To date, 160 course sections have been recorded (3% of total sections), 1,402 course captures are available
Web class conferencing, student retention

- Web class conferencing
  - Faculty can conduct online meetings with students
  - Since the start of this service in January, we have had 135 sessions held
  - Video, voice, sharing of documents, presentations, sessions can be recorded
  - Good tool for reaching students that can’t easily get to campus, professional education

- Student retention and success
  - Early alerts, electronic student communication for monitoring progress
  - Student and faculty access to course materials, grades, discussion boards
  - Leverages wireless devices
Strong growth in mobile devices

- Global wireless application market, $5.2 billion in 2011, is expected to hit $15 billion this year and $58 billion in 2014 (see http://www.gartner.com/it/page.jsp?id=1529214)

- In November, 2010, we launched UK Mobile application, available on Android, Apple and Blackberry devices. Access to campus maps, phone numbers, addresses, news, course information, Blackboard learning management system (see http://m.uky.edu)

- To date: 5,508 active users and growing steadily

- We are partnering with several leading institutions on building new applications
  - Stanford, U of Chicago, Northwestern, Clemson, Emory, Florida State, Seton Hall, Loyola-Chicago, Southern Mississippi
Infrastructure: Wireless and VoIP devices

- 62% growth in wireless devices, 180% growth in wireless usage in 8 months
- 80% of all student common areas have wireless coverage, significant hospital growth
- As VoIP grows, we can bring telecommunication costs down (46% is VoIP, 54% to go)
- We can avoid replacing $200+ million in copper cable plant

Wireless Devices Growth

VoIP Growth
Network infrastructure

- New hospital has state of the art network architecture
  - 100% uptime since construction

- UK continues to help lead in state-wide network planning (KyRON, KPEN)
  - But, Kentucky still lags in broadband adoption, ranked in the bottom 10 states

Looking to the future

**Cloud computing**
- Use vendor data centers and applications on a pay-for-use basis
- Excellent for handling overflow (seasonal) and special processing
- Depending on cost, can choose either on premise or cloud computing
- Currently working on cloud projects in three areas
  - Student email (Microsoft and Google)
  - Enterprise systems (SAP - Dell)
  - High performance research computing and storage (Dell)

**E-text books**
- Publishing is quickly going electronic. Text books will be following
- Open educational content uses electronic material created elsewhere
  - Suited for common, introductory courses
- A combination of open content and electronic access can reduce the costs of text books (WA State estimates a 25% EOR adoption, $7 million/year in student savings)
IT alignment with the strategic plan

- Currently we have 167 active projects across UKIT representing about 89,000 person hours of work.
- All labor and equipment costs are measured and monitored.
- All projects are aligned with the university strategic plan.
- Projects cover academic, research, healthcare and administrative areas.
- Key projects focus on process automation, cost savings, TQM.
Concluding remarks

- Digitization in all dimensions is continuing at a very rapid pace
- Mobile technologies are growing rapidly in academic and healthcare environments
- Transformation in publishing is rapidly approaching
- Information technology infrastructure is critical to UK success in education, research and healthcare
- Executive leadership (President, Provost, EVPs) has been strongly supportive