Technology and Student Development

APLU: 2013 CSA SUMMER MEETING
LAKE GENEVA, WI
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Students and Technology

Dr. Javaune Adams-Gaston
Vice President for Student Life
• Technology is not the end goal

• Instead technology provides...
  – Access
  – Tools
  – Skills

• Technology is constantly evolving

• Technology is the ultimate grassroots movement
• 68% of 18-34 year olds check their smartphones every hour
• 83% of Millennials place phones on or next to their beds
• 55% of Ohio State students regularly watch television on their laptops
• The percentage of Ohio State students who use Twitter daily rose from 7% in 2010 to 31% in 2012
National Trends

Percentage of students who own...

- Cell Phone
- Desktop
- Laptop
- PDA
- Smartphone
- E-reader
- Tablet

Percent Change 2004-2012

- Cell Phone: +83%
- Desktop: +5545%
- Laptop: -48%
Ohio State Usage Trends

- **81%** of students use Facebook more than one time per day
  - **Only 4%** report never using Facebook
- **28.9%** spend 5-8 hours per week engaged in online social networking
- **59%** of Ohio State students prefer Windows to Mac
• 80% of Ohio State parents own a smart phone

• 43% of Ohio State parents use Facebook more than one time per day
  – Nearly 30% report never using Facebook

• 77% of Ohio State parents prefer Windows over Mac
• Nationally: most important communication modalities:
  – Email
  – Face-to-face interaction
  – Course management system

• 87% of students found face-to-face interaction extremely important
How would you like OSU to communicate with you for information about *general university updates*?
Nine new skills for students
1) Comfort with interfaces / Technology efficacy
2) Ability to participate in academic & learning processes
3) Ability to produce high quality academic / learning artifacts
4) Using statistical and other analytical software
5) Creatively & visually present information
Nine new skills for students (con’t)

6) Evaluate sources for credibility / The “new” literacy
7) Generate user-produced content to participate in academic discussion
8) Ability to produce collaboratively-generated and well-sourced academic arguments/policy recommendations
9) Develop and monitor online image and social presence
• Embrace Social Media
• When it comes to communication – Keep it simple!
• Embrace mobile technology
• Technology is critical for academic success and future accomplishments
• Technology is changing how we define knowledge
The role of administrators is to provide a flexible and robust infrastructure that students can:

1. Find, use and evaluate learning materials for their personal and professional development
2. Collaborate with and critique each other
3. Practice professional skills authentically
4. Act in a manner to meet the myriad of challenges they will face in the future, some of which we can predict but many we cannot.
Data Sources


• Center for the Study of Student Life. (2012). *Parent and Family Technology Survey*.


• Lookout, Inc. https://www.lookout.com/resources/reports/mobile-mindset

Technology in Student Affairs at the University of Memphis

Rosie Phillips Bingham, Ph.D.
Vice President for Student Affairs

The University of Memphis app allows students to check grades, their schedule and more in one convenient location.
Goal: Student Success

- Offer academic programming that successfully increases student learning
- Expand the use of technology to enhance instruction and learning

eCourseware provides technology possibilities for all classes, online or in-class
Goal: Access and Diversity:

- Maximize access to academic programs
- Use technology to expand access to academic programs infrastructure

The myMemphis portal provides a one stop location for all student information
Technology in Student Affairs

No Specific Goals, but here is what we do...
Facebook

- Used to inform and engage students
- Marketing: Our office of Adult & Commuter Student office used their Off Campus Housing page to market their Fair

Our Parent & Family Services Facebook page
Social Media

- **Twitter**
  - Like Facebook, it is also used to engage and connect with students
  - Hashtags used during events to encourage engagement and interaction.
  - Creates a written account of the event

Student Leadership & Involvement office Twitter feed
<table>
<thead>
<tr>
<th>TWITTER</th>
<th>FACEBOOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Bingham: @TigerBingham</td>
<td>Student Affairs: fb/uofmsa</td>
</tr>
<tr>
<td>Parent &amp; Family Services: @UMParents</td>
<td>Parent &amp; Family Services: fb/uofmparents</td>
</tr>
<tr>
<td>SA Learning &amp; Assessment: @UMSAAssess</td>
<td>Career Services: fb/memphiscareer</td>
</tr>
<tr>
<td>Adult &amp; Commuter Student Services: @uofmemphis_acss</td>
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</tr>
<tr>
<td>Campus Rec: @UofMCampusRec</td>
<td>Off Campus Housing: fb/uofmhousingfair</td>
</tr>
<tr>
<td>Student Leadership &amp; Involvement: @SLIMemphis</td>
<td>Campus Rec: fb/UofMRecCenter</td>
</tr>
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<td>Tiger Dining: @MemTigerDining</td>
<td>Student Leadership &amp; Involvement: fb/SLIMemphis</td>
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<tr>
<td>University Center: @UofM_UC</td>
<td>Conference Planning &amp; Operations: fb/UniversityofMemphisCPO</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>University Center: fb/UniversityofMemphisUC</td>
</tr>
</tbody>
</table>
How do we manage?

- Many offices utilize online services, such as HootSuite and TweetDeck, to manage feeds
  - Services allow users to schedule tweets and Facebook posts in advance so it is not necessary to post everyday
  - Can also be used to manage multiple accounts from one service
Email & Communication

- Newsletters to communicate with constituents
  - Division
  - Adult & Commuter Student Newsletter
  - UMparent E-news
- Utilize various methods to connect
  - Hobson’s Retain
  - Vertical Response: Email Creation Tool
  - HTML Email Template
Replace paper forms with online ones

- ACSS User Sign-in System
- Frosh Camp Registration and Payment of Fees
- Google Forms for RSVPs
- Assessment with Survey Monkey
- Campus Labs Baseline
Web Applications & Forms

- eRecruiting & Focus2: Career Services resume and job system
- Training Workshops with Adobe Connect
- Online Tutoring
- Utilization of online videos and movie streaming for programs
- Accountability Software: WhenIWork.com
- Event Scheduling with EMS
No intentional learning outcome
No central coordination of social media presence
Lacking a coordinated presence with our online community
No partnerships with Academic Affairs around technology
Technology & Student Development

William D. Schafer, Ph.D.
Vice President for Student Affairs
Discussion Topics

How innovative technology leads to student development through the use of...

- Technology-based Learning Tools
- Virtual Career Fair/ Virtual Library
- Disability Services
- Leadership Portal
- MOOCs
Technology-Based Learning Tools: 3D Printers

- **Hands-on learning** allows a student to physically see and touch their inventions and ideas, giving students the opportunity to develop tangible design and engineering skills.

- **3D printers can develop advanced spatial reasoning capabilities.** *Scientific American* magazine says that spatial ability, defined by a capacity for mentally generating, rotating, and transforming visual images, is one of the three specific cognitive abilities most important for developing expertise in learning and work settings.

- **The ability to draw accurate conclusions from observing a three-dimensional environment** involves interpreting and making judgments about the shape, size, movement, and relationships between surrounding objects, as well as the ability to envision and manipulate 3D models of things that are not immediately visible.

**Example** – [How a Makerbot works](#)
Example
The Health Hub is a hybrid between a vending machine and a kiosk.

It vends health products such as condoms, pregnancy tests, feminine products, and over-the-counter drugs.

It also provides information about medical centers nearby.
“With MakerBots (3D printers), students participate in project-based learning that is experiential in nature and has real-world applications. The process of designing, inventing and fabricating exposes students to various career paths such as industrial design and engineering, and allows them to directly engage with the tools used in those fields.”

-Jason D. Ellis, SUNY: The College at Brockport
Virtual Career Fair

→ Opportunity to send instant messages and video chat with employers in real-time, without having to be on-location.

→ Group chats or one-on-one

→ Flexible hours

The Facts:
- More than 400 employers have participated
- 1,000+ students/alumni have participated
- 85-90% of employers said they would participate again
The Virtual Career Library provides you with access to over 6,000 digital pages of career guidance information. Inside you will find hundreds of valuable career advice video clips, a digital career bookshelf containing over 50 career planning books and educational directories, Virtual Job Data Cards, job bank resources, and over 500 occupational videos to help you achieve career and life success.

The All-New Virtual Career Library Features:
- Over 50 Digital Career Books & Directories
- Over 600 On-Demand Career Videocasts
- Over 40 Industry Career Guides
- Over 800 Virtual Job Data Cards
- Career Expert Video Interviews
- Career News Video Clips

Georgia Tech
Disability Services

→ A member of the Alternative Media Access Center (AMAC)

→ Students with print disabilities can request their books in alternate formats.

→ Print disabilities may include but are not limited to: Visual Impairment/Blind, Learning Disabilities (ex. reading disorders, processing deficits) and ADHD.

→ An account is set up through AMAC and they convert the books into an accessible format and uploads them into the student's account. The books are available to the student to download as many times as needed that semester.

→ Also available to the student through AMAC is braille and tactile graphics and MathML and software tools to effectively screen read the materials.
Leading Edge is the new leadership development experience for undergraduate students at Georgia Tech. Leading Edge participants will work with a leadership development coach to intentionally explore and improve their leadership skills in each of the following areas:

- Gain Self-Awareness Through Challenge & Reflection
- Ask Powerful Questions
- Communicate with a Purpose
- Entrepreneurial Mindset
- Manage & Mobilize Change
- Collaborate with Others
- Being Globally & Civically Engaged
- Resilient & Adaptable
Why is it important?

→ Top tool for leadership development because it focuses leaders, allowing them to achieve improved results while also allowing them to be more efficient in their work. Investing in adapting the real-world practices and approaches of executive leadership coaching to meet the needs of students while also preparing them for the leadership positions they will have after graduation.

→ Through one-on-one coaching sessions, continued leadership training and utilization of a Leadership Development Portal, students will be able to thoughtfully reflect upon their experiences to gain a more thorough understanding of what they have learned about leadership during their time on campus.
What will the portal offer?

➡️ **Leadership Journal**
A repository for active reflection regarding the insights, and demonstration of acts of leadership by students. This journal will be a living repository and platform for growth that can be visited by the student and leadership coach. It will allow students to document their progression in leadership efficacy.

➡️ **Leadership Resource Guide**
This module of the portal will consist of timely, relevant, and dynamic leadership development resources of interest to students. This will include guides to books, blogs, podcasts, student generated leadership development information and other data.

➡️ **Leadership Portfolio**
The leadership portfolio will compile the results from the other modules into a coherent set of outcomes that a student can use for future employment, personal development, and tracking their leadership progress.
Assess / Assessments
- Assess leadership competencies
- Obtain feedback from outside raters
- Document goals, progress and next steps

Coaching / Action Plan
- Identify developmental goals
- Develop an action plan
- Document progress and next steps

Identify / Action Resources
- Participate in leadership classes
- Get involved and lead organizations
- Improve knowledge through dynamic readings and interactions
- Attend leadership conferences and events
- Watch impactful videos and meet innovative leaders

Reflect / Journal
- Gather valuable experiences and insights
- Reflect on the impact of courageous acts
- Identify personal, organizational, community and world success
- Conduct periodic reflections

360° Assess

Coach

Identify

Reflect

Leadership Portfolio
MOOCs

- A MOOC is a massive online open course. Taught and delivered online at a massive scale for any student with access to the web.

- Provide interactive user forums-- building a community for students, professors and the broader learning ecosystem.

- For credit or non credit via web videos.

- GT first accredited MS CS that students can earn through MOOC format

The Facts:
- Coursera boasts 2.7 million users from 196 different countries, with 1.4 million course enrollments each month. Sixty-one other universities offer MOOCs on Coursera and the website features courses from 17 different countries in five languages

- More 160,000 students in more than 190 countries enrolled in Udacity.
What is a MOOC?

And why are we focusing on it?

- MOOCs are Massive Open Online Courses where both instructors and students are distributed across the web.


- From this increased demand for online educational content, MOOCs have emerged as the preferred platform for course delivery.

- Scalability and flexibility of MOOCs offer the potential to make education accessible to many more people, both in and out of Georgia, and to improve residential education.

- If you can solve educational delivery problems at MOOC scale, then you can solve problems at a smaller scales, so concentrating on MOOCs makes sense from a design standpoint.
Why online education?

Higher education is changing!

- The environment is changing
  - Downward pressure on costs and upward pressure on quality
  - Current generation of students has different expectations
  - Technology is exploding—Internet Streaming, Cloud Computing, Social Interaction Platforms—and as a result the “you can’ts” have changed

- Leading institutions are collaborating to reinvent the classroom around the new capabilities enabled by this technology

- We have a core belief in the tremendous upside of online education
  - Superior educational outcomes at a fraction of the cost
  - Global access
  - New research on education
What is Georgia Tech doing?

**Coursera**—13 total courses have been developed and offered on the platform, with a combined enrollment of 368,417 students

- In late 2012, the Gates Foundation awarded funding to develop three general education courses – English Composition, Physics 101, and Introductory Psychology
- 10-15 more courses under development
- Non-exclusive agreement

**Udacity**—Three courses under development
Coursera Updates

- As of June 15, 2013
  - 3,845,841 students worldwide
  - 390 MOOCs
  - 73 university partners / 10 university system partners
  - 13 Georgia Tech Coursera MOOCs with a combined enrollment of 368,417
- Georgia Tech Provost Rafael L. Bras named to Coursera Advisory Board
- First Coursera Partners’ Conference held April 5-6, 2013 – C21U Director Rich DeMillo served on closing Plenary Panel
Coursera Updates

Enrollment in Georgia Tech Coursera MOOCs
Partnership Launched 07-17-12


- 47,691
- 74,460
- 109,538
- 147,309
- 170,715
- 201,791
- 266,572
- 309,614
- 323,456
- 355,009
- 368,417
Coursera Updates

Combined Enrollment in Georgia Tech Coursera MOOCs:

368,417
(As of 06-15-13)
OMS CS: Online Master of Science in Computer Science
Collaboration between Georgia Tech, Udacity and AT&T
Announcement in May 2013
Program launch October 2013-January 2014
3 kinds of students
Benefits of MOOCs

- You can organize a MOOC in any setting that has connectivity, moving beyond time zones and physical boundaries.

- It can be organized as quickly as you can inform the participants.

- Learning can also happen incidentally thanks to the unknown knowledge that pops up as the course participants start to exchange notes on the course’s study.

- You add to your own personal learning environment and/or network by participating in a MOOC.

- You will improve your lifelong learning skills, for participating in a MOOC forces you to think about your own learning and knowledge absorption.

Georgia Tech
MOOC Wrap Up

- MOOCs are better able to bring together a collaboration with students from all over the world leading to global and cultural awareness.

- Develop the technological skills needed to successfully complete a course.

- For credit MOOCs are still a relatively new model, lots of “what-if’s”
Drawbacks of MOOCs

→ Demands time and effort from the participants

→ Requires technological proficiency

→ It is organic, which means the course will take on its own path

→ As a participant you need to be able to self-regulate your learning and possibly give yourself a learning goal to achieve.
We do not have all the answers…

- Monetizing
- Accreditation, credit, certification, degrees
- Security and compliance
- Privacy
- Impact on various higher education sectors (and K-12?)
- Changing role of instructors, classrooms
- The NEXT generation?
- Relationship to USG System objectives
- Many questions about
  - Pedagogy
  - Faculty roles
  - Nature of institutions
MOOC Master of Science in Computer Science

- What is our role in working with MOOC students, what services and programs do we provide to them?

  → Disability access
  → Academic dishonesty
  → Forming student orgs
  → Stalking
  → Mental health concerns - what's our responsibility?
  → Need to develop a Virtual Career Fair for these students as well?