Student Life & Student Technologies: Forecasting the impact on your facilities

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EDUCAUSE
Web Seminar
April 23, 2007
Paul Knell, AIA
- Senior Principal, WTW Architects
- 28 Years Planning & Design Experience
- 70 Student Centers
- Author: College Union Dynamic
John Cook, CTS

- Principal, The Sextant Group
- 18 years of experience in planning technology projects
- 9 National Awards for technology design
Our Premise...

• Increasing Demand for Higher Education

• More Competition & Choices

• Rising Costs
Our Premise…

- Increasing Demand for Higher Education
- More Competition & Choices
- Rising Costs

Our Observation…

- Higher Student Life Expectations
  - Amenities & Technologies
  - Community
  - Quality of the Experience
Our Challenge…

• How to Anticipate Student Expectations?

• How to Predict Change?

• How to Forecast Trends in Student Life & Student Technologies?
Our Challenge…
• How to Anticipate Student Expectations?
• How to Predict Change?
• How to Forecast Trends in Student Life & Student Technologies?

Our Analysis…
• The Connected Culture
• 24/7 Lifestyle
• Entertainment
• Dining
• Wellness & Fitness
• Residential Life
The Changing Campus Culture

Living Learning Technology
Connected Culture

Owners & Users of Technology

- 98% Own a PC
- 66% Own a laptop
- 77% Of freshmen own laptops
- 22% Own a smart phone/PDA
- Use electronic devices 23 hours per week
- Engineers use electronic devices 30 hours per week
Connected Culture

• **Virtual Worlds**
  • On-line 3D virtual world based on avatars
  • Explore, meet other residents, socialize, participate in group activities, create and trade virtual property and services from one another.
  • 5.5 million accounts on Second Life
Connected Culture

Webkinz™
Come in and Play!

I'M A MEMBER
MY FIRST ADOPTION

Find me at Sages-Pages

GANZ
Keys to the “Digital Native” mindset …

- Profound shift in expectations about media creation and consumption
  - No limits to where, when, what, how to consume
  - No gatekeepers of content – blogs, wikis, social networking sites, etc.
  - Personalized content creation: DIY media

How will the Student Life facilities and programs on campus respond?

- Learn from the library model
Connected Culture

Personal Computing
- UMPC – Ultra Mobile PC
- $100 Laptop project
- E-Books
- Digital Storage
- 3D Displays
Connected Culture

- Video Boom-box marketed by toy manufacturers
- Wireless projectors
Humionics

- Wearable Computing
- “Geek Chic”
Immersive telepresence

High definition – 10x resolution of standard VTC

“Real size” displays Spatial Imaging for Audio
24/7 Lifestyle

[Images of a library, a dance floor, a cafe, and a concert hall]
Technology has created a 24/7 attitude:

- News & Information
- Entertainment Media
- Social/Academic Networks
- Global Events

... and drives a new 24/7 lifestyle expectation
24/7 Lifestyle

- Priority in Student Life Centers is 24/7 Access…

- Demand Areas: for Study Lounges, Computers, Food, Amenities

- Use of Internet: Highest from 11pm – 3am at some Universities
Extended Hours of Service

- 24-Hour Banking
- Dining Service
- Copy/Postal Centers
- Convenience Stores
- Bookstore
- Late Night Programs
Late Night Programming

- 24/7 Use
- Security & Zoning
- Alternate Choices
- Enhanced Programs
- Music/Movies/Entertainment
Video Game Rooms evolve

- Traditional video game rooms are obsolete
  - Half Own a Video Game (68% of Males)
  - Playstation 2 vs. Star Wars
  - Playstation 3: 1,000x

- Dedicated Gaming Spaces
  - Marathon Gaming 24/7
  - MMORPG: Massively Multiplayer On-Line Role Playing Games
  - Player-generated Content: Machinima

www.StudentMonitor.com
Gaming will benefit from advancements in visualization, medicine, simulation, imaging and other fields.
Entertainment TRENDS
Content Delivery and Distribution

- MTV is (still) the Most Preferred Cable Channel
- IPTV: Television via IP network
- Internet TV
- Digital Content Servers
- DVD Format War: Blue-Ray vs. HD-DVD
High Quality, Multi-Sensory Experience Expected

- HDTV in Widescreen
- Surround Sound
- Scents
- Vibration
- Intimate
From an ad for LG displays …
Entertainment TRENDS

STANDARD RATIO

STANDARD RATIO
Entertainment Trends

How they make flat screen TVs
Dedicated Spaces for Specific Purposes

Multi-Use Facilities for Flexibility
• Late Evening Dining (after 8pm) has Increased from 64% to 77% in the last four years
  Envision Strategies

• Breakfasts also Increasing

• Multiple Meal Periods (i.e. “Grazing”) is replacing the traditional 3 meals/day
Electronic Ordering

• Automatic data collection for food service staff
• Faster service
• Future
  • Track nutrition, calories
  • Include all on-campus eating options, including vending machines
  • Extend to off-campus options
    • Restaurants
    • Delivery
    • Grocery store
    • Refrigerator
  • Merge with online workout information
Sustainable Dining

- Recycling/Composting
- Energy Conservation
- Green Supply Chain
- Organics
- Farm to Table and Sustainable Agriculture
Dining Trends

Healthier Menu

Average/Week  Top 10 Food Choices

<table>
<thead>
<tr>
<th>Rank</th>
<th>Choice</th>
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<tbody>
<tr>
<td>3.6</td>
<td>Fresh Fruit</td>
</tr>
<tr>
<td>3.0</td>
<td>Fruit/Vegetable Juice Health Drink</td>
</tr>
<tr>
<td>3.0</td>
<td>Salad Bar</td>
</tr>
<tr>
<td>2.7</td>
<td>Fresh Baked Breads</td>
</tr>
<tr>
<td>2.7</td>
<td>Home-style Meals (meat, potato, veg.)</td>
</tr>
<tr>
<td>2.6</td>
<td>Heart Healthy Low Fat Entrees</td>
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<tr>
<td>2.6</td>
<td>Made to Order Sandwiches/Burgers</td>
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<tr>
<td>2.6</td>
<td>Roasted &amp; Rotisserie Chicken/Meats</td>
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<tr>
<td>2.5</td>
<td>Hot &amp; Cold Sub Sandwiches</td>
</tr>
<tr>
<td>2.3</td>
<td>Specialty Coffees/Espressos</td>
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</tbody>
</table>

Envision Strategies
Wellness & Fitness
Wellness and Fitness

Healthier Lifestyle

• Health Club Attitude
  • Fitness Club Facilities
  • 24/7 Access
  • Personal Advisors/Trainers
  • Wellness Counseling
  • Data Tracking
Wellness and Fitness

Intelligent Fitness Machines:

- Remember personal settings for users
- Provide coaching on proper form and speed
- Monitors and tracks progress
- Alerts staff when help is needed

The Strength Training Partner™ eliminates guess work. Tap in your PIN and FitLinxx does the rest.
Wellness and Fitness

Virtual Fitness Coach

- Smart clothes allow monitoring of physiological signals
- Provides feedback
  - Training intensity
  - Progress
  - Updates plan
Wellness and Fitness

- Exertainment
  - Exercise & Entertainment
- Exergaming
  - Exercise and Gaming
Wellness and Fitness

- Nike + iPod Sport Kit
- Sensors in shoe, wireless receiver on iPod
- Track running time, distance, pace, calories burned
- Deliver info audibly, show on-screen
- Log kept at personal running log when synched with iTunes
- iPod, $100 shoes plus $29
Residential Life
Residential Life

Expected Amenities & Creature Comforts

- Technology
- Coffee House, Study Lounges, Entertainment Rooms
- Individual Bathrooms
- Mini Kitchens

Creative Funding Strategies

- Privatized Financing & Management
- Campus/Corporate Partnerships
This “Digital Refrigerator” tracks its contents, automatically orders groceries, and provides recipes based on what’s inside.

It’ll also provide news, sports, and weather!

This slide is nearly 10 years old!
RESIDENCE HALLS

Boss House
Booth House Laundry
Doherty Apartments
Hammerschlag House
Henderson House
Margaret Morrison Plaza #4
McGill House
Morewood Gardens A Tower
Morewood Gardens D Tower
Mudge House B Tower
Mudge House C Tower
New House
Scebrell House
Shirley Apartments
Veronica Apartments
Welsh House
West Wing/Rosenk
Woodlawn Apartments

BOSS HOUSE LAUNDRY

Summary
3 out of 3 washers available.
0 out of 3 dryers available.

To be notified when a machine becomes available: select the box next to the machine for which you want to be notified, enter your e-mail address, and click "Notify Me".

Email Address: 

<table>
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<th>Washer Type</th>
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<td>53</td>
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<tr>
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<td>55</td>
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<tr>
<td>6</td>
<td>Dryer</td>
<td>Cycle Complete</td>
<td>0</td>
</tr>
</tbody>
</table>
Residential Life

- Residential Automation
  - Audio, video, TV, lighting, HVAC, security, appliances ... and so on

- “Ambient Intelligence”
  - Comprehensive Digital Environment:
    - Sensitive
    - Personalized
    - Anticipatory
    - Responsive

Phillips Research
A Day in the Life of a Student … 2017

Residence Hall …

Learning Studio …

Wellness Center …

Information Commons …
Resources

College Union Dynamic
Flexible Solutions for Successful Facilities

Bookstore@ACUI.org
812-245-ACUI

Other Resources:
www.TheMobileLearner.org
www.ACUI.org
www.educause.edu
www.wtwarchitects.com
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EDUCAUSE April 23, 2007