Chief Communications Officers Group  
Minutes from September 2, 2008  

Illinois Information Technology Accessibility Act IITAA (Mona Heath)  
Mona gave an explanation of the act and what it means for campus video efforts. A group of campus IT professionals has been meeting informally to discuss how campus can work together on video accessibility solutions and to identify best practices. Please see the attached Word doc.

IT Excellence at Illinois (Mona Heath)  
Mona outlined the current project by the Office of the CIO to showcase IT excellence across campus in a Web site. The new site will be designed to bring together IT highlights from many units. Please see the attached Word doc.

UI-7 (Kate Brickman)  
Kate is the new programming coordinator for UI-7 (College of Media). She is working diligently to maximize the broadcast potential of the University’s TV station. She is looking for created content suitable for airplay. Please contact Kate if you have a programming opportunity at kapokarn@illinois.edu

Emergency Web Alert System (Bridget Jamieson)  
Public Affairs conducted its first campuswide test of the EWAS system. The System is designed to display an emergency message on campus Web sites that contain the proper coding. Units are responsible for inserting the script into their Web pages or template (a simple process detailed at http://illinois.edu/goto/webalert). Public Affairs will continue to test the system the first Tuesday of each month in order to identify any issues with the System.

U.S. News rankings (Chris Harris)  
US News Undergraduate Rankings Overview:

US News released 2009 (yes, it's only 2008, but there you go) Undergraduate Best College rankings in August. UG rankings evaluate:

- Universities overall
- Engineering programs
- Business programs

2009 - Illinois was ranked 40 overall and 10 among public universities
2009 - Engineering was ranked 4
2009 - Business was ranked 13

US News ranks subdisciplines in Engineering and Business as well - via a reputational survey

2009 Engineering Subdiscipline Rankings

- Aerospace/Aeronautical/Astronautical
- Agricultural 1
- Chemical 8
- Civil 1
- Computer Engineering 5
- Electrical/Electronic/Communications 3
- Engineering Science/Engineering Physics 4
- Environmental/Environmental Health 2
- Industrial/Manufacturing 11
- Materials 1
- Mechanical 6

2009 Business Subdiscipline Rankings
- Accounting 2
- Finance 10
- Insurance/Risk Management 7
- Management 11
- Marketing 20
- Productions/Operations Management 12
- Real Estate 8

*Illinois Alumni* story ideas (Bea Pavia and Vanessa Faurie)
Please send story ideas for the Alumni magazine to Bea at bpavia@illinois.edu

*Office of University Relations (Ginny Hudak-David)*
Ginny announced that Pocket Facts is on schedule to go to press in late October for
November distribution, about one month sooner than in the past.
Rich Media Accessibility
Strategy and Status
As of 9/2/08

Note: Mona Heath prepared the following document to bring together information from a variety of sources. Creation of a long-term strategy was instigated in the Office of the CIO, but everything else described here is the work of other members of the campus community, working collaboratively.

The Problem to Solve

Essentially every unit on campus that produces rich media is wrestling with the question of how to make that material accessible to all prospective audience members, including those with disabilities. The Illinois IT Accessibility Act (IITAA) adds to the imminent sense of need and the unease about the lack of a good accessibility solution.

Often, the people using rich media are campus leaders in innovation, but they feel conflicted about their roles in proliferating inaccessible materials, or feel they cannot accommodate the overhead of making video and other materials accessible. Clearly, the campus needs both innovation and accessibility, along with a well-enunciated strategy for making accessibility a reality.

The Short-Term Strategy

IT professionals and media producers in a number of campus units are wrestling with accessibility of the rich media they produce. Activities, both formal and ad hoc, that involve people from across campus are underway, including:

- **EdMedia Group**
  The EdMedia mailing list includes over a hundred people from across campus. It has been the incubator for efforts such as the Illinois Multimedia Users Group (patterned after the campus Webmasters Group), which is developing a digital media catalog for campus (providing an easy way to locate and access distributed assets). They are very concerned about the accessibility of the media that would be included in the campus catalog. The group is currently developing a whitepaper, which will include a section on accessibility and standards.

- **IITAA Media Discussion/Planning Group**
  Informal discussions about IITAA compliance and integration of accessibility in media production/distribution workflow led to an open meeting in early August attended by media producers in approximately eight colleges plus the Library and key people from DRES. The group plans to share techniques, practices, and other information via a wiki, brown-bag sessions, etc. The recent “Basics of Video Captioning” presentation (by Angella Anderson, DRES) was an outgrowth of the August meeting. The group hopes to develop and share best practices in the coming weeks.

- **Classroom Capture Project**
  Led by the College of Education and CITES, this project involves a number of people who are also part of the EdMedia Group. They will be using Podcast Producer to capture
classroom materials and then publish them via iTunes U. People working on the project are very concerned about accessibility, and have ideas on how transcribing and captioning could be incorporated in the classroom capture workflow. This group has discussed accessibility needs and options, but hopes to integrate a solution developed by others into their workflow (rather than develop their own accessibility solution).

Rich media used in instruction present a special challenge because of the time-critical need to make the materials available to students with disabilities. DRES provides a captioning service, at no cost to the instructor, but the growing use of rich media is seriously taxing their resources. A half hour of video time usually requires 8-10 hours of staff time to produce the captioned version. Other challenges include copyright issues (since captioning involves making a copy of the video) and the planning and lead time required of the instructor.

The bottom line…
Making rich media materials accessible is a very labor-intensive process requiring specialized expertise. The short-term strategy on campus is to realize some efficiency by developing best practices and sharing information so that common problems have to be solved only once; however, the burden will continue to grow as the use of rich media expands. Judicious prioritization (based on criteria developed in collaboration with people with disabilities) can mitigate the problem somewhat by directing resources to where they will serve the most people or the most pressing needs.

Although many of the same players are involved in a range of rich-media activities, the group that is most explicitly working to formalize best practices, aggregate distributed expertise, and develop a strategy to address immediate accessibility needs is the IITAA Media Discussion/Planning Group.

The current efforts of this and other groups represent a grass-roots collaboration involving the campus IT and accessibility communities. Current activities have developed thanks to very collegial and public-spirited leaders in those communities.

The Long-Term Strategy

Expanding staff resources to keep up with rich-media demand is not a promising scenario, considering the campus budgetary outlook. Therefore a viable long-term strategy must address automation of time-consuming tasks. The natural choice is to focus on automating the creation of transcriptions, since that task accounts for about 90% of the time that goes into producing a captioned video.

Beyond helping people with disabilities, automated transcription could also significantly benefit others, such as:

- Time-shifting students
- Distance learners
- Researchers needing a transcribed record of human-subject interviews or data from clinical work
- Meeting participants requiring a transcribed record of the proceedings
- People needing material in languages other than English (since automated translation comes into play once an electronic transcription exists)

Transcriptions also enable video and audio material to be easily searchable as text, which has potential benefit for virtually everyone.
Until recently, automated transcription facilities were not sufficiently accurate to be of practical interest. The challenges of speech-to-text are massive, but there appear to have been recent breakthroughs in both research and commercial products (although not marketed for accessibility). Examples of leads warranting further exploration:

- **Research**

  - Carnegie Mellon’s Informedia Project
    
    The project is described on their web site as follows:

    *The overarching goal of the Informedia initiatives is to achieve machine understanding of video and film media, including all aspects of search, retrieval, visualization and summarization in both contemporaneous and archival content collections.*

    *The base technology developed under Informedia-I combines speech, image and natural language understanding to automatically transcribe, segment and index linear video for intelligent search and image retrieval. Informedia-II seeks to improve the dynamic extraction, summarization, visualization, and presentation of distributed video, automatically producing “collages” and “auto-documentaries” that summarize documents from text, images, audio and video into one single abstraction.*

  - Various Illinois projects

    Researchers associated with Computer Science, Electrical and Computer Engineering, and the Beckman Institute here at Illinois are working on a variety of problems with potential applicability to video accessibility. Examples in natural language processing, machine learning, and pattern recognition include computer recognition of American Sign Language and a video indexing project, using both visual and audio cues to derive semantic labels for video shots.

  - University of Washington, various projects

    The Computer Science and Engineering department has a number of projects in accessibility, including WebInSight (to infer web content and insert alt text), WebAnywhere (a browsing and self-voicing screen reader), and Supple (which makes web behavior conform to the user, rather than the user conforming to the technology). Although these projects are not directly applicable to video accessibility, they may provide other accessibility solutions.

- **Commercial Products**

  - BBN Technologies

    This company has had significant technological breakthroughs, which have led to commercial products. For example, its AVOKE STX enables “multimedia search by transforming audio into searchable text.” (They also have products that can translate from one language to another in the process of generating transcripts.)

Next steps…

1. **Contact research groups and BBN Technologies to learn more about their products; also contact other universities to continue to look for promising leads**
2. **Obtain test copies of the most promising technologies**
3. **Determine what technologies work best in our environment**
4. Develop a funding strategy to procure the needed technologies

We’re currently in the early stages of contacting research groups, commercial vendors, and other universities to identify products that warrant testing. The work is being done by the Deputy CIO and volunteers from various campus groups. For the next stages (testing and choosing technologies) we’ll enlist people in media-related campus groups (described above) to assess and select products. Then the Office of the CIO will take the lead in developing a funding strategy. Finally, the most likely scenario for implementation would be a shared service (including shared governance) to bring scalable rich-media accessibility to units across campus.
IT Excellence at Illinois
A new web site, materializing during Fall ‘08

Messages
In terms of information technology-related research, education, outreach, and facilities,
1. Illinois is the place that has made things happen
2. ...and continues to make things happen
3. Students have impact, while in school and after they graduate

Audience
Prospective students, faculty, collaborators, funding partners, industry partners (and people
already at Illinois)

The site will...
Provide a single place to begin to grasp the excellence of IT-related research, education,
outreach, and facilities, and a jumping-off point for exploring contributors to that excellence
Focus on what sets Illinois apart from everyone else
Answer two questions:
What makes {students,faculty} want to come to Illinois?
What makes {researchers, educators, funders, industry partners} want to collaborate with people at Illinois?
Convey key characteristics of IT at Illinois:
Pervasiveness (not just in “technical” disciplines)
Breadth (interdisciplinary centers/institutes and the range of their endeavors; Research Park)
Reach (national asset, impact of Illini alumni)
Legacy (been good for a long time)
Be fully accessible (including videos)

Site elements
• Big picture intro (text and pictures)
  Illinois has been in the forefront of information technology since its inception, and remains a leader in IT innovation. Breakthroughs that have revolutionized people’s daily lives, from LEDs to the first computer-mediated social network, took place at Illinois. This web site provides a reminder of those world-changing “firsts,” along with a virtual tour of the vibrant IT-related work being done at Illinois today.

• The past: timeline of Illinois IT firsts
• The present and future
• News stories (via RSS feeds from contributors to IT excellence)
• Public events
• Features (videos)
• IT in the Arts
• IT in the Humanities
• IT in the Biological Sciences
• IT in the Physical Sciences
• IT in the Social Sciences
• IT in Engineering
• IT in Interdisciplinary Endeavors
• IT in Industry Partnerships
• IT and Students (videos covering student opportunities, such as undergrad IT-related research and study abroad; student impact, such as design of chilling for Blue Waters or the Siebel habitat competition; and alumni contributions, including not only the famous but also those contributing on a more intimate stage)
• Testimonials (video and text), not so much about the institution as about how IT at Illinois helps/helped people achieve their goals (in other words, this section will have more impact if it’s personal rather than institutional)
• Explore IT at Illinois (links, organized not as a hierarchical list but somehow conveying the idea of a “mosaic” with all the pieces worthy in their own right but also contributing to a spectacular “whole”); examples of possible groupings:
  • Academic programs
  • Centers, initiatives, institutes, and laboratories
  • High performance computing
  • IT accessibility
  • IT facilities
  • IT in the classroom (real and virtual)
  • Research Park