

## Expanding Access to Computing: Teaching & Design for All Abilities

A Capacity-Building Institute sponsored by

Commonwealth Alliance for Information Technology Education and Access Computing

8:30 a.m. to 3:30 p.m. Monday, October 19, 2009

Sturbridge Host Hotel, Sturbridge, Mass.



### Problems/Issues and Solutions to Making College/University Computing and IT Fields More Accessible

#### 1. Plenary Discussion

PROBLEMS / ISSUES	SOLUTIONS / NEXT STEPS TO IMPLEMENTATION
Inaccessible Software programs	Create tools to be adopted on wide scale Get involved with SIGs- working with vendors Market pressure from customers
Administrative & financial resources	
Preparation (lack of) for CS (math)	
We don't know what we don't know (ignorance)	Cert/CEUs for faculty development Share info/collaborate DSS staff talk to faculty Department liaison-DSS/Acad dept
Lack of experience teaching SWD Lack of training/educ for faculty re. teaching	Awards for faculty work (Ohio State) & course release to train fac in dept.
No Universal Design in Blackboard	Blackboard accessibility interest group Open source- Univ of Illinois is spearheading efforts

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Lack of adequate notice/prep time	<ul style="list-style-type: none"> <li>Priority registration for SWD</li> <li>Earlier student registration</li> <li>Email, call, faculty re. student needs</li> <li>Order textbooks early, no late changes- issues for accessible textbooks</li> </ul>
Lack of technical knowledge by interpreters, note takers (technical language and jargon)	<ul style="list-style-type: none"> <li>Recruit within dept (students)</li> <li>Advance access to notes/slides/lectures</li> <li>Consistency in hiring</li> </ul>
Career services needed for SWD	<ul style="list-style-type: none"> <li>DO IT</li> <li>Publications</li> <li>Customized newsletters</li> <li>Career/DSS/Counseling cross-training</li> </ul>
Lack of willingness to adjust teaching style	<ul style="list-style-type: none"> <li>Find/advise student find alternative faculty</li> <li>'Experiential prototyping' to develop empathy</li> </ul>
Training in UD-lack for faculty in course design	<ul style="list-style-type: none"> <li>1 or 2 changes/course</li> <li>Universal design as a paradigm</li> </ul>
Lack of knowledge of hardware/software avail for SWD	<ul style="list-style-type: none"> <li>Education</li> </ul>
Low % of SWD (some) makes inst. memory difficult	<ul style="list-style-type: none"> <li>% avg higher than known</li> </ul>
CC-4 yr transition & accommodations/services change	

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### Small Group 1

#### PROBLEMS

Faculty-

- training -teaching
- in general
- disability specific
- professional development opportunities?
- how to get information to faculty
- willingness of faculty to adjust teaching style to accommodate special needs students
- changing nature and complexity of field (CS)

### Small Group 2

#### PROBLEMS

- Preparation of students (in general) for CS programs
- need developmental courses first
- Lack of experience with teaching students with disabilities: "don't know what I don't know"
- re: providing accommodations, i.e., online courses
- Lack of accessibility by screen readers for programs used by colleges
- Students do not identify
- Students not well prepared with adaptive technology
- Online courses can differ from institution to institution (distanced=transfer students)

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- Lack of flexibility with assignment deadlines by some professors (do have accommodation)
- Universal Design
  - What is it?
  - How do I learn about it?
- Availability of programs in Mass
- In service training for faculty
- Reactive to issues
- Need to be proactive professors
- Can't take more on--> may want to "go the extra mile" but not enough time or energy
- Students in CS need to know UD for future
- Where does professor gain this knowledge?
- HOW MUCH DOES IT COST??
- Collaborative discussions among disability services, admin, faculty, students to identify UD needs agreement or recognition of the needs of accessibility
- "Buying in"--> \$\$\$
- Cost of non-compliance
- US compliance
- Web accessibility person (staff) to coordinate with faculty
- Whose responsibility to provide accessible materials for course (professor, Dis Office)

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### Small Group 3

#### PROBLEMS

- Alternative format textbooks
- Classroom accessibility
- Timelines of notice for accommodations
- Variety of support
- Communication with transitional faculty
- Reading graphs
- Support (technically knowledgeable) for testing
- Staff & architectural support systems not responsive
- Insufficient number (infrequency) of students
- Preferences vs. reasonable accommodations
- Not knowing what is available

### Small Group 4

#### PROBLEMS

- Access/difficulty w/ online platforms Eg: moodle - Blackboard
- Use screen reader
- Students need to learn how to navigate
- Institution may dictate LMS- some easier/more difficult than others
- Times needed to identify -disclose disabilities & accommodations (esp in fall w new students)
- Faculty can learn at beginning of semester and have little time for respond to students' needs
- Blind students in math classes

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- Particular needs to make graphical information available
- Students with organizational exec. functioning disabilities can have difficulty with multiple demands
- Transferring to new colleges w/ different systems & procedures
- Recruitment of students as it is a problem
- Preparing students for interviews
- Need for easier services to provide support/direction
- Conversations in computers Re: students needs

## Small Group 5

### PROBLEMS

- Some faculty, administration, & deans have difficulty engaging
- No top-down facilitation of disability resources
  - Space
  - adaptive labs
- Some resistant to new methods of teaching
- Students feel stigmatized, don't want to self-disclose
- Software programs not accessible especially for S classes & math
- Lack of administrative & financial resources to offer accommodations

### SOLUTIONS

- Faculty strategy sharing
- More UD education
- Disability services to donate time to educate
- Departmental liaison to bridge the gaps