



# Digital Commons: Needs Assessment (Preliminary Report)

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## **1. Needs Assessment Introduction**

Conducting a needs assessment is a way to identify gaps in performance by identifying what is vs. what should be.

The first step of the needs assessment for the Digital Commons project was to hold a meeting with Digital Commons staff to identify their goals and concerns. (See Appendix I for the list of staff concerns.)

From the discussion with Digital Commons staff members and project manager, two goals were identified for the needs assessment:

1. To determine how to best support faculty who want to incorporate more multimedia into their courses
2. To determine how to motivate faculty to incorporate more multimedia in their instruction and in the assignments they give to students

The next step in conducting the needs assessment was to invite Penn State faculty and staff members to participate in focus groups. Questions posed during the focus groups were based on the goals and concerns of the Digital Commons staff members. (See Appendix II for the list of questions.)

Nine focus groups were held between February 20, 2008 and March 19, 2008. The groups ranged in size from one to nine with the median being three. A total of 30 faculty and staff members participated. All group meetings were lead by the same facilitator.

### **Focus Group Participants**

There were a total of thirty participants in the focus group sessions including twenty-two faculty members and six staff members. The faculty members that attended consisted primarily of adjuncts, associate professors, assistant professors, instructors, and lecturers. In addition, one research associate from the College of Earth and Mineral Sciences and one graduate student from the College of Engineering also attended the focus group sessions.

The focus group participants are associated with a variety of administrative units including Student Affairs, College of Education, College of Information Sciences and Technology, College of Liberal Arts, Enrollment Management, College of Earth and Mineral Sciences, Eberly College of Science, College of Health and Human Development, College of Engineering, College of Communications, and University Libraries.

Those who were involved in the sessions also came from a variety of campuses including University Park, Lehigh Valley, Brandywine, Hazleton, York, Schuylkill, Hershey, Fayette, Worthington-Scranton, New Kensington, Great Valley, and Greater Allegheny. (For a complete list of focus group participants, please see Appendix III.)

## **2. Focus Group Response Summary**

### **Faculty use of Multimedia (Personal and Instructional)**

Faculty and staff use a variety of media with students. Mentioned during the focus group meetings were podcasting, YouTube, audio tapes, radio, iMovie, iTunes U, ANGEL, Facebook, film, graphics tablets, video, digital video, Google video, digital animations, digital photos, text book materials, CDs and DVDs from text book publishers, PowerPoint, Flash animations, Penn State blogs, wikis, narrated PowerPoint (Adobe Presenter), Penn State personal Web space, Internet, text, and transparencies.

There is just as much variety in the way faculty and staff use media as there is in the types of media used. Some examples of media use include:

- Monthly Student Affairs podcasts about what's happening on campus
- Audio podcasts for exam reviews
- PowerPoint files in ANGEL
- Videos of interviews
- Audio recordings of interviews
- Audio recordings of campus tours
- Video tours of places on campus
- Digital animations to illustrate lecture points
- Videos of lab experiments
- Web site creation
- ePortfolios of art work
- Tutorial podcasts
- Video analysis of psychology sessions
- NPR radio podcasts to energize discussion
- Text book PowerPoint presentations and graphics to allow the students to review
- Media examples on the Internet to give students ideas of how to include multimedia in their projects

When using multimedia with students, faculty members have a number of goals. Multimedia is used to

- Increase student interest:
- Increase learning and retention
- Allow asynchronous learning and "time shifting"
- Supplement text book materials
- Give students more choices of learning modes
- Reduce learning time
- Make review easier
- Make research projects more interesting
- Help personalize course materials (put a face with a name and voice)
- Bring places to students and students to places they would not normally be able to go, for example, using video to bring exotic animals into a writing class

One participant expressed the concern that, if too much multimedia is incorporated into a course, it would

become nothing more than just “watching TV.” Therefore, he prefers to do live demonstrations rather than to show videos. He also prefers to have students read the text which he said is becoming harder and harder to get them to do. Even better, he likes to break them into small groups so they can actually get “hands-on” experience with the equipment.

Most of the participants indicated that they were comfortable using multimedia and most seem eager to use multimedia in their courses. However, many reported that they do not often use multimedia personally. The most common personal use of multimedia is simply to create videos and photos.

### **Faculty and Staff Preferred Methods of Receiving Instruction**

Staff and faculty members employ a variety of methods for learning new skills and technologies. Most are comfortable with self-instruction using materials they find by searching the Internet. For many, this is the first thing they try. Equally as popular is face-to-face instruction, although one-on-one instruction with someone they trust and who knows how to use the technology is greatly preferred over group training seminars.

Other methods include going to the library, reading text tutorials, watching video tutorials, posting questions to Web site forums, using the help section that is included with applications, and taking online classes.

### **Faculty Lesson Planning**

When asked about sharing lesson ideas with others, most participants were positive but also concerned about intellectual property issues. Participants explained that creating engaging lessons takes a considerable amount of their time and therefore are very valuable; too valuable to just give away with the possibility that others will use them without giving due credit. Participants also explained that they are hesitant to post materials publicly because it would simply take too much time and they do not think their ideas would be of much value to others. Although they are not willing to post their ideas at a Web site, they are willing, when asked, to share ideas with colleagues they know in face-to-face interactions. Sharing ideas and talking and interacting with colleagues from other campuses were described as helping faculty across campuses feel more connected.

Most participants are not using lesson plans in a traditional way. Many use a syllabus and PowerPoint slides to organize their content and thoughts, and to list speaking points. However, participants indicated that they would benefit from a site where lesson plans are posted and would actually go there to look for ideas. If such a resource were available, participants theorized that it would be most useful if ideas were categorized by discipline.

When planning lessons, covering the materials specified in the curriculum is the top priority. This is especially true at the campuses where, after a year or two of study, students move directly into programs at University Park. Participants expressed interest in making their materials more accessible and relevant to students, but feel restricted in what they can do because of time constraints both with creating materials and with spending too much class time on things not related directly to the curriculum at hand. Participants at campuses other than University Park also expressed frustration with the quality and amount of IT support available to them.

When searching for ideas for lessons, faculty members currently:

- look at things other universities are doing

- ask their local instructional designer
- attend conferences
- use resources provided with the text book
- look on the Internet
- use MERLOT
- use the Digital Library for Earth Science Education
- talk to others, including friends (other than colleagues) and family members
- talk to colleagues at staff meetings
- look at publishers' Web sites
- gets ideas from students submitting project proposals
- listen to news and media

In general, when considering assigning multimedia projects, faculty are most concerned that students will not be able to successfully complete the project because they:

- are not reliable/responsible
- quit as soon as they encounter a problem
- do not have good technology skills (are only casual users of technology)
- waste valuable class time by coming to class unprepared
- do not have good time management skills
- do not have good project management skills
- do not have a good grasp of what it takes to complete a multimedia project
- do not have adequate access to resources needed to complete a multimedia project
- do not know how to work effectively in teams

Additional faculty concerns include:

- having to make significant changes to the course content to accommodate multimedia and multimedia assignments
- having to take class time to teach the necessary technology skills to complete a multimedia project
- not having access to the necessary equipment to develop content
- not having enough time to develop new materials
- not having enough staff support
- not having enough IT support when there are problems
- problems with accommodating students who need more one-on-one help
- copyright and intellectual property rights issues, including both their own and those of their students
- student access to their own multimedia files after the course is completed (long-term storage and access issues)

### **Where Do Faculty go for Technical Support?**

Many faculty members, especially at the campuses where there are no resident instructional designers, feel like there is little or no technical support for using technology in instruction. Participants at these campuses said they rarely ask for help because they know resources are limited. They feel that they are completely on their own if they try incorporating multimedia into their instruction. Those who do try to use some multimedia either work at troubleshooting problems on their own or go to colleagues for help and ideas. Many participants from campuses other than University Park expressed a great deal of frustration with their local IT support staff members.

Participants also noted that they do not always get along with their assigned support staff. In addition, they

often have people that they prefer to work with other than their assigned support staff. They also prefer to work with people they know well.

In general, faculty look for technical support from:

- Colleagues
- The Digital Commons
- Local instructional designers
- IT support staff (mostly only at University Park)

### **Faculty Use of the Digital Commons**

Among the faculty who attended this focus group, there was a mix of those who had used Digital Commons and those who had not. Many do not use it simply because they do not have access yet at their campuses. The ones who do not use it, for the most part, attended the focus groups to learn more about the Digital Commons and to get ideas from other about how to incorporate multimedia into their instruction. In fact, all attendees were looking for new ideas of how to integrate multimedia in their instruction.

Faculty and staff at locations that will be getting Digital Commons equipment in the near future also attended so they could voice their concerns. Concerns include issues such as staffing, access to resources, and hardware maintenance and long-term needs. Directly related to all of these is the general concern of how to make the resources scale adequately within a small, fixed budget.

Positive comments:

- "Having Digital Commons staff members come to class and introduce themselves helps the students with getting started."
- "[Our campus consultant] has been down several times for training and one-on-one sessions and everyone has been very positive about these events."
- "I have used the phone support and the IM support and it has been excellent."
- "I use Instructional Design Specialists and [our campus consultant] when I need help. Both are outstanding. Without them, I would not be able to use the Digital Commons. Very good experience."
- "[Our campus consultant was] very helpful."
- "Staff were polite and very helpful."
- "Digital Commons staff is very receptive."
- "Really happy with the resources at the Digital Commons – haven't had a chance to try everything yet."
- "Using multimedia creates new learning opportunities for students. Presentations are no longer limited to just speaking from the podium."
- "When working as groups on multimedia projects the students built a true cohort and are staying friends even after the course was over."
- "We use multimedia to excite the students but also to give them a different way of engaging in learning."

## **Digital Commons Hardware and OS Platforms -- and Special Needs and Concerns at Commuter Campuses**

During the focus group meetings, the issue of the Digital Commons facilities not being cross-platform was often raised by participants. Information collected prior to the group meetings indicated that having just the Mac OS available is an issue that needs to be investigated. Because of this, if the subject did not come up during the normal course of the conversation, I posed the question to participants myself.

Macs are new to many students who, according to our participants, often complain about having to use them because they do not know how. However, being expected to use Macs is not the real problem for students. They learn to use whatever best solves their problem and/or whatever they have been directed to use. The same is true of faculty.

The real problem with having only Macs at the Digital Commons is largely with students at commuter campuses. These students spend little time at the campuses as they have jobs and families that take up a large percentage of their time. When they are on campus, they need to be able to use their time efficiently – and they need to make as few “extra” trips to the campus as possible.

Many of the commuter campuses do not have labs where students can work on Macs, so if the student also owns a PC at home, just learning to use a Mac is a problem. Also, forcing students to travel to the campuses and use only the computers at the Digital Commons creates a bottleneck. Another piece of the bottleneck problem is that students are not able to access their multimedia files from home. Therefore, even if they did have a Mac at home, they still would not be able to work on their multimedia assignments at home. The resources, both human and hardware, do not scale to meet the need, which in turn discourages faculty from making multimedia assignments.

In fact, most of the issues and concerns with the Digital Commons at campuses other than University Park involved scale, not platform. Participants are concerned about:

- having staff available at times when students need to be working
- having the facilities open at times when students need to be working
- having access to the server from more than just the “two” Digital Commons computers
- server speed and performance as more users access it
- getting more Macs in labs on campus (apparently extremely difficult to do)

A final platform issue is the need to have tutorials available at the Web site for Windows as well as Macs so that faculty can make assignments even if they are not specifically using the equipment at the Digital Commons.

## **The Digital Commons Web Site**

Faculty were asked to look at the Digital Commons website and comment on navigation and content, including tutorials. One comment that was made consistently throughout all of the sessions was the need for more guidance for beginners. Beginners often do not know what they should be looking for and need help just getting started. (NOTE: some of the changes suggested below have already been implemented)

Comments included:

- The homepage should be lighter on text and include more links to important sections of the site.
- The map listing DC locations should be more clear in identifying exactly where at each campus the studio is located.

- Tutorial titles should be more descriptive so they are easier to navigate.
- Contact information should be located more prominently.
- There needs to be a better way to narrow down the list of tutorials to easily find exactly what you're looking for.

One instructional designer commented that the site is fairly complex and contains a lot of good, useful information. It can be overwhelming for a new visitor, but after spending a little time poking around it is easy enough to get a feel for where things are and how the site works. It just takes a little time and practice.

### **3. Issue Summaries**

We began this needs assessment by establishing two goals:

1. To determine how to best support faculty who want to incorporate more multimedia into their courses
2. To determine how to motivate faculty to incorporate more multimedia in their instruction and in the assignments they give to students

Following is a summary of the information collected during the focus groups, and the issues identified in regards to achieving the two stated goals.

### **Information Related to Achieving Goal 1:**

#### **Faculty and Staff Preferred Methods of Receiving Instruction**

The preferred means of learning new skills and finding answers to questions expressed most often by participants was one-on-one interaction with people they know and trust. This method is much preferred over face-to-face group seminars. Most participants indicated they are also comfortable using asynchronous instructional materials they find on the Internet. When choosing tutorials for self-instruction, participants said they prefer materials that are interactive and value-added.

#### **Faculty Lesson Planning**

The majority of participants indicated that they do not use lesson plans in a traditional way, but rather, use the course syllabus and PowerPoint slides to organize their content and lecture points. When asked about publicly sharing lesson plans, faculty indicated that they are most concerned with intellectual property issues. Another concern is the amount of time it takes to post the lesson plans to a Web site, especially when they doubt that anyone else will even look at them. Although not necessarily willing to **post** lesson plans, participants indicated that they are willing to **share** ideas with colleagues they know and to **use** shared lesson plans posted at Web sites, at least for ideas. Participants are also concerned that adding multimedia assignments to the course will take too much time away from their primary goal of teaching the course content.

## **Digital Commons Web Site**

In general, participants found the Digital Commons Web site helpful and easy enough to use. One comment that was made consistently throughout all of the sessions was the need for more guidance for beginners. (NOTE: some of the changes suggested below have already been implemented)

## **Information Related to Achieving Goal 2:**

### **Faculty Concerns when Assigning Multimedia Projects**

In addition to not wanting to take class time to teach students the skills they need to complete multimedia projects, faculty have a number of other concerns including students' lack of skill at time management, lack of knowledge about how to work in teams, lack of project management skills, lack of problem solving skills, and general lack of reliability. They are afraid they are setting students up to fail by assigning a multimedia project.

Faculty are also concerned about having to redesign their entire course in order to include multimedia assignments – a very time consuming task. They are ill informed about copyright issues and intellectual property rights, for both themselves and their students.

Additional concerns are issues of scale, including insufficient staff support, IT support, and availability of equipment and resources for students to use.

### **Faculty Awareness of Digital Commons**

All faculty and staff members who attended the focus groups were looking for more information about the Digital Commons as well as for ideas of how to include more multimedia in their instruction. Some participants had serious concerns about using the Digital Commons resources, mostly due to lack of accurate information.

## **Appendix II: Focus Group Topics and Questions**

### **Do faculty use multi-media in their instruction?**

1. How comfortable are you using multimedia? Creating multimedia?
2. Do you use multimedia in your classes?
3. Do you use multimedia for personal projects? (for example, to create a digital photo album)
4. If not, why not?
5. If yes, what do you use?
6. How do you use it? (Do you use it to deliver instruction? Do you incorporate multimedia in your student assignments?)
7. If you use multimedia to deliver instruction, where do you get your materials? Do you create them yourself? Get them from the text book publisher?
8. If you created the materials yourself, what resources do you use? Do you seek out help? Where do you go for help? Is the help you have received adequate? Why or why not?
9. If you have used Penn State resources, which resources do you use? What was your experience like?
10. Are you able to get everything you need to accomplish your tasks? If not, what did you need that you can't find?

### **Do faculty know about the Digital Commons?**

1. Have you ever used the resources at the Faculty Multimedia Center or the Digital Commons?
2. If you have used Faculty Multimedia Center or Digital Commons, what was the experience like? Which resources did you use?
3. How did you learn about the Faculty Multimedia Center and/or the Digital Commons?
4. In general, how do you usually find out about resources at Penn State?
5. How would you prefer to find out about resources at Penn State?

### **How do faculty members plan lessons?**

1. If you use multimedia in student assignments, what are your goals for incorporating multimedia in your assignments?
2. Where do you go to get ideas for student assignments?
3. Do you write lesson plans?
4. Do you share lesson ideas with others?
5. Do you ever look for help when developing student assignments? To whom do you go for help?

### **Faculty perception of students**

1. How important to you are student evaluations of you and your course?
2. Do you use student feedback to make changes to your course? To the way you teach?
3. Do you think students expect faculty members to use multimedia when teaching?
4. Do you think that using multimedia helps students learn? Why or why not?
5. Do you think students like to be given assignments that allow them to make use of multimedia?
6. How much do you think students know about creating multimedia projects?
7. What are your main concerns about assigning multimedia projects to students?
8. If it were available, would you use a "portable studio?" Portable cameras? Instead of a studio

students have to visit to use?

**Digital Commons Web Site**

1. Have you ever used the Digital Commons Web site?
2. If you have used the Web site, was it helpful? Why or why not? Did you find what you were looking for?
3. Have you ever used the tutorials at the DC Web site? If you have, were they helpful?
4. Which format do you prefer for tutorials? Face-to-face? Text? Video?
5. If you have used the Web site, what was the experience like? What did you like most? Least? What changes would you suggest?
6. How did you find out about the Web site?
7. If you assign multimedia projects to your students, do you tell your students about the DC Web site?