

## **VIUS Reports 1.2**

### *General Student Focus Groups*

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### **INTRODUCTION**

As part of the initial assessment phase of the Virtual Image User Study (VIUS), the VIUS team held two student focus groups in October 2001 on the Penn State University Park campus. Participating in the focus groups were 18 Penn State undergraduate and graduate students. Faculty members or librarians identified the students on the basis of their majors, graduate assistantships, or other interests in imaging. The focus groups were moderated by a member of the VIUS project team and were audio taped.

The 18 participants represented the following academic programs: art, art history, history, landscape architecture, computer science and engineering, geography, American Studies, graphic design, meteorology, and fine arts – metals. Eight of the participants were graduate students.

### **WRITTEN SURVEY**

Immediately before beginning the focus group interviews, the participants completed a one-page written survey that asked them to rate the importance of various image characteristics and problems relating to searching for and using pictures.

Table 1 rank-orders the student responses to the written survey. Because small samples such as this are not suitable for parametric statistical measures (mean, standard deviation, t-tests, and the like), techniques such as ranking are more appropriate.

**Table 1**  
**Students' Written Survey Responses (N=18)**

**Q1. How important are the following image characteristics when you are searching for pictures?**

	<b>“Very important” or “Important”</b>
1. Name of item depicted (tornado, dog, Battle of the Bulge...)	(17)
2. Media type (paintings, photographs, maps, diagrams...)	(13)
3. Place names or geographic coordinates	(11)
4. Date or chronological categories	(11)
5. Name of the creator (architect, artist, engineer...)	(11)
6. Visual similarity to a picture I have or remember	( 8)
7. Visual qualities which are not predetermined (I'll know it when I see it)	( 6)

**Q2. How important are the following obstacles you encounter when searching for pictures?**

	<b>“Very important” or “Important”</b>
1. Too few good sources (collections, compilations...)	(15)
2. My way of searching does not match the ways the pictures are organized and identified	( 7)
3. Too many pictures and sources	( 4)

**Q3. How important are the following problems, when you want to use pictures that you've found?**

	<b>“Very important” or “Important”</b>
1. Reproduction quality is poor	(12)
2. The right equipment is not available	(12)
3. Images are insufficiently documented	( 9)
4. Loan, permissions, or copyright considerations are too restrictive	( 5)
5. The equipment is available but hard to use	( 5)

**Q4. Which forms of images do you primarily use?**

	<b>Respondents</b>
1. Use both about the same	(10)
2. Digital images	( 5)
3. Analog images	( 2)

## ANALYSIS

### **How heavily do these students use images?**

As noted, the participants were not a random cross-section of the student body, but instead were chosen by faculty members or librarians who believed these students would have particular interest in and insights about the visual image project. All of the participants were moderate to heavy users of images, by virtue of their majors, their graduate assistantships, or their other responsibilities and interests – such as the undergraduate who is a photographer for the student newspaper, and the part-time graduate student/full-time ag extension agent who said “I use lots of images in my extension work dealing with animals, pathologies, crops, and soils.”

### **In what format are these students using images?**

Based both on the focus group conversations and on written survey responses, students rely about equally on analog and digital images in their own work, when they prepare reports or make presentations. This is a distinct difference from focus groups with faculty, who primarily reported using analog images – mostly reflecting large faculty or departmental collections of slides that are gradually, but slowly and with difficulty, being converted to digital formats.

### **What format do students prefer, and why?**

All things being equal, students clearly like many aspects of digital imaging. Of course, all things are not equal. In general and in brief, when it’s done well, there is a lot that students like about digital imaging – but it is not, in their view, always done well.

### **Image use in the classroom.**

For image use in classrooms, whether or not facilities are suitably equipped makes a big difference. One student said, “with a few exceptions, most of the classrooms on campus are still only equipped for slides or overheads.” Related comments were “classrooms are not all physically up to speed on image projection,” “the quality of projected images isn’t always very good,” and, bluntly, “the (A/V) carts are crappy.”

Several students made comments similar to those who said, “Students like PowerPoint” and “Sometimes lecturers or TA’s get mixed up with PowerPoint, too, but time gets wasted with slide projectors in class when they jam.” No doubt at least in part because of facility and equipment limitations, a student said, “Practically all my courses (that use images) still use slides.”

### **Images and course websites.**

Again, students report that images can be used well or poorly in course websites, but they enjoy the use of images in well-designed websites. Image quality isn’t very important for course websites. Numerous, quick-loading thumbnails or smallish images can often be effective on course websites.

**Greatest potential for improvement: Image and student assignments.**

The most obvious, important potential improvement for students would be to make it easier for them to find and use digital images for homework, reports, presentations, and other assignments – and by doing this in relatively straightforward ways. As one student said, “Digital images have to be the emphasis. Ease of access and potential for searching and using are far superior to analog.” Students realize that much remains to be done, especially in terms of equipment and support, image quality, and basic, context-related search capability. This was reflected both in the survey responses (Table 1) and in the focus group conversations, as follows.

**Equipment and support.** Students are frustrated by what they see as insufficient equipment (digital cameras, scanners), and by the difficulty of getting basic advice and support in using the equipment that is available or even in using images on their own personal computers. Several students suggested that the libraries and/or the computer center provide suitable, publicly accessible workstations, and beginning-to-intermediate technical consulting for students, to help them get a scanner to work, properly size an image, position an image on a page, and so on.

**Image quality.** When quality is critical – say, for use in a presentation or report, and especially for projection – digital images are often problematic. Images found on the Web that students would like to use, because they would be appropriate in terms of content and topicality, are often not of sufficiently high quality to copy and use.

**Searching capability.** Students realize that the idea of digitizing everything, and making all images easily accessible, is a huge challenge. Nonetheless, the ability to locate desired images and relate them to contextual information such as date or creator) is an important problem for students. Students are less concerned about more “visual” qualities such as color, texture, and similarity to other pictures.

This issue partly reflects the state of the art of search engines and the way they handle images, and their relation to content. The issue also reflects students’ belief that there are probably image collections (some that may be licensed to Penn State) that they simply aren’t aware of. One student said, “I know there are lots of places to go, like museums, image archives, historical centers, CD-ROMs, books.” He just wasn’t confident that his research would find the right sites and sources.

The main point is that for students, many search and retrieval needs are fairly basic but also very important. One student said, “I already have pictures in my mind – sculptures by Michelangelo – and I just need help finding something specific and useful to illustrate a point in a paper.” Another said, “A simple text-based image key would solve a lot of the need.” Another, realizing the potential complexity of the challenge, said, “Pretty typical indexes that covered title, artist, year, location, and name of the collection would help with 80 percent of the usage.” Yet another student made a similar point, saying that a few “things like the history, location, and artist are really what matter” and noting that “context is critical.”