

MULTICULTURAL MULTIMEDIA ACROSS THE CURRICULUM: A PILOT PROJECT

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During spring semester, 1992, as research associates from the Center for the Design of Educational Computing at Carnegie Mellon University (CMU), we conducted a campus-wide program to encourage thinking about internationalization and cultural differences using a multimedia platform. This article is a report on that experience.

INITIAL IMPETUS

In 1991 we had participated in a new technologies initiative in the College of Humanities and Social Sciences to produce a "laser check disc," a videodisc pressed for single or very limited production. Our segment on this disc became an archive of some 250 print advertisements and 30 full-motion video ads from eight (mainly Euro-American) countries, the majority from France, our particular area of specialization.

Once the check disc was pressed in January 1992, we began to call professors whose spring semester courses might benefit from exposure to the images in our archive and the new media. The positive responses were overwhelming; we had to call only the first 20 names on our list to get 13 invitations into 15 classrooms in five colleges. The disciplines included: psychology, anthropology, history, English, modern languages,

business, biology, fine arts/design and urban affairs/communications. Most classes were at the undergraduate level, though four were graduate courses.

We asked potential participants to meet with us for a short preview of the images on the disc. They were asked to choose ones that might best reinforce their subject matter or, better yet those with visible cultural differences that might provide an entirely new perspective on the course. From their selections we designed an individual interface for each presentation using HyperCard. Eventually we developed generic cards since faculty were tending to choose similar thematic groupings. Even though our sample archive lacked both breadth and depth, in only a few instances did we find any need to supplement the disc materials with other media, such as slides, print ads or videos.

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While they were choosing, we asked professors to elaborate on the goals of the class and to indicate extra materials from which their students might benefit. So, for example, for the psychology class on gender differences we later furnished French gender demographics; and for a graduate marketing class, we were asked for listings of advertising museums and archives here and abroad. Based on discussions with faculty, we also came prepared with background information on cultural differences, such as the organization of disciplinary knowledge in various countries.

CULTURAL CONTEXTS OF ADS

We never claimed that our collection was representative of world advertising, indeed far from it; the most international collection we had contained print campaigns about AIDS (specifically designed for a professor in Cultural Studies in the English department). It turned out to be the most provocative series, in part because it had the greatest scope and in part because of the range of culturally diverse treatments of sexuality and disease. To our surprise, a professor of International Management chose it—precisely because of its range.

Other groupings on the disc include French and American perfume and cosmetic ads; French, American and German beef; French, American, Canadian and German milk and milk products; American, French and Spanish cigarettes; Benetton's United Colors and (supposed) social consciousness campaigns; French and American apples; French ads displaying Americans and American icons; an "archaeological" trench of French images of French women over a ten year period; and France's "tendre macho," a man who does housework and takes gentle care of children.

Our choice of television commercials was limited to those already in or converted to NTSC (the American TV standard versus PAL and SECAM used by the rest of the world). Furthermore, the TV ads were put on the master tape by technicians to fill up remaining space. These commercials are a rather eclectic grab-bag that nonetheless has managed to round out some of our print categories as well as give another dimension to our "sampler": cars, drinks, batteries, toilet tissues and cheeses, to name a few product areas that are covered in these TV ads.

EXPLOITING THE SHOCK

American professors and students, having had little exposure to foreign advertising, were surprised, often-times shocked, by the overt sexuality denoted or connoted in the ads. Whatever the assemblage of ads, many students—and some of the professors—experienced culture shock. If nothing else, the inability to "read" advertising images was disconcerting.

It is estimated that we come into contact with around 2,000 ads per day. So advertising has a "familiar" feel: we know what it is, what it means to do and how we should attempt to ignore its omnipresence. In addition, advertising depends on recognizable commonality to ground its persuasive techniques. When an ad viewer is all ready to "read" a banal commercial message that turns out to be unreadable or confusing, s/he has a sharp, cognitive disruption.

Our project is designed to exploit that moment of *unheimliche* to challenge the very notion and operation of "normalcy" and thereby lead students to confront cultural differences as something more than skin deep. Students may actually begin to recognize that different cultural ways of being and doing extend beneath and alongside obvious linguistic differences.

ROLE OF THE MEDIUM

The medium also played an important part in the experience. Playing the images on a standard TV monitor in classrooms kept students from reading the texts in their foreign languages. Even when we had access to overhead, large-screen projection, the verbal element begged to be ignored due to poor resolution. Although this would be counterproductive in some disciplines, for our short-term purpose, it was actually beneficial. (In the language classes we visited, however, we prepared legible copy for the students.) Since students tended to focus, then, on the images and layout, they were "reading" the ads the way they most probably do American ads: imagery first and then, if sufficiently captivated, text second.

The medium also worked to lull them deeper into a sense of familiarity, as television is wont to do. That made the shock more wrenching, and consequently less easily dismissed or ignored. In addition, the videodisc medium itself—its split-second, non-linear access to all images—allowed us to support or expand upon differences that students found hard to accept or completely rejected. To a few student charges that our readings were implausible or outrageous, we were able to conjure up sufficient evidence that, indeed, it was not our interpretations or arrangements but rather the confrontation with difference that was disconcerting them. This also confirmed for us the need to expand the holdings of the archive.

The medium was important in other ways. As mentioned in the opening, the laser check disc was part of an initiative to encourage faculty in the Humanities and Social Sciences at CMU to use new information technologies in their classrooms. Despite occasional glitches in the hardware setup or software, by and large the HyperCard/videodisc platforms we

created for each classroom presentation were technically easy to use. In fact, one professor opted to show the images by herself; the only reason she called us in for a second presentation was for our cultural expertise.

It became apparent to us that more professors would use new technologies if, at first, all they had to do was point and click—if all the collecting, programming and interfaces were pre-prepared and technicians were available for setup and troubleshooting. Moreover, after our presentations many of the professors wanted to learn more about the technologies we used in order to serve their own research and pedagogical agendas.

PROMOTING DIVERSE USE

Another important aspect of our program has been to encourage professors to see the ads as discrete objects that, given the electronic medium, can be arranged in any order to promote thinking and discussion about the subject matter—in this case, through a "foreign" looking glass. We also have underscored the non-linearity of the medium and the transportability of the image. Since we used a scanner to capture the ads rather than shooting them onto the videotape master for the check disc, all of the print ads are also available in digital format on a hard drive and, in the best of all possible virtual worlds, will find their way onto a network server. Had we had access to QuickTime video compression as we were developing the check disc, we would have digitized the full-motion video ads as well. What this all means, in shorthand, is that the electronic archive is far more versatile than images stored on other media because they are randomly accessible, and particularly because they can be copied and manipulated with various software packages from Microsoft Word to Photoshop. To this effect, we see the archive as an

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experimental resource for new types of electronic writing. In fact, in the Rhetoric Program of the English department, David Kaufer, who is developing PrepEditor, a software tool to enhance drafting and re-writing processes, has asked to use the archive to allow students to incorporate images into their writing.

EXPANDING REACH AND SCOPE

Our collection on the check disc lacks both breadth and depth because this was simply a low-cost, pilot effort. In fact, we thought of it as an experimental arena from which to learn from our mistakes. It has always been our plan, however, to have no closed borders on the archive as a large project develops.

We have used this pilot to contact potential collaborators from a wide range of disciplines. This includes scholars competent in semiotics (the science of how signs bear meaning, or mislead, in cultures) in Arabic, Japanese, Chinese, Hebrew, German, Spanish (Chicano, Honduran, Mexican and Puerto Rican), Caribbean, Senegalese, Indian, and in South African and African-American cultures.

One of the biggest problems we face—after the financial one—is the elaboration of an archive index, for it is the organization of knowledge that is too often the least obvious but most powerful mediation of cultural information. Our goal is to make the archive and index structurally flexible enough to support culturally and disciplinarily diverse users as well as to promote expansion. In other words, we are conceptualizing an “object-oriented” archive for re-purposing and diversity.

Still, indexing alone will not make the materials accessible to multiple users. The index we currently utilize, HyperIndex, which is part of the Interactive Video

Toolkit, lets us simply give a title to each ad and a short description—both of which reflect our idiosyncratic uses of the images and are virtually meaningless to other users. Until now, we have spent a lot of time preparing presentations and accompanying the materials into the various classrooms. “Authentic” materials such as these ads are not self-evident and the many layers of meaning are not transparent.

Part of the reason for our outreach, then, has been to figure out exactly what kind of ancillary information, in conjunction with the index, will be sufficient to make the archive usable without the presence or extensive preparations of culture experts like ourselves (the authors).

In one instance, I (Murphy-Judy) designed a stand-alone, interactive interface in HyperCard to make a select group of materials engaging to elementary school students. And, although it is possible and desirable to make parts of the archive available to young learners, this experience gave us yet another perspective on the problem of making the archive of value to diverse populations. Even the educational levels of projected audiences has to be taken into consideration or else used to limit the range of audiences. At the same time, we realize all the more how versatile an archive can be given the user-appropriate interfaces and cultural databases.

Our outreach has not been limited to classrooms, nor even to the Carnegie Mellon campus. We have offered to present extracurricularly to the Pre-Med Club, the Women’s Center and CMU’s Fall International Festival. The videodisc has been suggested for use in our ESL program. We have displayed the images off-campus: at Westminster College (two classes in French, an interdisciplinary seminar and a course in media) and Colfax Elementary School (the specially designed interactive program

for their ethnic festival and an invitation to come into geography and social studies classes). We have also been asked to demonstrate at a local high school.

Parts of the collection have been viewed by the Pittsburgh Alliance Française and the French-American Chamber of Commerce. We also previewed the project in the fall of 1991 at the International Conference on Hypermedia and Interactivity in Museums held in Pittsburgh. Other international conferences at which we have demonstrated include CALICO's Monterey conference in February 1992 and the Ninth International Conference on Technology and Education in Paris, March 1992. We also exhibited the collection at FLEAT II, [sponsored by] the International Association of Learning Laboratories, in Nagoya, Japan, in August, 1992. Finally we are working with the American Advertising Museum in Portland, Oregon and a French advertising archive to find yet more ways to promote and expand the archive and its users.

CONCLUSION

What our visits have been proving is precisely what we expected: that many professors and students, in fact the general public, are eager to investigate cultural differences; that advertising is a discursive

field well-suited to exploration of mass media imaging of various cultures; and that the multimedia format affords the flexibility needed to move across the curriculum and extramurally. Furthermore, a digital archive encourages experimentation with new ways of thinking and writing for the Age of Information.

Brief forays into the larger business and educational communities reinforce our claim that multimedia platforms can be designed to provide important avenues for internationalization and multiculturalism, while also fostering important technological skills. Indeed, we have found that most educators and the public want to internationalize and learn about cultural differences—the problem has been how to go about it. We have designed a cost-effective strategy that is, at least, one step in the right direction.

For more information on either the pilot project or the continuation of our efforts, contact the authors at the Center for the Advancement of Applied Ethics, Hamburg Hall, Carnegie Mellon University, via Internet: km47+@andrew.cmu.edu.

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MULTICULTURAL MULTIMEDIA ACROSS THE CURRICULUM: THE SEQUEL

In truest media fashion, I take this reprinting of an earlier article as an opportunity to present the sequel. The pilot project, *Multicultural Multimedia Across the Curriculum*, for all intents and purposes, was a success at Carnegie Mellon University. Yet, as it turns out, its greatest impact has been off campus: since the original publication of the article in *T.H.E. Journal*, several institutions—from schools to business groups—have asked us to increase the international and/or technological perspectives of their constituencies. Through these forums, the continued generosity of the Center for the Advancement of Applied Ethics (despite deep budget cuts), and the donation of two PhotoCD players from Kodak, Chantal Cornuéjols and I have managed to move our project slowly, ever so slowly, ahead. In this update, I would like to recount some of the configurations that we have been able to produce and, at the same time, tell you about the new technologies we are incorporating and some lessons we have learned.

The first group to solicit our work was the Emerging International City, a Pittsburgh business/education/government consortium dedicated to making western Pennsylvania a more global player. We were given a small grant to provide a multimedia exhibit of French and American advertising at the Europe Business Outlook Conference (April 26 – 28, 1993) which was sponsored in part by the Department of Commerce. Nearly every participant at the conference saw at least part of our exhibit. The posters (a sort of “Burma Shave” come-on) led viewers to our room where inside there were two walls covered with comparisons and descriptions, a slide show every hour, and a multimedia individual “play” area (computer + videodisc + digitized

stills). We learned from this experience that young people will unabashedly sit down and play with multimedia but most adults, even if they work with computers every day, prefer that someone else direct their viewing. We also confronted the sentiment that the U.S. still dominates world trade, and that North Americans are therefore absolved from knowing about how others do business.

The second presentation was part of an NEH grant at Ithaca College. We were brought in, thanks to Professor Willard Daetsch, to work with faculty on using advertising and new technologies to teach modern foreign languages. At this point in time (late May 1993), we had pressed our first Kodak PhotoCD of 110 new images.

The PhotoCD has some very important qualities that greatly outweigh any drawbacks. First, the resolution far outstrips that of many videodiscs, certainly that of our checkdisc. Second, although the CD itself is hi-tech, the PhotoCD Player gets the technology into the hands of the technophobic and less wealthy (it takes the know-how of a music CD player or VCR to run and costs under \$100). In my estimation, the PhotoCD Player should be an important teaching/learning tool, especially in the schools. Third, the technology allows average “Joes” and “Josies” to produce their own interactive materials. Some of the faculty were quite interested in this less daunting but still interactive (and re-purposable) instructional technology. At the end of a long but intellectually very stimulating day, I led a hands-on workshop in which the faculty produced their own HyperCard stack with an ad.

This was also the first time I demonstrated QuickTime movies. Although I think QuickTime movies will improve and become more important in instructional venues, they are still hard to produce and

sometimes hard to use. We still have only three or four commercials in QT—the major problem is memory. It takes a great deal of RAM (sometimes 24MB) and a large unused hard disk area (at least twice the Megabytes needed for the capture, which can get up to 20MB) to capture and then compress a 60-second commercial. After the compression, however, a 30-second ad might take only 5 or 6 MBs. Size of the image, too, is still a problem. Many systems can only display the postage stamp size and even then the frames-per-second rate is so slow that the images are jumpy and the sound mis-matched. Nevertheless, the machines are getting faster and more powerful and the software is addressing problems such that QuickTime movies will soon be a regular part of computing and teaching.

At the Art Institute of Pittsburgh, we faced a tough crowd because they are “in the business.” After a presentation for students on the importance of cultural differences in the production and reception of advertising images, we were commissioned to provide a faculty workshop on both internationalization and using new technologies. In the morning I presented the cultural differences and in the afternoon I presented the technologies to convey those differences. The level of collaborative exchange was the most gratifying aspect of the workshop. The “artsy” faculty by and large had international experience and the “techie” faculty were well-versed in the machinery, and they were willing to share with each other and with us. Keen visual thinkers, they added to my knowledge of advertising production and techniques.

Over the summer and fall of 1993, Cornuéjols and I presented to business-oriented audiences. Resistance to the importance of the cultural differences came entirely from Americans. From what I have observed in American audiences, the United States has a “long row to hoe” to become

globally sophisticated and competitive (the relative success of the sitcom, *Café Américain*, tells its own gruesome tale as do the ongoing Galleries Lafayette ads on page 2 of the *New York Times*). An experience in a marketing/advertising course at Carnegie Mellon University leads me to believe that the resistance is heaviest in practicing professionals (those out of school); still, American MBA students often prove more parochial than their international peers. They appear far more technologically than culturally literate.

The most Janus-faced presentation for me was at a conference at Duke University the weekend of the big blizzard (March 12 – 14, 1993). At the same time that I was impressed by the technical wizardry of AIM21 (a private group that archives commercials for agencies and clients) I was appalled by the lack of sophistication and cultural sensitivity of ad producers. I got into a heated debate with one top advertising agency executive who insisted that a Danish anti-AIDS commercial was pornographic despite my protestations that it was not so by Danish standards. I was also surprised that advertising agencies are by and large very technologically illiterate. (This may account for Coca Cola giving some of its artistic work to a Hollywood non-advertising group.) One lesson I learned from AIM21: if you have the money to bring your own system with you, do it! Even a well-endowed university like Duke may not have everything you need when you need it (especially over semester break with the blizzard of the century raging outside). Another lesson I learned is that if you have lots of bells and whistles in a presentation and your presentation hardware under control, the techno-naive won't see the flaws in your system.

In September we presented to the Education and Arts faculty at Slippery Rock University (PA). There I learned my

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hardest lesson about technological incompatibilities and OPPs (that is, Other People's Platforms). SRU has an impressive new multimedia auditorium. The problem was that its configuration did not coincide with mine—different Macintosh screen sizes, different videodisc players, differences I still haven't figured out. Even though I went up twice before the presentation to test things out, the day of the presentation there were still snafus. My advice to anyone planning to use a built-in multimedia system is to get to know it intimately and make sure that everything runs 100% smoothly before showtime, especially if one is supposed to be convincing the audience that these technologies are simple to use! My advice to the cabinet-makers for multimedia podiums is to make sure there is access to the backs of machines where all the plugs are located. One last piece of advice to users of HyperCard drivers for videodisc players: the Internet is filled with very knowledgeable people, but not all their advice is sound (for example, one can make a Pioneer 8000 videodisc player look like a 4200 by changing the baud rate on the player, but it still may not be driven by an old version of the driver). Our smoothest presentations have been those in which we select the machines we need and configure them with Carnegie Mellon's Instructional Technology staff before rolling them into the classroom.

Currently, then, the project uses a panoply of storage and output devices. The coordination of elements depends upon the technology available at the site. The videodisc still serves a purpose in that QuickTime video playback on a computer screen is miniscule (two by three inches on a slow computer) when overhead computer screen projection is not possible and playback rates can be aggravating. Kodak PhotoCDs have become another source of still image production and demonstration. Around 100 images can be pressed by Kodak from film or slides onto a CD (a small

laserdisc using the same technology as music CDs and videodiscs). Those images can be shown either using a Kodak PhotoCD player, which is optimal in many educational arenas due to its low cost and user-friendly tech, or using a CD-ROM player hooked to a computer. Many images we use are digitized and stored on the hard disk, which now houses around 500 images (Cornuéjols invested in a 1-Gigabyte external hard drive). The great advantage of storage on the hard drive is that it is not a static medium like the videodisc, nor is it limited to production by a Kodak dealer. (The PhotoCD is also limited by its production technique, which currently inputs the same image at five different resolutions; however, it remains optimal for users without electronic scanning facilities.) We still need an indexing system since retrieval is getting harder and harder the more images we scan and store.

Expanding the holdings has not been limited to just French and American images, although business images from *L'Expansion* and *Le Nouvel Economiste*, *Forbes* and *Money* have added a specifically business dimension to the holdings. A sociolinguist, Dr. A. Castro, has begun to collaborate with us actively. Her work is adding Hispanic, especially Latin American (Puerto Rican, Mexican and Honduran), advertising and decodings. Indian, German, Chinese (from Taiwan and Hong Kong), Arab (Lebanese and Egyptian), Dutch, and Brazilian colleagues are also contributing. Ketchum Advertising in Pittsburgh very generously copied the best of their ads, foreign and domestic, onto video tapes for us. We will be converting them into QuickTime movies over the next year.

The next step in this project is to define a very specific development goal, most probably an archive with interfaces that will serve primarily language acquisition. We have tried unsuccessfully to engage busi-

ness schools in this endeavor despite it being their students who greatly need to think globally. What we have found rather consistently is lots of talk about internationalizing and technological literacy, but no money where the mouths are. I hope those holding purse strings, from government to foundations, businesses to universities, stop the hollow talk and get serious about change. America will not become globally competitive from throwing money at studies of international accounting strategies: what is needed is a major drive to learn how to think "otherwise." That means learning other languages and cultural practices and recognizing our own as culturally constructed.

One of our eventual goals for this project is that the materials become interactive and user-directed. In other words, the digital archive will be indexed in such a way that multiple users can access the materials for any number of educational needs and not have to depend upon the presence of content experts like Cornuéjols and me to decode the ads and provide contextual information. Such information should be available in a relational database. The entire archive, then, would become an expanding knowledge engine. Its architecture will be such that collaborators could add in new images and link in new information nodes. Users would be able to select interfaces that allow navigating through the materials as suits their individual learning styles and purposes. Ideally, the platform would be site-independent, available over a network like the Internet.