

UNIVERSITY COLLECTIONS AS A TOOL FOR TEACHING MULTIMEDIA LITERACY

Cornelia Weber, General Manager, Researcher and Lecturer, Hermann von Helmholtz-Zentrum für Kulturtechnik,
Humboldt University, Berlin, Germany

Abstract

The rapidly growing use of digital media demands adequate multimedia and information technology skills. Students without sufficient media literacy are in need of further training. University collections provide a setting particularly suited to teach these much needed skills. There, students can take advantage of the many opportunities to gain skills in various techniques (digital photography, web sites and databases, for example). Such projects are real-life situations of long-lasting value. University collections profit from the fresh ideas and appealing web sites created by the students. Finally, students develop a genuine understanding and interest in the collections.

University Collections

University collections always have been assembled for a particular purpose. Traditionally, the founding of a collection was initiated after the founding of a new academic discipline or department: collections may be, for example, tools and equipment at the lecturer's disposal, study collections for research, teaching collections for the education of the students, and experimental instruments developed for research. As long as a collection fulfils its original intended goal, it usually will be recognized and supported by the university as an aid for teaching and research. As soon as the original goal of a collection ceases to be applicable, however, the collection is relegated to the domain of the meaningless, and in the worst case scenario, it is dispersed. Consequently, purpose is fundamental and intrinsic to a university collection—only its purpose legitimizes its existence. (There are some apparent exceptions, such as collections connected with a famous scientist, commemorative collections or foundation objects, but these usually have a function which is related to the history of the university.)

Recently, the issue of a collection's purpose has become a problem for many colleagues. As soon as a collection loses its original purpose, it becomes difficult to convince administrators to maintain the collection and to continue supporting it financially. Often, the only sustainable choice that remains is to develop a new role for the collection. Many collections or objects can, for instance, be used as evidence for the history of science and to document the development of a particular subject. Sometimes the collections can become "windows into science," aimed at the public understanding of the relationship between science and the humanities. As universities compete with one another, collections and museums can highlight the differences between them. Collections thus can create a distinct profile for a university.

In many cases, however, what usually happens during the search for a new function is an orientation towards free-standing collections and museums

outside of the academic sphere. The result is the forced abandonment of the distinct character of the university collection in favour of the traditional museum concept.

The Application of New Media

At the Humboldt University in Berlin, we are attempting to adopt a strategy that is specific to our university. We are testing new possibilities to integrate collections sensibly into university life. We are offering interdisciplinary courses in the context of general courses of studies. One of the many possibilities is the use of the collections as a tool for teaching media literacy.

Our everyday life—both private and professional—is being increasingly defined by digital technology. Today, computers are used throughout universities. We now use digital cameras instead of film cameras for photographing objects from our collections. This has the advantage of no chemical development or storage of the finished print. Instead, pictures are saved on hard disks and within seconds made available to other persons and departments. Often, photos are categorized comprehensively with the help of media management systems. Databases, in many instances, replace painful and time-consuming index card work—from simple administration to the cumbersome documentation of collections. The application of new media in research and teaching requires scientists and students to possess skills and competencies which usually, at least in Germany, are neither formally developed nor adequately taught in the university. Multimedia projects, which are often developed for teaching purposes and supported by government funding, cannot be realized as planned due to the absence of important prerequisites, namely, basic knowledge of the new media. Indeed, teaching these abilities rarely is included in the curricula of a university, despite the fact that a certain level of competency in media technology is absolutely necessary to bring digital media into the areas of teaching and research.

In the university, not all departments are ready to adapt to students' requests to learn how to utilize new media. Individual disciplines therefore are thankful

when this task is organized and realized by another unit of the university. Here then is a unique opportunity for university collections to assume additional and extremely important functions. In this way, their position will be enhanced and thus consolidated. At the same time, the students' interest for the collections can be awakened.

Teaching Multimedia Literacy

Currently, at the interdisciplinary Hermann von Helmholtz-Zentrum für Kulturtechnik¹ at the Humboldt University, one course and one complementary tutorial in general studies is offered every semester. The themes include "The Application of the New Media in Cataloguing and Presenting Collections," "The Use of Multimedia in the Sciences" and "Learning Museums on the Internet." The Teaching and Learning Center of Multimedia at the Humboldt University pays the tutor costs. Currently, the Multimedia Center is supporting several projects which are improving the application of new media in research and teaching. Additionally, it is funding the required digital equipment. For the time being, there are numerous opportunities to obtain financial support for multimedia projects inside and outside the university.

The goal of the courses is to convey essential knowledge for an exemplary interaction with new media, aided by collection-specific subjects. In view of this goal, the material basis of the university collections plays a vital role. The course "The Application of New Media in Cataloguing and Presenting Collections" includes:

Internet, WWW and Multimedia

- Topics include how the Internet works: protocols, domains, client, server, World Wide Web, HTML, URL, links, bookmarks, search engines, inquiries, catalogues and category indices, portals, etc.
- Web concepts—content, design, user guidance, processing of information, etc.
- Multimedia applications—digitalization, multimedia presentations
- Internet copyright

Museum Presentation

- Advantages of a web presence, criteria for evaluation, categories (for instance, informative offerings ranging from minimal to comprehensive with many links)

Collection Management

- Database systems—conceptual modelling of data, physical organization of data, data models, query language (SQL)
- Inventory and documentation—registration, inventorying, categorizing

- Principles of EDP and the systematizing of information—formalizing data, analysis in logically connected units of information
- Standards and norms—classifications, thesauri, keyword lists

Multimedia applications, web presence, collection management—today these concepts all belong to the daily routine of the collection staff. Why should not this valuable knowledge be passed on to the students? If this special knowledge is not yet incorporated in the collection, then usually a colleague from the computer science department will agree to help.

Other more general aspects that play an important role in contemporary daily life also could be included in this framework, for instance:

- Evaluating the quality of information on the Internet (criticism of sources)
- Knowledge management
- Possibilities and boundaries of multimedia presentations

Insights into current practice are offered by an accompanying tutorial in which the students develop multimedia techniques through qualified instruction and by working on their own projects. Students also will be able to practice presenting scientific information in different new media:

- Creating web sites or web-based presentations, dealing with client/server systems and HTML
- Producing digital pictures with scanners and digital cameras, preparing and distributing pictures for various applications
- Creating presentations for papers and lectures
- Using digital camcorders and video software

There is more than enough material for practical projects with the collections. Ideally, students will have fun creating web sites for collections or objects. Perhaps this process will be associated with the preparation of a paper. Often, students search for an exciting subject for a web site and are thankful when they can work on a real-life project of long-lasting value. In this way, university collections can profit from fresh ideas and appealing web sites created by students.

Concluding Remarks

1. University collections can be placed into a completely new context and eventually play new meaningful roles in the university.

2. The recognition of collections as important teaching tools in the university creates, in the long term, a deeper appreciation and support for collections from lecturers and students.

3. The advantages of offering classes dealing with new media include:

- They are currently in demand and draw much interest.

- Relevant projects are being financially supported.
- The collections offer sufficient material to cover all relevant areas, both theoretical and practical.
- The community requires media literacy and will appreciate engagement in this area of knowledge.

A good scientific collection serves primarily as the basis of the corresponding academic discipline, and this is a valuable goal in itself. Everything else can and should be recognized as additional benefits. In this case, the advantages for both collections and the community are clear. Let us not waste this chance! Let us offer our collections as tools for teaching media literacy and give the community the opportunity to support us.

Contact

Cornelia Weber
General Manager, Researcher and Lecturer
Hermann von Helmholtz-Zentrum für Kulturtechnik
Humboldt University
Unter den Linden 6
10099 Berlin
Germany
Email: weber@mathematik.hu-berlin.de

Notes

¹ Unfortunately, the translation *cultural technique* does not carry all of the connotations present in the German term *Kulturtechnik*.

