Improving access to materials should be one of the goals for all librarians and all libraries. Generally speaking there is little disagreement related to this goal. Many collection development policies eloquently refer to their open access and, in the United States, official U.S. government depository libraries are required to provide access to government documents and to provide public access to those collections. And yet collections, however well meaning, will realize upon further study that there are limits to access and map collections are no exceptions from this. And it is the larger collections that may have more restrictions for it is often their sheer size that creates limits. And, while everyone believes that our new digital age and its shrinking world concept will open access to all materials, digital access is actually increasing limits to access as well. This afternoon, I would like to outline these limits. Some are obvious and all types and sizes of map collections suffer from some of these limits.

The most obvious of these are library hours. Many map collections are one person operations, sometimes only part-time, and this will limit access to professional reference service. Many other map collections limit user access to the map file drawers and I believe this is a good policy but then requires more staffing. Those map collections that are associated with Government Document units, at least in the United States, usually have more access hours into the evening and on weekends. The more specialized collections often have no evening hours nor weekend access.

A more serious limitation is often the fragile nature of maps. As collections grow, and age, the fragility of the format becomes more apparent. The fact that maps are not protected by bindings or boxes make them an inherently weak format. The ravages of time, a poor environment, and handling are serious threats to a single sheet of paper. In addition, few map collections have either preservation funds or staffing and certain maps may have to be withdrawn from public access. While digital reformatting is a possibility some of our maps are in such a deteriorated state that they require conservation to be readable. There are also several issues related to digital reformatting which I will address later in this paper.
Next is the level of cataloging. According to the 1990 *Guide to U.S. Map Resources* (1) 60% of the collections were cataloged. In reality, this meant that they were cataloging maps and not that 60% of the collections had complete cataloged collections. A closer examination reveals that many research libraries only have single digit percentages of maps actually cataloged although several have classified larger percentages of their collections. Again, this classification is almost always internal, not represented in their library’s online catalogs, and seldom includes newly acquired digital information. Harvard’s Map Collection may be a typical example. Prior to 1990 Harvard’s collection was almost completely classified although it should be noted that there were three different classifications: one for books, one for antiquarian maps, and another for current maps. All of these classifications were internal meaning that you had to visit the Map Collection, review the card catalog, and then request a specific item. While progress and access has improved I must admit that it remains a part-time effort and it will be sometime before we are able to provide online access to nearly a half million cartographic items. The books and atlases have been reclassified and are now in our online catalog using the Library of Congress classification; new maps added to the collection are cataloged using OCLC and the LC classification; but only a few of the retrospective materials will be found in the online catalog.

Then there is the issue of access and cataloging of digital information. Like many libraries we collect published CD’s and various aggregates of unpublished digital geospatial information. For example, the *Atlas of Florida* (2) was published as a CD in 1994 by Florida State University and the Florida Dept. of Education. It is included in our online catalog under its appropriate title and author, however, its one subject heading is “Florida—Maps.” This CD has numerous datalayers showing: camping sites, coral reefs, crime rates and many others but we are limited in our ability to archive and access digital information in library catalogs. The importance of a digital data set is, not the sum of its parts, but the individual parts themselves and knowledge of these “layers” is critical to the use of such geospatial information.

Several libraries are reviewing and experimenting with Federal Geographic Data Committee (FGDC) standards for metadata and their compatibility with library catalogs. A similar project has been underway at Harvard and the Harvard Geospatial Library will be launched this Fall. This service will develop separate records for geospatial information: an LC MARC record for the public online catalog and a FGDC metadata record within the Geospatial Library which will provide access to the different layers. A few datalayers will be restricted to Harvard users only, due to licensing agreements, but the goal is to offer access to the system via the Web. Initially, the system will offer access to the Digital Chart of the World, ESRI Maps and Data, Massachusetts GIS Data, Boston Water & Sewer layers, the City of Cambridge GIS data, and parts of the Bureau of the Census Tiger 2000 file. Librarians from the Social Sciences and Earth & Planetary Sciences will receive training on the use of the system thereby creating several points of expertise for faculty and students. Limitations include the fact that not all geospatial digital data will be included in this exploratory environment and there will be a limited number of records relating to paper resources. Types of layers to be considered for future inclusion include raster imagery, orthophotoquads, additional state and city data, and foreign census information.

Digital information brings several issues to the forefront that libraries should be carefully considering. The first question is how will copyrighted materials be treated? In the past we have felt comfortable placing signs near our copying machines explaining the copyright laws and the concept of fair use. Today, as map collections begin to offer scanning services, including scanning and processing of large oversized maps, library staff are actually producing the digital files. As a result, the new large format color scanner that is being acquired by the Harvard Map Collection will offer scan to print only services for the Fall semester of 2001. Our intent is to review the issues with our Office of the General Counsel and to develop forms to be signed by the user specifically stating (limiting?) how the digital image will be used.
The final two limitations are points of contention and an issue for many researchers – whether it be digital or paper. During this past year there was some heated discussion addressing intellectual property rights and permission fees on the MapHist listerv. While an Ortelius map of the America’s from 1570 is no longer copyrighted, a library has the option to invoke its intellectual property rights. In other words, the Ortelius map is owned by the individual library which may, or may not, decide whether the map can be copied and restrict how it may be used. For example, as stated above, we will use our new large format scanner only to make printed copies of the maps we scan. Some scholars have criticized this as holding the individual maps as hostages and that they belong to the public and should be available to anyone. I disagree. Too often, people conveniently forget the time, effort, and cost that libraries assume to maintain these national treasures. Those research libraries that have these special collections have often invested enormous quantities of staff time to care for these materials, cataloging many of them, preserving others, and providing adequate housing. The limitations are often defined to make sure that the item remains safe in the collections for future generations and that the items are copied within appropriate environmental conditions and by professionally trained staff.

These conditions and staff come at a price. It is interesting how everyone expects to be charged by a copying store but resents any charges for a similar service at a library. Most research libraries have a special collections imaging services or photoreproduction department. Almost always, there are charges associated with this service. I suspect that some libraries charge more than they have to and I know that some do so simply to restrict that service because it would overwhelm their staff. I do know that we often research and select materials for imaging via email, regular mail, and telephone. This takes our staff away from other primary duties but, at the same time, makes our collections available to a wider diversity of users around the world. Then the items must be transported to our Imaging Services where they then have to be handled: placing large maps against the vacuum board, opening folio atlases, and all the time doing light meter tests. The entire process from researching the collection to identify a specific image for the user to creating an 8 x 10 black and white print or a color transparency is completed by professionals paid by the library. Libraries charge permission fee’s to offset some of these costs and seldom enough to make these services profitable. As we move deeper into our offering of digital services it is probable that libraries will have to charge for customized scanning or for parceling data sets and users should be prepared for such limitations.

Libraries are committed to providing access to their collections but access no longer just means providing the right book for the user. The future will bring more customized services especially as libraries include more geospatial information which is not familiar to a large group of their users. I believe that libraries will increasingly expand their offerings at no charge via the Web but will have to charge nominal fee’s to offset the customized reference service that geographical information services may require. I also believe these fee’s and access restrictions may be limiting but will be offset by the final reward.