This paper will focus on the changes in scholarly communication, i.e., the way facts and knowledge are passed from researcher to publisher and back to researcher. It will look at some proposed solutions to the crises facing libraries: entrepreneurial budgets; SPARC as a competitor; consortial buying; political lobbying; electronic preservation; attracting users back to the library; cutting the costs of technology; package deals; and enlisting the faculty and administration to support the library.

В доповіді увагу зосереджено на проблемах наукової комунікації, тобто яким чином факти та знання передаються від дослідника до видавця та повертаються дослідникам. Визначено економічні аспекти наукової комунікації в Сполучених Штатах (та інших країнах), а саме: зменшення фінансування, збільшення витрат наукових бібліотек, потреби факультетів у поширенні результатів дослідження, об’єднання, виникнення монополій, збільшення норми прибутку видавців та обмеження, що накладаються авторським правом. Також досліджуватиметься криза наукових бібліотек: бюджетні витрати, вищі ціни, попит на електронні видання, зниження обсягу закупівлі книжок, збільшення кількості «запозичених» книжок, міrkування про зберігання фондів, маркетинг бібліотек, висока вартість технологій. І, нарешті, в доповіді запропоновано шляхи виходу з кризи: комерційний бюджет, SPARC як конкурент, поповнення фондів через консорціум, політичне лоббіювання, електронне зберігання фондів, заохочування читачів відвідувати бібліотеки, зниження вартості технологій, комплексні угоди, отримання допомоги від факультетів та адміністрації.

I. Introduction

Ladies and Gentleman, I am very pleased to be here today. I want to first thank Yakov Shraiberg for inviting me to the Crimea. I have never been here and it is exciting to be in a region about which I have heard so much. I hope that my remarks about American libraries will have applicability to the situation of academic libraries in Russia who certainly are presented with the same challenges, and can adopt the same solutions.
Today in my opening speech I would like to address an issue that closely relates to the intellectual value of academic libraries. It is the CHANGES in Scholarly Communication, i.e., the way facts and knowledge are passed from researcher to publisher and back to researcher, which we have witnessed over the past decade, and that on a growing scale library experts consider a crisis in academic libraries. Now I will give you a quick review of what I believe are dramatic transformations in research libraries.

A. Certainly, 9/11 worsened what was already a deteriorating funding situation for libraries. Everyone here is certainly aware of state budgets being drained by greater demands and less revenue.

B. Costs for libraries are continuing to rise as budgets shrink, especially due to the need to provide both paper copies and electronic information with its necessary infrastructure.

C. Faculty, who naturally desire the publication and wide distribution of their research, are discovering that the costs to libraries for their research, sold back to the university by commercial publishers at very high prices, are becoming prohibitive.

D. As costs rise, there are fewer suppliers of scholarly information as the publishing industry sees mergers, monopolies, and profit margins increase thus further increasing expenditures.

E. Copyright owners, particularly the media giants, are now making it more difficult for libraries to share information.

F. Libraries are currently dealing with the question of paper or electronic while being pushed by faculty and students for more electronic files.

G. Electronic titles are usually leased so that the library begins to lose its archival role. Even when electronic journals are kept permanently, electronic files are much more temporary than paper copies.

H. Book expenditures are plummeting as expenses for scholarly journals continue to rise at rates above inflation.

I. Libraries are also being asked to become publishers of data contained in their collections by scanning their unique collections for remote viewing;

J. And finally, as library buildings must be built to accommodate new modes of electronic access, libraries are looking to renovations or off-campus storage as a more economic solutions to the high costs of building new facilities.

Two stories illustrate some of the points above. The first relates to my editorship of an annual in the Library Science field. I didn’t sign my contract immediately in order to review it carefully. Before I was ready to send it I had several questions which my editor answered patiently. Then, after I sent the contract, my editor suddenly e-mailed me that, because of a possible change to on-line, «these royalty questions will shortly be made redundant.» I was aghast. I suddenly envisioned no volume to add to my shelf of volumes which I edited. I saw only the possibility of printing out a copy for friends occasionally. I also wondered how they would calculate revenue. My editor, sensing my frustration, wrote back immediately and said:

The plan is to put your series, and many other book series, online and sell subscriptions to collections of them, hopefully improving the dissemination of your series. The way this is to be done will make it impossible for us to attribute resulting revenue to individual titles, and to calculate royalties arising.

What we are therefore doing is writing to series and volume editors such as yourself, offering a one-off flat fee to buy out all rights to future royalties — print and electronic. This is calculated on the basis of sales of past volumes in the series and is to be paid as money up front. We cannot oblige any editor to accept a flat fee, it is your choice.

So please be reassured, there will be no unilateral change to any of your rights. Flat fees for your series have yet to be calculated; when they have been, they will be offered to you together with full explanation of the terms of the proposal.
Well, there you have it, life in the on-line world. It is a very impersonal world. And one doesn’t end up with anything in hand but a «flat fee». It has its advantages---wider distribution, access in remote locations, complete searchability, but its disadvantages are nothing very permanent, uncertain revenues, and ugly hard copy.

A second story shows how the media giants are changing things. An article by Timothy Wu on MSN spoke about «Harry Potter and the International Order of Copyright. Should Tanya Grotter and the Magic Double Bass be banned?» In Russia Harry Potter becomes Tanya Grotter. «Tanya Grotter rides a double bass, sports a mole instead of a bolt of lightning, and attends the Tibidokhs School of Magic.» As the Russian author notes, it is «sort of a Russian answer to Harry Potter.» He further is quoted as saying his books were «cultural competition»: for the original. Rowling, the author of the original and Time-Warner have an aggressive legal campaign against the unauthorized Potter takeoffs. As Wu notes the case for literal copying in which a foreign publisher simply reprints a work without permission is strong, but the question of borrowing characters and putting them in a new foreign context, makes them a supplement or adaptation. Wu argues that despite the possibility that there may be less profit for Rowling what is the difference between this and say Wendy’s and Burger King, as competitors to McDonalds. These adaptations have not reduced Rowling’s incentive to write and they provide competition and international trade. Or do we want to have a sanitized world where anywhere we go, we will see the same brand without any variation? There is something to think about here.

Of course, in the era of digitization, publishers are frightened about the ease of copying. But we remember when everyone used to exchange books or cassettes with friends. Now the publishers are changing the rules and even considering devices containing information which, once used, the text disappears. Much more control will be a part of a publisher’s program unless, of course, consumers react.

II. Description of Crises Facing Libraries

1) Budget Losses: Although we are not in recession, the economy is doing very poorly at the moment, and this is reflected in state budget revenue estimates. The National Conference of State Legislatures show that «two thirds of states report declining revenues and more than half of the states face expenditures that exceed levels projected in their fiscal year 2003 budgets according to the National Conference of State legislatures: (NCSL) State Budget Update.» Many institutions show endowment losses with less giving, and many libraries are cutting back staff. Stanford University announced a hiring freeze in October 2002. Brown University is offering no raises to employees making over a certain amount. All these are signs that libraries are being hurt by forces outside the library’s control.

2) Higher Prices: Prices of journals are always startling to the uninitiated. For example, the web site at the Health Sciences and Human Services Library at the University of Maryland compares the purchase of Brain Research to a vacation for a family of four. This family can enjoy the wondrous splendor of an 8-day cruise through Alaska’s famed Inside Passage for $16,640 including round trip air fare from Seattle. As the Library points out, «this trip would be only a little more expensive than the Library’s annual subscription to Brain Research which costs $16,344.» According to data collected by the Association of Research Libraries (and available at www.arl.org/stats), during the 16 year interval between 1986 and 2002, scholarly journal prices overall increased by 7.7% per year while the CPI increased at a rate of 3.2%. Thus, the prices of scholarly journals were double the cost of living!!

Many may ask why did this happen. The reasons are certainly that scholarly information is unique and the old maxim applies---scholarly publishers have a corner on the market. Their materials cannot be duplicated and sold at a lower price. Secondly, a small group of foreign publishers now publishes a large portion of what is available—the anti-trust groups of the United States and Europe have indeed been examining publisher mergers by publishers from this sector.

3) Additional Costs: Libraries are always trying to serve their users, and currently it is imperative to make available on-line materials, as I said before, since they are eminently searchable, very current, and remotely accessible. With these advantages, come some costs. Many, of course, saw the electronic revolution as a panacea and imagined costs would decline. Instead, libraries’ costs in almost all cases have risen. Costs for the publications have varied, but every library has had to install more and more computer
equipment, keep it maintained and upgraded, and pay for the supplies, e. g., the paper bill for the printers can be immense. Walt Crawford and Michael Gorman have noted that:

> It is evident that most people will insist on paper copies of texts more than 100 lines long---all books. In an all electronic world, this means that each text will be printed each time it is to be read---at the relatively high cost of local printers... As a national average, each book in a public library goes out 2.5 times a year. Thus, printing on demand, whether done at the library or at home, would consume 7.5 items as much paper each year as is held in all our public libraries. (p. 95 Future Libraries: Dreams, Realities and Madness)

4) Copyright Issues: On-line database publishers are very fearful that their products will be copied willy-nilly. Therefore, all fee-based on-line publishers now license their products and require libraries to sign licenses. The licenses strictly define their user populations; put restrictions on interlibrary loan and reserve; demand that libraries observe and report on any copying violations (very difficult to do); and in most cases have a clause absolving them of any costs in litigation. As noted earlier (the story of Harry Potter), publishers are paying close attention to uses of materials. The RIAA (Recording Industry Association of America) has contacted our computer center about «violations» of copyright numerous times. Needless to say, staff time and even legal counsel time has been used up in this entire process. Everyone is aware of the latest suits by RIAA, 261 in number with fines as high as $17,000.

5) Publisher Mergers: The Anti-Trust division of the Justice Department and the British Office of Fair Trading have been busy examining mergers of large commercial serial publishers. The first merger of Reed Elsevier and Academic was approved. A second merger with Harcourt was approved, but a third between Kluwer and Reed Elsevier was called off due to the scrutiny of this merger between these two giant scientific technical publishers. According to a report by Morgan Stanley:

Scientific journals have the fastest growing media-sub-sector of the past 16 years. Industry growth has been so good (10% organic revenue CAGR over past 18 years) that the OFT believes «the market for STM (science, technical, and medical) journals may not be working well».

The global STM (scientific, technical and medical) publishing business is a $7 billion industry broadly divided into scientific publishing (where academic libraries are the customer) and medical publishing (hospitals and healthcare practitioners are the customer).

The scientific journal business is characterized by relatively inelastic demand, with individual journals generally having a strong following within their particular niche...[for example] «if a company owns a must-read title say in [astrophysics], it has a nice little captive market.»

The nature of the industry is unlikely to change, but three changes will occur: cyclical slow-downs will occur [as budgets decline], benefits of scale will accrue to larger players; and margins will expand for those publishers with successful on-line platforms.

Reed-Elsevier publishes 18 of the 25 most expensive journals. Reed is likely to continue outperforming the market because an estimated 70% of Reed’s revenues are protected by three-year contracts with price escalators (5% estimated); large players can bundle their journals into a single product; Reed has strong titles with large academic followings; and they are tapping into the Corporate market (large pharmaceuticals).

Morgan Stanley forecasts growth of 6% annually once through the cyclical downturns. These facts tell us the dilemma of the library serials market.

6) Preservation of Digital Resources: Publishers are not committed to preserving electronic titles and currently no one organization or group of organizations is taking responsibility for insuring that electronic titles will be preserved. Another factor at play is that libraries that cannot afford to buy both electronic and paper titles are opting more and more frequently to purchase electronic only because the package deals are so attractive. As the libraries purchase these packages, and no paper is available on the shelf, a precarious situation arises. If it is necessary to quit the electronic subscription, then there is no paper back-up on the shelf, and the library has abrogated its responsibility to archive facts and knowledge of significance.

7) Libraries Moved to the Margin: With the digital explosion, fewer visitors come to the library because they can many times get what they need from their desk-top computers. Many do not realize that the
reliability of the information is not always good, and furthermore it may be very incomplete since users frequently do not know how to use information databases efficiently.

8) High Costs of Technology: In certain cases, costs are much lower, e.g., the journals offered in package deals. Also the costs for binding, shelving, and servicing the paper copies are eliminated. However, a plethora of new costs takes the place of the old ones. New computing machinery has to be purchased and software kept up-to-date. High speed printers are required and the paper costs alone, not to mention the problem solving for paper jams etc., are massive. Also the costs for wiring and network installation are add-ons. Plus, staff has to be available not just to assist with using databases, but also to help with use of machines.

9) User Demands: There is no question that patrons or customers, as the users of libraries are now called, prefer to receive information on-line. It is faster, easier to search, and accessible locally. Indeed the old style of research, i.e., looking through volumes in the stacks, is becoming less and less common.

10) Privacy concerns: Another less costly concern is growing that activities of those using on-line databases can be monitored. With the Patriot Act, there are fewer barriers to such observation by the government.

In summary, there are many factors causing a crisis in libraries today. We have just looked at the critical elements resulting in this crisis but there is some light on the horizon. Now we will examine some proposed solutions.

III. Proposed Solutions to the Crises Facing Libraries:

1) More Creative/Entrepreneurial Budgets: Raising more funds for libraries has been a perennial solution to budget losses. Most research libraries with which I am familiar work closely with their campus development offices and/or have a development officer in the library. Of course, with the economy in the doldrums, even endowment funds may not help, but certainly fund raising will aid libraries in obtaining those extra materials or additional equipment that help bring the library to a higher plateau. Some libraries are also selling services such as computer use, copies, souvenirs, etc. In addition, libraries sell duplicates in order to raise funds for materials. In addition, some libraries have designed brochures that describe the value of donations to the libraries and these are circulated to donors. These measures, of course, may not be enough to compensate for the high increases in costs.

2) SPARC as a competitor: Several years ago in looking for a solution to the rising costs of STM serials, the Association of Research Libraries created SPARC through membership contributions. SPARC (Scholarly Publishing and Academic Resources Coalition) was launched in 1998 to be a «catalyst for change through the creation of a more competitive marketplace for research information.» In a program called SPARC Alternatives, SPARC immediately formed partnerships with societies such as the American Chemical Society and Royal Society of Chemistry to offer reasonably priced journals which would compete with titles offered by the commercial publishers. As one example, Organic Chemistry Letters was offered by ACS for $2300 compared to its commercial counterpart, Tetrahedron Letters which sold at $8000 at that time. Since the first program, other programs have proceeded. In a program called SPARC Scientific Communities, Bio-One was formed. It is a program for societies in the biological sciences who do not wish to affiliate with a commercial publisher to create electronic versions of their journals. SPARC gives them support for creating on-line editions of their journals. SPARC has also supported new electronic ventures through its Leading Edge Program. One promising program, SPARC is supporting is the Open Archives Initiative. This is an effort to link together freely available distributed electronic archives. SPARC continues to be a promising long term alternative to high cost commercial research journals.

3) Consortial Buying as a means of lowering costs: Another solution that libraries have found for the high costs of purchasing electronic materials is to work through consortia to get the best available price. Brown University Library, for example, is a member of several consortia offering discounted prices for electronic products: NERL (NorthEast Research Libraries), BLC (Boston Library Consortium) and NELINET (New England Library Information Network).

4) Legislation to restore the balance to Copyright restrictions: Members of Congress are offering legislation to curb some of the excesses of the media giants in the copyright field. Recently Representative Martin Sabo (D-MN) introduced a bill calling for a revision of Copyright Law that would put the results
of research substantially funded by the federal government into the public domain. This type of legislation is a long term solution to the problems noted above.

5) Political action to curb publisher mergers: The Information Access Alliance, a group of six library organizations, is urging the U. S. Department of Justice to block Cinven and Candover’s proposed purchase of Bertelsmann Springer. The Alliance is concerned that this transaction will bring about a reduction in access to critical research information.

Cinven and Candover, a partnership of UK-based private equity firms, has announced its intent to acquire Bertelsmann/Springer, the academic publishing arm of Bertelsmann AG. The partnership also announced its intent to merge Bertelsmann/Springer with Kluwer Academic Publishers, which Cinven and Candover acquired in January, to form the second largest publisher of scientific journals in the world, trailing only Elsevier Science.

6) Electronic Preservation Efforts: There are some promising efforts to begin a program to preserve electronic information. They need to be third party efforts, i. e., publishers should not be relied upon to come up with the solution. Indeed libraries need to be prepared to negotiate licenses that guarantee future access either through paper copies of microform. The Economist recently published an article on «Storing e-text for centuries», and spoke about the Stanford project LOCKSS (short for «lots of copies keeps stuff safe»). The article spoke about the fears of librarians when many titles only available in electronic form and do not exist in print in a local collection. Will readers be able to access electronic journals even centuries after they have been published? LOCKSS depends upon a large hard disk cache which keeps copies of journals to which the library has subscribed:

If the system detects that one of its copies is damaged or missing it asks the original publisher or the cache of another library, to send it a fresh copy... Despite its complexities.

LOCKSS, which is supported by the National Science Foundatio0n, the Andrew W. Mellon Foundation, Sun Microsystems and others, has shown that it works. A prototype version was installed at some 80 libraries worldwide to test the concept under real conditions.

Other solutions being worked upon include OCLC and RLG efforts to come up with a permanent archive. «OCLC has developed a digital archive based on ISO Standard 14721:2002, «Reference Model for an Open Archival Information System (OAIS). «Reed Elsevier has also signed an agreement with the Dutch National Library to permanently archive its publications there. «The Koninklijke Bibliotheek (KB) will become the first official digital archive for Elsevier Science journals. This means the library will receive digital copies of all Elsevier journals made available on its web platform, ScienceDirect, which are approximately 1,500 journals covering all areas of science, technology and medicine, and exceeding 7 TB of data. For everybody involved in research and the communication of research results — authors, researchers, librarians and publishers alike — this is a decisive step forward in keeping digital archives available in perpetuity.»

http://www.library.yale.edu/~llicense/ListArchives/0208/msg00091.html

Of course, I lean towards the view of Michael Gorman who says that the safest archival medium is still paper, but there are many proposals for archiving electronic materials.

7) Measures to insure libraries are user centered: The Association of Research Libraries has begun to urge libraries to measure their outcomes, i. e., their effects upon users. This entails measuring the satisfaction of users in all areas. Outcome measures include how long patrons wait for a response, how long they wait for a circulating book, whether books are available, whether the environment of the library is pleasing, and so on. These statistics should then be used to improve the library. Thus, one can discover how to attract users back to the library.

8) Cutting the High Costs of Technology: Campuses are certainly now becoming savvy about deals for computers. In addition, libraries have learned to shift their older machines to applications which don’t demand high level machinery and put their newer machinery into the public arena where users need high speed machines and printers. Libraries are also working closer with their Campus Computing Centers who know how to obtain hardware and software discounts. Alaska has an advantage here because the libraries and computing/communications are at least currently administered together. Many libraries are adding charges for printing from workstations which have recently substituted for the xerox machine For example, students using JSTOR don’t have to go to the stacks any longer to pull a volume off for xeroxing, they copy it from their workstation.
9) **Buy the Electronic version:** To their credit, some of the commercial publishers have also cut the costs of journals by offering package deals for electronic only packages. Unfortunately, sometimes they make it very complicated. Although there is debate about the conditions for such deals, most libraries are benefiting. Indeed many libraries are discovering that new titles in the packages are used more than titles that they had previously selected. In other words, they were not aware of the demand for these titles because the library didn’t own them. On the other hand, some libraries are now being hurt by the condition that they can’t cancel for three years because of cyclical budgets. Nevertheless, it is important in the sciences to buy the electronic version. At the same time, it is important to insure archival copies somewhere in your consortium or provide for a paper or microform archival copy in your license.

10) **Be Aware and Lobby for your Library:** In order to cope with governmental interference one must **lobby Congress**. Recently, some schools were disturbed by the blatant interference of the Recording Industry Association of America and are asking judges to curb these activities on college networks. (Chronicle, Sept. 5, p. A41). A Judge in Boston has now quashed subpoenas of records. This apparently is temporary since the RIAA can no longer file from Washington, but must file in Boston. However, The Electronic Freedom Foundation which protects electronic freedoms, has urged colleges to continue to notify the judicial branch about such actions by RIAA based on users’ privacy. Whatever happens, libraries and universities must be vigilant about what is happening and fight for their rights.

**IV. Recommended Steps for Alaska at Fairbanks**

The above proposals to solve the problems of the current crisis are all long range, and most would like to know what can we do now? This impatience, a very American trait, is a good thing in this instance because we all need to take action to promote and preserve a cultural treasure, i. e., your Library.

First, one needs to make the Library a **warm and inviting place**. The Brown University Library has opened a coffee shop in the lobby. Further, it has loosened its tight regulations on drink allowing students to bring water and other drinks into the Library if the mugs have a cover. It has provided free of charge mugs to everyone with reminders of the importance of preservation. At Brown as at Alaska, the Library has added comfortable and colorful chairs, better lighting, and partitions to make the library a cozy and comfortable, and private place to work and study. It has also increased the group study areas where students can communicate with one another. These type of changes provide immediate incentives to get students to come to the cultural center of the campus.

Second, what about the problems of journal subscriptions? It is important to work with the major publishers on package deals that can lower cost per volume for scientific journals. While libraries must take advantage of package deals, first and foremost they need to do use studies. Brown has discovered as I noted earlier that the package deals bring in many titles that Brown had never possessed but are heavily used whereas titles we owned (in the package) receive little use. It is incumbent upon staff to see what is being used. Libraries must also make certain that electronic titles have back-up paper or microform copies for archival purposes.

Third, **librarians need to get out to speak to the faculty and inform them about the problems which libraries face**. Librarians will usually find a very sympathetic audience and one which will support them in their struggles. Indeed with faculty support the budget will increase and fund raising will prosper. Further, librarians in touch with faculty will insure that the collections better meet the needs of the faculty and students.

Fourth, faculty, administration, and librarians need to **lobby their local, state and federal governments**. What is wrong with using the dirty business of politics for a great cause, the education of our population. Librarians need to pay attention to legislation that is significant for libraries, be it copyright or actual grants for library support such as the Library Services and Construction Act. We should encourage spending money on libraries because such largesse results in a better society. Further, librarians faculty, and the university administration need to form a coalition to dramatically increase legislation which supports libraries.
Fifth, librarians need to **constantly inform the administration and faculty about SPARC programs**. Faculty can support SPARC by using journals created under SPARC auspices. Further, by getting SPARC newsletters they can keep informed about what is happening with various electronic initiatives that can lower costs and bring information to the desktop. Additionally, there may be opportunities to create joint programs with SPARC, especially electronic ones. The Russian connections Alaska has may be an opportunity for a joint venture.

Sixth, librarians need to **constantly keep faculty and administration informed about what is happening in the scholarly communication arena**. What is going on with the prices of journals? What new electronic programs are available to faculty and students? How can Alaska build an electronic institutional repository? What legislation is in Congress related to libraries, copyright, and publishing? What are the latest developments in copyright and in publishing (mergers, for example) which might require intervention through the judicial system? Brown University Library has a brochure entitled: A Dozen Things a Faculty Member Can Do to Assist the Library in the Scholarly Communications Crisis. Librarians can also make known the most expensive titles. In a number of cases, entire editorial boards have resigned and begun a competitive titles have been created with SPARC assistance. Brown University Library has used red tags in titles on the periodical shelves to alert faculty to the egregious costs of some titles. Of course, I mentioned the Maryland «Alaskan Cruise» comparison.

Seventh, faculty, administration, and staff must **endorse the movement towards open access** such as electronic institutional archives, Bio-Med Central, and Public Library of Science. These programs invite membership and require participation. For example, BioMed Central costs $1,500, but it entitles «all researchers and faculty within an institution to submit an unlimited number of research papers to BioMed Central’s open access journals, free of charge; a customized member’s page featuring a list of articles generated at the institution and published by Biomed Central, and the institution’s own logo and homepage.»

This program has become operational, but it is still experimental. Nevertheless, it is this type of program that faculty will have to support if open access is to succeed. Another venture is the Public Library of Science which will contain «the full text and data of any published research article, available free of charge to anyone, anywhere in the world. « To do this PLOS will «treat the costs of publication as the final integral step of the funding of a research project. « Again this is experimental.

**Eighth, consortia for Buying and Sharing and Coordinated Cooperation**: Alaska already has a variety of programs in this area. For example, there is a statewide cooperative collection development plan in place with primary collection responsibilities, i.e., coordinated acquisitions. (Of course, delivery of books is very difficult because of the vast distances. As Dennis Stephens likes to say «book delivery is the stone in the shoe of resource sharing. ») This plan, funded by the state library, includes academic, public, special and school libraries. Alaska also has a program for statewide funding of full text databases (Databases for Alaskans) licensed statewide which any Alaska citizen can access. Consortia provide excellent pricing for expensive electronic products through group leverage. Alaska is the member of several consortia and each one has special offerings. Alaska is part of ESIB, the NSF Epscor Science Information Group at the University of Montana which provides the Kluwer and Blackwell databases. Alaska also has a program for the University of Alaska (the UA Electronic Library) and it includes such databases as Cambridge Scientific Abstracts, EDRS, Proquest nursing, psychology, and education, Proquest newspapers, and ABI. It is clear that Alaska doesn’t need any recommendations in this area.

In a more recent development at Brown, the Ivy League institutions (except for Harvard) have a common on-line catalog interface and patrons can at Brown check a book and, if it is available at Yale, let’s say, input their id number and the book will be delivered within 4-5 days. Perhaps Alaska could find connections with Canada to be useful in terms of both buying and sharing. Certainly, Brown uses CSTI for scientific articles. It may be there needs to be further exploration of connections with the great buying consortia of Consortia Canada.

**Ninth, Electronic Books**: To date, **electronic books** have not been successful because readers are reluctant to use a machine as a device to read books such as novels. However, reference books (MD Consult) as well as textbooks (Books at Ovid) (Saharabooks) are available through packages and have had some utility. Alaska, being so geographically isolated from other parts of the U.S., of course, needs to consider all of the options and certainly electronic books provide one alternative. In the area of special
collections, virtual collections have been a great addition to scholarly resources since many of the titles could never be borrowed in any case.

Tenth, **Fund Raising: Fund raising** is not last among the immediate fixes because of its significance. It is of extreme importance and can assist Alaska in building up its collections. One of the severest problems in collection development is not having a strong base from which to build. Brown has been fortunate in being a university for more than 200 years and it is now ranked as 48 in total number of volumes in ARL. However, in the seventies and eighties, its acquisition rate was down and it was slipping from its rank. The assignment of a staff member to work closely with Brown’s Development Office began to make a difference. Not only did the Library receive funds for books but it also received funds for its on-line catalog development. A crowning jewel was its NEH Challenge Grant that raised more than $3 million in new acquisition endowments. An endowment drive is important to collection development. This was endowment for books. During the drive there were a number of donors who offered to match donations. The Library is always a part of campus wide campaigns and the Development Office has developed campaign plans for the library. Alaska must continue to support its donors. Families such as the Rasmussen family understand the importance of preserving the cultural heritage of Alaska as well as of the world, and we can be grateful that they continue to nurture the university libraries at Fairbanks.

**V. Conclusions**

My principal message is that there needs to be a partnership among administration, faculty, donors, and librarians to give the maximum amount of support to libraries during this period of stress for libraries. There are many who question the role of libraries in this day of digital dominance. What about those who ask «What is a library, anymore, anyway?» Michael Keller, Stanford University Librarian and his colleagues, Vicky Reich and Andrew Herkovic answer with the following comments:

Whether or not consciously, libraries and librarians have long been prominent among the few kinds of social agencies that have preserved continuity of cultural heritages. By serving as custodians of local collections, they have incidentally served a larger common good. Whatever other public benefits they provide, publishers and Internet promoter do not, and cannot be expected to fulfill this custodianship role.

They believe that if libraries give up their role as collection builders and managers of information, libraries will become obsolete. Universities have proved to be very effective in building collections by making the library a priority. A local partnership of librarians, faculty, administration and donors needs to be formed to strengthen libraries here. There are short term and long term solutions to problems that currently plague libraries, but these problems can only be solved through a **determined, common and cooperative priority effort** to build improved services and collections.

I will close with a quotation from Carl Sagan: «I think the health of our civilization, the depth of our awareness about the underpinnings of our culture and our concern for the future can all be tested by how well we support our libraries.»