Lightning Rod or Seismograph? The Acid Test for Librarians
By Derek Law

Introduction
When the invitation to talk at the ACURL 2004 Conference arrived, I was absorbed in reading Tom Wolfe’s *The Electric Kool-Aid Acid Test*, his biography of Ken Kesey, author of *One Flew Over the Cuckoo’s Nest* and central to the development of the hippie movement in 1960’s San Francisco and beyond. The book is about a man who believed in new ways of seeing, of opening up to new experiences and of being a conduit for change. He summed this up in the memorable phrase “I’d rather be a lightning rod than a seismograph”¹. The seismograph is a passive recording instrument, but the lightning rod channels powerful external forces and is a real participant in making change less dangerous. This seemed to me a powerful metaphor for at least my vision of the future of libraries. I contend that we can shape the future rather than just record and manage what has already happened. I believe that we must work to persuade our organisations that we are producers and not just consumers of information and that in making that argument we will assert that our professional skills, although in need of review and re-presentation, remain of critical value to the development of an information society. This is as true of digital libraries as paper libraries.

The history of librarianship over the last hundred years is one of quite astonishing and growing internationalisation and cooperation, of the development of practices and standards which we take for granted but which I believe are a triumph of professionalism. But let us return one hundred years to 1904 and the position of libraries. The Victorian era was newly passed, but three great figures had dominated libraries and the first stirrings of cooperation. In the mid-nineteenth century Sir Anthony Panizzi² dominated the British Museum Library, developed the first modern cataloguing code and designed the famed Round Reading Room. The concept of the Universal Library was the one he espoused, but his librarianship and its influence was undeniably modern as the building plans he submitted showed in 1852. The Father of Modern Librarianship had been born the year before in 1851. Melville Dewey invented the Dewey Decimal Classification (DDC) system when he was 21 and working as a student assistant in the library of Amherst College. One hundred years ago his career was in its pomp and he was Director of the State Library of New York.³ In 1904 My third great figure, the 69 year old Andrew Carnegie⁴ was already almost twenty years into his programme of building 2500 public libraries. Through the establishment of free public libraries he wanted to make available to everyone a means of self-education.

In 1904 a story of international cooperation began which though probably untrue is *ben trovato* and it is used to explain why in the catalogue of the library of the University of Edinburgh with great precision some books are described as lost while others are described as missing. In 1904 the Imperial Court at St Petersburg requested the loan of a book from Edinburgh University. It was duly loaded on to a steamer sailing from Leith to the Baltic and arrived safely three months later. In 1915, the University of Edinburgh noted both that the book had not been returned and that the political situation in Russia gave some cause for concern and so the book was recalled. Within a further six months the book was carefully parcelled and loaded on a Swedish freighter sailing from Petersburg. Regrettably, as the freighter left the Gulf of Finland it was sighted and torpedoed by a Uboat. As the cataloguing staff at
Edinburgh then note the book is missing but not lost for they know exactly where it is. It lies in latitude 59°26'N and longitude 24°46'E in a steel safe in the forward hold in 27 fathoms of water.

If this little fable of co-operation is not exactly true, it does make the point that the twentieth century has been the century of library co-operation. Certainly over the last fifty years we have developed under the auspices of IFLA's UAP (Universal Availability of Publications) and UBC (Universal Bibliographic Control) a system of co-operation of astonishing power. Coupled with the development of the MARC standard and AACR cataloguing codes it is broadly true that any library user can go into any library, identify any book or journal article published in the last fifty years or so, fill in a request form, and expect the item to turn up in a few weeks. Just as amazingly when an ILL form arrives in my library requesting an item, I will cheerfully send it to Venezuela or Cambodia, in the firm expectation that it will be sent back. And it always is. And yet there is no self-evident reason why the National Library of Medicine should co-operate with the Johannesburg Public Library; or why the University of the West Indies should co-operate with a Russian School library. Yet as a profession we have done this: we have built the systems; we have developed the standards; we have learned to place trust in the professionalism of our peer group. And now we have moved to a new set of standards based around the Dublin Core, again developed by librarians. We have begun to work on metadata, which in truth is little but cataloguing in its Sunday best. We are already facing the challenges of the electronic world, but we should do so with confidence. This long preamble is intended to demonstrate that we have a near unique track record of success in delivering international success. We have done it once and we can do it again.

Professional skills
Our skills can broadly be divided into three groups covering selection, storage and support for users. In each of these areas I believe that we can refocus those skills – old wine in new bottles – to ensure their relevance.

Selection
It has long been the case that one of the most critical but undervalued professional skills is that of content selection and collection building. One of the key roles of the librarian is to act as a relevance filter. We hear constantly that the web is overloaded with information and everyone is familiar with the Google search which produces several hundred thousand hits. What we tend to forget is that the web contains a limited subset of information, a random and incoherent subset, whilst a library contains a managed subset of information relevant to the purposes of the organisation. There is in logic no reason why we should not be able to create managed subsets of information relevant to our organisations. Law's First Law states that good information systems will drive out bad. We have all become familiar with the Internet messages of failure: 404 error messages; system busy messages; the refresh button; the joke that an image may be worth a thousand words – unless it is a jpeg file downloading from the web. What is lacking from the web are the quite fundamental attributes of quality assurance and reliable accessibility. I believe that we can provide that quality assurance and assured access through customised information portals. We can also work in much more obvious and apparently banal areas as consortial purchasing and resource sharing. Again one should not assume this to be the prerogative of rich institutions. One of my roles is as President of eIFL (electronic Information For Libraries). eIFL has successfully sought to create consortia in countries as varied as Kazakhstan, Peru and Senegal. Our common theme is that while no single consortium has the buying power to make a large difference to pricing, together our forty-four consortia can create good deals. We can and do also look at projects, at shared training, at workshops and at advocacy in favour of the world's poorer nations. We work with HINARI, AGORA and INASP to try to create a set
of affordable and/or accessible information for countries in transition. Nor do we focus only on commercially available datasets. It is just as important that the rich variety of resources available free on the web are properly managed so that our users can be secure in the knowledge that quality is guaranteed and support and training provided.

**Storage**

One of the areas in which we are deficient is in the technology for the preservation of collections. There is no quality assurance standard for repositories. In the paper world if one gives a book to a legal deposit library we can be fairly sure of what the library will do with it—essentially to keep it and store it and preserve it into the indefinite future. We also know that paper is capable of surviving for over one thousand years. How different the electronic world. We have no real equivalent of legal deposit libraries in our computer centres and the recent history of computing does little to convince one of the longevity of electronically stored data. The CD-Rom is but the latest technology to have proved wanting in this respect with some disks having collapsed in less than twenty years. This failure to have defined repository standards is I think a critical gap. Ironically, as in so many things one can see a potential solution in looking back to the experience of the past to develop thinking on the future. The Maori tradition is an on-line one and they have developed a quite specific set of criteria to guide the selection of the keepers of that on-line tradition:

1. Receive the information with utmost accuracy
2. Store the information with integrity beyond doubt
3. Retrieve the information without amendment
4. Apply appropriate judgement in the use of the information
5. Pass the information on appropriately

These seem a perfect guide to the preservation requirements of tomorrow's e-collections.

**Open Access Initiative and Institutional Repositories**

There has been growing interest in regaining control of information production through what is generally known as OAI. This applies particularly but by no means uniquely to universities. We produce reports, articles, books and theses; increasingly we create born digital information; we have institutional publications, exam papers and courseware; we will increasingly digitise information to share as part of the global information economy. Some examples of this kind of digitisation are described below, but again in the important point is that we have the ability to lead our organisations into the future. Even where organisations claim to be too poor to small to undertake this kind of activity one can look to the sort of consortial sharing models that are so common in the profession.

Falling somewhere between selection and storage is the whole issue of electronic collection building. Isaac Newton famously remarked that his scientific advances were made because he stood on the shoulders of giants. In the same way we all absorb and use the library collections of the past. Now it is true that libraries continue to collect special collections and archives on paper, but I see no evidence that we are building any theoretical structure, any taxonomy or any experimental practice on how to build the electronic collections of the future. Yet more and more of the records of the custom and practice of society are moving to electronic formats. But who is storing— or even experimenting with storing—the email of men and women, the electronic output of research machines, CAD-CAM designs from architects, digital images of local, national and international events. Yet to store these is relatively cheap, certainly in shared repositories. We know that we have the
skills to manage such collections. Metadata is only cataloguing in its Sunday clothes. Every library represents a community and yet we are doing nothing to hold on to the records of our communities both big and small. I have no solution to this problem but can only Cassandra like say that it seems to me one of the greatest professional failures of our time.

Support
The whole issue of user support becomes even more critical as a future skill for librarians. Law's Second Law states "User friendly systems aren't". As soon as the shrink wrap package declares that software or data is user friendly and has only an on-line manual, you know that a training course is required. I believe that developing our ability to train information users in information management skills will be a critical area of professional activity. We have to be seen as the cadre of people for whom this is a natural role. Much work has been done on this already. For example in UK Higher Education, the so-called "Seven Pillars" model has been developed. Prutchak has memorably described the new Google generation as "the satisfied inept", those people who believe that because an on-line search engine produces a result, that that is an adequate and relevant result. The whole issue of information literacy and how it is to be taught and transformed provides a critical test for us. A recent series of conferences has brought together librarians, educators and computer scientists to explore this issue. What seems clear to me from the conferences is that while many librarians are active in this area and recognise its importance, there can be no assumption that it is automatically "our" turf. We have to seize the opportunity offered to be leaders in teaching information skills.

The Production of Information
As stated above, the failure to produce any structure for the building of electronic collections is a grave one. However there are some glimmers of hope. While my dire predictions relate to born digital collections, significant progress has been made in the creation of digital libraries based on electronic surrogates of paper and in some case image banks. A key issue for me is to see the role of the organisations and indeed libraries as producers and not just consumers of information. I contend that we all have rich opportunities both to access the wide set of readily available resources and also contribute to a truly global information partnership. While the "entry costs" for electronic information are still undeniably there, they are much lower than has historically been the case. A few examples from the Glasgow Digital Library show what can be done, but these examples can be replicated in many countries and many digital libraries. UNESCO's Memory of the World Project has digitised materials on an international basis taking such cross-cutting themes as the Slave Route and the Silk Route. Spain has also begun work on its colonial records working with Latin American countries. PAHO has worked on the wonderful SCIELO project trying to preserve and encourage local scientists to publish in their native tongue. Across the world in South Korea attempts are also being made to encourage science in the local language and again to preserve it. MIT recently announced that all its courseware would be freely available on the Web. I believe it a fundamental mistake for librarians to put all of their efforts into bemoaning the cost of commercial publications, especially in science, and in constructing methods for mitigating or attacking those costs. We should be putting our effort into the conceptualisation, design, creation and preservation of the next generation of research collections. As a first principle and like the examples above we should reaffirm the principles of public good in libraries, that we can all contribute to the global set of information, in no matter how small a way that we should make the information freely available to users irrespective of their ability to pay. Let me then conclude this section with a few examples from my own institutions digital library. Not because they are special or original or wonderful, but simply because I am familiar with them.
The Glasgow Digital Library was set up like many projects in an attempt to recreate and preserve what we seemed in danger of losing. Three examples demonstrate this.

Firstly, the Red Clyde Side collection. In the very early twentieth century in the shipyards of Glasgow we came close to a workers revolution and the overthrow of government—or at least so the government of the day believed as it saw the Russian Revolution taking place. In 1920 the tanks were on the streets of Glasgow to suppress the workers. The destruction of this movement also led to the scattering of its records with no coherent collection anywhere recording this last great working class revolt in the UK. Worse, eighty years on, with the shipyards themselves almost having disappeared, there was no folk memory of this great historical event. The Glasgow Digital Library has been able to assemble a whole series of digital images of photographs, pamphlets, writings and ephemera to create for the first time a single entry point to the records of this important event.

Secondly, there is the Springburn collection. Springburn was one of the great centres of the Industrial Revolution with its fortune built on the building of steam engines. These huge machines were sent to China and India and to Latin America. As the railways declined, so did Springburn, until it is now the second poorest area in the United Kingdom. But it had a wonderful local library and museum which had a huge and much loved local photographic archive of life in Springburn from about 1870 to 1950. In a cost-saving exercise the museum and library were closed and the collections moved to the central library. Although still accessible there, in practice the local community now largely unemployed could not sensibly reach the collections. So we digitised a representative sample and this is now heavily used, allowing the community to stay in touch with its past.

My third and last example is called ASPECT. Five years ago the Scottish Parliament was restored after almost three hundred years of English rule. We decided to build a collection to record this historic event. Staff and their families and friends and relatives were asked to keep and collect every bit of paper, every election leaflet, every manifesto, every lobbying document from every constituency. We then digitised this as a collection for future historians. In practice it has already been a huge success and is already much used by press and public.

Conclusion

It is claimed that an ancient Polish proverb states rather improbably that when the task is to eat an elephant, you should begin by taking the first bite. That is what we have tried to do. The problems may be too big and too complicated and too difficult for anyone library to tackle. But that did not stop us creating the great edifices supporting document delivery.

So where does this all lead? I have suggested that we have traditional skills which with some minimal repurposing are ideally suited to the information age; I have suggested that there are areas of opportunity in training, in information production and in developing institutional repositories. These neither require huge resources nor large teams of people. What they do require us to have a settled will to harness and drive change, not just to wait for it to happen to us. Libraries began four thousand years ago in the Middle East with the Great Library of Ashurbanipal and its tablets of stone. Our profession has managed huge changes in media in the past and has developed and managed the organisation of knowledge and the services to deliver that knowledge. I am confident we can do so again. And I am also confident that we will do that through working together, through sharing and through a set of common professional values and ambitions.

I began this paper by quoting Ken Kesey. I'd like to close by quoting President George Maxwell Richards of Trinidad and Tobago. Last weekend he spoke at the
graduation ceremony at Caribbean Union College. In his address he said that Trinidadians must become more knowledge based in this new information age or risk being left behind in a fast changing world. He pointed to the tiger economies of Korea and South East Asia as models. He stated that the efficiency with which different countries respond to the challenges of technology and skills transfer will determine the level of difficulty with which the people will confront the social and industrial changes imposed upon them by their vulnerability to changes elsewhere. “It remains true,” he said, “that those best able to cope with change are those who are already on the leading edge.” That’s where you are and President Richards like Ken Kesey has thrown you a challenge – seismograph or lightning conductor? Like Kesey I too am a child of the Sixties, that turbulent, wonderful decade of revolution and rebirth. And as a child of the sixties I have made my choice and I am proud still to bring to you that message of inspiration and liberation. Not just Peter Paul and Mary gently singing the peace anthem “We shall overcome”, but that maverick revolutionary message of the raised fist, - “Venceremos!!!”

References

2. A short biography is in the Love to Know Encyclopaedia at http://32.1911encyclopedia.org/P/PA/PANIZZI_SIR_ANTHONY.htm
3. A short biography is at http://www.oclc.org/dewey/resources/biography/
4. A short biography is at http://www.carnegie.org/sub/about/biography.html
5. Laws two Laws are a selfish and probably futile attempt to seek public recognition
6. Full details of eIFL’s work can be found at http://www.eifl.net