Chapter 7

The Future of National Libraries and Archives

Andrew Green

Writing the history of the future is a perilous business. It is probably best avoided. David Edgerton, the historian of technology, recently echoed a famous quotation of Samuel Johnson by saying that "futurism is the last refuge of the scoundrel".[1] On the other hand, by temperament I always prefer to look forward than back, and I take heart from the remark of the White Queen to Alice, in Lewis Carroll's *Through the looking glass*: "It's a poor sort of memory that only works backwards".[2]

Many would say that the modern era began two years before the National Library of Wales was founded, in 1905. In August of that year the *Annalen der Physik* published a short article entitled 'On the electrodynamics of moving bodies'. With this article Albert Einstein overturned Newtonian physics and long-established ideas about space and time.

Einstein's intellectual bomb exploded immediately. Within a generation his basic notion, that time is not universal but relative and dependent on the observer, was generally accepted. For a century and more since, however, physicists have been wrestling with the problems and complexities thrown up by Einstein's theory.[3] In the meantime, relativity, of time and much else, has had a profound influence on politics, sociology, literary criticism and literature itself. In Wales, for example, the scientist-poet T.H. Parry-Williams was quickly aware of the shift in the universe that had taken place; the after-effects can be traced in some of his early poems.[4]

From the distance of a century we can see that the foundation and development of the National Library were firmly rooted in the old

---

[1] *Sunday Times, Culture*, 31 December 2006. See David Edgerton, *The shock of the old: technology and global history since 1900*, London: Profile, 2007.

[2] Lewis Carroll, *Through the looking-glass and what Alice found there*, London: Macmillan, 1872, Ch. 5.

[3] Paul Davies, *About time: Einstein's unfinished revolution*, London: Penguin, 1995.

[4] For example, 'Ar y dec' (1925). See R. Gerallt Jones, *T.H. Parry-Williams*, Caerdydd: Gwasg Prifysgol Cymru, 1999.

Newtonian world. Its stock-in-trade, recorded knowledge, was easily defined and static, its time-lines were constant and unchanging. It is only quite recently that librarians and archivists have begun to feel the winds of Einstein's revolution in their own fields, as knowledge loses its solidity and universality, especially in the wake of the current digital revolution. Without doubt, writing the history of the next hundred years is a much more uncertain task than thinking ahead to 2007 would have been in 1907.

First Vision

As far as we know, the first person to articulate a clear idea of what a national library of Wales might do was the radical publisher and printer Thomas Gee. On 29 August 1860 he wrote an editorial in his weekly newspaper *Baner ac Amserau Cymru.*[5] In discussing the National Eisteddfod in Denbigh that year he lamented the lack of entries for the essay competition that called for original literary or historical research. As a remedy he proposed the foundation of a national library to provide the essential resource to support well-founded research.

Gee's library would contain a copy of every book printed in the Welsh language, every book about Wales published in other languages, all manuscripts of Welsh relevance, and books on all subjects irrespective of whether or not they dealt with Wales.

It took another 47 years to realise Thomas Gee's vision, but the National Library that took shape in Aberystwyth after 1907, and especially after 1912 when it gained legal deposit status, remained remarkably true to his ideas. It sought to collect publications and archives that comprehensively documented Wales and its people, but also publications on every field of knowledge. The aim was to further the work of researchers.

So durable has this idea been that in its essence it has survived intact for the first hundred years of the Library's existence. It is true that new media have joined those of print and manuscript, with increasing frequency. But this would probably not have surprised the founding fathers. Their vision of the collecting scope of the Library was far from restricted. Indeed, it was remarkably and far-sightedly catholic. The

---

[5] David Jenkins, *A refuge in peace and war: the National Library of Wales to 1952*, Aberystwyth: National Library of Wales, 2002, p.6.

new formats – microform, sound and moving image, and electronic – have simply taken their place alongside the original ones.

It is true, too, that in recent years the boundaries of the word 'researcher' have been stretched and indeed broken, as the Library's field of appeal has extended to encompass anyone with an interest or curiosity about Wales or the world. But, again, this elasticity of audience would not have shocked the pioneers. One of the prime concerns of the first, and I would argue the greatest, Librarian, John Ballinger, was to extend the benefits of the new Library to learners, at all levels and in all parts of Wales: hence the remarkable book box lending service he offered to adult education classes in the South Wales Valleys.[6] In David Jenkins's words, he was,

> ... convinced that libraries should not be ivory towers but should, on the contrary, reach out to the community ... he saw no reason why he should discard his public library idealism when he became Librarian of the National Library of Wales.[7]

If Thomas Gee's vision has stood the test of time up to 2007, is it likely to survive for another century? Will the Library itself survive? We can already see that the ways in which the basic goals are pursued are changing quickly, but in what new directions in future? These are the questions I aim to address in this chapter. They are questions that face not only our institution, but all national – and indeed many non-national – libraries and archives.

Almost all of the pressures and contexts that affect a national library are changing with a rapidity that defies confident prediction. They include social, economic and political changes, the internationalisation of culture, goods and services, concepts of national identity, the dizzying development of digital technologies, and new patterns in originating, sharing and storing knowledge.

All that I can hope to do here is to select two of what seem now to be the most powerful and urgent of these factors, and to suggest both how they will affect our world, and how libraries and archives might take advantage of them on behalf of their users.

---

[6] Christopher M. Baggs, 'The National Library of Wales book box scheme and the South Wales Coalfield', *National Library of Wales Journal*, 30, 1997, p. 207-29.
[7] David Jenkins, *A refuge in peace and war: the National Library of Wales to 1952*, Aberystwyth: National Library of Wales, 2002, p.154.

The New Democracy

Let us start with Wales. Our generation is in the privileged position of being participants in our country's most significant political alteration for many centuries. This process is conventionally termed 'devolution'. But that dry term underplays the importance of what is happening: a development that is not merely administrative or even narrowly political. A better word would be 'democratisation'. Whatever the failings of the successive National Assemblies may have been, no one can doubt that the people – even if they are not yet fully aware of the fact – are much closer to the decisions that affect them than at any time in the past.

One of the most obvious results is that the lids of public institutions have been opened wide. Not only is the way they function available to scrutiny as never before, but their very existence and aims are open for public discussion. Rhodri Morgan's 'bonfire of the quangos' in 2004, which directly questioned the National Library's existence as an independent body, was a critical moment. More typical is our continual awareness of the need to legitimise the Library's basic roles in the eyes of a much wider democratic polity.

An inevitable consequence of these changes is a closer alignment of government and Library policy. This process is certain to continue, and may intensify, at least for as long as heavy financial dependency on public funds continues. The so-called 'arm's length' principle is now little understood or appreciated. Where aims coincide, happiness reigns. The Library's desire to open its building, its collections and its services to a much wider public meshes well with a government accent on access, public accountability and social responsibility. Similarly, the recent government emphasis on collaboration between public bodies echoes a much earlier tradition of Library co-operation. It is less clear how politically unappealing causes can be promoted and funded successfully. For example, the long-term preservation of collections is difficult to advocate, except through the use of metaphorical appeals to environmental sustainability.

It should also be said that politicians have a large responsibility. Their role is to protect and promote the national institutions they fund on behalf of the people. They should value them for what they are, rather than as merely yet another agent for whatever their latest initiative happens to be.

Many of these issues of democratisation and accountability are shared by national libraries in other small countries struggling to establish their distinctiveness in a changed world. Notable examples are the countries that achieved independence on the collapse of the Soviet Union. This comparison reminds us, too, that there is an underlying debate in small nations about identity. When a nation lacks its own government and the institutions surrounding it, as did Wales before 1999, identity tends to be defined against that of the external dominant culture, and often by means of obvious or mobilising symbols. A national library is one such symbol. When a nation gains an element of self-determination identities become less certain and more diffuse. It becomes more possible to acknowledge multiple identities, and the old symbols, though still important, begin to lose explanatory power. In other words, national institutions, whose existence and functions used to be taken for granted, are forced to rethink what they are for in a changed world.

Wider economic and social changes cannot be ignored either. If a national library can be said to reflect back, in its collections and services, the life and culture of its country's people, today its mirror surely needs reshaping. A Welsh mirror needs to document anew a country where more people work in call centres than coal mines, where Christian observance is in steep decline and Islam in the ascendant, where the old multicultures typified by Cardiff's Butetown are joined by new waves of in-migration from Poland and other eastern European countries. These and other changes have implications for the Library, its users and its collections.

The New Electronic Age

The second challenge facing knowledge organisations in all countries is the need to search for a secure foothold in the vertiginous world of global electronic information. Libraries have felt the force and rapidity of the digital revolution as acutely as any other institution in our society. Computers, the wires that link them, and the protocols organising digital knowledge have combined to form a powerful triple alliance, the internet. The internet has created a revolution at least as pervasive as the invention of moveable type in fifteenth century Germany. The name of its contemporary defining technology, the World Wide Web, is no empty boast.

What are the main features of this digital revolution, as it has affected knowledge institutions? First is the vast proliferation in the quantity of publicly available information. It is estimated that there are more than 100m websites worldwide[8]. There are at least 63m blogs, a genre unknown only five years ago.[9] And there are more than 80,000 podcasts, unheard of even two years ago.[10]

The word 'publisher' used to refer to a limited number of knowledge gatekeepers, responsible for a few tens or hundreds of publications each year. Now virtually everyone with access to basic equipment, software and skills can publish, on a worldwide scale and with none of the trouble and costs of printing and distribution.

Second, despite the fact that there has been no diminution in the total volume of printed publications, there are clear signs of a shift within traditional publishing towards digital and away from print. In higher education, where the internet first took hold, researchers in some disciplines have all but abandoned print: most now elect for the electronic if it is available. A recent report on the behaviour of academic researchers in the UK concluded that they

> … have recently become rapidly so accustomed to getting resources directly on their desktop from anywhere in the world, that dissatisfaction when something isn't available is now the natural reaction.[11]

Likewise, universities themselves are beginning to develop electronic institutional repositories as alternatives to the traditional distribution and storage of academic and other publications.

There is also a generational shift at work. Most young people under the age of twenty turn naturally to their computers or mobiles to acquire or communicate information. For them print libraries may hold little attraction. One of the reasons for this is that knowledge is no longer seen as either static and authoritative on the one hand, or dynamic and interactive on the other. It has been freed from the fixity of print. In the download-remix-upload culture that is now taken for

---

[8] Netcraft counted 105,244,649 websites around the world in December 2006; of these 30m were added in 2006.

[9] Technorati.com tracked 63.2m blogs in December 2006.

[10] 82,292 podcasts were logged by FeedBurner in December 2006.

[11] Research Information Network, *Researchers and discovery services: behaviour, perceptions and needs*. London: Research Information Network, 2006, p.11:
http://www.rin.ac.uk/files/Report%20-%20final.pdf

granted knowledge exists to be shared, reused, and shared again. MySpace and YouTube combine social networking with DIY publishing in a kind of space-time continuum that Einstein would have well understood. It is only a matter of time before the boundaries between hard-wired and mobile technologies, already eroded by wi-fi and 3G, collapse completely, and knowledge becomes completely free-form.

Of course this is a partial picture. Though the centrifugal, anarchic nature of the internet is as alive as ever, the established forces of control and ownership have not gone away. Copyright continues to favour the owner of information, especially in digital form. Traditional publishers like Elzevier still thrive in an online world. Multinational giants like Google and Microsoft use their industrial muscle to enclose ever larger fields of knowledge, threatening or bypassing the old agricultural economy of publishers, bookshops and libraries.

Electronic Publication

What will all this mean for libraries, and specifically national libraries? An apocalyptic forecast might run like this. Libraries and archives have no future except as museums of the written word. Future generations will get their knowledge online and direct, either free from its originators or on payment from giant aggregators like the fictional 'Googlezon'[12]. Even what libraries used to call 'special collections', historic or rare publications and unique archives, will have been electronically cloned and networked long ago by commercial organisations.

Our reading rooms will empty. Even when it is libraries that provide access to online information, its users will be unaware of the fact. Skills for which librarians and archivists used to be valued, such as metadata creation, will have been undermined by further improvements in search engine technology. Long before the bicentenary of the National Library of Wales in 2107 the last reader will have been escorted out, and the building sealed, preserved like the statue of Ozymandias in the sands to remind travellers of the absurdity of monumental ambition.

---

[12] Googlezon was the name given in 2004 by Robin Sloan and Matt Thompson to an information monopoly created by the putative merger of Google and Amazon.com.

If this is the future we can all start planning for retirement now. But there is an alternative, more hopeful prospect, which allots to libraries and archives, and especially, I would argue, national libraries, a much more positive and leading part in how people produce and consume recorded knowledge and culture. That role, I want to argue, rests on how successfully libraries are able to do two things:

1. To claim and to hold a unique set of functions in the new digital economy of knowledge.
2. To act as a mediator between existing 'stored culture' and the re-creation and production of new living culture and knowledge.

I want to start with the digital knowledge economy, but first a word about the print world.

To some people one of the surprising outcomes of the digital revolution has been the reluctance of print publications to wither and die. It is true that some categories have migrated, in whole or part, to electronic. Esoteric literature, including, as we have seen, an increasing number of academic and research publications, is shifting rapidly out of print. But in the wider world of general literature, the number of books published in the UK continues to grow each year. Novels proliferate, and more and more leisure magazines crowd one another for space on newsagents' shelves.[13]

For the time being, then, many kinds of books and other print materials will still be with us – at least until someone can devise a satisfactory portable electronic book reader.[14] As public libraries have discovered to their cost, increasing affluence, together with the decreasing cost of books in real terms, has led to buying rather than borrowing becoming the norm. But there will still be a need for national libraries, in their roles as curators of the national print archive, to store and give access to this material in perpetuity.

The same curatorial role will now apply to the digital publications of the United Kingdom, following the Legal Deposit Libraries Act 2003, which extended legal deposit from print to non-print publications. The process of giving practical effect to the Act by means of subordinate legislation is proving lengthy and difficult, but there can be little doubt

---

[13] Over 206,000 book titles were published in the UK in 2005.

[14] Ruth Wilson, 'Evolution of portable electronic books', *Ariadne*, 29, 2004:
http://www.ariadne.ac.uk/issue29/wilson/
Alfred Hermida, 'Sony reader targets book lovers', 6 January 2006:
http://news.bbc.co.uk/1/hi/technology/4586800.stm

that the collection and preservation of native electronic publications will become a critical, additional part of our responsibilities in future. Not a moment too soon, some will say, since already large quantities of evanescent electronic material are going unrecorded.

Two major issues arise: how to select what to keep, and how to guarantee continued access to these new digital publications. What exactly will be kept depends on three factors: the scope of the secondary legislation, the collecting policy of the National Library, and the degree of co-operation with other legal deposit libraries.

The second of these, our own collecting policy, is especially critical, especially in the light of the huge proliferation of digital publications on the web. If it is possible to capture a crude but regular 'panoramic photograph' of the whole landscape of publications freely available on the web throughout the UK, to what extent does that snapshot need to be supplemented by more detailed and more frequent pictures of key sites in Wales? How would one choose them? And how would one ensure the capture of electronic publications hidden behind the protection of passwords and subscriptions and therefore not susceptible to automatic harvesting? Must we concede, even within a small publishing universe such as Wales, that we must operate as 'selectivist' archivists rather than as 'comprehensivist' librarians, assuming that only a fraction of what is now available can realistically be captured for future availability?

The second issue is guaranteeing future access. The preservation of electronic material is an art still in its infancy. If we are serious about it we must be prepared to invest seriously – and at a much earlier stage than is necessary with print material. Books, if suitably stored and handled, will normally only require conservation treatment in the distant future. Decisions about how digital material will be retrieved and read in future need to be taken at the point of acquisition. We also know, thanks to the British Library's LIFE project, that digital preservation is formidably expensive.[15]

Since electronic legal deposit is the result of compromises between libraries, publishers and government, we can be reasonably sure that the material collected under the Act will be available to readers only within the walls of the five legal deposit libraries. Of course, this denies one of the essences of such material, its networkability. It

---

[15] The Life Cycle Information for E-literature (LIFE) project:
http://www.ucl.ac.uk/ls/lifeproject/

follows that if the National Library wishes to reach readers who cannot or choose not to come to Aberystwyth, it must operate beyond the provisions of legal deposit, and buy or lease online publications – books, periodicals and other material – to be networked to its members.

This question – how should a national library serve its audiences by offering networked access to paid-for digital publications? – is now becoming critical. Unless we can answer it positively we will find ourselves becoming less and less used, as the assumption of instant desktop or mobile access to publications takes hold among the general population. The answer is also a great opportunity, because it opens the door to reaching many more people in Wales than have ever used the Library in the past: a 21st century equivalent of John Ballinger's book boxes.

Through the embryonic 'Athens' service we already network some electronic publications to our existing registered readers, that is, users of our reading rooms. The challenge is to increase the size of this digital collection, and to extend its reach far beyond registered readers. This will mean a radical rethink of what it means to be a Library member. If we can succeed it might be possible to unite the Library's Athens service and that offered through all public libraries in Wales through CyMAL, the result being a truly national online knowledge service available freely to every Welsh citizen. This is exactly the model chosen in Iceland, where the National and University Library in Reykjavík is responsible, on behalf of the Ministry of Education, Science and Culture, for providing free access to over 8,000 full-text journals and databases for all citizens.[16]

There remains a third category of electronic publication: material originally published in print, but now also available online in digital form thanks to the process of digitisation. Until recently printed material was often overlooked by digitising institutions. Unique and rare material was seen as more obvious and more attractive, whereas the world of print was discouragingly vast. However, since Google announced its plans in 2004 to digitise hundreds of thousands of books from selected research libraries, including the Bodleian Library in Oxford[17], libraries and commercial organisations have come to realise both the power and the possibility of translating the heritage of print into a medium so well suited to the twenty-first century. As a result

---

[16] This service is called 'hvar.is': http://www.hvar.is/sida.php?id=5
[17] http://www.google.co.uk/intl/en/googlebooks/library.html; http://www.bodley.ox.ac.uk/google/

libraries are becoming large-scale 'reprint' publishers – without the need for 'print'.

An On-line National Library

For small countries like Wales, though, the enticing prospect opens up of creating a near-comprehensive online library of the entire printed output of the nation: available, free and searchable, to everyone with an internet connection, and publicly owned.[18] In a small country, where relations with publishers and copyright-holders tend to be close and positive, such a library may be able to contain works still in copyright. Indeed, it would not be impossible to foresee a national library becoming responsible for storing the electronic texts of publications on behalf of their publishers from the time of their generation, and including them later in the online library once their economic returns were exhausted (but long before copyright expires).

These are ideas explored by the Library in 2006 in the prospectus entitled 'The Theatre of Memory'. We already have enough funds to realise part of the programme it promotes, by republishing online the key periodicals published in Wales between 1900 and the present.[19] Finding the means to construct other parts of 'The Theatre of Memory' is likely to absorb much of our efforts over the coming years. The prize will be considerable, and there will be many beneficiaries. Historians, for example, will be able to search through the complete newspapers of Wales in a few seconds. Schoolchildren and their teachers will have access at their fingertips to original sources illustrating Welsh history and life.

What distinguishes national libraries from many other libraries is not only the size and comprehensiveness of print collections: it is also the high proportion of non-print material in their collections, much of it rare or unique. The National Library of Wales is an extreme example, with its large amounts of archival, graphic and audiovisual material.

---

[18] There is a lively debate about whether libraries or commercial organisations should be responsible for large-scale digitisation, and, crucially, who should own the resulting product. See David Bearman, 'Jean-Noël Jeanneney's critique of Google: private sector book digitisation and digital library policy', *D-lib Magazine*, vol.12, no.12, December 2006: http://www.dlib.org/dlib/december06/bearman/12bearman.html

[19] http://www.welshjournals.llgc.org.uk

As I mentioned, some of these areas were an early focus for digitisation, the aim being to give easy access to material that was immediately attractive, fragile or rare, or not often seen. Selectivity in what is digitised is inescapable. It is inconceivable that all archive collections, for example, will eventually be available in digital form. Libraries must therefore be clear about the reasons why they choose material for treatment, which audiences they are addressing, and how digital collections should be presented to those audiences.

Whereas in the case of print the text usually matters more than its original appearance, the reader of these materials in digitised form is at least as concerned with image as with content. The quality of the image will be crucial. As download speeds and storage capacities increase in future, libraries will need to make sure they can provide high quality images, starting with the original capture at high resolution.

Another challenge is working out how to present digitised archives and other original works in a way that is likely to engage the reader. To what extent, for example, should we package them with interpretive, contextual or other additional material?

The main barrier, though, to the online reproduction of material, apart from cost, is, and will remain, copyright. The effort of gaining permissions is laborious and costly, especially in the case of audiovisual productions, which normally contain multiple copyrights. Meanwhile, the trend of intellectual property law works consistently in favour of the powerful interests of copyright-holders rather than the weaker public interest.

I should like to return for a moment to the 'born digital' world.

Just as print is migrating to digital, so too are other previously analogue media. They too need to be represented in the Library's collection if it is to remain a faithful mirror of Wales's intellectual output. Broadcasting is likely to be exclusively digital within a few years. Archives and records now start life as digital, never achieving paper form. Some manifestations of contemporary art are conceived, expressed and consumed in an exclusively electronic space.

Again, the most striking characteristic of this new born-digital wave is its size. It threatens to overwhelm traditional notions of comprehensiveness of collecting, and calls for an archivist's eye for selecting for present and future need, rather than the 'just in case'

approach to collecting of the librarian. In addition, most media, in making the transition from analogue to digital, have undergone a sea change. Their boundaries become permeable: television programmes dissolve into 'red button' sub-programmes and internet message boards. Some traditional genres may disappear: for example, though institutional records and archives may survive recognizably in electronic form, the working drafts of poets or composers may not survive electronic overwriting. In all cases the multiplying formats and software platforms will provide a challenge for preservation for many years to come. National libraries already contain the kernel of advanced skills needed to wrestle with these issues. The challenge of the future will be to grow these skills, at a time when extra resources are likely to be scarce.

Research Engine

I have ranged widely and superficially over the new digital landscape to suggest how libraries might stake their claims within it. I'd like now to discuss the other vital element in a thriving national library of the future: the ability to reanimate knowledge and recreate culture for new generations.

One of the most important means of reanimating knowledge is by supporting scholarship. As major research institutions national libraries have a duty to serve scholarship, by enabling 'stored knowledge' to be rediscovered and reinterpreted in order to give birth to fresh insights and new understanding. In Wales this role of the National Library is crucial. There are few other research libraries and archives, and few public advocates of the humanities scholarship in which the Library specialises.

Collection building – selecting what is likely to interest present and future researchers – is clearly essential to supporting scholarship. So is providing access to collections that meets the exacting needs of researchers. In navigating the new oceans of digital data they are likely to need more sophisticated intellectual access to the content of collections than the crude tools Google and its like offer. National libraries, from their base of expertise in metadata, should be able to contribute to improving search and retrieval techniques, for example by applying geographical information systems or data mining techniques to multimedia collections.

But libraries can do more than simply offer up the materials of scholarship. The close relationship the National Library of Wales has always had with research institutions – the umbilical link with the Centre for Advanced Welsh and Celtic Studies is probably the most obvious example – is also the basis of partnerships, for example in applications to research funders. Other means, like the Legonna Prize for Celtic studies research, help us to take a more active lead in promoting research. To go a step further, some national libraries, like the Library of Congress, have in the past actually created research materials, rather than just collecting them, for example through recording American folk musicians in the field in the mid-20th century. It is interesting to speculate how this function might be carried out in the different circumstances of the 21st century.

Beyond researchers, of course, there is a much larger group of people for whom the process of re-imagining the collections of a national library is critical.

For many years, of course, we have served learners as opposed to researchers. Traditionally, however, these have been a narrow band, higher education students, and usually we have served them in a passive way. More recently national libraries have opened their doors to a much wider range of learners, including school students, and begun to experiment with active ways of engaging with them. National museums, of course, have very long experience of bringing collections alive in the minds of young people. The National Museum of Wales was one of the first to develop an extensive education department which has much to teach us about how to enrich learning through contact with original materials.

What the national collection has to offer the learner, above all else in the age of the replica and the surrogate, is the chance to come into contact with what is original and authentic. Even better if the object is one of historic national significance. The word 'iconic' is much overused, but we should not underestimate the magnetism of a single object or document if invested with significant meaning. In 2000 the National Library displayed the so-called 'Pennal Letter', on loan from the Archives Nationales in Paris. This was the letter Owain Glyn Dŵr sent to the King of France in 1404 asking him for his support. The response from the public was astonishing and, I believe, not unconnected with the fact that the National Assembly for Wales was being born at the time.

Conversations Across Space and Time

The National Library is lucky enough to own original collections across a remarkably wide range of media. There is much more we can do to bring learners into creative contact with them. Art exhibitions have been a means of doing so from the Library's earliest days. More recently the availability of additional public space has allowed us to exhibit all kinds of object, including of course films from the National Screen and Sound Archive of Wales. It will always be a challenge to stage and market these encounters between achieved works in collections and a public whose senses are supersaturated by the media. Sometimes it is through stealing the clothes of the new media, by using such techniques as gaming and visualisation, that we can best bring them alive. Often, though, human beings are the best *animateurs*: the staff of the Education Section, for example, or an artist-in-residence, arranging workshops for schoolchildren, staff of Culturenet Cymru demonstrating the potential of community digitisation, or originators of creative work – authors, artists or film-makers – talking to and debating with groups in the Drwm.

Though the physical encounter is an excellent way of bringing cultural objects to life, it is not always essential, or indeed possible. The digital revolution I have already described is now opening up new possibilities for learners and others, beyond the simple replication and re-presentation of texts and other objects as bits and bytes. We are just beginning to understand the ways in which people can re-use and respond to texts and images in digital space. Some involve manipulating, incorporating or rewriting electronic entities (only possible, from the libraries' point of view, of course, with copyright-free material). Others rely on the natural interactivity and sociability of the contemporary internet, the so-called Web 2.0. Texts and images elicit reader reaction – in the form of digital marginalia, commentary, diatribes, poems or digital art – which in turn are incorporated and recycled through the Library's role as legal depository and national archive. Quite how these processes will work in future it is impossible for us to forecast, but the opportunities for bodies like national libraries – large-scale custodians of digital knowledge and adepts in its use – are there to be taken.[20]

To return to Einstein for a moment, and to sum up, a national library should be seen as an agency for translating mass (its collections of

---

[20] See Charles Leadbeater, *We-think*, London: Profile Books, 2007.

stored knowledge) into energy (study, learning and artistry), and energy back again into mass.

Let me provide some concrete examples. During 2006 we staged a large and fine exhibition of pictures by the leading Welsh artist Mary Lloyd-Jones. Some of them dated in conception from Mary's unofficial residency in the National Library, and from her study of items from the collections, including the earliest medieval Welsh poetry and the manuscripts of Iolo Morganwg. Some of them incorporate digitally remastered copies of these texts. During the exhibition Mary led tours and discussions of the works and their relationship with the Library originals. The show spawned an illustrated book with essays on the pictures.[21] Finally, some of the pictures along with the book, entered the Library's collections. There they will lie, waiting to pollinate the imaginations of our descendants.

A second example is the pictures of Wales created by four photographers on the staff of the National Library, initially for an exhibition in the National Library of Latvia in Riga in April 2007. They originate from the personal experience of the four artists and, with luck, will draw out reactions from the Latvians who see them. The pictures, together with the record of their travels, will then return to form part of the Library's photographic archives for future generations here in Wales to rediscover.

What these projects try to achieve is a continuing conversation across space and time. Sometimes people describe the National Library building as a 'Parthenon on the hill'. They usually mean it in a mildly derogatory way, to suggest that the Library is remote, elitist and impenetrable. Declan McGonagle, in his earlier chapter, rightly suggests that cultural institutions need to supplement the temples they have inherited with 'agorae' or market places, open spaces for general debate and participation. Today these may be both physical and virtual, but the need for them is clear.

It is through this continuous process of reinvention and re-creation that the Library's collections can avoid becoming a museum, in the derogatory sense of a 'cabinet of curiosities' pored over by a few antiquarians. If we can succeed in keeping the collections live and relevant to contemporary needs, and – to recall my earlier theme – if we can find valid roles in the new digital knowledge environment, then

---

[21] Mary Lloyd Jones, *First language*, Llandysul: Gwasg Gomer, 2006.

there must be a secure future for the National Library of Wales, and by extension for other national and research libraries.

Universal, Free Access to Knowledge

These are necessary, but in my view not sufficient, conditions for success. I should like to end by talking about two values that I believe should lie at the heart of what we do. Both are connected with the themes I have discussed so far.

The first is to do with a subject you may feel has been unaccountably absent so far: the Library's users. It is all too easy, when considering national libraries, to focus on the collections. It is the size and richness of the collections, after all, that help to define what it means to be a national library. But no collection, however rich, is of use without people to read, interpret and react to it.

One of the big changes that has taken place in national libraries in the last ten years or so, as I suggested earlier, has been an extension of the franchise of users. We have moved from reaching a restricted number of scholars or those who could otherwise prove their serious research credentials, to a wider audience of learners or even, as in our own case, literally everyone (in the case of the reading rooms, those aged 16 years and over).

In essence the National Library is now, in terms of access, a public library. It joins the network of public libraries begun in the UK by the Public Libraries Act of 1850. Perhaps John Ballinger would have approved. The library open to the public was, along with the bicycle, one of the greatest democratic instruments invented in the Victorian age. Here was a collective resource, available freely to all without distinction, for whatever purpose, undirected by external authority.

It will take many years to work through all the implications of universality of access for a national library. Even convincing people that they have the right to use the Library is no small task. We are still exploring how the digital library can be presented appropriately to different audiences. But to have arrived at the principle of truly open access for all is in itself a considerable achievement: it will be central to how the Library develops in future.

The second guiding principle is that of free, uncharged access to knowledge. In print libraries open to the public uncharged access is long established. In the digital library the picture is less clear. The cultural default of the web may appear to be free access, but much important material is available only on payment or other authorisation. It is the function of the library to bear the costs of access to this material if its users are not to be disadvantaged. The same is true of material republished electronically by the library itself. The assumption should be that this will mainly be available at no direct cost to the user. Some public knowledge institutions, like the National Archives and the Ordnance Survey, have embraced charging without hesitation. But I believe strongly that we in the National Library of Wales must resist that trend. For us, free access for our readers must remain a crucial axiom.

These twin principles of universal admission and uncharged access are the National Library's main contribution to the inclusion of all citizens, irrespective of their background or means, in the commonwealth of knowledge. It is beyond the power and the responsibility of a single institution to overcome other barriers, such as lack of literacy or education, or of network access. However, these two values are fundamental in themselves to one of the most important foundations of a democratic society: equality of access to information and culture.

What are my conclusions? In brief they are these. Thomas Gee's basic blueprint for a national library and archive is in its essence as relevant now is in 1860. Closer public scrutiny should hold no anxieties for an institution sure of its distinctive democratic contribution. There are critical roles for a national library in the new digital economy of knowledge. There are exciting ways of bringing stored knowledge alive for each new generation. And finally there are certain values that should be sustained by a national library as part of society's commitment to the democratic right to knowledge.

There is still room, in other words, for an institution that welcomes unconditionally, that speaks without preaching or expecting payment, that enriches our common human experience, that hands on our inheritance to our successors, in the rest of this century and beyond.