Collections information and the outside context

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1.   Purpose

This paper appraises the position vis a vis collections information in the context of outside world developments in the cultural, academic, and general information sectors. A menu of future strategic opportunities is identified[1]. Conclusions are that the Museum needs to take a comprehensive high level look at its strategy in this area.

2.   Outside world drivers for museums as knowledge organisations

Political	• The government is sold on the concept of the Information Society in all its ramifications, and is backing this with substantial funding and pressure through policies, the Cabinet Office infoage group etc. • Tied to the move to drive specific policies and objectives through earmarked funding. Such policy tied funding is likely to be channelled through *Resource.* • Education … participation … two way rather than us to them. "Unlocking our treasures" is not enough. The core, key, sentence in the NMDC *Netful of Jewels* report, hammered out in lengthy debate and negotiation, is:

"People want museums to provide collection related information, and they want interactive, participative services too."

Economic	• Revenue generation from information + images per se far from an assured business model as yet: e-sales seem advantageous • Large amounts of government funding available for capital investment • A market is developing for museum content, not just art images • Note we now have strong competitors among museums

Social	• Expectations – Across the whole spectrum of the Museum's stakeholders, online presence providing for their interests is the norm rather than something exceptional • UK is still among the lead countries for penetration of the internet

Technical	• Broad band – more like broadcast and film media, but digital hence more easily manipulated. Film etc not the most natural medium for museums • Delivery via TV – more populist, enables routine 2-way communication • Delivery via the internet – integration of databased information assets with screen based delivery mechanisms is a current development just as significant as broadband networks. Intriguing challenges as to how e.g. non-visual catalogue type data can be made relevant and interesting

Organisational	• Convergence – right across the spectrum of electronic businesses and organisations, there is coalescence, collaboration and convergence, vertically and horizontally. • eg, JISC, the HE funding body, is now serving FE as well as a combined function. • Museums, libraries, archives and higher education organisations are equally affected, and those in lead positions are forming partnerships. AMICO, the Museum Digital Licensing Collective, SCRAN, Fathom.com, the e-University, are some examples.

[1] References: links to all the papers etc. referred to can be found on
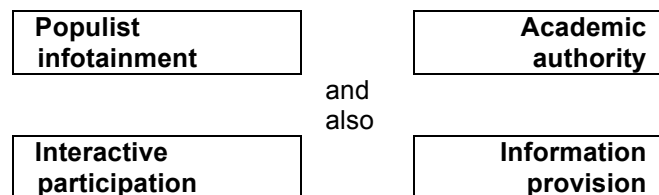http://www.s-keene.dircon.co.uk/infoage

3.   Emerging trends

3.1   *Rapid convergence.* Organisations are banding together in order to create a critical mass of content that will appeal to more users (e.g. history of science could be a combined resource with history, or art and design, or military history, or science now, etc)

3.2   *The distributed national electronic networked resource* is being created, via higher education, the public libraries networks, the National Grid for Learning. Museums have the chance to make their content available as part of this, and some are, but they are not yet seen as primary objectives for funding and therefore need to form partnerships with other memory institutions.

3.3   *Museum online publishing* A few museums are using the medium for serious online publishing - eg the National Maritime with the *Journal of Maritime Research*; the Museum of the History of Science with *Spectra*.

3.4   *Collaborative ventures* As predicted by David Bearman several years ago, museums have found that they have to form groups: AMICO and the Museum Digital Licensing Collective in the USA, the Tate/MOMA. In addition, libraries, museums and archives are grouping – e.g. Fathom.com. This needs driven convergence will be facilitated and encouraged in the UK by *Resource.*

Appendix 1 contains a brief overview of major developments in various relevant sectors.

4.   The Science Museum's comparative position

The museum's information clients require:

Populist infotainment	and also	**Academic authority**
Interactive participation		**Information provision**

united by extremely high standards and wholehearted application in both areas. Collections can't afford to turn its back on either of these. The NOF bid is designed to deliver in all of these areas.

4.1   *Strategic foundation* The NMSI has, in MultiMIMSY and associated front end software, and its highly expert staff, one of the best strategic and extensible foundations around for collections information content management. An Oracle database was chosen for this very reason. On the web, our online collections information and electronic exhibits are still among the most informative and comprehensive, and the new website information architecture will sharply improve them.

4.2   *Competitor museums* In the UK alone, other national museums are reaping the benefits of sustained effort in generating and capturing information over a period of time: the National Maritime Museum, the National Gallery, the National Portrait Gallery, the Tate Gallery, shortly the British Museum (COMPASS),and others. All of these deliver comprehensive catalogue level information online. Moreover most of them also have physical onsite information centres, unlike the Science Museum.

4.3   *Nature of content* The Museum has yet to commit concerted and sustained effort by its knowledge holders, curators, to building serious online research resources and publications.

4.4   *Agility and adaptability* However, a strength of the Science Museum is its ability up to now to quickly produce multimedia exhibits in some profusion and variety, which together amount to an impressive resource[2]. This relatively small scale and varied provision is particularly well suited to

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[2] Dempsey, Lorcan. Scientific, industiral and cultural heritage: a shared approach. Ariadne, Issue 22, Jan.2000. http://www.ariadne.ac.uk/issue22/dempsey

web delivery. It is rewarded by being the most popular area of our website, which has just gained a *USA Today* award based on its content. The new website architecture will give the Exhibitions Online and the Exhiblets a superior framework in information architecture, which should stimulate us to develop more of this sort of production in a more actively managed fashion pending wider developments.

4.5   *Experience*   The Museum, in the Collections Information Section and Collections Management Group, now has invaluable experience of multimedia and database production projects. The ability to be realistic about what is achievable, to work with partners inside and outside the museum, to take a strategic overview so that incremental developments contribute to a wider whole, has been coupled with an excellent reputation for expertise and judgement in external institutions.

4.5   *Website technology* The Museum is going to invest eventually in a website content management system. This will create further opportunities to find new ways to deliver the content created and managed within the collections content management system provided by MultiMIMSY, both within the Museum and via the web.

4.6   *If* the Museum's NOF bid succeeds, this will give us the funding boost we need now to undertake the next stage of strategic development of our collections information resources. It is designed to deliver against all of the variety of information uses and of its nature the project has a short timeframe. We must be ready to respond if invited to proceed to the next stage.

5.   Strategic openings for the Museum

5.1   The Museum's excellent information infrastructure - MultiMIMSY as both content management system and collections management system

5.2   The Science Museum's new website architecture: opportunity to build content incrementally but in a much more subject led way

5.3   The NOF bid (£2.4m) is designed to achieve the next strategic step by achieving a very large increase in the amount of usable databased content (both catalogue type information and images, and a variety of other productions). This will then be available for future re-use in other productions, whether database derived or authored multimedia.

5.4   The NOF bid. Likely to require high level appropriately informed and experienced strategic negotiation with possible partners and with the possibility of adjusting our bid.

5.5   The components of a highly important mass of content already exist in the NMSI itself: the collections and expertise of three varied museums; the Science Museum library and archives; and the picture library. To make this more than the sum of its parts requires high level organisational will and resources, not currently manifest.

5.6   Demand for popular content: the Museum's collections information productions are proven successes and this will be recognised through the funding agreement and performance indicators.

5.7   The Museum has impressive delivery vehicles in its website, and the onsite gallery network, which will permit the development of screenbased productions in its galleries and exhibitions. A space for an Information Centre has been identified (Synopsis) but funding has not.

5.8   Demand for academic and information content: the arrival of national and international collaborative ventures such as the e-university and Fathom.com, for which the Museum could provide content.

5.9   Convergence and collaborative groupings: it would be timely for the Museum to engage in strategic discussions on a larger scale and proactively forward the Museum's interests in partnership with others. However, this requires sufficient staff resources, with credible knowledge and experience available at an appropriate level.

5.10   Research – we already have a partnership with the University of Glamorgan working on NRM information delivery, and this is the most practical way to pursue research in the digital area.
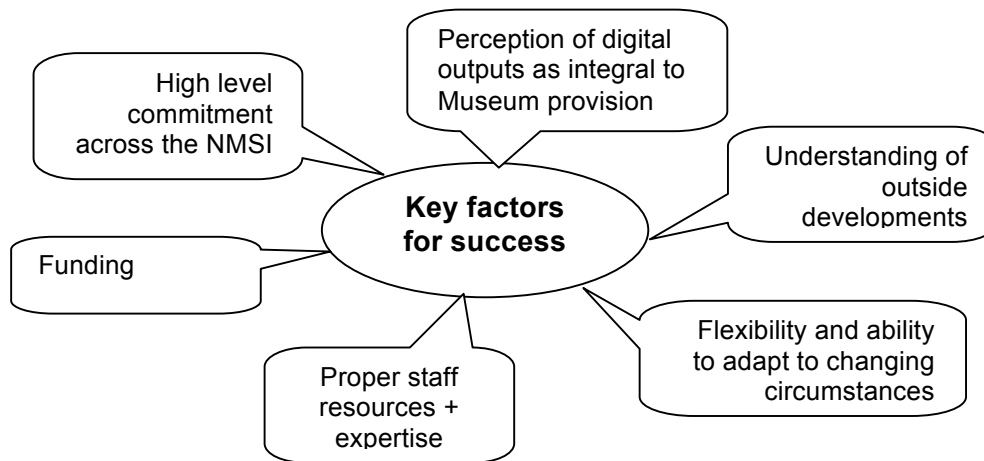
6.   Funding

ALL of the sectors summarised in the Appendix have government funding to drive the development of electronic information in them.

Government funding is the 'cleanest' there is: benefits expected in return are mostly identical with our objectives; few issues over IPR; more and more, government is providing capital in the full expectation that the results will generate income to sustain the provision in the future.

However, the museum presently simply does not have the resources to research, network, create partnerships with other content providers, develop project plans and bids for this funding.

Unlike print publications or film media, there is also the question of the cost of sustaining digital resources once created: staff, hardware, networking, data management, etc. It is well recognised in, e.g., higher education project grants that once created these resources have to generate income streams to cover maintenance costs. The Museum needs to take a lifecycle view of its digital resources.

7.   Conclusions

Eighteen months ago the Museum had a good lead in the digital uses of its collections information, because of its excellent database and expert staff. Other museums invested in large scale collections information projects as part of their capital developments, and are beginning to deliver, but the Science Museum chose not to.

Nevertheless, an excellent foundation still exists: MultiMIMSY, our Oracle database; partnershjip and engagement internally with the NMPFT, the NRM, and the Education Department; experience among both the Section and curators of a wide variety of electronic productions; expertise in designing and managing these projects. Developments in the outside world are creating many opportunities and the ideal climate for future development. The Museum now needs to review at a high level how to build on this foundation to take the next stragegic steps.

APPENDIX 1: Significant sectors and policies in the UK

Government

The government is taking many steps to encourage the growth of the new economy and the Information Society in all its ramifications, via higher education, schools, the DTI, the creative industries.

It will drive its policies via funding to be bid for for specific policies and objectives, and via funding agreements and performance indicators. It is likely to channel funding for museums via *Resource* as a way of increasing its influence without handing over control of funding for national museums. Education, participation, and social inclusion become more and more central to government policies. For example, *Resource* has taken over the research function of the British Library, the former BLR&DDept.

Universities

Government policy for digitisation for the cultural and education sectors has been kickstarted by funding conduited through university libraries, sustained since 1995 when £15m was made available to develop electronic library provision via the eLib programme, in response to the Follett Report on the future for university libraries.

The Joint Information Systems Committee, JISC, runs national strategy and funding programmes, via funding top sliced from the various Higher Education Funding Councils. Major national programmes are the *DNER, the Distributed National Electronic Resource*, aimed at funding and developing content that will be accessed through *subject gateways* (links to electronic resources – for example the IWM picture collections are catalogued on VADS, the Visual Arts Data Service) and thence the *DNR, the Distributed National Resource*, a sort of gateway of gateways. JISC collections policy is more and more aimed at developing resources for research whatever their origin, and there are obvious opportunities for the Museum in partnerships.

The e-university project: The HEFCE is aware of the development in the United States and elsewhere of major virtual and corporate 'universities'. It wishes to explore how it can catalyse a virtual learning initiative of a scale and quality that will challenge the best in the world, and the Government has signalled its strong support for this initiative. Universities can include other partners in their bids.

Libraries

The British Library The very important international and national role played by the British Library is exemplified by the recent announcement of Fathom.com, a new company formed by six major UK and USA research institutions, libraries and museums to launch "the premier site for knowledge and education on the web". As a sign of the times, the BL catalogue us now searchable free online, where it used to cost several hundred pounds on CD ROM. On the other hand, access to actual university libraries is becoming more and more restricted.

Public libraries A major proportion of funding for the Government's manifesto commitment to a National Grid for Learning (NGfL) was astutely captured by Matthew Evans, then chairman of the Libraries & Information Commission (LIC), and now of *Resource.* Based on two LIC reports, the New Opportunities Fund (NOF) was allocated £50m to produce content for the NGfL. However, museums are included as elegible content providers. It is likely that the fund will be used to drive forward government policies for: libraries, museums and archives as a more unified sector; focus of outcomes for education; cooperation between national and non-national sectors; social inclusion.

The EARL Consortium works to promote the role of public libraries in providing library and information services across the network, supports policy makers, and demonstrates prototype networked services. It is developing the UKEL – UK Electronic Library – which is planned to include an online public enquiry service and other features potentially of interest to the Museum.

The public and university library sectors are also converging digitally, to form a national resource.

Archives

The Public Record Office is becoming highly proactive nationally. Digitally, all its digitised catalogues are now searchable online. It is able to demonstrate vast interest in online access, albeit largely via geneanology. It is leading an important project, A2A, Access to Archives, to create a national online list of archive holdings. The Historical Manuscripts Commission is tiny compared to the PRO, but is doing what it can to provide online resources and promote standards in local record offices. The archive sector is generally seen as underdeveloped as a resource, and funding encouragement may be expected.

Museums

The NMDC report, *A Netful of Jewels,* has had a good effect on government perceptions of museums as useful recipients of funding for digitisation. The DCMS is currently bidding for a nine figure sum for digitisation, to follow the NOF £50m, which was three times oversubscribed.

Museums will be encouraged to work in partnership with libraries and archives as the influence of *Resource* grows.

The *24 Hour Museum*, whatever its deficiencies, has also raised the perceived profile of museums online. *Cornucopia*, the national project to list museum collections, will be an invaluable professional resource when it is fully developed.

As predicted by David Bearman some years ago, museums are finding they have to form groups to provide a critical mass of content that will be of interest to many users. Commercial purchasers of images and information require a one-stop shop not a medieval high street. Examples of these groupings are AMICO (Art Museum Image Consortium) and the Museums Digital Licensing Collective (both in the USA); the partnership recently announced between the Tate Gallery and MOMA.

However, it is essential to keep a very careful watch on rights – we turned down an assured though small grant from SCRAN because the rights they would gain to re-use our material are too broad.

Europe

The Museum was a member of the DGXIII / DGX Memorandum of Understanding on museum digitisation. Although we gained a good understanding of EU ways, and identified some museums that we could well work with, such as Museon, our general conclusion was that the overheads of working with European partners were too high for Euro projects to be practical at present. Other benefits might outweigh pragmatic considerations, but at a cost.