The report, *A netful of jewels: new museums in the learning age*, was commissioned and is published by the National Museum Directors Conference. The NMDC is a long-standing forum for discussion and representation of issues affecting national museums. National museums are more and more aware of their responsibility to support museums in the UK generally. The Netful is the first time the Conference has published a report.

The NMDC were aware of a series of reports that had dealt with the roles of cultural and educational organisations in the emerging digital world. These ranged from higher education and the electronic libraries developments, through reports on national education and the creative industries, to, most recently the two New Library reports from the Library & Information Commission. There was a growing interest both among people working in museums and also in government and funding circles in the potential of information and communications technology to enable museums to pursue their objectives of engaging people with their collections and providing access to them and interpretation of them for enjoyment and learning. Many people also considered that the new technologies would allow museums to play a much wider role in contributing to provision for education, both formal and informal. Lastly, the new technology was seen as enabling two-way communication and participation between museums and their audiences – who, in the case of public museums, are in effect their owners.

In all, it was felt that other organisations in the cultural sector – especially libraries – were articulating very clearly how they saw these opportunities, and that if museums did not set out their stall at this time they would miss a great opportunity, and risk being left behind in the digital age. In particular, museums risked ignoring the opportunities for them that are implicit in the development of the National Grid for Learning. This would be doubly unfortunate, because many museums do have a very clear view of the possibilities, and were already providing cutting edge content and services. What was signally lacking was an overarching vision that would lead to proper funding and resources for all museums to deliver the potential benefits.

**Audience, authorship and representation**

The *Netful* is therefore primarily a policy paper, setting out succinctly and convincingly the role that museums can play in achieving national objectives, and identifying the resources that they will need if they are to do this. Its audience is primarily government. Thus, the NMDC recognised that the Report would reach far beyond the remit and concerns of the national museums. After consultation it was decided that it should be produced on behalf of all UK museums, national, local authority and independent. To ensure effective representation, the Museums & Galleries Commission and the mda agreed to be parties to it.

A large number of organisations and groups were involved in writing the Netful, and their help is detailed and acknowledged in the Report. Several consultation meetings were also held, in London and in other parts of the UK. Altogether, over 300 people had an input.

**The main points of the Report**

The Netful describes how museums exist in a social context, in particular, of formal education in schools, colleges and universities, and informal learning throughout life. Information and communications technologies are uniquely able to connect audiences and providers, and enable two-way interaction, rather than passive interpretation from
professionals to an audience. ICT of course provides immediate links and communication across the globe. And furthermore, museums support the creative industries, another special concern of the Department for Culture, Media & Sport.

Future museums

The Report looked to pointers for the way in which museums would use ICT in the future. Many small-scale but highly imaginative projects already exist, and they provide indications of what can lie ahead. Collections, archives and libraries will be seen as one unified resource. Museums will be able to do more to promote cultural diversity, while at the same time celebrating cultural links with communities from which their collections may be drawn. There is evidence that the growth in virtual visits may lead to more actual visitors. And museums can work for social inclusion, as many imaginative pilot projects demonstrate.

What the Net will be

The netful of museums has many aspects. It must consist of infrastructure, and connections to wide band networks for 400 museums are recommended. This infrastructure will be the same as that provided for libraries and education, namely, that recommended in Building the new library network. The network will need access points, and it is anticipated that these will be provided in welcoming public spaces such as museums and libraries, as well as through the growing electronic provision in people's own homes.

To enable people to find exactly what they want, gateways and portals to museum content will need to be created, and SCRAN and the 24 Hour Museum are the notable leaders here. Less obviously necessary, but just as vital, there will need to be organisational arrangements to operate long-term, high quality data storage, servers and services, as for higher education digital content provision, and to manage intellectual property rights and the income streams that are anticipated.

What will be in the Net

The central concept is that museums will provide both access to collections and other information and multimedia content, and also interactive services. Museums are social fora as much as they are venues for passively received exhibitions, and their role in promoting communication and participation can be strengthened through the use of ICT. People want access to collections, as the statistics for Web visits already show, and they want interaction and participation too. Museums' content will include digital collections and authored multimedia productions prepared to meet the wishes and needs of particular audiences, as well as communications services. As well as online content, accessible from wherever people find it convenient, there will be centres in museums for collections information access and activities alike, and interactive gallery exhibits.

Costs and funding

Funding is seen as coming from multiple sources, reflecting the range of uses and users of museum content. The National Lottery New Opportunities Fund through its National Grid for Learning fund; the Heritage Lottery Fund; the Department for Employment and Education, and the Higher Education Funding Councils through JISC, the Joint Information Systems Council, are all seen as possible beneficiaries from museum digital resources, and hence funding providers.

Funding requirements were identified additional to the £50m shortly to be available from the New Opportunities Fund:

- First phase: to 2002 £ m
  - Infrastructure 10
  - Training 8
  - Content and activity creation 35
  - Maintenance 2

  TOTAL: £ 55 m

The Report also draws attention to the need for ongoing funding to sustain digital provision, at a time of decreasing public funding coupled with relentless pressure on museums to
provide more of their conventional activities. This issue must be addressed.

**Objectives for our future museums by 2002**

To show the potential benefits provided that funding becomes available, some targets and benefits are set out:

People make as many virtual visits as real visits to museums and galleries
There has been a measurable increase in the number of visitors to museums and galleries as a result of digital museums
75% of all UK museums have some collections information online, many through cooperation with connected museums
Quality-assured gateways offer a variety of access to all museum and gallery online resources
All Registered museums have websites linked to the National Grid for Learning
One in three homes have accessed digital museums
The majority of school children has used museum resources as an integral part of the curriculum in the last 12 months
Museums and galleries of all sizes are benefiting from additional revenue streams derived from digitised content

**In conclusion**

A *Netful of Jewels* has been welcomed as a landmark for museums. It is clearly a success. The DCMS are encouraging the NMDC to take it further, and we look forward to museums’ enthusiastic entry into the digital age.

A fitting conclusion is with the quotation which the editorial team felt poetically described their vision of future museums in the digital age, and from which the title is derived:

> Far away in the heavenly abode of the great god Indra, there is a wonderful net which has been hung by some cunning artificer in such a manner that it stretches out indefinitely in all directions. In accordance with the extravagant tastes of deities, the artificer has hung a single glittering jewel at the net’s every node, and since the net itself is infinite in dimension, the jewels are infinite in number. There hang the jewels, glittering like stars of the first magnitude, a wonderful sight to behold. If we now arbitrarily select one of these jewels for inspection and look closely at it, we will discover that in its polished surface there are reflected all the other jewels in the net, infinite in number. Not only that, but each of the jewels reflected in this one jewel is also reflecting all the other jewels, so that the process of reflection is infinite.

Avatamsaka Sutra: Francis H Cook: Hua-yen Buddhism: the jewel net of Indra 1977

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Where to get the Netful report

pdf from the National Museum Directors' Conference: http://www.nationalmuseums.org.uk/