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Creating content for learning in its broadest sense: the NOF-digi initiative in the UK

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Abstract:

This paper presents an account of the genesis of the £50 million New Opportunities Fund Digitisation of Learning Materials Programme. It considers the role of the programme in contributing content to the People's Network, in developing new models of creation and management of digital resources, its impact on users and project staff, and in providing opportunities for the future development of online learning resources.

Introduction

The launch of the £50 million *NOF Digitisation of Learning Materials Programme* (1) in July 2001 marked the beginning of a major UK-wide initiative set to create a fundamental step-change in support for lifelong learning.

The UK Government has made very clear the importance it attaches to the role of learning in all its guises as the cornerstone of people's lives, and has set out its thinking in a series of key policy documents. Furthermore, the Government sees universal access to ICT and its use as a delivery mechanism for learning opportunities as the catalyst for change. This is embodied in its UK online programme (2) and mirrored by similar initiatives in Scotland, Wales and Northern Ireland.

The People's Network

A major element in this is the People's Network (3): a £170 million project to create ICT learning centres in all 4,300 UK public libraries by the end of 2002. Funding comes from the UK's national lottery via the New Opportunities Fund, and project management is a partnerships between the Fund, Resource: The Council for Museums, Archives and Libraries (4) and the respective strategic bodies for library and information matters in Scotland, Wales and Northern Ireland.

Whilst £100 million was set aside for infrastructure and £20 million for ICT training of all 40,000 UK public library staff, £50 million of this funding stream is for the Digitisation of Learning Materials Programme (or nof-digi as it has come to be known). This will provide a significant element of the online resources for the People's Network. Newly-digitised content will be made available free at the point of use not only via the People's Network, but also via the National Grid for Learning (5) as a major contribution to online resources complementing National Curriculum materials. This short paper sets out how the programme has been put together and identifies issues, outcomes and impacts for the future.

Background

Nof-digi offers a landscape of opportunity complementing related programmes in other sectors including central Government's UKOnline portal, the National Electronic Library for Health, the developing Information Environment in higher and further education, and learning materials provided through the media and commerce. It has the potential to demonstrate excellence, celebrate diversity and become a benchmark for the digital learning continuum. Already, it has informed the development of other large-scale public sector programmes such as the recently announced Culture Online(6) from the Department for Culture Media and Sport (7) .

In view of the intensive level of activity with respect to digital content creation, not only in the UK but across the globe - what is it which makes this programme any different? At a strategic level, the programme - in harmony with other similar initiatives - recognises the importance of creating a "networked learning space" which takes advantage of connectivity to engage users in shaping not only their own ideas, learning and lives, but also to offer opportunities to make informed choices, to feed imagination, to build capacity, and to support the development of communities of interest. However, over and above the sheer size of the sum of money being committed in one tranche of awards, there are three aspects that characterise the *digi* programme that are special:

- It reflects ALL walks of life, encompassing a broad church of interests and information, supporting learning for life in its broadest sense
- It encompasses not only a wide range of participating organisations from the public, private and voluntary sectors, but also the whole continuum of experience - from those institutions who are old hands to those for whom this is a maiden voyage.
- It will offer new opportunities for providers and users alike generating an invaluable legacy of increased competencies and confidence for both

Groundwork

The programme, launched in August 1999, set out to improve the quality of life for all citizens through the imaginative and innovative use of Internet and digital technologies to create a coherent body of content that will unlock the rich resources of our knowledge organizations and support learning for life in its broadest sense. Three overarching themes were specified reflecting the policies of the present Government's strategies for the information age and ensuring a broad base for potential applicants. These are: Cultural enrichment, embracing heritage, community identity and creative experience; Citizenship in a modern state incorporating Government services, corporate citizenship and the informed citizen; and, Reskilling the nation with an emphasis on conventional literacies, new literacies and creative literacies.

The New Opportunities Fund made clear its commitment to support projects that used best practice in creating digital materials, and to fund content that reflected the rich diversity of resources that is achievable through partnership. Indeed, the concept of partnership and collaboration was to form the bedrock of the whole programme.

It is important to appreciate that a programme of such broad scale and scope had not been attempted in the UK before: it was impossible to predict what would happen, and all involved would be part of a ground-breaking experiment requiring flexibility, adaptability and lateral thinking.

Stage one of the submission process resulted in some 340 applications totalling in excess of £140million and, following assessment by a panel of experts, some 200 institutions were subsequently invited to prepare full applications for Stage 2, of which 154 were awarded grants following further assessment. This bald summary is, of course, highly simplistic - the whole process took two years - and as the bones of the programme began to emerge, there were many issues to be addressed. Indeed, this is still true as projects are being implemented and vision becomes reality. It is impossible to come up with all the answers in advance of the questions, particularly in such a fluid and fast-developing area, and one of the characteristics of *digi* will be innovation through the sharing of experiences. The Fund's attitude to the level of risk here is refreshingly healthy, and an apposite embodiment of its name.

The consortium approach to NOF-digitise

In order to embed the partnership approach at the heart of the programme, the People's Network Team at Resource undertook a careful topic analysis of the 343 applications for the Fund as an adjunct to the Stage One assessment process. This would identify synergies between individual applications and inform the shape of the framework for the overall programme in a way which reflected and enhanced its three broad themes. Following recommendations made by the Expert Panel on which applications should go forward to Stage Two, the next step was for Resource and the Fund to assemble individual applications into topic-based groups where it was felt likely that shared programmes for development, based on natural synergies could be found, and to invite those groups to work as consortia. Efficient and effective use of resources for all concerned, and technical coherence were driving factors, but most important was the wish to embed an outward-facing focus on learners' needs by exploiting the flexibility of the networked environment which allows links and connections impossible in other media. This resulted in a mix of consortia (36 in all) addressing a wide range of particular themes from Archaeology to Zoology via manufacturing, farming, the performing and visual arts, genealogy, basic skills, migration, citizenship, disability, science and invention, transport, world cultures, and so on, and those looking at resources reflecting the character, or sense of place, of a particular geographic area such as the West Midlands, Wales, London, or areas of outstanding natural beauty like the Lake District.

Whilst wishing to encourage as great a level of integration and joint working amongst consortium partners as possible, the over-riding concern was to provide a flexible framework within which individual solutions could be reached, not a straitjacket where one size had to fit all. Several different working models were suggested from complete integration - where a lead partner in a consortium managed and delivered the whole project - through more informal arrangements where individual partners' expertise and experience was used across the consortium to best effect, to a stand-alone option where - for very good reasons - an informed choice was made to continue as a single application. Indeed, many applications were partnerships from the outset, some very extensive -such as *Gathering the Jewels* led by the National Library of Wales with 172 contributing organisations. Once again, the range of topics was diverse and included biodiversity, contemporary arts, football, horse racing, Irish history, local history and reader development.

Technical standards

Clearly, one of the major critical success factors for nof-digi is that it should be possible to share content seamlessly whether between projects, between projects and users, or between nof-digi, other content creation programmes and users. It is important to be able to find and use content without specialist tools, and to be able to manage it effectively in both the immediate and the long-term. The adoption of a range of technical standards for the programme was therefore seen as a must from the outset. The benefits of such a coherent, managed programme which ensures interoperability, sustainability, long-term accessibility and integrity are obvious and do not need to be rehearsed here.

The UK Office for Library and Information Networking (UKOLN) (8) was asked to prepare a technical standards document for the programme which set out not only those standards which were to be mandatory across all projects, but also presented a range of others which would further enhance best practice digital resource creation, presentation and use. These standards - which follow the digital lifecycle for ease of application - are revised during the life of the programme to reflect developments in the field (such as XML and OAI) (9). It is pleasing to note that this approach to the development of a technical standards framework for all projects has created considerable interest worldwide.

Support for projects

As the scale and scope of the programme began to emerge at Stage One, NOF and Resource began to discuss how best to provide support and guidance to applicants at Stage Two. The need for expert advice on technical issues was clear, but other aspects such as business planning, intellectual property and project management also needed to be addressed. The Fund was also keen to generate a sense of community amongst its *digi* applicants which would lead to shared work and experience and result in capacity building. The solution was a three-way partnership in which UKOLN provided technical guidance, and Resource and the Fund a range of project planning support via the UKOLN and People's Network websites together with a discussion list, all kick-started with a series of roadshows across the UK.

This support service has become an integral part of the programme proper, and is seen as an important means of providing a vehicle for debate and discussion and supporting the development of the *digi* community. The partnership has widened to include the Arts and Humanities Data Service (10) drawing on their digital resource creation expertise, and the British Educational Communications and Technology Agency (11) to enrich the knowledge base for learning support. There is much to consider: cross programme issues such as the use of Geographic Information Systems and technical standards developments and their application to the programme; emerging models for rights management, and for service sustainability, resource discovery, re-use, long-term access and evaluation. Much of the past year has been spent in the delivery of an extensive series of workshops addressing these aspects as well as building a substantial body of web-based resources including a progamme manual, issue papers and FAQs. (12) and (13).

Stage Two: defining the future

The year of intense activity between the summers of 2000 and 2001 is one which will be remembered not only by project applicants as they put together their submissions in time for the February 2001 deadline but also by the Fund and Resource as the framework for a fair and accountable assessment process was put together and delivered. In order to meet the tight timescale, a forty-strong team of expert assessors (technical and business) was assembled and managed by Resource to support the Fund's own team of case managers for the programme as the most efficient way of covering all aspects and ensuring that all applications received due and proper attention. More importantly, the need for such an approach reflects the sheer scale and scope of the programme. Recommendations were then put to three meetings of a Panel of Experts whose job it was to consider the appropriateness and viability of applications in the context of

the whole programme, and to advise the New Opportunities Fund Board who made final decisions on grants to be awarded. Now the real work could - at last - begin.

The future starts here

A year on, there are 150 projects with grants ranging from £14,000 to £4 million, arranged in some 36 consortia and 34 individual projects. At a very rough estimate, the output will be to produce a digital learning materials foundry of well over 1 million images, tens of thousands of audio and video clips, innumerable pages of text and many hundreds of new learning packages on topics as diverse as biscuits, voluntary work, migration, biodiversity, football, contemporary art, music and photography, reading, etc... It is impossible to reflect the huge diversity that is nof-digi in this short paper, but a handful of examples may give just a hint of the rich variety of flavours.

Celebrating Wales , (£1.21million) a consortium of the National Library of Wales, Swansea Museum Service and Powys County Archives. NLW's *Gathering the Jewels* (14) is a unique project, bringing together for the first time in one collection the treasures of Wales held in its museums, libraries, galleries and record offices. 172 potential contributing institutions will present a panorama of Welsh history and culture. *Swanseaheritage.net* will interpret the history and natural environment of the Swansea and Gower areas in six bilingual themes: Industry, the Sea, World War II, People, Archaeology and Art & Culture. *Powys: A Day in the Life:* is focusing on what was happening across the community on one day in Powys history, Monday 6th April 1891 (the day of the national census), and comparing it with diaries kept by people in the county on one day in 2001.

Seamless UK (15) **[**£1.25 million], a consortium of Essex County Libraries; NCVO; Medway Libraries; Age Concern; North Lincolnshire Libraries**,** led by Essex, is creating a web-based Citizens' Gateway: a single point of access to information about public services regardless of whether they are provided by national, regional or local government or by non-governmental agencies in the public, private or voluntary sectors. The initial emphasis will be on information about Employment, Benefits, Health, Education and Active Citizenship. This work has already excited the interest of the Office of the e-Envoy as a potential framework to bring together national strategies and local initiatives in a user-focused way.

The Maritime Consortium, [£2.92 million], led by the National Maritime Museum, and including; Bristol City Council; Hartlepool Libraries; Liverpool Libraries and Southampton Libraries. Their Port Cities project is an imaginative, multi-media resource that allows individuals to explore Britain's rich maritime heritage in a selection of key cities and investigate its significance for communities living in these locations today, and provides materials and guidance for family historians with seafaring ancestors.

Visugate, [£190,000] being developed by the National Library for the Blind will provide easy access for visually impaired and sighted people to a comprehensive range of information on visual impairment through an innovative online portal. This will offer a 'one-stop shop' for anybody with an interest in visual impairment resources on the internet; a forum for the development/promotion of specialists groups; and content and structure for the development of learning resources relating to visual impairment

Moving Here (16), [£2.5 million] an extensive partnership led by the Public Record Office will celebrate, explore and record why people from all over the world came to the UK and what their experiences were and continue to be. It will focus on the experience of people from the Caribbean, South Asia, Ireland, and European Jewish communities, and on those already living here, especially in London, Yorkshire and the North West. There will be themes relating to the individual communities, as well as crosscutting themes: the immigration experience, military service and racism.

Reader development is embedded in the soul of public libraries and **Open Libraries** [£350,000] will develop the already successful Book Forager as a unique resource for readers of fiction. Artificial

intelligence and collaborative filtering is used to enable readers to explore choices based on searching by mood, genre and other characteristics such as humour, romance or type of led protagonist; to increase their confidence to take their reading in new directions, and to demonstrate the connection between the old and new literacies. Book Forager will link to the major library web cataloguing systems allowing readers to check availability at their local library and browse or reserve a title.

The North West Museums Service [£87,000] is exploring the nation's passion for football with its *Museums Fever - In the net* project to provide on-line exhibitions, careers information and learning materials curated by 16-25 year olds using the collections of the Football Museum.

Finally, the largest grant form the programme of some £4million was awarded to the National library of Scotland for its **Resources for Learning in Scotland** (17) project. This brings together materials from some 95 contributing institutions in Scotland to create a microcosm of the programme itself. The expertise of SCRAN is being drawn upon in its role as managing agent for the project.

Clearly, the imagination, innovation and creativity central to the success of the programme are being delivered even through this modest handful of examples. The promise of a rich fabric of learning resources delivering the vision of New Opportunity will most surely be delivered. To celebrate this, the Fund has begun work on a showcase portal for all *digi* projects which will develop over the life of the programme. At present it is a simple presentation of project thumbnail sketches, but next steps are to build a searchable database of collection level descriptions and to see how the object level metadata being created by individual projects can best be harnessed to improve resource discovery.

Impact

What will be the impact of all this? At the moment, of course, it is impossible to say for sure (and a multi-layered evaluation and impact programme is currently being prepared by the Fund and Resource). However, there is already evidence that the programme is influencing thinking at a strategic level not only in the UK, but in Europe and more widely - particularly with its approach to technical standards. It is already generating discussion on how the framework it has developed can be built upon: for example, by exploring the Sense of Place materials, scaling up the SeamlessUK model through wider partnerships, or through re-purposing materials for the Department for Education and Skills Curriculum Online programme. There are many fascinating opportunities and no doubt that nof-digi will fuel a learning revolution for all, engaging interests, whetting appetites for more and changing people's lives for the better.

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