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The emergence of digital services in Scottish public library websites

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Research objectives

- A previous research project (Buchanan and McMenemy, 2010) investigating usability issues with PL websites found wide variation in digital services offered and associated terminology.
- This study further investigated PL digital services and in particular identification of major themes and trends.

Background

- Some public library websites compared to 'digitised leaflets' (Harden, 1998; McMenemy, 2007)
- Brinkley (2007): "many sites have grown in an unstructured and seemingly unplanned way, with services simply being added on as they become available".
- A recent review of UK local authority websites by the Society of IT Managers (2010), incorporating PL websites, found that while overall visitor numbers to such websites increased by 22% in 2009, user satisfaction ratings dropped by 18%.
- How to present digital information "without confusion, duplication of effort and in a user friendly way" (Atherton, 2002).

Buchanan and McMenemy (2010) findings:

- Sample of 8 of 32 Scottish PL websites analysed to identify and compare range of services offered, extending to general usability observations.
- Key findings:
  - 202 discreet options (duplicates removed) identified across the 8 homepages. Minimum displayed 13, maximum 69.
  - A high incidence of ambiguous terminology (27%) and branded terms (20%) found.
  - Multiple organisation schemes utilised on all 8 homepages, with navigation found to be problematic.

Methodology

- Remote content analysis of all 32 Scottish public library websites conducted March-August 2010
- All options recorded, referenced and listed:
  - Options categorised according to Buchanan and McMenemy (2010) model.
  - Options further classified as:
    - Provided by or accessed via the public library.
    - Digital or non-digital service.

What is a digital service?

- No standard definition of a digital service exists, however we defined as: information service or resource accessed and/or provided via digital medium.
- What are the degrees of PL digital service?
  1. Information on information (e.g. existence)
  2. Direct access to digital content on PL website (PL as **content** provider) .
  3. Indirect access to external digital content via PL website (PL as **access** provider).
- For the purposes of this study, we considered 1 is not a digital service.

Defining characteristics of a digital service

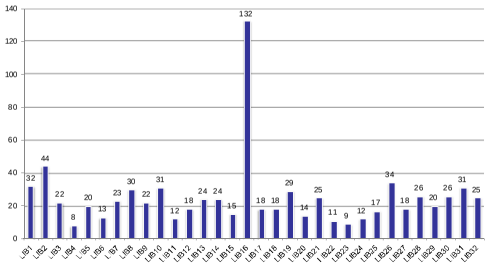
- Digital services can range from simple to more complex distributed and interactive systems, e.g:-
  - provision of online tools and virtual space for collaboration, sharing of content etc.,
  - online reference services,
  - more complex distributed and interactive systems such as digitised local archive collections linked to local school curriculums via virtual learning environments,
  - cross-institutional integrated digital collections.

Digital service categories (Buchanan and McMenemy, 2010)

Theme	Example
Early learning	Children & Young People[SHE] Children and Babies[EDI] Children's Library[ABD]
Scholarship	Education and Learning[WEI] School Library Service[RIO] Schools[ABS]
Genealogy and Heritage	Family and Local History[OLA] Family History[ABD] Local Studies, Archives and Family History[DUM]
Enterprise and Employment	Business Information[ABD] Careers Information Points[ABD] European Information[ABS]
Recreational Reading	Books and Reading[EDI] Reading Group[RIO] Well Read[RIO]
Health and Wellbeing	Breathing Places[RIO] Healthy Reading[DUM] Help Yourself to Health[SHE]
Community Support	Community Learning and Development[ABS] Highland Virtual learning Community[RIO] Migrant Communities Information Point[ABD]
Reference Enquiry	24/7 Reference Information from Home[ABS] eReference Library[RIO] Library Reference Services[DUM]

Number of options available from homepage

NB – Services anonymised



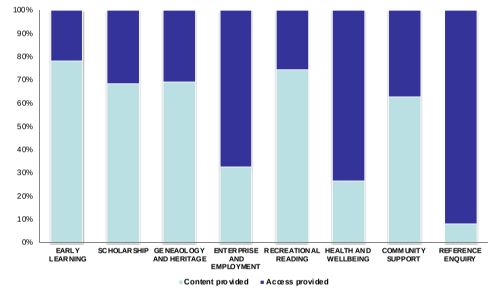
Key usability observations

- Number of initial options on home pages ranged from 8 to 132 (average was 25).
- Rosenfeld and Morville (1998) argue that more than ten options can ‘overwhelm’ users.
- There was a high volume of ambiguous and branded terms.
- There was significant inconsistency in terminology evident, for example the following slide highlights the varied range of terms used for reference enquiry.

Example: variance in defining reference enquiry

24 Hour Enquiry Services	Information Services	Online Resources
24/7 reference	Internet & Online Subscriptions	Quick Reference
Access 24/7 Reference Information from Home	Libraries - online information resources	Reference and Information
Access information 24/7	Libraries - Reference and Information	Reference Central
eReference Library	My Library Anytime	Reference Enquiries
Ez-information 24/7	Online Databases	Reference Library
Free Information Resources	Online Information Resources	Reference Links
Free Reference Resources	Online Information Service	Reference Services
Information and Reference Service	Online reference databases	The 24/7 Library
Information Enquiry Service.	online reference library	YOUR 24 HOUR LIBRARY
Information Online	Online Reference Services	

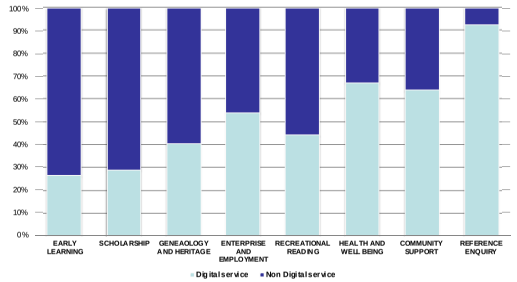
PL as content or access provider by category



Library as content or access provider?

- Access provision was most prevalent in reference services, especially around subscription services.
- As a ratio, was also prevalent in health and wellbeing, and enterprise and employment.
- In the latter two categories provision of access to library evaluated websites was frequent.
- Library created content was often seen in topics related to provision of childrens services, and genealogy and heritage.

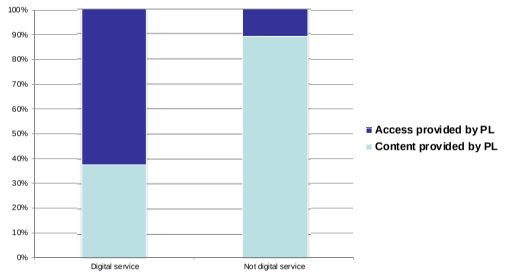
Digital vs. non-digital service by category



Library as digital service provider

- Again, digital reference services was the most frequent category in this area.
- In the area of community support, digital services related to community information were seen.
- External links to reading sites was seen in recreational reading area, similarly in health and wellbeing.

Digital service vs. non-digital and the role of the PL



Key findings and observations

- Access to digital libraries essential to social and economic mobility (Liu et al, 2006).
- However wide variance in categorisation of digital services is a significant usability issue for PL websites and a potential barrier to user satisfaction.
- Successfully delivering digital services necessitates high degree of collaborative working between PLs and partners (e.g. NHS, third sector, commercial).

Limitations

- Study limited in time/level of categorisation that could be applied.
- Presenting purely raw data for first time today, data will be filtered more closely for extended paper for publication in late 2011.
- Purpose of study is not to name/shame public libraries but to define patterns/trends in public library website provision and identify key issues for future development.

On-going further research at Strathclyde

- Development of an enhanced taxonomic structure providing a categorisation system and controlled vocabulary for digital services.
- Information seeking behaviour of different user groups will be examined to determine if public library websites satisfy needs.
- Investigating collaborative information architectures across multiple partners.

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