Predictors of users preferences’ for digital information: a case study

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OUTLINE OF PRESENTATION

- Introduction
- Problem statement
- Objectives of the study
- Methodology
- Summary of the findings
- Conclusions
- Recommendations
Scholarly communication the world over is experiencing a paradigm shift towards digital scholarship, which is grounded on digital information.

There is a paradigm shift in libraries from printed to digital publications:—

- subscriptions to online content,
- digitisation of records,
- promotion of open access practices.
Globally, in marine and aquatic science libraries, use of digital information was pioneered by IAMSLIC and FAO through the launch of the Aquatic Commons digital repository in 2007.

Organisations deposit published and unpublished research on fisheries and aquaculture (Haas et al., 2009:2).

The Aquatic Commons has presented itself as a digital resource sharing platform available on the principle of equal ownership to all participating members.
INTRODUCTION

- Adoption and use of electronic resources in most marine and aquatic institutions in Africa is still at grassroots levels (Ibeun 2011:2)

- Many users within the field of marine and aquatic science in the African region, have not developed confidence in using digital resources (Biney 2005; Salanje 2007; Nyika 2009; Ibeun 2011).

- At ORI, although no viable system is in place to manage digital resources, users are showing a preference for digital information compared to the print material that forms the bulk of the content.
Studies revealed low levels of interest for digital information within marine and aquatic science researchers in the region:

- In Malawi, scientists were unwilling to donate their papers because they did not see any benefit to it, while others demanded payment (Salanje 2007).

- The Institute of Marine Sciences of Tanzania faced obstacles in the development of an electronic repository as scientists were unwilling to submit their work output to be uploaded into the repository (Nyika 2009:3).

- Ibeun’s study (2011) on the use of the Aquatic Commons Repository showed that African countries had low participation in both input and usage of the Aquatic Commons repository.
This supports the observation that a majority of marine science information users in the region are struggling to accept and make use of digital resources (Biney 2005:15).

In contrast, at ORI, there is an increased demand for electronic content, i.e., scanning of book sections, requests to digitise scientists reprints, use of social media, ILL requests for digital content, use of open access journals and google scholar.

Thus, this study sought to understand what motivated user preference for digital resources at ORI when the majority of marine science information users in the region seem to think otherwise.
The purpose of this study was to investigate predictors of users’ preferences for digital information at the ORI Library.
OBJECTIVES OF THE STUDY

- Establish ease of use of digital information by ORI library users.
- Determine the usefulness of digital information.
- Explain user attitude towards the use of digital information.
- Evaluate user competencies in the use of digital information.
- Examine the ICT infrastructure in place to facilitate access to digital information.
METHODOLOGY

Mixed method paradigm
- Mixes aspects of the qualitative and quantitative paradigm at any stage in the research process to address the research problem being investigated.

Case study research design
- An empirical investigation of a particular contemporary phenomenon within its real-life context, capturing the knowledge and documenting the experiences of practice.
METHODOLOGY

Population
- Census of 24 ORI employees consisting of Scientists, Masters and PhD students, Director and CEO.

Research Instruments
- Questionnaire, focus group discussions, Interviews, Participant observation and document reviews.

Data Analysis
- Mixed methods data analysis is done separately where quantitative data is analysed using quantitative methods and qualitative data is analysed using qualitative methods then results are mixed to support findings
Perceived ease of use

Perceived ease of use is defined as the extent to which an individual assumes that utilising an information system would be free of physical or mental effort (Davis, Bagozzi and Warshaw 1989:985).

How easy is it to use digital information?

Majority agreed that digital information was:

- easy to search (variety of search options, ie keywords etc)
- Flexible for searching a wider range of sources
- up-to-date information with wider coverage
- quick to access, time saving
- easy to carry, share & store.
- Respondents had competency in using computers, which made it easy.

Minority - slow Internet, difficult-to-use websites, unclear instructions and inability to download material
Perceived usefulness

“the user’s subjective probability that using a particular technology will raise his or her job performance within an organisational setting” (Davis, Bagozzi and Warshaw 1989:985).

How useful is digital information for me?

- About 75% of the respondents, perceived digital content to be useful;
  - allowed access to a lot more relevant information within a short space of time
  - speeds up workflow, all information at one place
  - access to the latest methodologies online improves quality of work
  - Remote access
  - Important to follow new developments and trends of digital scholarship

But, some respondents complained that authors and students take digital shortcuts by scanning documents via search engines and doing copy and paste. Often the reference is not the correct one. This compromises the quality of work and makes a mockery of information management.
**Attitude towards use** - an individual’s positive or negative evaluation of performing a behaviour determined by an expectancy-value model of beliefs weighted by evaluations of the consequences (Fishbein and Ajzen 1975:233; Kim, Chun and Song 2009:68)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using digital information is a good idea</td>
<td>14</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>It is wise to decide on using digital information</td>
<td>14</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Using digital information is favourable for me</td>
<td>13</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>I really find it beneficial to use digital information</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>I am positive towards use of digital information</td>
<td>15</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>I prefer digital information to print</td>
<td>6</td>
<td>5</td>
<td>10</td>
<td>42</td>
<td>3</td>
</tr>
</tbody>
</table>

Deng (2010) found that users developed a positive attitude because of the rapid development of information and communication technologies and their understanding of the purposes of various information sources.

About 4% indicated print is easier to read, comment on, highlight and make notes on paper.
**Competency in using computers**

- Competency - people rely on knowledge gained from previous experiences to inform their behavioural intentions for the future (Park et al., 2009:198).
- Usage is more predictive when individuals have prior experience with technology (Thong, Hong and Tam 2002:224)
- Competency was measured by the number of years of experience the respondents had of using a computer, levels of computer literacy, training done and training needed for effective utilisation of digital resources.
  - 92% had over 10 years of computer experience.
  - All respondents had above average literacy skills.
  - 62% did not train while 38% did.
  - 66% indicated they did not need training, 34% needed training.
ICT infrastructure available

- Refer to the facilities and services that existed to support digital information access at the ORI Library
- Desktop computers and laptops for scientists and students
- Printers, scanners, Local Area Network (LAN) and the Internet
- Library had 3 machines
- Inadequacy of library computers and low internet connections
CONCLUSIONS

- Users felt it was easy to use digital resources mainly because of their exposure and availability of adequate infrastructure.
- As researchers', digital information was useful to them as it gave them up to date and wide coverage.
- Preference was also necessitated by scholarly communication that was tending towards digital.
- A massive increase in the amount of digital resources freely available online made it easier to conduct their researches.
- Although users had gained considerable experience over years on general computer use, they did not possess the skills necessary to effectively utilise digital resources.
RECOMMENDATIONS

- This study recommends the development of a digital library to cater for the increased demand for digital resources.
- Training of library users - skills required to search electronic resources are much greater than those required for searching print material. Knowledge of the structure of the database and the instructions which must be input into the computer by the user, as well as an understanding of the ways in which the instructions are linked with one another, are some of the unique skills required (Ozoemelem 2009).
- Marketing of digital resources so as to capture the attention of those individuals with a negative attitude towards the resource.
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