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Information Behaviour of Slovenian Researchers:
Implications for information services

Introduction

- Last decades have changed the way scientific information is spread.
- Practically all publications are now available online.
- There is an evident and rapid trend towards the development of different information behaviour by scientists:
  - What information resources they are using, how and when.

Presented

- Results of a part of extensive survey of Slovenian scientists which investigated their information behaviour (preferences, opinions, use)
- We focus on
  - Use & preference of information sources,
  - Types of information sources used (grey lit.!),
  - Impact of ICT on information-related

Method & Sample

- Online survey (open Sept 14 – Nov 14; here data till Oct 24 is presented)
  - 18 content questions (eg. about resources they use/prefer, how ICT impacts information gathering, organizing, reading, communicating, writing)
  - 7 demographic questions (eg. age, gender, employment, experience, research area)
- Random sample of active researchers (data from ARRS – Slovenian Research Agency.)

Basic description of respondents

- 195 respondents / 119 acceptable
- 46,5% female
- Age structure:

Age	%
20-30	27.6
31-40	36.7
41-50	17.3
51-60	12.

- Research area (ARRS classif.):

Research area	%
Natural Sciences	25.2
Social Sciences	17.6
Technical Sciences	16.8
Humanistic Sciences	12.5
Interdisciplinary Research	10.9
Medicine	10.1
Biotechnology	6.7

Information behaviour – general /1

- Heavy use of formal resources, BUT also intensive use of grey sources:
  - patents, standards, reports (35.3% often/always, 24.2 occasionally),
  - dissertations (51.5% occasionally, 25.3 often)
  - e-archives, repositories (27.6% often/always, 38.5% occasionally)

Information behaviour – general /2

- They strongly rely on personal contacts
  - For acquisition&exchange of information 33.4% often/always, 44.4 occasionally)
  - Also for acquisition of resources (23.6% often/always, 47.3% occasionally)
  - ***A lot of*** contacts & communications are with colleagues abroad

Information behaviour – general /3

- Not enthusiastic with library services
  - 41.2% use library ocasionnaly, 35.1% never/almost never, 50% never/***almost never*** use ILL
  - BUT: 53.5% use OPAC/COBISS often/always; 44.8% often/always start search with OPAC

= all in trend of current scholarly information behaviour

About data curation & use

- YES to have available (71.7%), to provide own data (72.8%)
- BUT second thoughts due to ethical dilemmas (58.1% think it could be questionable)
- Most don‘t use it (66.3% never/almost never)
- Not clear about libraries doing this service (66.7 yes; 42.9 no)
  - Note: there were 2 questions regarding this, hence over 100%

Impact of ICT

- Heavy use of
  - web search engines – general and scholar (77.4% often/always),
  - websites (39.4% often/always, 41.4% ocasionally)
  - e-journal sites (61.1% often/aways)
- They like electronic materials:
  - (49.6% prefer e-; 38.1% people cite 81-100% e-resources, 51.3% have over 200 e-resouces in personal archive, ***most popular way of resource acquisition are e-journals***)
  - BUT: print to read (64% often/always, 25.4%

ICT makes easier/harder

- ICT makes easy:
  - searching&acquisition (99%),
  - organizing (83.5%),
  - citation chaining (91.3%),
  - writing (alone 71.9%; in ***collabor.*** 84.8%),
  - communicating (93.9%)
- BUT: For many ICT makes harder:
  - relevance judgement (23.7%),
  - reading (25%)

Some surprising findings

- They hardly use
  - social networks (84.8% never/almost never), blogs (82.8% never/almost never), forums (64.6% never/almost never),
- Poor use of
  - preprints (50.5% never/almost never), email alerts (37.4 never/almost never), cross-search services (60.2% never/almost never)
- Open-access materials not very popular
  - 58.3% people cite these below 20%

= so, are they not quite typical contemporary scholars?

Closer look

- ***Age impact:*** Younger researchers strongly prefer electronic tools, formats, communications
- ***Impact: Employment status, experience, current job***
- ***Gender – no impact;***
- Research area has some impact
  - *Natural Sciences*: use research papers, dissertations, use raw data, cite higher proportion of scientific literature***, no print sources,no ILL***
  - *Social Sciences*: cite higher proportion of scientific literature
  - *Technical Sciences*: use raw data, use standards, patents
  - *Humanistic Sciences*: use research papers, dissertations, prefer p-sources, cite higher proportion of scientific literature and lower share of e-sources and lower share of open-source materials, ***not ICT for org.***
  - *Interdisciplinary Research*: use e-archives
  - *Medicine*: use websites, ***use invisible college, ICT for***

To sum up

- Researchers are independent & innovative in ways to get & use information
- They are often quite similar to general public:
  - Intensive use of web search engines and websites as information sources, ***preference of e-materials and tools,*** want information immediately, happy only with full-text, don‘t visit libraries
- BUT: They are more concerned with relevance judgement than general public
- Use of grey literature is intensive, but dependent on the ***academic area and sector***:
  - ***Technical, natural, humanistic sc., biotechnology***, more ***keen*** to use GL as the source for their research,
  - ***Patents and standards used by business sector***

Implications for information services

- Rethinking of library services relevant to researchers
  - Relevant: OPACs (with access to full-text), provision of access to e-journals, setting up e-archives, approach data curation
  - Not so relevant: cross-search services, traditional services
- Rethinking of design of information tools to become more ***intuitive***
- Co-operation with search engines

Thank you!

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