

How user-friendly are user interfaces of open access digital repositories?

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Introduction

- Digital information resources available on the Internet - rich resources for research and teaching
- Students have replaced libraries and information resources available in libraries with search engines
 - Especially visible in students' term papers

Global digital information environment

- The nature of digital information resources is changing fast with more information available in digital format
- Information in digital format represents the prime and fastest growing collection in academic libraries today
- New digital information resources: Web 2.0 services (mash-ups, cloud computing, peer networks), digital libraries, digital repositories
 - Everything that is reachable on the Internet regardless of origin, structure and quality is used

Digital technology and libraries

- Libraries: faced with the task of providing distance learners access to resources like never before in the history of profession
- Change of role: from being custodians of knowledge to being providers of access to knowledge in various sources (or both)
- Younger generations susceptible to digital technology, however they are unaware of the existence of digital repositories

Digital repository

- Mid 1990s: introduction of a new digital information resource relevant for research, teaching and learning
- Digital repository - digital archive of the intellectual product **created by the faculty, research staff, and students** of an institution and accessible to end users both within and outside of the institution, with few if any barriers to access
- Distributed, federated and highly integrated applications and services

Digital repository content

- E-prints of scientific papers
- Research data
- Students' papers
- E-learning materials
- Journal articles
- Preprints
- Technical reports
- Books
- Theses and dissertations etc.

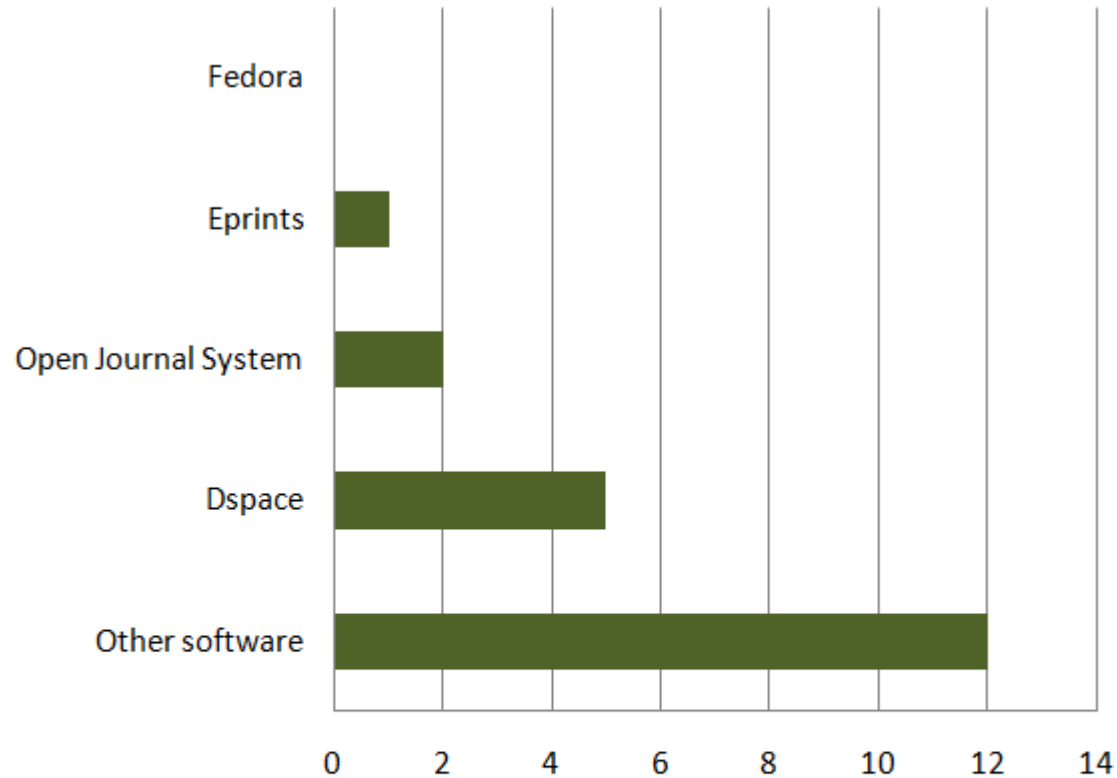
Evaluation of digital repositories user interfaces

- User interfaces are means of successful use of digital repositories
- Digital repositories across the world share some common characteristics
- Use of methods intended for evaluation of information retrieval systems (Xie and Cool, 2000):
 - database selection, query formulation, query reformulation, access to help function, organization and display of results and delivery of results

Evaluation of digital repositories user interfaces

- Sample of 20 largest open access digital repositories in category E-journal/Publication (over 76% of free text)
- Registry of Open Access Repositories (ROAR) at <http://roar.eprints.org> on November 8th 2009 there were 1543 digital repositories registered!

Category 1: Software used for repository operation



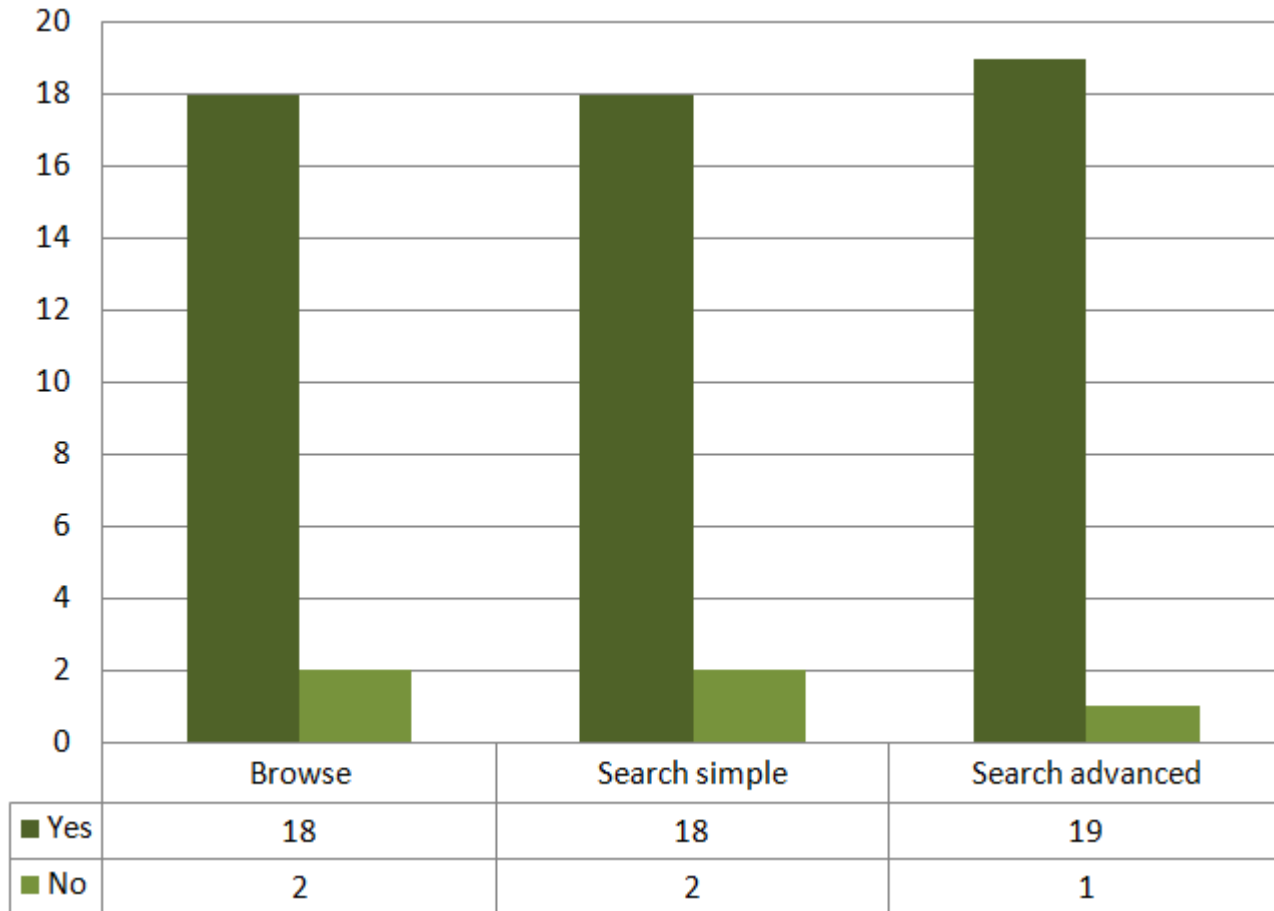
	Other software	Dspace	Open Journal System	Eprints	Fedora
■ Software	12	5	2	1	0

Category 2. Rate of freely accessible fulltext (estimate)

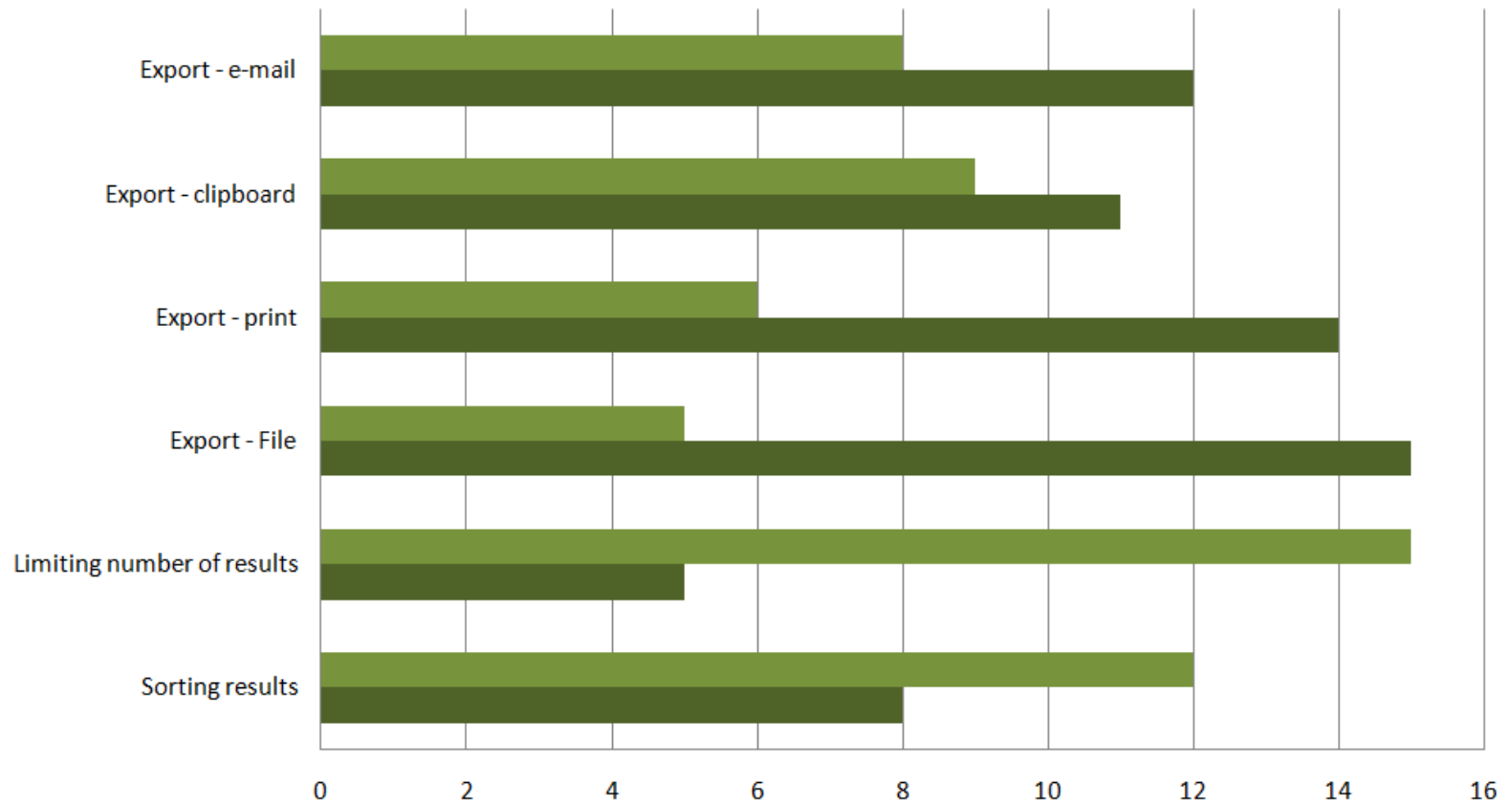
- Average rate of freely accessible material in top 20 open access repositories:

76.25%

Category 3. Access

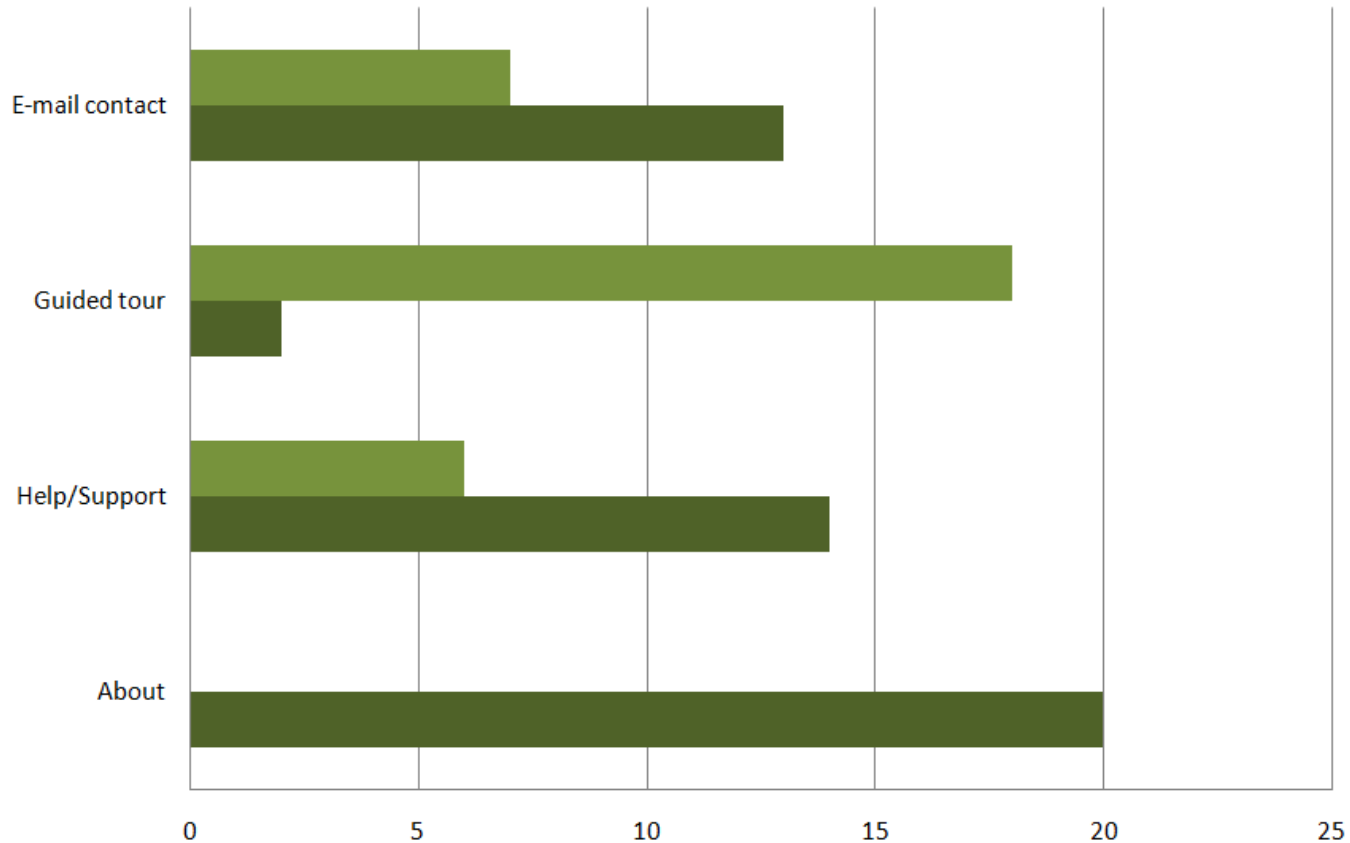


Category 4 and 5: Organization and display of results and Delivery of list of results



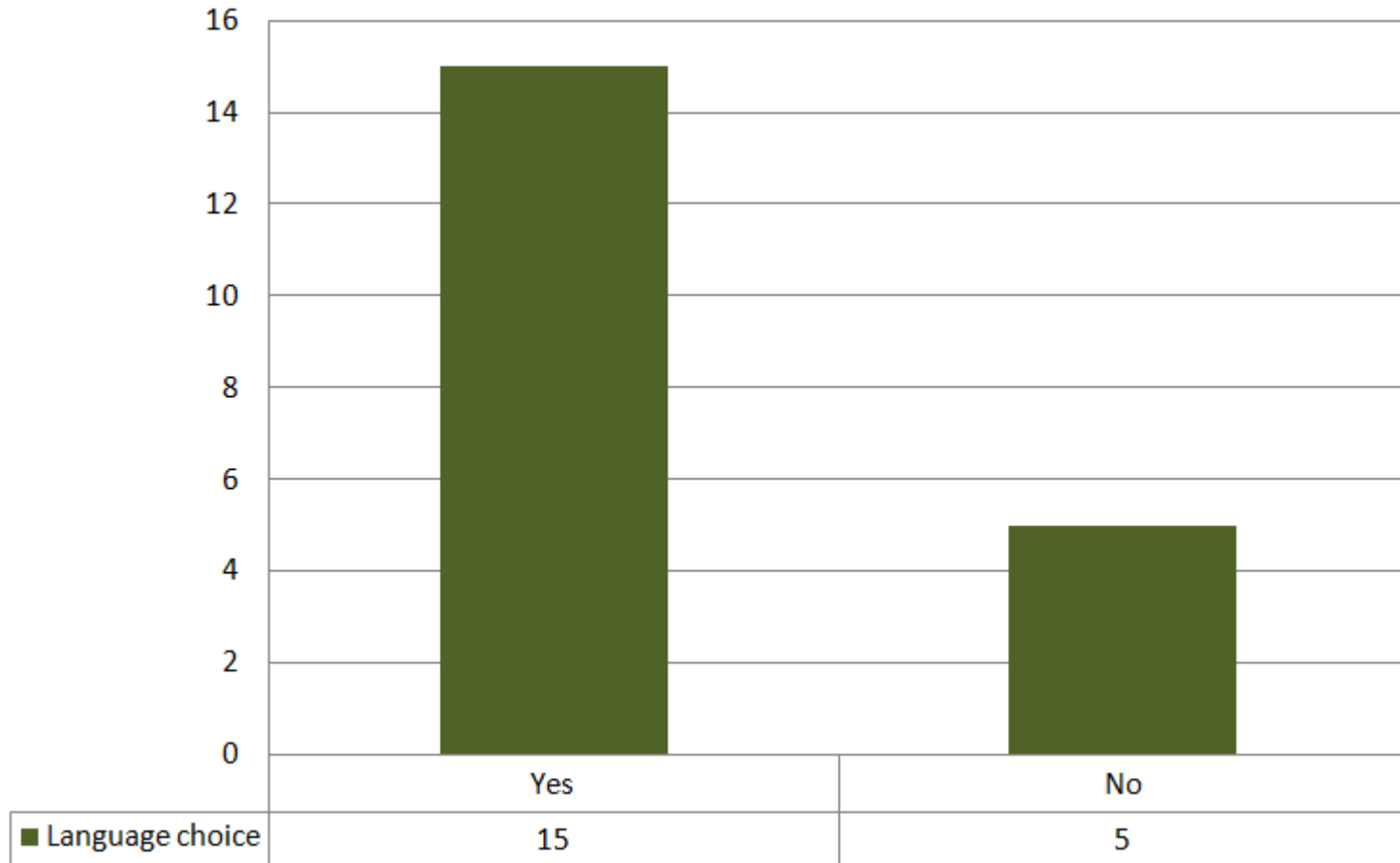
	Sorting results	Limiting number of results	Export - File	Export - print	Export - clipboard	Export - e-mail
■ No	12	15	5	6	9	8
■ Yes	8	5	15	14	11	12

Category 6. Information about repository, Help. Guided tour, E-mail contact

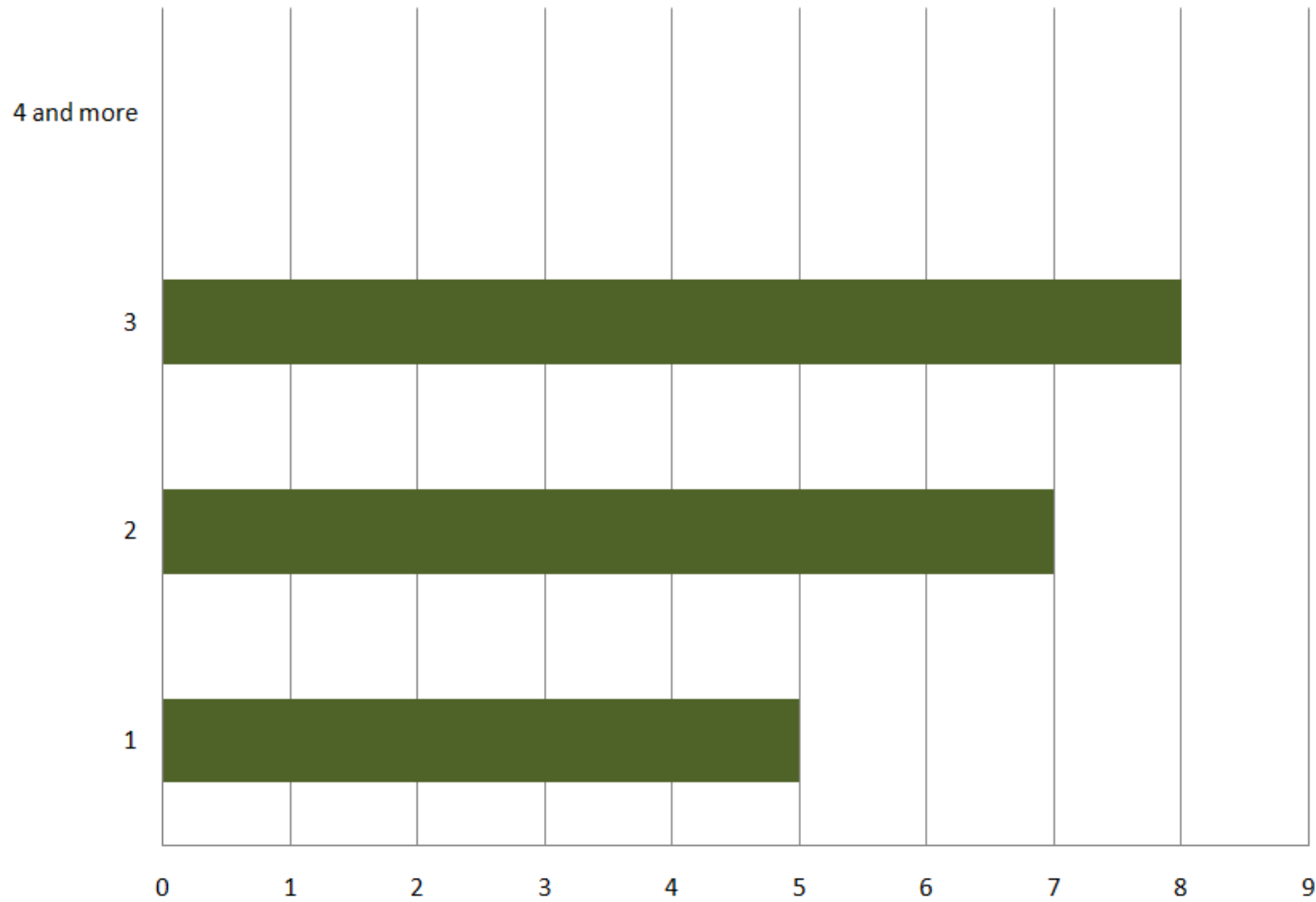


	About	Help/Support	Guided tour	E-mail contact
No	0	6	18	7
Yes	20	14	2	13

Category 7. User interface language choice (multilingual user interfaces)

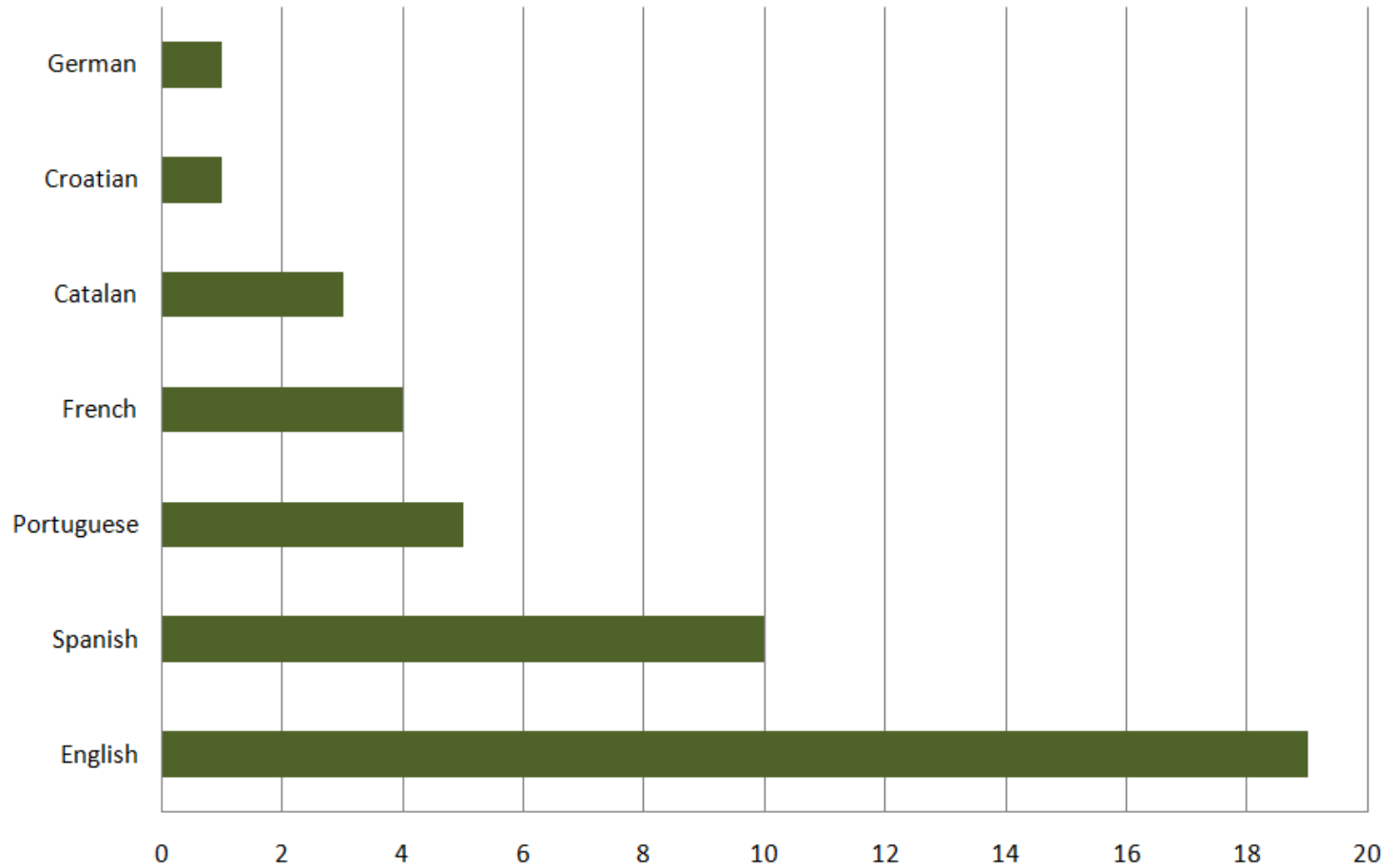


Number of languages



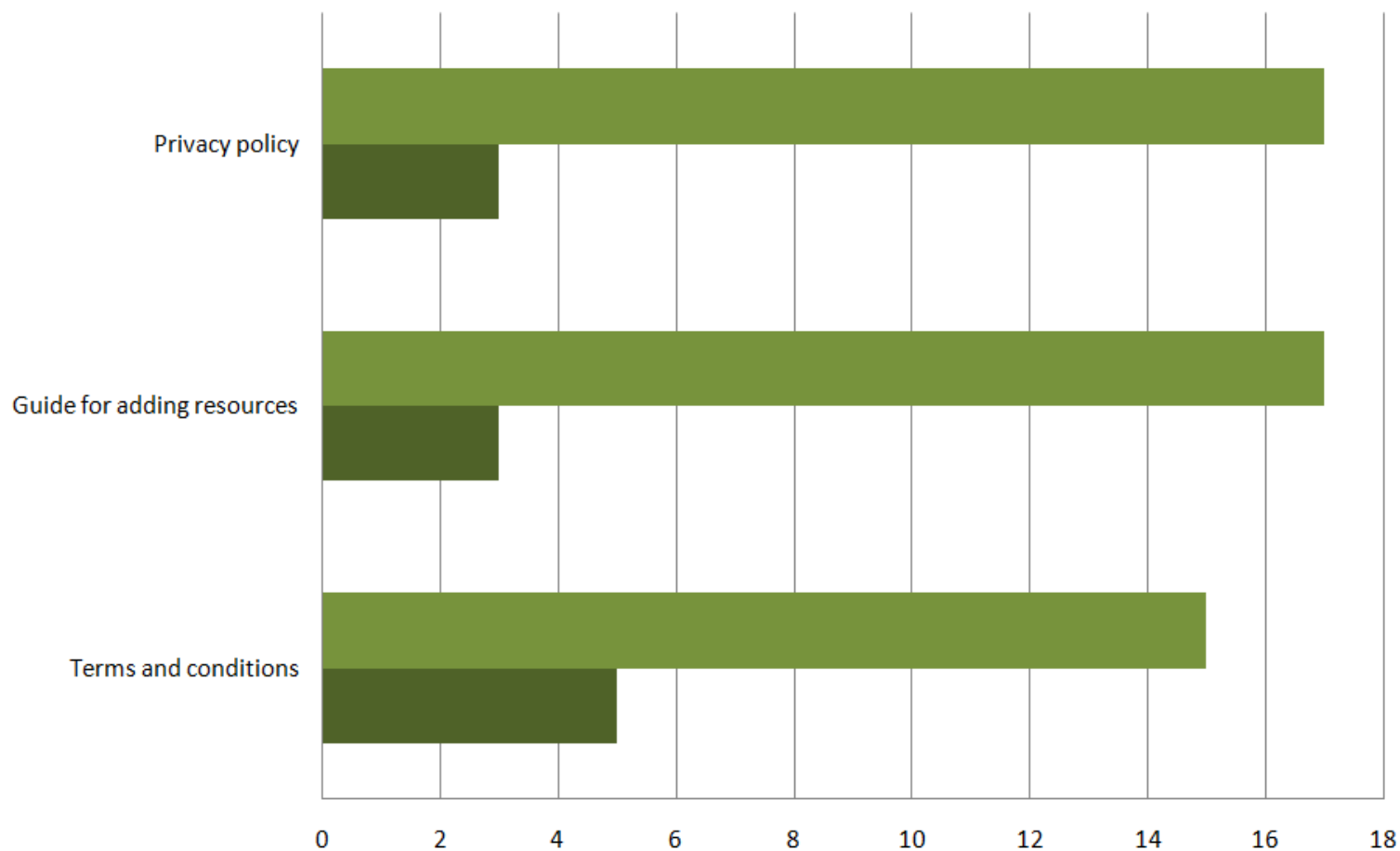
	1	2	3	4 and more
■ Number of languages	5	7	8	0

Languages and dialects



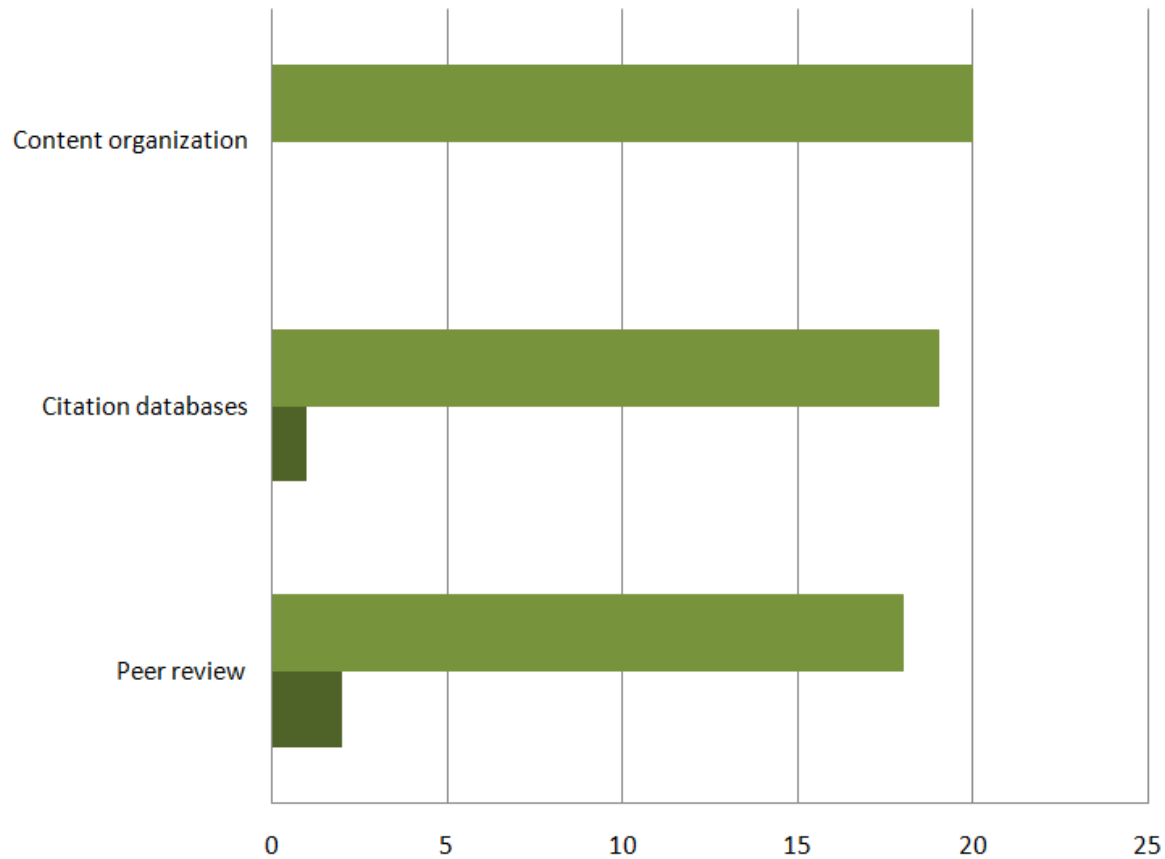
	English	Spanish	Portuguese	French	Catalan	Croatian	German
■ Languages and dialects	19	10	5	4	3	1	1

Category 8. Existence of policies and other documents that govern use of digital repositories



	Terms and conditions	Guide for adding resources	Privacy policy
no	15	17	17
Yes	5	3	3

Category 9. Peer review information, citation in databases and content categorization



	Peer review	Citation databases	Content organization
No	18	19	20
Yes	2	1	0

Conclusion 1/2

- Open access digital information resources facilitate access to knowledge without restrictions for the widest possible audience on the Internet
- Their user interfaces share common functions and elements
- They still look too formal to attract students seeking knowledge elsewhere on the Internet

Conclusion 2/2

- Multilingual user interfaces indicate international orientation of digital repositories
- Need for a new design of Web pages to become not only more attractive (less important) but to become more functional (more important)
- Their number indicates that digital repositories have already become part of the global information infrastructure