

International stakeholder survey on demands in the field of digital cultural heritage

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One of the objectives of the Virtual Multimodal Museum (ViMM)¹ network is to gain an overview of current challenges and demands of stakeholders in the field of digital cultural heritage. To investigate, we launched an online survey in August 2017. The survey contained four free-text questions without any anchor examples [c.f. 1]. We advertised the survey by mailings to all ViMM members as well as to authors of conference papers of CIPA symposia, EUROMED, 3DArch, CAA and VAST conferences dating from 1999 to 2015. This latter sample included 3148 valid email addresses [c.f. 2]. By 15th of November 2017, 708 individuals had participated and 349 questionnaires were fully completed.² For evaluation, we segmented multiple answers into single logical units. Categorization of answers took place via qualitative content analysis [3]. Limitations of our study include a potentially biased sample, since primarily conference authors were invited, and - due to the often low number of counts per item - a limited reliability of rankings.

Outcomes

What are main obstacles for employing digital approaches?

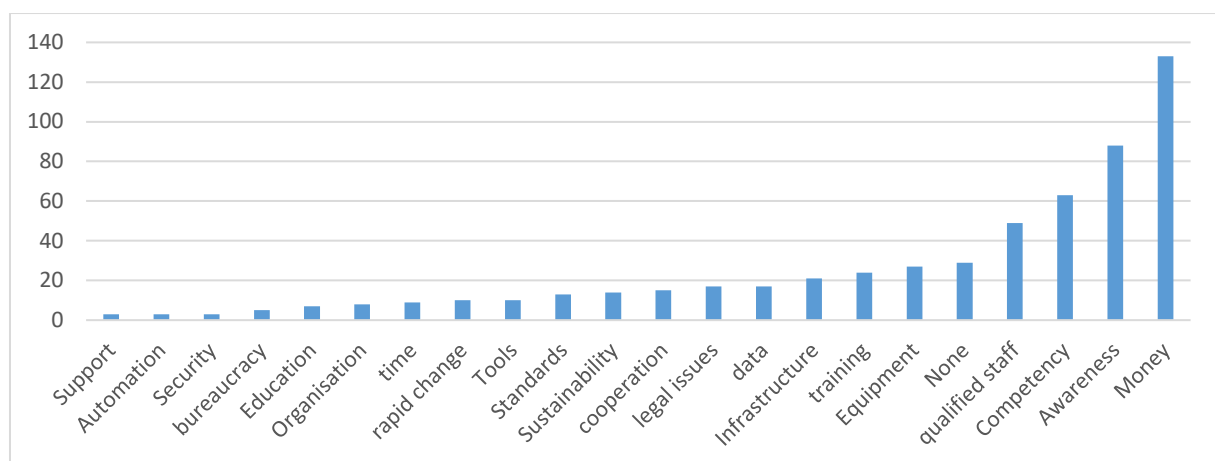


Fig. 1: What would you estimate as main obstacles for employing digital approaches in your organisation? (n=624 items, n>2)

Money was named as biggest obstacle. This comprises lacking funding opportunities for digital activities, costs for hardware and software as well as budget priorities for non-digital activities within organizations.

Many participants estimate a missing **awareness** as a big obstacle. This relates to aspects such as a generation gap in terms of digital literacy and frequency of use of digital tools as well as a general fear of or resistance to digital methods or – vice versa – missing awareness of limitations and requirements in the digital world. Finally, a lacking vision of utilizing digital approaches as well as institutional conservatism and tradition were named as hindrance.

With regards to human resources, the lack of **competency** and skills especially in technical domains was frequently named. This closely relates to the frequently mentioned problem of hiring **qualified**

¹ For more information see <http://vi-mm.eu>.

² For global coverage please see:

<https://drive.google.com/open?id=1hZ28PW50aW7jDG2qaIbKsBY0srxDihVN&usp=sharing>

staff skilled in cross-disciplinary cooperation and/or computing. Finally, also **training** opportunities and resources were named as lacking yet. Vice versa, only one participant named missing employment opportunities for qualified staff.

Several participants saw **no** obstacles for employing digital approaches in their organization.

What would support a further development most?

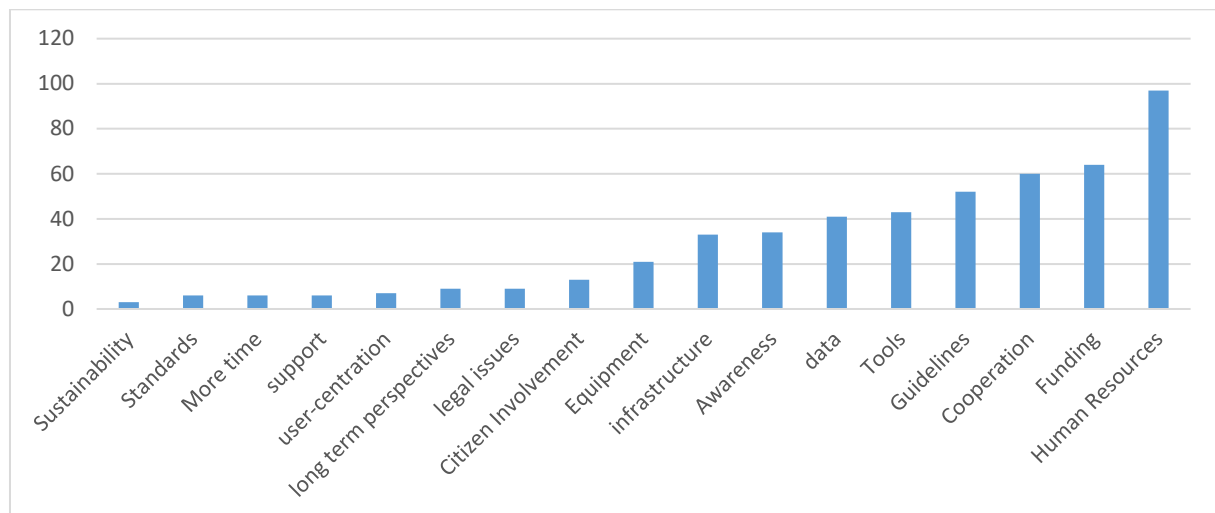


Fig. 2: When developing digital opportunities for your institution and cultural heritage: What would be most helpful for your work? (n=560 named items, n>2)

Human Resources include both, the need for qualified staff and education. Amongst these aspects, technical expertise and training to increase technical competences were most frequently requested. Many of the participants also requested an increase of student education and involvement of younger people. Specifically suggested were e.g. coaching opportunities, instruments for knowledge exchange and open training resources as well as the cross-disciplinary educated staff.

Many participants would wish for more **funding** for staff, equipment and projects. Occasionally requested are opportunities in particular for small enterprises, non-EU countries as well as for implementation, infrastructures and long-term availability. Some participants asked for easily accessible funding schemes.

Increasing **cooperation** amongst researchers from different disciplines and/or nations was also mentioned as important. Specific concepts named were to increase intensity and sustainability of cooperation beyond single projects as well as to build specific networks and interest groups on particular topics.

The request for **guidelines** includes - most frequently mentioned – a collection and overview on best practice examples. Also frequently mentioned is the necessity to shape standards and workflows. An emphasis for both aspects is on easy application and user-centration. Participants occasionally named documentation and the need for clear objectives as well as roadmaps for further development.

Many participants require software and hardware **tools**. Beside software for specific purposes, especially open source and easy-to-use tools were demanded.

Regarding **data**, availability, accessibility, sharing and linking were most frequently demanded. Many respondents wish for open access to data. Other frequently mentioned issues are higher data qualities and data validation as well as long-term perspectives and sustainability.

Awareness means primarily an increase of digital literacy of colleagues, stakeholders and administration staff. These aspects closely relate to the request of commitment esp. from administration and government as well as the understanding of importance and benefits. Occasionally requested were a change of attitude to openness as well as an anchoring of digital aspects into organisations – e.g. as specific departments.

Most frequently named for **infrastructures** was the need for digital platforms and repositories for different types of data such as digitized artefacts, raw data or projects. Specific attributes suggested were searchability as well as data linking and sharing. Also named were attitudes such as easiness and - occasionally – openness. Other infrastructural needs were named only occasionally and included services such as joint event calendars or IT facilities.

What are world leading institutions in the field of cultural heritage & museums?

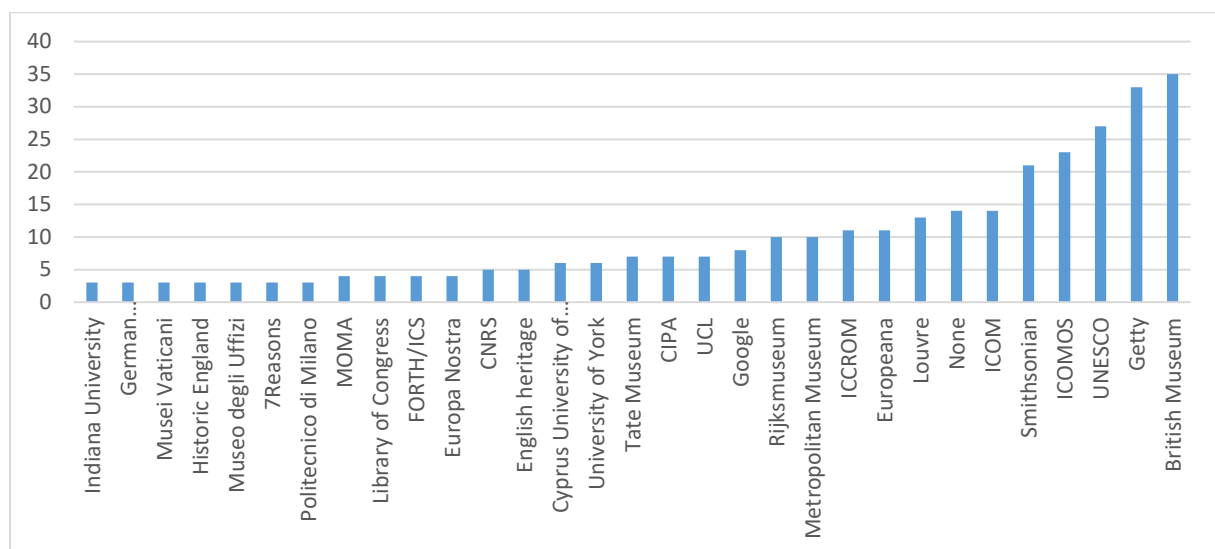


Fig. 3: Who do you consider to be world leading institutions in the field of cultural heritage & museums? (n=648 named items, n>2)

Regarding world leading institutions in the field of cultural heritage and virtual museums, eight of the institutions amongst the TOP 20 are museums and collections, five of them are located in the UK or USA. Most frequently named were the British Museum and the Getty foundation.

Seven institutions amongst the TOP 20 are associations, most frequently named were worldwide heritage institutions such as UNESCO and ICOMOS, ICOM, ICCROM or CIPA. On a national level, especially English Heritage and CNRS are well renowned.

Three universities are amongst the TOP 20 – UCL, the University of York and the Cyprus University of Technology. In addition, one company – Google at #13 – was named.

Several participants would see no world leading institution (#8).

References

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