

RESULTS OF THE 2017 SURVEY OF DOCUMENTATION TECHNOLOGY

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Abstract. Documentation technology is in constant evolution: new technologies emerge, and new applications are found for existing technologies. Some developments prove to have long-term value while others quickly fall out of favour. Originally initiated by UNESCO, the survey of documentation technology is an ongoing initiative whose aim is to identify emergent trends and provide the cultural heritage community with insights about successful and potential applications, costs, drawbacks and limitations – allowing informed decisions about future investment. This short paper gives an overview of the results obtained since the survey opened in 2017.

1. Introduction

In 2015 I was asked by UNESCO to produce a report on attitudes towards technology in the cultural heritage field. UNESCO selected a range of emerging technologies for evaluation, some well-established and in common use, some new and innovative, others neglected and possibly underemployed. The aim was not to evaluate the technical potential of these technologies, but to discover how they were perceived by professionals – the potential end-users. Surprisingly few studies have been conducted in this area,² but the strategic impact can be important – if an innovative technology is not well understood or perceived in a positive light, it has little chance of adoption, regardless of its potential benefits. Conversely, a naively positive bias may lead to the early and uncritical adoption of inappropriate technologies, often with regrettable consequences.

After completing the UNESCO report it occurred to me that this type of study would be worth repeating, both to keep up with the constant flow of technical innovations and to track changing attitudes over a longer period. To this end I presented an online survey at last year's CIDOC conference in Tbilisi, aimed at members of CIDOC and ICOM, but open to other professionals working in the field of cultural heritage.³

The approach adopted by the survey is intentionally lightweight and informal – the entire survey can be completed in as little as ten minutes, using a computer, tablet or smartphone. A series of ten technologies are given a brief presentation, accompanied by multiple choice questions designed to gauge the participant's familiarity with the technology in question, whether it is currently being used in their institution and how they perceive its potential value.⁴ Space is also provided for textual comments, allowing the participants to flesh-out their opinions and make detailed comments about the technologies in question, or about the survey itself. Contributors can remain anonymous if they choose but may also leave an email address if they wish to receive a copy of the final report.

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² A notable exception is the 2018 Lyrasis *Museum Technology Landscape* report
<https://www.lyrasis.org/Leadership/Pages/Museum-Collections-Management.aspx>

³ http://network.icom.museum/fileadmin/user_upload/minisites/cidoc/ConferencePapers/2017/Day2809/S10_-_5.Nick_CROFTS_Cultural_Heritage_Technology_Survey.pdf

⁴ The intention is to conduct the survey annually, with a revised selection of technologies.

Contributions to the survey are still being submitted. At the time of writing the number of submissions was approaching the target sample size of 100, however some clear tendencies already emerge from the contributions received so far.

2. Identification

The majority of contributors to the survey have chosen to identify themselves and to provide an email address. This is encouraging and makes it considerably easier to check that the contributors are genuine cultural heritage professionals and to analyse survey coverage. Concerns that the survey might be overrun by spam have proven unfounded. Incidentally, all email addresses will be deleted once the final report has been sent out.

As might be expected, given the demographic of ICOM and CIDOC, 73% of the responses are from Europe and 11% from North America. Of the remainder, a few are from Australia, but most cannot be identified. There appears to be no significant contribution from Africa or Asia, which is regrettable. It may be that the topic does not appear relevant, or that information about the survey has not been adequately communicated. Hopefully we will be able to improve on this in subsequent iterations.

Just over a third of the contributors work in museum collections management, documentation and cataloguing. A little less than a third are in consultancy and advisory roles. The remainder are variously in senior management positions, researchers and academics, or heads of software companies. Overall this represents a satisfactory range of diverse roles within the cultural heritage community, with a clear focus on the primary target group.

3. Familiarity vs actual use

Of the ten technologies under review, participants identified speech recognition software as the one with which they felt the least familiar (54%), while online training came out on top (83%). Surprisingly perhaps, digital photography, which all the contributors said was currently in use in their institution, obtained a familiarity rating of just 62% while cloud computing, currently in use in just over half the institutions, was rated at 76%. Conversely, respondents stated they felt at home with both RFID (70%) and virtual reality (73%) while declaring that neither of these technologies is currently much in use. These cases reveal a disparity between the perceived familiarity of a technology and its actual use in cultural heritage institutions.

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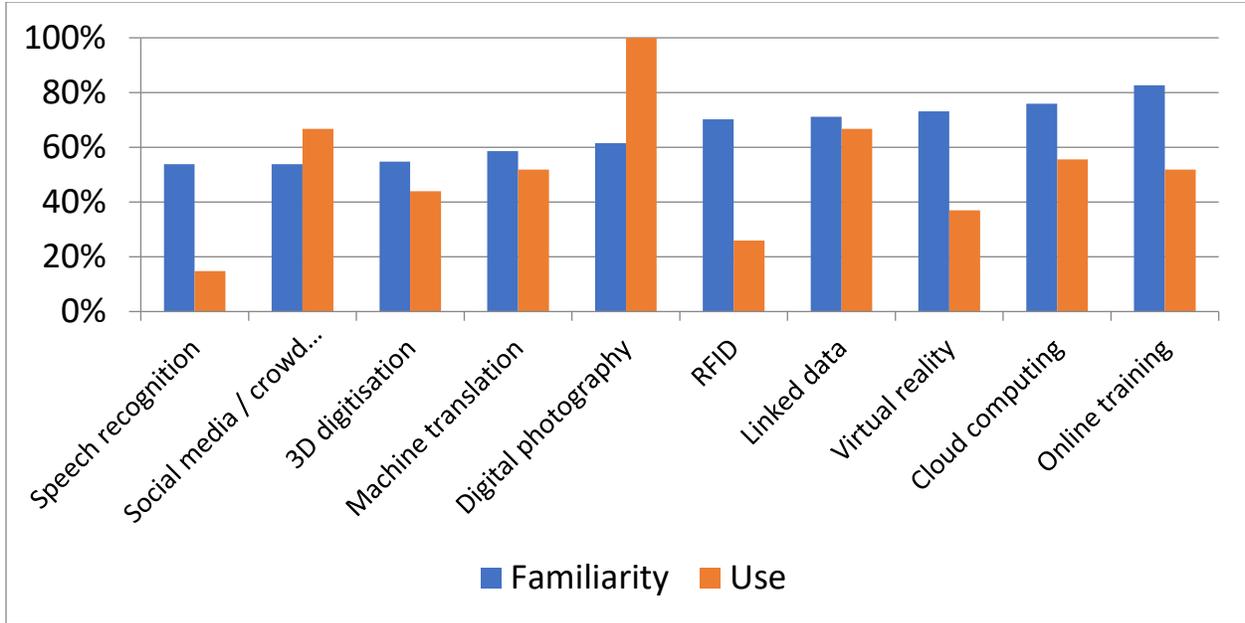


Fig. 1. Familiarity compared with actual use

4. Current vs Potential use

The perceived potential of the technologies presented in the survey was generally high, varying from 65% to 99%. Unsurprisingly, digital photography, the only technology currently in use in 100% of the respondents' institutions, was rated as the most useful. At the opposite end of the scale, virtual reality, currently used in 37% of the respondents' institutions, was given a potential use rating of 63%. RFID tags and speech recognition software are the two technologies judged to have the largest potential for growth – currently used in 26% and 15% of institutions, but with potential usefulness rated at 75% and 73% respectively.

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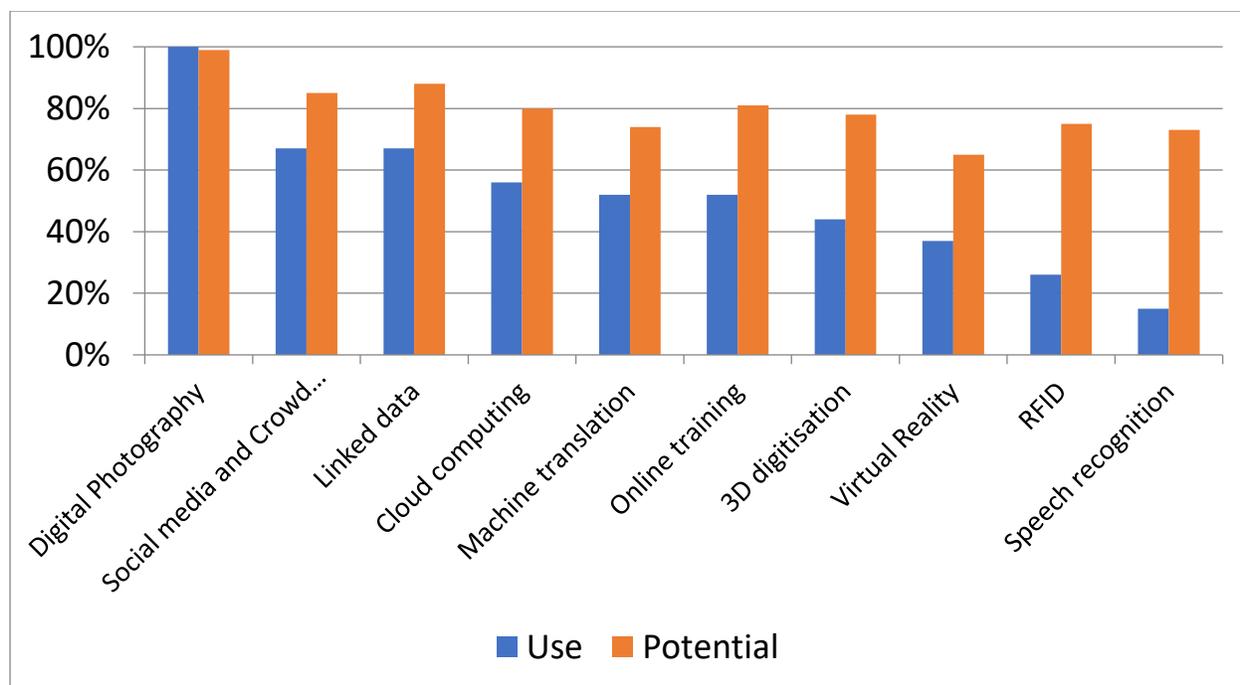


Fig. 2. Actual use compared with potential use

5. Comments

Textual comments added by the participants provide an interesting counterpoint to the overall statistics, sometimes appearing to contradict the numbers and revealing serious reservations. Correspondents frequently commented that innovative technologies are currently costly, which may present a barrier for smaller institutions, and expressed concern that limited resources might be diverted from important but less “exciting” activities. Another area of concern was possible misuse of new technologies by governments and other organisations, and their overall impact on young people and society as a whole. Such comments indicate that, in general, the participants are aware of the potential limitations and drawbacks of technologies under consideration. However, some comments also reveal misunderstandings about the nature of the technology under consideration, pointing to limitations that no longer exist, or to supposed benefits that may be unrealistic. It is difficult, given the nature of unstructured remarks, to estimate the extent and nature of these misinterpretations, but they do indicate that the contributors’ estimation of their familiarity with a given technology cannot be taken at face value. Finally, some pertinent remarks were also made concerning the survey itself, proposing other technologies that might be considered and suggesting improvements to the way in which the questions are formulated. These helpful remarks will be taken into account for the next iteration of the survey.

6. Conclusion

Improvements are clearly needed to communicate more effectively and increase the level contributions to the survey. Correspondents in Asia and Africa, particularly, are underrepresented. Some thought also needs to be given to ways in which to improve contributors’ estimations of their level of technical proficiency, and their professional perspective. This information could be helpful in interpreting the survey results. Further analysis is clearly needed to extract the full value of the survey results. However, given the low set up and running costs for a survey of this sort, it is already

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clear that the investment is worthwhile. The final report will not be compiled until the end of the year, so there is still time to participate if you have not already contributed. And suggestions are always welcome about possible improvements.