

# Inventories & Intangible Cultural Heritage (ICH)

Survey Data - Digital ICH Observatory

## Reflections on the survey results: project designers' point-of-view

Maria Teresa Artese<sup>1</sup>, Isabella Gagliardi<sup>1</sup> and Filomena Sousa<sup>2</sup>

<sup>1</sup> IMATI – CNR, <sup>2</sup> Digital ICH Observatory MI/IELT NOVA.

### 1. Introduction

This paper reports some reflections on the survey *Inventories & Intangible Cultural Heritage (ICH)* results, seizing from our experience in designing, implementing and managing archives of (intangible) cultural heritage, from the point of view both of defining and structuring data and metadata, and of the usability of websites, making use of design methodologies and heuristic evaluation methods.

In recent years, the States that ratified the 2003 UNESCO Convention for the safeguarding of the intangible cultural heritage have faced the need to build archiving/inventory systems capable to involve all the stakeholders that contribute to the ICH safeguarding. Implementing and managing intangible cultural heritage inventories is a challenging activity involving different skills and competencies. Communities, with the help of ethnographers, social history experts, and other social scientists, identify which cultural heritage to include in the inventory. On the one hand, the structure of the catalogue metadata must be defined by experts who, starting from the comparison of different inventory methods in different countries, identify the best practices and define what kind of information to keep track of (ASPACI, 2011). All this essential and useful information for the safeguarding of the asset needs to be provided by the metadata structure defined. On the other hand, to disseminate and make available this intangible cultural heritage around the world, a suitable data model and multimodal search and visualization tools should be adopted, together with images, videos, and other multimedia that should be made available to users on the web.

The paper is structured as follows: In paragraph 2, after an overview of intangible heritage websites, with their characteristics and geographical distribution, a critical analysis of the survey results follows. Paragraph 3 discusses the outcomes of the website evaluation, in the framework of methodologies for defining websites and evaluation heuristics. Section 4 delves into the assessment of the survey results, starting from the data models used and the requirements of UNESCO in its Convention.

### 2. Characteristics of archives and inventories online

To better understand the outcome of the survey, in terms of the inventories consulted, we will begin with information regarding which inventories can be used, browsed, viewed and queried online.

On the UNESCO site itself,<sup>1</sup> a function for visualization and search of the items registered in its Lists is available. At present (beginning of 2021) there are 584 (registered) items corresponding to 131 Countries. All the items have an English version, regardless of their original language is.

---

<sup>1</sup> Dive into intangible cultural heritage! <https://ich.unesco.org/en/dive>

Since the ratification of the Convention by the States, many archives and inventories have been made available. To have an overall view of the available archives, since it is not so easy to locate them if one does not know them already, ICH mappings are available, such as Artese and Gagliardi (2015), or the one by Sousa (2017), which is constantly updated,<sup>2</sup> and which we used here. According to this work, 53% of inventories are located in Europe, 43% in other Regions and 4% in countries that have not yet ratified the 2003 Convention.<sup>3</sup> This additional data helps discuss the survey findings, related to the 158 inventories of the 2017 report:

- inventories scope: 88 are national, 41 regional/local and 29 transnational ones;
- inventory promoters: 118 are under the custody of the States (75%); 20 are coordinated by Category2 UNESCO Centres, 12 inventories are promoted by NGOs, associations or foundations; 7 by National Commissions for UNESCO and 1 is developed under the individual title.

Severino and Venturini (2016) compare several national networks (of institutions, associations, and individuals) in France, Italy and Switzerland involved in the implementation of the 2003 UNESCO Convention to highlight national trends and specificities. Limited to the 3 states analysed, we can note that:

- Italy: The scope of online inventories is national (24.5% of nodes) and international (9%), while the majority is related to regional bodies, urban organizations, and also actors based in small villages (66.5%). Regarding promoters, institutional actors constitute 38% of nodes; several clusters of associations (43%) and clusters of individuals (19%) can be identified.
- France: national nodes account for 30%, local nodes for 65%, and international nodes for 5%. Institutions (45%) play the role of both authority and hub, ensuring the connection of the network, and associations (35%) and individuals (20%) constitute the remaining part.
- Switzerland: the distribution of local (62%) and national (32%) nodes represent the majority, leaving 6% to international players.

In analysing the survey, we have to take into account that, as already stated, the data reflect the views of the Western world because of the way respondents were enrolled. Based on the "ground truth" in mapping the archives and the languages in which these archives are available, the results of the survey are consistent with this data, along with the geographic origin of the respondents: 95% of the archives are accessed in their own language or English (fig. 1). The English language could be considered almost as a universal language in many scientific and humanistic fields.

In my country's language 55,6%



Figs.1 IHC Inventories' language

<sup>2</sup> <https://digitalich.memoriamedia.net/index.php/our-work/map>

<sup>3</sup> According to the World Region recorded in the review.

Perhaps more surprising (from a statistical point of view), but understandable based on data taken more globally, is the fact that the number of people who query the archives in their own language is, in percentage, equal to those who query national archives (figs. 1 and 2). This can be explained considering the high percentage of national archives compared to all archives. Considering then globally, the national ‘scope’ (as national/regional/local) covers about 80% of the archives consulted, against 20% of the transnational archives. This data is in line with what was verified by Sousa (2017) and Severo and Venturini (2016).

### 55,6% National



Figs.2 IHC Inventories' Geographic level

Although the Convention identifies 5 categories of intangible heritage and almost all the inventories are created on this basis, others organize their data differently, either by inventorying data using more categories, e.g. Sahapedia<sup>4</sup> adds ‘people’, ‘built spaces’ and so on, or by inventorying assets that belong only to one of the UNESCO categories (fig. 3).

### Inventories consulted: 52.8% about all ICH domains



Fig. 3 - ICH domains in Inventories

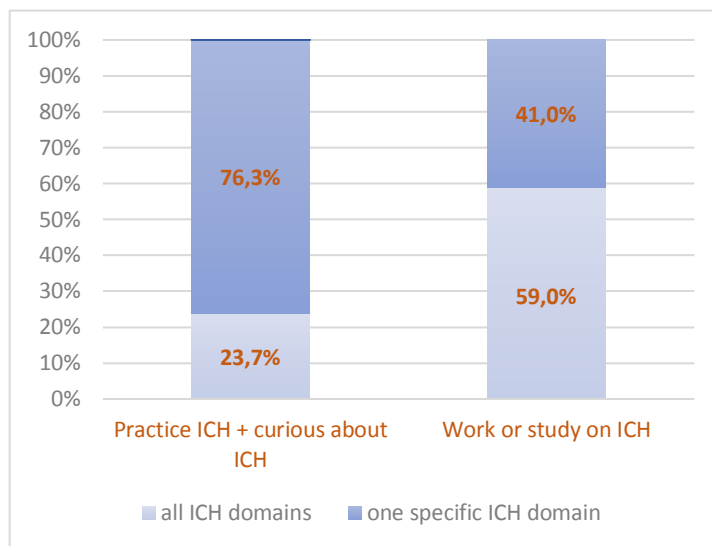
<sup>4</sup> <https://www.sahapedia.org/>

The creation and populating of inventories of intangible assets, as we have already said, requires transversal and multi/interdisciplinary skills: therefore, the work team, with specific skills and expertise, also requires long-term funding. Hence the fact that most archives are promoted by the State (through national or regional management), by NGOs, or by UNESCO, can be in line with the need to have good quality and up-to-date archives. However, since the number of inventories carried out by private entities, groups, communities or individuals is a minority, it is not possible to confirm this aspect.

The majority of the archives are public, online, and open access: these percentages are in agreement with the promoters of the archives, which in most cases are public bodies, NGOs, or UNESCO. Another of UNESCO's requests is that the inventories are kept up-to-date and in line with the communities that identify and recreate them: in line with these requests is the percentage of up-to-date archives.

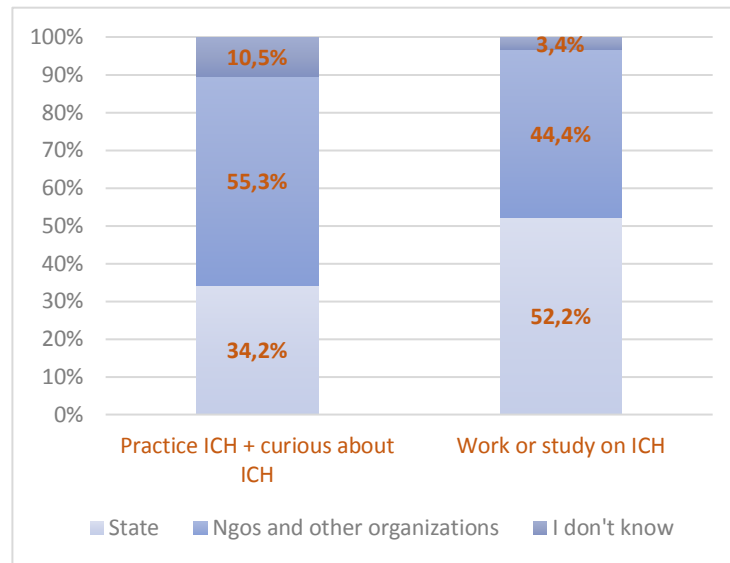
As we have already seen, most of the archives are 'institutional', this aspect has a possible drawback: a lesser (or slower) openness towards social and public participation in the construction of the archives.

Analysing the results in detail, by user type and their knowledge of ICH, it can be seen that those who work or study ICH are more interested in archives that deal with all ICH domains (graphic 1), state promoters (graphic 2), and online (graphic 3). In general, we can say that these three characteristics are interrelated and could identify some large public archives. On the contrary, the ICH practitioners and the curious are more interested or attracted to archives on particular ICH domains, mainly managed by NGOs and available as static web pages. This could be the case, for example, of ACCU<sup>5</sup>, which concerns only “Performing arts”.

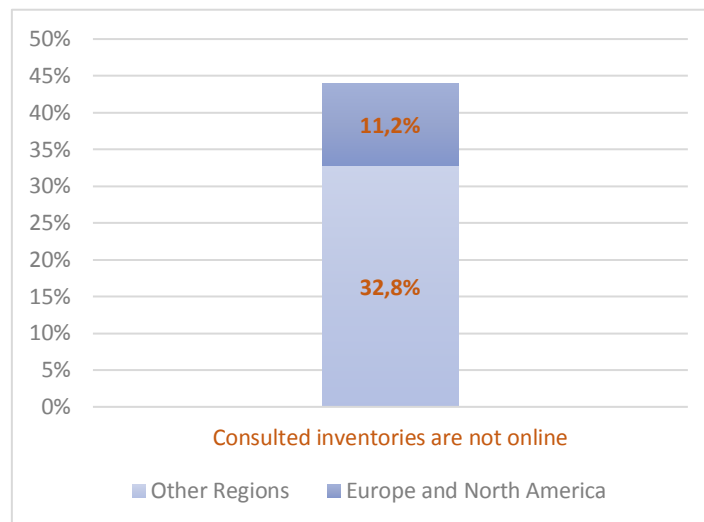


Graphic 1 - Relation to ICH \* ICH Domains on consulted inventories

<sup>5</sup> No longer available online, but only through the archive.org Wayback machine



Graphic 2 - Relation to ICH \* Promoters of consulted inventories



Graphic 3 - Region \* Inventories consulted online

### 3.Evaluation and use of ICH web sites

Every website is designed and implemented with users, purposes, and contexts of use in mind. The idea is to optimize the objective function for the user: the specific motivation that drives the user to enter a site and stay there, to fulfil his information needs. Also, web designers want to make the visit as pleasant as possible, possibly making the user come back again and again. Over the years, different methodologies have been developed for website design (Nielsen, 1997a), to create efficient and effective, data-intensive sites in specific domains, to:

- facilitate communication between different skills: designer, IT, end-user, domain expert, and so on;
- cope with a huge and ever-increasing amount of data, that may require finer and more selective ways of querying and visualizing it;
- effectively manage data that is interconnected; and
- deal with the entire life-cycle of the project.

Website evaluation has been the subject of numerous studies, especially in its early days. According to Jakob Nielsen (1997a), there are numerous aspects to take into account when designing and building websites. A more recent review of the evaluation methods can be found in Kabassi (2017), where the author compares different evaluation methods and models.

Heuristic criteria vary depending on the purpose of the site and the users it is intended to intercept and satisfy. Among the best known are the “Ten heuristics” of Jacob Nielsen (2020), or the high-level evaluation model by Polillo (2005), that identifies several criteria, namely: content, functionality, management, communication, usability, and accessibility. For museum-type or data-intensive sites, the quality of information, its completeness, and reliability are of overriding importance over other characteristics of playfulness and mobile friendliness. This also emerges in the section *Opinion - ICH inventories' structure and usefulness* (page 12) of the survey.

Besides, over the years, how users read and interact on the web has been analysed. According to a study by Nielsen Norman Group, originally carried out in 1997, and whose results were confirmed in 2020, users, on average, do not read, but “scan” the text in search of information of interest. This has greater value when the web pages consist of search engine results like Google or Duckduckgo. Other studies and statistics have evaluated the average time of permanence on the web pages, of bouncing, that represents the percentage of visitors who enter the site and then leave (“bounce”) rather than continuing to view other pages within the same site, and “dwell time” (how long site visitors spend on a web page). Results, valid above all for the home pages of the sites, indicate that the average permanence on web site pages is of approximately 15 seconds<sup>6</sup> or not very long (“the average page visit lasts a little less than a minute”).<sup>7</sup>

In the survey, the evaluation of the inventories (see graphic 4) ranges from reasonable, corresponding to an average degree of satisfaction, to good and very good, with these positive evaluations reaching about 99% of the answers. Two aspects can explain this extremely positive evaluation: on the one hand, the ICH archives are extremely sectorial and, therefore, well-kept, with accurate and scientifically sound information, and are up-to-date. On the other hand, the users who took part in the survey are, for the most part, domain experts, so they are very interested in the content. Regarding respondents' use of websites, how they search and interact with websites and data - section *Practices - ICH inventories' types of uses-*, it can be seen that the interactions are performed in a more complex and prolonged manner than with standard sites. Users say they are more interested in

---

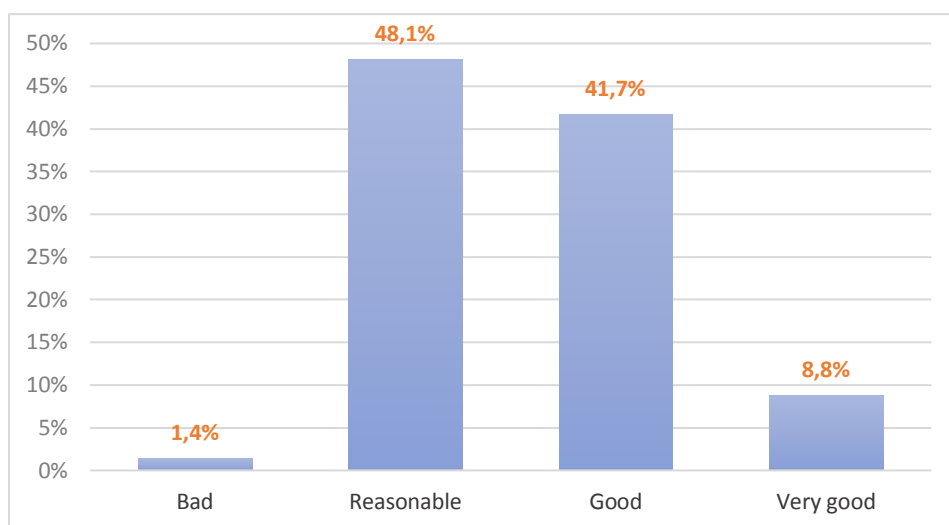
<sup>6</sup> <https://www.crazyegg.com/blog/why-users-leave-a-website/>

<sup>7</sup> <https://www.nngroup.com/articles/how-long-do-users-stay-on-web-pages/>

the content than average and, also, the percentage of people who say they see only one page (20%) is extremely low compared to standards. No statistics on bounce time percentages are available (to the best of our knowledge), except for specific examples, such as data on the Science Museum in London for which “dwell time is up 40% year-on-year and the overall bounce rate has reduced by 26%”<sup>8</sup> and is of circa 60%.<sup>9</sup>

There are some useful considerations in understanding survey results:

- Websites related to intangible heritage are information-intensive, thus content-oriented rather than purely aesthetics-driven. Because they are mostly maintained by public entities (at the state, regional, or local level) or NGOs, the focus is primarily on the content (whether it be inventorying or simple lists of objects) and how to search and display results, as opposed to the “fashion” aspects of the interface.
- As mentioned above, the respondents are mostly people who work with ICH and its archives. So it is not surprising that they are interested in immersing themselves in the content, e.g., reading text, looking at photos and viewing multiple pages, very often when using websites.
- It is also interesting and shows a niche audience that more than half of the respondents, most of the time, know what they’re looking for, and search by keywords/domains, and other search keys.

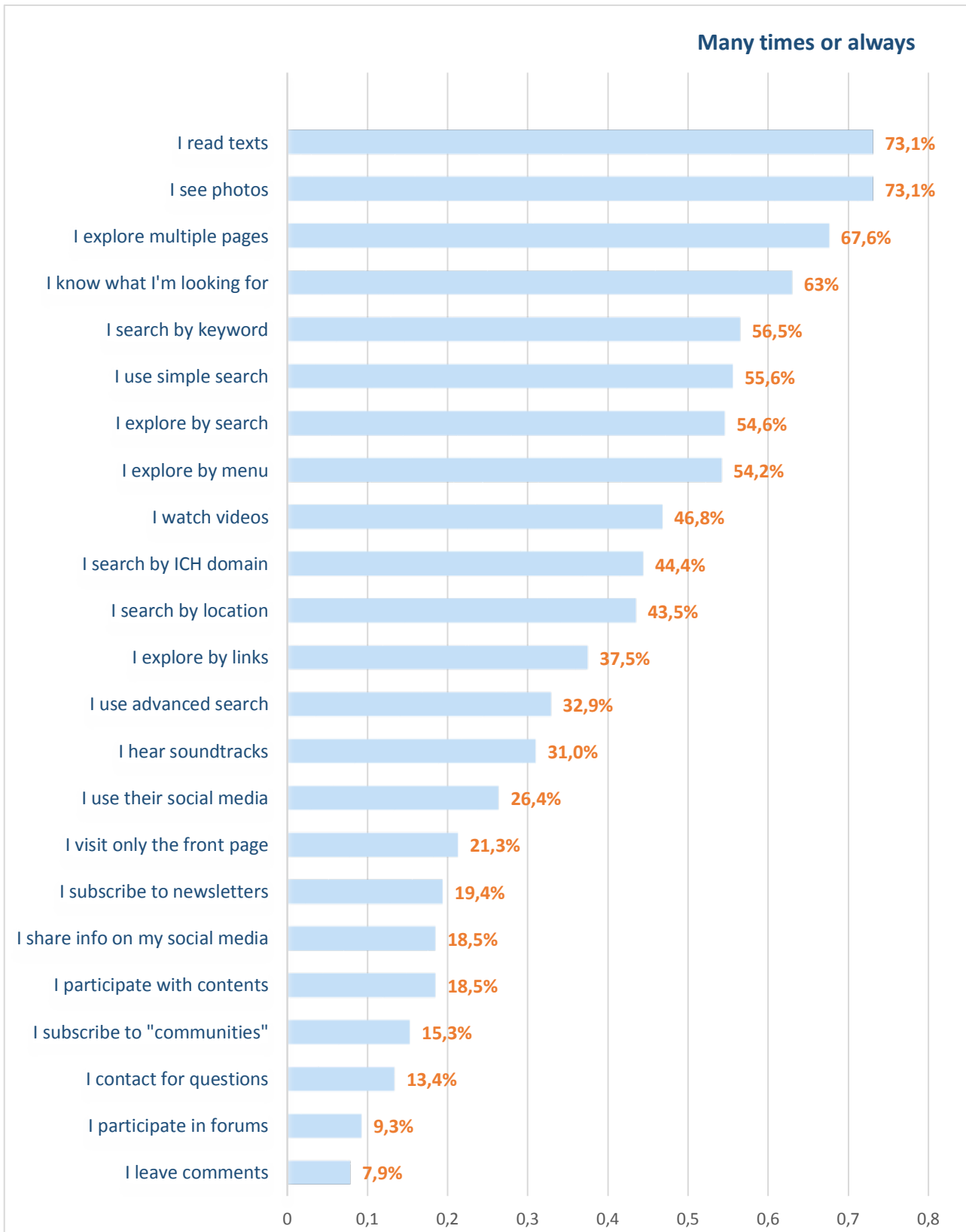


Graphic 4 – Evaluation of ICH Inventories consulted.

Sharing content or links, participating in social media, subscribing to newsletters, and frequenting blogs and forums are all activities that have gained popularity in recent years: for these actions to be carried out properly, the website must offer relative functionality and users must be interested in performing them. The analysis shows that respondents are usually not interested in using these actions very often (lower half in graphic 5). These actions are the ones that are executed least frequently: ranging from 71% who never leave comments to 41% who don't share on their social media (see graphic 6). This behaviour appears to be in line with the respondents' roles, skills, and jobs, as well as their rather high average age (Fig 4).

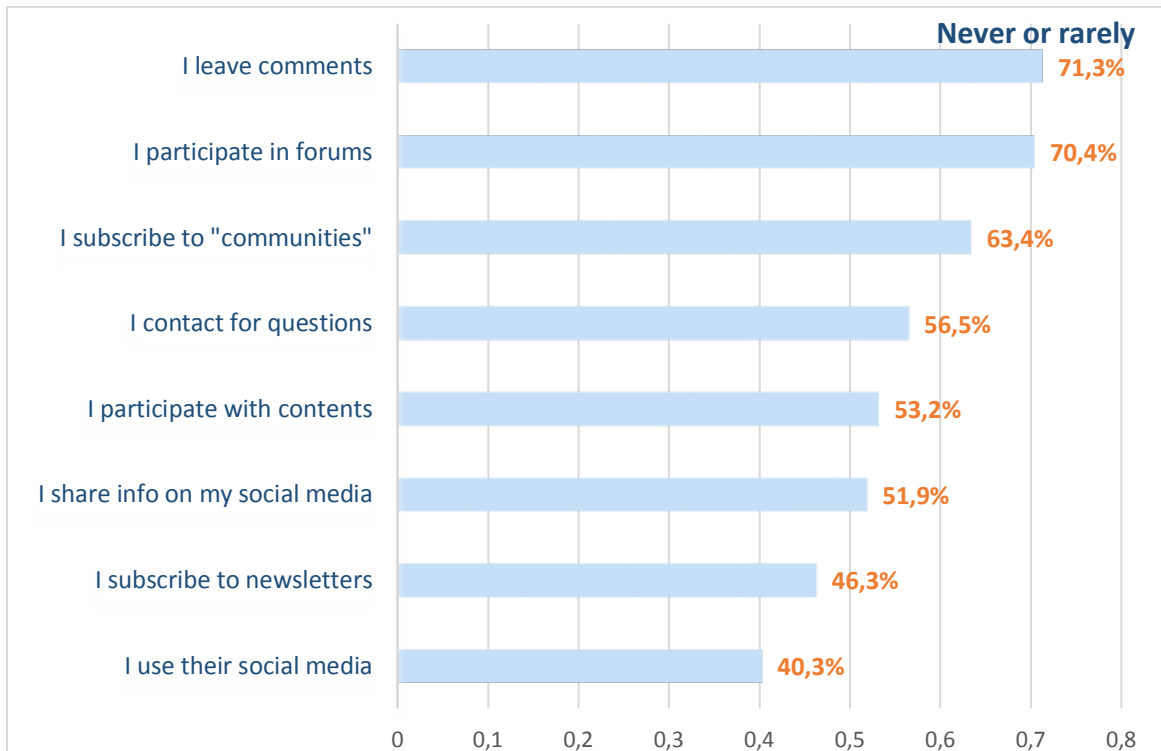
<sup>8</sup> <https://numiko.com/projects/science-museum-group/>

<sup>9</sup> <https://www.similarweb.com/website/sciencemuseum.org.uk>



Graphic 5 - Most frequent practices when consulting an ICH inventory. (Carried out "many times or always" - Variables 24-28).





Graphic 6 – Less frequent practices when consulting an ICH inventory. (Carried out “never or rarely” – Variables 26 and 28).

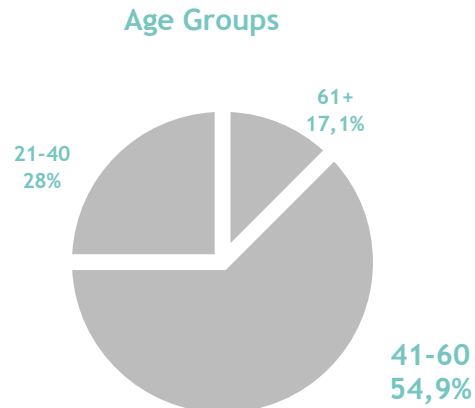


Fig. 4 - Respondents – age.

#### 4.Information and Data

Considering the results highlighted in Graphic 7 the most immediate comment is that among the elements with high percentages of *very important* we can find first of all those that could be expected, such as the “Tradition name” and the “Short description”, while the high results obtained by “Intellectual rights” or “Community consent” seem less obvious, the same being true for the high

values of *not important* or *less important* reported by tools related to new technologies, the last three of the graph.

By cross-referencing users' preferences about the elements considered most important with those considered least important, and taking into account UNESCO indications about ICH inventorying, an attempt can be made to extract a set of metadata useful to describe the necessary requirements for intangible heritage inventories. This is a field where a standard data model is yet far from being achieved, but the development of a common metadata model would allow global indexing of intangible assets coming from the various inventories. The main problem while achieving this is to find suitable models for expressing intangible cultural heritage and being able to meet the One-to-One Principle of Metadata (Miller, 2010), which is essential to distinguish digital copies from their physical source. Similar experiences have been faceted in the field of museum data, such as the Smithsonian American Art Museum, whose data has been mapped successfully into the Europeana Data Model (EDM) and a new ontology has been introduced to extend the model (Szekely, 2013).

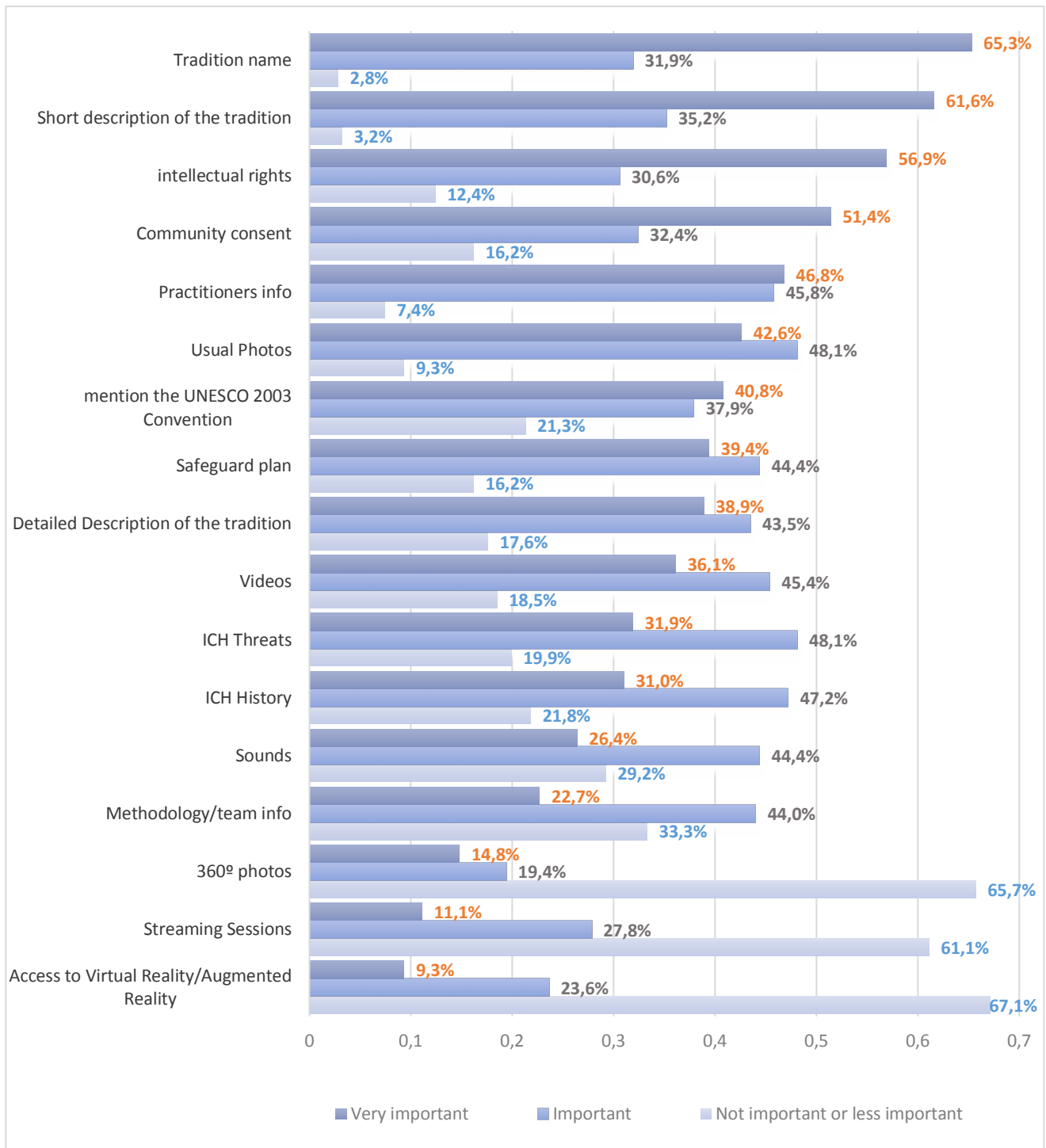
But the intangible cultural heritage is not a physical item collected by institutions, rather, it is a "living good" which exists in practice, evolving over time. According to the work of Wijesundara and Sugimoto (2018), this kind of heritage is performed during a given time and location, by different performers each time, and only once it has occurred, can the performance be captured by any medium. So resources are collected in the physical environment and further digitized to the digital space: each of these needs to be modelled by separated metadata and the CHDE model proposed by Wijesundara and Sugimoto meets these requirements and can describe both tangible and intangible cultural heritage information. The mapping between the model and the classes of existing ontologies together with the use of linked open data technologies make it possible to develop information systems capable of querying data from all inventories at the same time, as Europeana teaches us, and user preferences that emerged from the survey can address the choice about the information to keep and underline.

## 5. Conclusions

In this paper, we have presented our reflections on the results of the survey *Inventories & Intangible Cultural Heritage (ICH)* based on our knowledge and experience in the definition, implementation, and management of intangible cultural heritage online inventories. The creation and periodic update of ICH inventories is a living, dynamic, permanent, bottom-up cultural process as defined by the UNESCO Convention 2003 and is an obligation of State Parties in the Conventions implementation process. To summarize, we can say that users are interested in archives whose content is related to their knowledge and geographic location. Their positive evaluation is very high, and they are more interested in the content than in the sharing and social media aspects.

These results could also provide us with new challenges for the definition of innovative methods and tools in management, search and visualization. Given the vast amount of data, how can we make it available, even to the general public? And if we could, would this be a problem for intangible cultural heritage? Would it put ICH at risk? Would it also put communities at risk?

Inventories of intangible assets should provide communities and various stakeholders with systematically organized and updated data, which is crucial for identifying and formulating appropriate safeguards and sustainable development measures.



Graphic 7 – Opinion: What information should be available in an ICH inventory?

## References

1. Ass. ASPACI (December 2011) *Identificazione partecipativa del patrimonio culturale immateriale*.
2. Artese, M. T., Gagliardi, I. (2015). "UNESCO Intangible Cultural Heritage management on the web". In *Encyclopedia of Information Science and Technology, Third Edition* (pp. 5334-5347). IGI Global.
3. Sousa, F., (2017). "Map of e-inventories of intangible cultural heritage" in *Memoriamedia Review*, 1(1).
4. Severo, M., Venturini, T. (2016). "Intangible cultural heritage webs: Comparing national networks with digital methods". *New Media & Society*, 18(8), 1616-1635.
5. Molina-Ríos, J., Pedreira-Souto, N. (2020). "Comparison of development methodologies in web applications". *Information and Software Technology*. 119, 106238.
6. Nielsen, J. (1997a). "Usability testing". *Handbook of human factors and ergonomics*. 2, 1543-1568.
7. Nielsen, J. (2020). *10 Usability heuristics for user interface design*. <https://www.nngroup.com/articles/ten-usability-heuristics/>
8. Kabassi, K. (2017). "Evaluating websites of museums: State of the art". *Journal of Cultural Heritage*, 24, 184-196.
9. Polillo, R. (2005). "Un modello di qualità per i siti web". *Mondo digitale*, 4(2), 32-44.
10. Nielsen Norman Group (1997). How users read on the web. <http://www.useit.com/alertbox/9710a.html>.
11. Nielsen Norman Group (2020) How People Read Online: New and Old Findings <https://www.nngroup.com/articles/how-people-read-online/>
12. Miller, S. J. (2010). The one-to-one principle: challenges in current practice. International Conference on Dublin Core and Metadata Applications, (p. 150-164).
13. Szekely, P., Knoblock, C. A., Yang, F., Zhu, X., Fink, E. E., Allen, R., & Goodlander, G. (2013). Connecting the smithsonian american art museum to the linked data cloud. Extended Semantic Web Conference (p. 593--607). Springer.
14. Wijesundara, C., Sugimoto, S. (2018). Metadata model for organizing digital archives of tangible and intangible cultural heritage, and linking cultural heritage information in digital space. LIBRES: Library and Information Science Research Electronic Journal, 58-80.