Building Online Expert Networks to Support Continuous Learning – Case Digitisation Experts in Finland

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Abstract

Online networks are a highly topical issue for continuous learning and also for management policy development within the cultural heritage sector. In our project, a well-known framework for community building was adopted and tested in practice: firstly, we conducted a needs assessment and planned usability and sociability practices in parallel. We explored how to succeed in building an online expert network, relying on careful needs assessment, openness, a participatory approach and identifying lead users. Our case highlights the significance of data safety, encouraging networks to rely on platforms where the user community manages its own knowledge base. We believe our case has important implications for cultural heritage professionals internationally, but it is also insightful for other expert groups and professional sectors.

Motivation

In this paper, we present a case study about planning and implementing an open online network for digitisation professionals and students in Finland. Online networks and communities [1] are a highly topical issue for continuous learning and, therefore, also important for management policy within the cultural heritage sector. We believe our case has important implications among cultural heritage professionals internationally, but it benefits other expert groups and professional sectors as well.

From a knowledge-sharing and learning perspective, online networks 1) transcend the limits of time and space, and 2) provide a social structure both created and maintained by network members themselves, which can positively contribute to commitment and knowledge-sharing patterns (e.g., non-hierarchical flows of information). Online networks are available 24/7/365 and utilised whenever there is a shared need, in contrast to temporary courses and seminars, where contact with a wider pool of knowledgeable people is typically lost after a short working period.

In existing literature, these groups are referred to as electronic networks of practice [2], virtual communities of practice [3], or professional online communities [4], depending on network maturity, composition and strength of ties. For the purposes of our project, we refer to online expert networks that cover all types of longer-term social structures over the internet, both loose groups and communities where members form tighter relationships, and where the focus is on sharing expert knowledge.

Problem

For the purposes of the case study, we set the following research questions: How to succeed in building an online expert network? In particular, what types of challenges and opportunities can be identified when the context is digitisation? We adopted a well-known framework for community building from Preece [1], consisting of planning usability and sociability. In the framework, the so-called 4Ps (place, purpose, people, policies) represent the concrete aspects of planning. Regarding usability planning, the main

focus is the concrete place for the online community or network: information design, social interaction support, navigation and access to the platform. Regarding sociability planning, the design focuses on community purpose, people, and shared policies, such as moderating discussions. We tested the framework in practice, firstly, making a needs assessment and then planning usability and sociability practices in parallel.

Our project tackled two significant problems at the same time. Firstly, there is a growing need for digitising analog material and sharing best practices on how to succeed in digitisation projects. A major amount of information in the GLAM sector still takes an analog-only form. This sets limits to the availability of information, as well as to the extent to which new tools and technologies can be applied to represent cultural heritage to existing user groups and new audiences.

As in many archives, libraries, museums and galleries operate with very scarce resources, it is not reasonable to build each digitisation project from scratch or reinvent the wheel. Therefore, experts would benefit from a shared forum focusing on experiences and lessons learnt from digitisation projects, crossing the limits of organisations and different sectors, and allowing organisations to enhance their digitisation competences [5]. The need for mutual learning was clearly shown in earlier projects conducted by Xamk, Mikkeli Development Miksei Ltd. and the National Archives of Finland, where digitisation experts were trained [5,6].

Secondly, in the last 15-20 years, many professional networks have chosen to operate on commercial social media platforms such as Facebook or LinkedIn. For users, these platforms are easy to adopt. For organisations hosting the groups, their use is not paid with money but with user data, of which the service providers create monetary value. From an information management perspective, this poses challenges: 1) everything that is shared is handed over to the service provider and as a result the community no longer manages its knowledge base; 2) users do not know how and by whom their data will be used or shared, possibly hampering their willingness to share knowledge, this can lead to superficial nice-to-know content or sharing cat videos; 3) professionals are practically forced to use services with terms of use that are dubious, constantly changing, or contradict professional values and ethics. Algorithm bias, lack of moderation, disinformation and polarisation represent serious threats in modern society. Safety should not be compromised at the societal, organisational, or individual privacy level.

Approach

Taking the existing social-media network bias into account, there is a growing need for both open and commercial network platform solutions, which would allow the specific user community to control its own data, and where usage is, indeed, paid with money rather than personal data. In this project, we relied on one working solution: Skillhive, provided by the Finnish company Intunex Ltd. It has an 18-year history in building knowledge-sharing and learning

platforms for expert communities. The domain of the network is https://digitointi.skillhive.com ('digitointi' is a Finnish word for digitisation). People who wish to join complete a membership application on the Memory Campus website. Memory Campus is a cluster for information management located in Mikkeli, Finland (see http;//memorycampus.fi).

Our work was carried out as part of a larger continuous education project in Finland, entitled 'Flexible Skill Paths For Digitisation'. It was a two-year project that ended on May 31, 2025. The project was funded by the South Savo Centre for Economic Development, Transport and Environment from the European Social Fund Plus (ESF+).

The project successfully promoted employment and competencies by developing an education solution in digitisation targeted at the labour market. The training was implemented for two educational levels, in the vocational college Samiedu and the South-Eastern Finland University of Applied Sciences, Xamk. Project target groups were public institutions, municipalities, libraries, archives, museums and companies. The Digitisation Implementer/Working in Recordings Production training was organised in collaboration between Samiedu and the National Archives of Finland. It is practical training that applies a hybrid format, including online studies, in-person teaching days, workplace learning, and demonstration of acquired skills. The Digitisation Developer training, jointly organised by Xamk and the National Archives of Finland, provides participants with knowledge of the constantly evolving requirements of digitisation, offers understanding of the digitisation process and project execution, and promotes digital competencies. The training has been highly popular and valued by the participants: for instance, Xamk's first course cohort (20 people) was filled within two minutes.

In addition to developing the above-mentioned courses and training 74 experts, the project planned and established the digitisation expert network described in this article. As noted in the previous section, the overall need for sharing digitisation-related knowledge was already clearly visible in earlier development projects [5,6]. Therefore, the first step was to conduct some preliminary investigations to gain insight into the actual usability and sociability planning. Firstly, in late 2023 and early 2024, we planned and conducted two surveys about member needs (N=56) and platform options (N=35). Figure 1 summarises the identified content themes: results from RDI projects on digitisation and sharing expert knowledge were the most important ones, whereas communication for the alumnus and recruitment announcements on digitisation were less important. The latter was surprising, but it may relate to the overall scarcity of work opportunities.
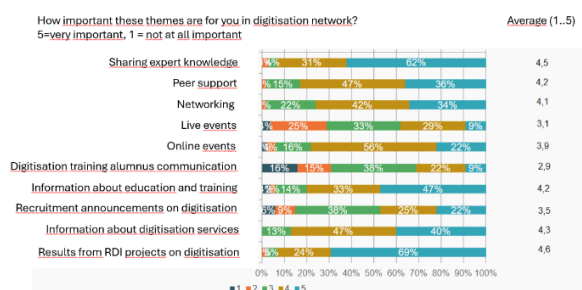

Figure 1. *Results of the member needs survey*

In addition to preliminary surveys, another very useful approach was to proactively collect names and emails of people interested in the digitisation network – a task we conjoined with 1) the surveys; 2) the registration to a large event focusing on digital information management and digitisation. In this vein, we had a lead list of 150 potential members who had given permission to contact them even before the actual execution of the network plan started.

In the second phase, we run the platform procurement and development process (planning usability) in parallel with the purpose, membership process, content and policies (planning sociability). From early on, we decided to focus on a Finnish-speaking community only, for two reasons: to lower the participation threshold by using their first language, and to provide a forum focusing on the specific needs and digitisation policies in Finland.

Even if there is a variety of valuable resources and forums around the topic of digitisation already available (for instance, FADGI, Digital Transitions, British Library Programs, ImageMuse, to name a few), it is often difficult to know where to start, unless the given resources are collected and linked together. Most importantly, there are usually varying standards, devices, and software in different GLAM sectors, and the vision of the Finnish digitisation expert network is to bring these actors together and facilitate cooperation. Based on our current knowledge, national standards differ significantly. For all these reasons, it is beneficial to offer a central national hub around digitisation.

We collected feedback and ideas from a first pilot student group participating in the Digitisation Developer course in Spring 2024. Feedback was collected using the Padlet application and organised into specific topics. In another workshop in June 2024, we collected content ideas and feedback from the selected "seed users" [1]. We figured out membership-related practices, visual image of the network, and most importantly, identified key questions around digitisation to form a list of member challenges – in other words, pre-defined collective tasks to be solved together in the network.

Results

After completing the steps described above in a timeline of four months, the expert network was finally open for anyone interested in joining by September 2024. During its early stages, nine months, more than 220 members from 102 organisations joined. All content is visible only to registered members, though we have been discussing the option that key highlights could be spotted openly and anonymously, e.g., through the Memory Campus cluster website.

Network structure

The digitisation expert network platform consists of five sections: general discussions, digitisation projects, learning-related content, recruitment, and organisations/companies offering digitisation services. These sections are pre-defined by administrators. However, under each section, members may open discussion themes freely and invite other members to take part in them, either publicly among all members or in smaller, invite-only groups.

In the Recruitment section, work announcements have been shared by organisations calling for new digitisation experts, but students and career changers have also contributed e.g., by looking for training and work opportunities around digitisation. An important development theme for the near future is to apply automated solutions for collecting open work announcements

around the public web. Here 'digitisation' as a theme can be misleading, as it easily confuses with 'digitalisation' in general language. Context-related information is therefore needed to make the automation work.

One of the focal parts in the network is the Organisations section. In contrast to, e.g., the ImageMuse community, companies are also allowed to advertise their digitisation services to network members, but only in this specific area. Allowing commercial posts supports digitisation project planners in locating potential service providers and their key persons, and vice versa. Many project leads have already been identified within the network, after which service providers have continued discussions with potential customers through other channels. Of the 102 organisations already taking part in the network, 12 represent private sector companies. This is a relatively high amount as Finland is a small country, and the market is dominated by a relatively small number of businesses.

In the Learning section, information about digitisation-related courses, guides and online materials is collected and shared. Students have already formed their own sub-groups to continue discussion and information exchange beyond digitisation courses. General discussion topics, in turn, include e.g. welcoming members, contests, challenges, and organising offline meetings. There is also an opportunity to organise simple polls.

Network content, sociability and usability

Not surprisingly, the most active content seems to be highly informal, such as members introducing themselves, or memes describing digitisation work. This also supports building trust and lowers the threshold to post to a wider community. An important element is pre-defined challenges or tasks, which give structure and meaning to network activities. The most challenging part has undoubtedly been the willingness to share experiences about something that has not been a 100 per cent success, which projects probably can never be.

Users have also found the new platform a bit tricky when it comes to finding information and keeping oneself abreast of recent discussions. The positive side is that the service provider is keen to develop the platform further based on member feedback, highlighting the importance of open and transparent communication.

Based on member data and statistics, the case clearly confirms our basic assumption: digitisation is done by people with varying experience, education, degrees, and work positions. For instance, at the moment, the network's members represent 102 different organisations, and the introductory posts from members describe long and winding career paths with diverse educational backgrounds. The only common denominator is the willingness to learn more about digitisation.

This heterogeneity poses challenges to shared language and finding the courage to admit that there have been challenges or missteps in digitisation projects completed so far. On the other hand, digitisation is a concrete phenomenon which joins together a wide network of people interested in preserving information, in contrast to higher-level debate on knowledge management, for instance. Indeed, it is easier to enter a community where you understand what it is about and may suggest a concrete question or theme to other members.

Feedback from users

The development project has indeed achieved its goals. The current member amount surpassed the original objective of 200 members during the broader continuous education project life cycle, and discussions have been ongoing about a variety of relevant themes.

After the first year of operation, will will plan and launch a detailed member survey. However, we have received unofficial feedback from the user community already. Members have been delighted with the existence of a forum that explicitly focuses on digitisation and makes the work more visible overall. In addition, the network has already organised three live meetings during its early stages. Regarding the impact of the project, the information management cluster Memory Campus' steering group has pointed out the value of a concrete service that has been offered to support member organisations in their daily work.

Future needs

How about the needs and plans for the future, then? After the continuous education project, the network will be hosted by the Memory Campus cluster. As referred to in earlier sections, we already have some member statistics and network data available. Starting in autumn 2025, qualitative and quantitative feedback from network members will be collected with a survey instrument on a yearly basis. In addition, there is a specific Q&A area in the network for ongoing feedback and ideas for development.

The overall objective is to establish a long-term Finnish digitisation hub, which helps make digitisation practices and projects more visible and increase digitisation-related skills. Here, the key is to disseminate knowledge about the whole life cycle of information and not approach digitisation as a mere technical operation. Moreover, the network serves as a "starter kit" for people studying digitisation or otherwise entering the field, by offering links to important resources.

We also recognise the opportunity to broaden the scope of the network beyond the Finnish language whenever there is demand. The selected platform already supports creating smaller sub-groups, so-called swarms, in other languages, depending on the members' needs. Overall, our main objective was to create a Finnish digitisation hub and progress iteratively, firstly testing how the network operates in one language. At this point in the project, we may state that the ground is well set, but member activity still needs more work to ensure the network flourishes.

Finally, we refer back to the original problem about network platforms, data independence and safety: many professional networks and even scholarly communities operate on environments which do not allow them to manage even their own data. The general transformation towards more information-friendly platforms does not happen overnight – it will probably take decades. To our understanding, these five points are focal for advancing such transformation: 1) legislation; 2) funding; 3) allowing enough time for platform adoption; 4) education and training; 5) early adopters, such as scholars and citizen associations, who guide by example and support a broader movement towards fair online society.

Conclusions

We summarise the key lessons from our case as follows, to support other professional online communities or network projects. 1) Needs assessment: Make sure there is a real knowledge gap that the planned network or community is able to fill; 2) Participatory approach: Ask for insight, feedback and seed user contributions from the very beginning; 3) Lead users: Identify and support people who are internally motivated to share substance knowledge and take an active role in the network; 4) Openness and transparency:

Whenever there is a problem, discuss it openly. The need for a culture of openness applies both for network content (such as experiences from unsuccessful digitisation projects and what others could learn from them) and its administration.

To succeed in building and catalysing online professional networks, careful planning, adequate resources, ongoing collaboration and iteration are also needed. Far too often, there have been cases where merely setting up an online platform is seen to equal a network or learning community [3]. Instead, focus on people in existing networks and find out what they value and appreciate. Match contradicting needs, e.g., allowing members to form smaller subgroups from the beginning, thereby increasing trust and psychological safety. Finally, longer-term funding and other resources need to be taken into account from the early stages on.

Following these principles, online networks may support experts in their daily work, knowledge sharing and continuous learning. From a learning point of view, the value of these networks resides in offering a continuous connection to a larger pool of expertise, as well as in allowing unofficial interaction and knowledge exchange among peers. Network managers are like architects; they may plan the building, its materials and appearance, but it is eventually the people moving in who define what the place is about.
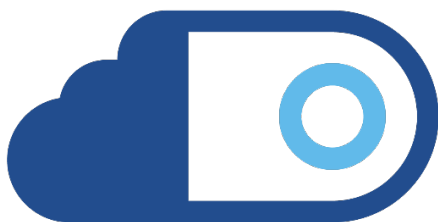

Figure 2. *Digitisation expert network logo*

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