Pioneering Approach to Reforming Public Library Services: Exploring New Ways to Exploit the Results of the SHIFT Project

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Abstract

The integration of technological solutions developed within the SHIFT project: MetamorphoSis of cultural Heritage into augmented hypermedia assets for enhanced accessibility and inclusion at the operational level of the National Association of Public Librarians and Libraries in Romania (ANBPR) represents a pioneering model for other cultural NGOs, providing examples of good practices for the cultural and creative industries sector. By facilitating the implementation of these solutions at the level of member libraries, ANBPR aims to create more inclusive and attractive services, especially for vulnerable groups. ANBPR aims to leverage the technological advances developed within the SHIFT project, funded under the Horizon 2021-2027 program, to improve its organizational services and stimulate innovation in its member libraries. This approach aligns with ANBPR's broader strategic objective of modernizing public libraries through digital transformation, improving accessibility and increasing user interaction and pro-activity. This article focuses on exploring new ways to exploit the results of the SHIFT project, which will stimulate the development of accessibility services, bringing people with disabilities closer to cultural resources, through more equitable and immersive access. In addition, the author will reflect in this article how ANBPR intends to revitalise cultural heritage collections in at least ten member libraries, using SHIFT methodologies to increase engagement and encourage loyalty of the digital native public in relation to the current cultural offerings of libraries. Beyond the multi-stage technology adoption, ANBPR is committed to strengthening inter-institutional partnerships, promoting exchanges of good practices and setting new service standards in collaboration with cultural and creative institutions.

Keywords: digital inclusion, public libraries, cultural heritage, SHIFT Project, cutting edge technologies, accessibility tools, strategic partnerships, service innovation, results exploitation, ethical monetization

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Introduction

Funded by the Horizon 2021–2027 programme, the SHIFT project focuses on increasing the accessibility of cultural heritage in libraries and museums by using cutting-edge AI-based technological solutions. Through collaboration between technological partners specialized in cutting-edge software solutions and ANBPR, the Romanian partner responsible for delivering the library use cases, the SHIFT project will contribute to promoting innovation, accessibility and community involvement in the reconfiguration, modernization and diversification of services offered by public libraries in Romania. This paper aims to explore how the benefits of SHIFT could be capitalized and exploited in a smart and pragmatic way by both users of cultural assets and institutions in the cultural and creative sectors. The study also identifies avenues for greater replicability of the SHIFT model and implementation scenario in other memory and heritage sectors.

Literature Review

The digitization of cultural institutions is a rapidly growing field, perfectly aligned with the dominant logic of services (Vargo & Lusch, 2008) and the principles of cultural sustainability (Mora et al., 2017). Libraries are increasingly perceived less as depositories of document collections and more as co-creators of value (Polese & Böhmann, 2017), inviting the user to a participatory experience supported by AR, VR and AI (Spohrer & Maglio, 2010). Ethical monetization in the Galleries, Libraries, Archives, and Museums (GLAM) sector is a controversial and crucial discussion: on the one hand, monetization is necessary in light of increasing commercialization, and on the other hand, a balanced and ethical approach is needed so that the public mission of cultural and creative institutions (CCIs) and the long-term economic viability of cultural activities can remain unaltered by pragmatism and commercial and business interests (Bonacini et al.). The SHIFT model resonates with the call for digital co-creation, based on the need to respect authenticity and to involve users as active actors in the process of understanding, creating, designing, and interpreting the cultural assets they interact with (Camarero & Garrido, 2011).

In the same vein, current literature highlights this new role of libraries, migrating from static repositories of knowledge to living, dynamic and user-centered service ecosystems (Polese & Böhmann, 2017; Vargo & Lusch, 2008). Co-creation, personalization and participatory innovation are also features of the dominant logic in the service field, aligning perfectly with the design of the SHIFT project. Mora et al. (2017) highlight the responsible impact of digital inclusion, as libraries adopt new technologies responsibly and with a clear purpose. Similarly, Bonacini et al. (2022) warn against the indiscriminate commodification of digital heritage, advocating for the development of more sophisticated monetization models that put access, rather than profit, at the forefront of measures to valorize cultural heritage in libraries and museums. The SHIFT program intersects these paradigms (service innovation, digital ethics, heritage sustainability) in an interconnected intervention framework.

Methodology

The current work uses a qualitative method that is based on, but not limited to:
- SHIFT project results (including creative market growth scenarios, technical documentation, strategic plans for monetizing project results, etc.)
- Exploring a selection of case studies on libraries in Romania, related to the implementation of the ref. pilots. SHIFT technological solutions in Romania

- Analysis and interpretation of ANBPR experts' opinions on strategic planning and possibilities for expanding the cultural goods market
- Library theories, specific examples of service innovation and good practices of cultural economy as sources of inspiration for new economic paradigms

This study also follows a qualitative, exploratory approach, combining the analysis of different categories of resources:

- SHIFT internal documentation and results
- Pilot experiences in libraries in Romania (such as the ANBPR Conference in Bucharest and the ANBPR Conference in Sibiu)
- Qualitative analysis of feedback received from stakeholders, including users with visual and hearing impairments
- Secondary analysis of XR and digital heritage transformation in the specialized literature and in the scientific reports related to the SHIFT project

All of this substantiates the alignment of the SHIFT project with the main conceptual themes supported by the specialized literature, such as "inclusive design", "strategic alignment" and "adaptive monetization".

The Main Findings

The SHIFT project brings the latest technological tools to the fingertips of public library professionals - AR/VR, techniques such as image-to-speech, text-to-speech, style transfer, haptic interfaces, AI-enhanced metadata, etc. All these technological upgrades create an interactive digital world starting from the static heritage in the conservative collections of memory institutions, leading to a much superior user experience, especially for users with various sensory, cognitive or physical impairments (Vargo et al., 2013).

The SHIFT project offers several Key Exploitable Results (KERs), including the XR Accessibility Framework and SHIFT TTS (text-to-speech). Thus, these resources make it possible to experience AR/VR content with the help of cutting-edge technologies, haptic gloves, emotionally enhanced audio narrations, etc. Within the pilots (use cases) in Romania, this set of innovative solutions was used, tested and validated in the real work environment, with library professionals having the opportunity to explore the possibilities of creating interactive digital exhibitions for different target audiences, including people belonging to vulnerable groups.

Service Innovation and Inclusivity

Libraries that have tested SHIFT tools have found that they can increase their impact among users and attract people from groups at risk of exclusion. AI-powered heritage animation, participatory digital exhibitions and interactive storytelling have also stimulated interest and loyalty among digital natives towards information and documentation institutions such as libraries and museums.

In addition, public libraries have proven to be a powerful framework for mediating cultural inclusion when they collaborate strategically with schools and cultural organizations. Within the scenarios proposed to promote the use of SHIFT results, these partnerships have created the premises for strengthening the organization of interactive exhibitions, thematic

workshops and personalized training of staff for the good exploitation of technological solutions created within SHIFT.

By offering innovative services in the proximity of local communities and adopting formats that make them accessible - whether in audio narration, using haptic devices or style transfer solutions - libraries have all the data to reach people with disabilities, the elderly, children and adolescents from disadvantaged social classes more easily, thus transforming themselves into nodes of cultural participation and inclusion. Therefore, libraries not only distribute digital cultural content, but also reinterpret it as a motor for social cohesion and inclusive learning. At the same time, services reconfigured with the support of modern technologies can contribute to the economic sustainability of library services without forgetting the principles of equity and inclusion.

Therefore, innovation in library services is an example of responsible digital transformation and making heritage accessible to all, fully aligned with the ambitions and value promise of research-innovation projects funded under the Horizon Europe program.

Ethical Monetization Models

Faced with the idea of ethical monetization, study participants expressed their preference for subscription and partnership models to try to address consumers halfway between intrusive advertising and the application of more or less personalized subscription models. SHIFT promotes ethical monetization through freemium and licensing models adapted to the requirements of public institutions, keeping cultural content accessible (Bonacini et al., 2022).

SHIFT intends to develop partnerships with European heritage conservation entities such as Europeana, AI4LAM and others. These relationships offer both sustainability and market applicability, as they are model-based and raise the level of institutional trust.

As a result of the research and innovation activities coordinated within the SHIFT project, the partners have identified a number of viable models:
- Paid streaming for culture and content (e.g. subscription-based authentication for accessing cultural content)
- Educational programs and collaborative workshops with cultural institutions
- Licensing SHIFT content to EdTech and tourism platforms. These are only public service approaches that have passed the test of user trust and interest.

SHIFT demonstrates that it is possible and crucially necessary to integrate digital advances into public service ecosystems and avoid the trade-off between equity and human resources.

However, large-scale implementation requires:
- Digital literacy of library and cultural staff (Camarero & Garrido, 2011). Gaining a comprehensive picture of the digital literacy skills of librarians and other cultural educators and practitioners.
- Integrating blockchain provenance tracking systems for transparency and intellectual property compliance
- Contextual accessibility solutions, designed by users in common (Mora et al., 2017)

Sustainable economic models that provide a social return on investment. Emerging development scenarios include:

- A fully European freemium SHIFT platform, built for libraries and museums
- Organized co-branding with content providers and portals
- Integrating SHIFT tools into national digital and cultural literacy education programs

Discussions and Development Perspectives

SHIFT is a "glocal" (global + local) digital infrastructure that enables libraries and museums to act as cultural custodians and innovation hubs.

Looking ahead, SHIFT partners could:

- Build freemium ecosystems: Basic services to be free for all, with the option to pay for extra services
- Extend SHIFT-inspired personalization of cultural services based on artificial intelligence: personalize content based on user actions, to stimulate greater engagement. Create a European-level federation for SHIFT, with its cultural services networked for a common European memory
- Mediate between ensuring democratic access to culture and the need for commercialization by calling for co-creation, with the participation of all stakeholders, based on transparent governance of services

Conclusion

The SHIFT project is proof that digital innovation and cultural authenticity are not contradictory forces. Public libraries can become leading players in the digital knowledge ecosystem by developing inclusive, interactive, and financially sustainable models of cultural engagement. The ANBPR Act frees up libraries on the continent and beyond by empowering them technologically and social-equity wise.

In a time of pervasive digital transformation and increasing requests for equal access to cultural heritage, the Horizon 2021–2027 co-funded project SHIFT stands as a landmark in the field of inclusive innovation. Using AI, AR, VR, haptics, as well as content personalization tools, SHIFT offers to vulnerable groups scalable solutions to improve access to cultural collections (Mora et al., 2017). In this landscape, ANBPR became a key facilitator, helping to embed the digital outputs from SHIFT within libraries to engage hard-to-reach audiences. You probably feel that post has some lessons for our public libraries in how they might learn to put SHIFT's tools into use, by developing sustainable models and digital capacity, and participatory methods.

SHIFT's application in Romanian public libraries has shown that it is possible to apply new technologies to mediators to improve culture use. How ANBPR - as an innovation facilitator - reconciles public value with economic resilience is a pattern other cultural institutions can imitate. By cultivating inclusive ecosystems and cross-sector partnerships alongside participatory design and strategic monetization, SHIFT paves the way for public libraries to act as stewards of digital equity and cultural sustainability in the 21st century.

References

Bonacini, E., Todaro, P., & Salerno, V. M. (2022). Monetizing digital cultural heritage ethically: Guidelines from Italian museum experiences. *Museum Management and Curatorship, 37*(1), 57–76.

Camarero, C., & Garrido, M. J. (2011). Incentives, organizational identification, and relationship quality among members of cultural organizations. *Journal of Service Research, 13*(3), 277–294.

Mora, M., Gelman, O., & Cervantes, F. (2017). Digital inclusion and accessibility: Libraries as agents of change in the cultural landscape. *Information Technology and Libraries, 36*(3), 55–67.

Polese, F., & Böhmann, T. (2017). A service-dominant logic perspective on the role of libraries in the digital age. *Journal of Services Marketing, 31*(6), 604–617.

Spohrer, J., & Maglio, P. P. (2010). Toward a science of service systems: Value and symbols. In *Handbook of Service Science* (pp. 157–194). Springer.

Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science, 36*(1), 1–10.

Vargo, S. L., Lusch, R. F., & Akaka, M. A. (2013). The evolving role of technology in service innovation. *Journal of the Academy of Marketing Science, 41*(5), 1–13.