

Article

Going to the opera online: Older adults' ideas for a positive user experience

Aarni Tuomi¹, Elina Moreira Cares², Davide Spallazzo³, Margherita Pillan³, Valentina Caiola³, Martina Marzola³, Husna Zainal Abidin⁴

¹ Haaga-Helia University of Applied Sciences, corresponding author

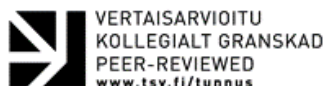
² Haaga-Helia University of Applied Sciences

³ Politecnico Di Milano

⁴ Wakayama University

Citation: Tuomi, A., Moreira Kares, E., Spallazzo, D., Pillan, M., Caiola, V., Marzola, M. & Zainal Abidin, H. (2023). Going to the opera online: Older adults' ideas for a positive user experience. *eSignals Research*, 3(2). <http://urn.fi/URN:NBN:fi-fe2022121571780>

Date of publishing: 15.12.2022



Reviewers:

Johanna Heinonen

University teacher

University of eastern Finland

Jari Kaivo-oja

Research director, Finland futures

Research Center

University of Turku



Copyright: © 2023 by the authors and Haaga-Helia University of Applied Sciences. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY NC SA) license (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

Abstract: COVID-19 has prompted cultural organisations to leverage digitalisation in order to find new ways of bringing cultural experiences to users. However, there is limited understanding on the specific needs of older adults, a significant user segment of digital cultural services, particularly in the context of classical or high arts such as opera or ballet. This study seeks to address this gap by exploring older adults' ideas for an ideal user experience (UX) journey in the context of watching a livestream of an opera or ballet performance at home. Findings emphasise the holistic nature of digital cultural experiences, particularly the social aspect of using cultural services at home. Digital cultural services should be built around fostering social interaction and a feeling of connectedness between users e.g. through live-reactions or ease of sharing the experience on social media. Potential barriers to entry should also be mitigated by clearer instructions, user-friendly UI, and availability of technical support.

Keywords: user experience, older adults, digital cultural services, opera, ballet

1. Introduction

Digitalisation has accelerated change in consumption habits and created novel business opportunities in the cultural sector, whereby most recently due to the COVID-19 pandemic, even art forms traditionally more dependent on physical venues have turned their interest into new technologies and new ways of operating. Producing on-demand digital content has also provided new means of reaching wider audiences, which increases accessibility and inclusion of cultural heritage (DeLa Vega et al., 2020). Long-established cultural institutions such as national opera houses are seen as part of "high culture", which traditionally attracts older audiences in comparison to popular culture events that tend to appeal to younger crowds (Eijck & Knulst, 2005). Despite good intentions, digitalising a traditional artform has the potential of increasing exclusion as older adult users might be less likely to adapt to the use of new information technologies, while simultaneously, designing digital services is often done emphasizing the needs of the younger generations (Kim et al., 2016). Due to the limited understanding of older adults as users of digital cultural

services, this study aims to explore factors that impact usage and user experience of such services. Conclusions and implications are drawn to strengthen research in the area as well as prompt more user-friendly design practices to positively influence the use of digital services by older adult users.

2. User-centric design process

Literature recognises user experiences as highly heterogeneous and versatile. The study of users' experience journeys has gained growing interest in social sciences over the years, and it has been studied in a multitude of contexts such as experience evaluation (Spreng et al., 1996; Bowen & Chen, 2001; Babin et al., 2005); service encounters (Bitner, 1990; Larivière et al., 2017); user journey (Edelman & Singer, 2015; Lemon & Verhoef, 2016); user decision-making (Bolton et al., 2014); and branding (Knox & Walker, 2001; Ding & Tseng, 2015), to mention a few. Despite the heterogeneity of user experiences, an aspect that all user experiences have in common is the clear distinction of three separate but interlinked phases during the user journey: pre-experience; during the experience; and post-experience. The overall user experience is shaped by these three stages, each containing a multitude of touchpoints for the user to interact with the service itself, the service provider, service employees, as well as other users, through numerous channels and service processes, as well as being influenced by the individuals' cognitive and affective processes in reflection to their personal needs and expectations (Forlizzi & Battarbee, 2004; Klaus & Maklan, 2013; Lemon & Verhoef, 2016).

Older adults, defined in this study as +60 years old, are a diverse user group that are sometimes thought to be less likely to adapt to the use of new digital technologies (Pesonen et al., 2015). According to Guner and Acarturk (2018), older adults tend to need more support, encouragement and friendlier user interfaces when using everyday technology. To support successful digitalisation of high culture, the design process should therefore emphasise the needs and experiences of older adult users. As a user-centric design practice, user journey mapping aims to optimise user experiences strategically by recognising the points of interaction between the user and the service as a whole, while emphasising the users' current needs, motivations and feelings along the journey (Lemon & Verhoef, 2016). By using user-centric practices in the design process of digital cultural services, the end-products are aimed to fill the needs and be ideal for its user within the use-case, and thus, improve the user experience as a whole. To guide the design process, the involvement of actual end-users is needed to identify desired outcomes and features to support it (Kaasinen et al., 2015).

This study explores older adults' ideas for a positive user experience journey in the context of watching high culture performing arts, in this case a livestream of an opera or ballet performance, at home. Going to see performing arts is a holistic social experience with important implications for older adults' health and wellbeing (Pesata et al., 2022). COVID-19 has prompted cultural organisations to explore new ways of bringing cultural experiences to customers. However, there is limited understanding on the specific needs of older adults, a significant user segment of digital cultural services, particularly in the context of classical or high arts such as opera or ballet. Therefore, this study seeks to address the following research questions: What are the key elements that affect older adults' user experience throughout the experience journey of watching digital cultural content at home? In particular, what is the role of social interaction as part of the user experience?

3. Methodology

A sequential mixed methods approach was used, whereby empirical data for this study were collected between January-March 2022 in Finland through two methods: 1) co-design workshops followed by focus group style discussion and 2) a survey. Overall, as the end-goal of the research project was to gather user insight for actually developing and subsequently testing the envisioned digital on-demand cultural service, the research followed an abductive approach, moving iteratively between theory and practice. Following Adikari, McDonald & Campbell (2013), an agile UX design approach was chosen to facilitate this, moving systematically between divergent and convergent thinking to generate ideas and to establish consensus or priorities (Figure 1).

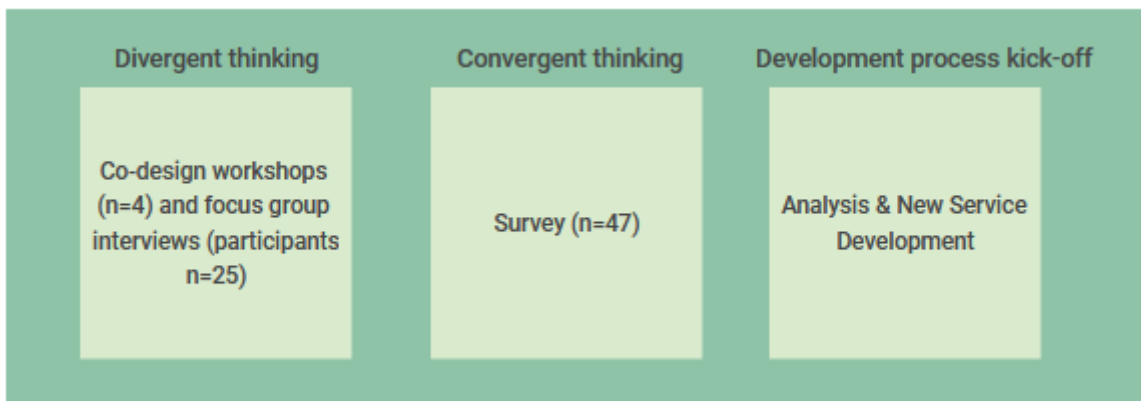


Figure 1: Research design of this study adopting an agile UX design approach as adapted from Adikari, McDonald & Campbell (2013).

First, four co-design workshops were organised in order to gather qualitative insights for envisioning the ideal outcomes for a digital cultural service. Two of the workshops were conducted through a teleconferencing platform, two in person. All workshops lasted for approximately three hours and included several rounds of interactive individual and group exercises followed by facilitated discussion. Following a constructive design research approach, exercises prompted participants (total n=25, five to eight participants per workshop; female n=20) to co-create and debate ideas around a positive user experience journey of watching digital cultural content online at home via a livestream. Co-design methods used included empathy mapping (Nielsen Norman Group, 2018) and qualitative picture-sorting (Lobinger & Brantner, 2020). Prior UX design research has identified these methods useful for teasing out the most important elements that affect key UX design decisions, in this case older adults' user experience throughout the proposed on-demand cultural service. Purposive sampling was used to recruit participants, with primary inclusion criteria being that participants had to be over 60 years old and have previous experience of watching Finnish National Opera and Ballet's livestreams on the Opera's online streaming platform Stage24. Prior knowledge of the current state-of-the art of on-demand cultural services in Finland was deemed to be essential for developing such service further. In practice, participants were recruited through two channels: a care home which participated in the project and general social media groups aimed at older adults. Based on the co-creation workshops, a user journey map depicting key stages and interaction points of older adults' ideal user experience of going to the opera online, at home, was qualitatively developed and analysed.

Second, building on the insights of the four workshops, a survey was mounted to explore ideal ways to enhance social interaction in the context of digital content. Adopting a convenience sampling strategy, participants (n=47) were recruited both online and offline during a one-day hybrid event organised by a university. The survey consisted of two main questions, both aimed at further exploring where and what types of social interaction could be applied to the user experience journey of going to the opera online. The first question explored the type of social interaction (e.g. live reactions, chat, Q&A, etc.) as part of watching on-demand digital cultural content, and the second question explored the timing of adding such interaction, i.e. before, during, or after a livestream. Descriptive statistics were calculated based on participants' responses.

4. Results

As expected, participants strongly emphasised the holistic nature of cultural experiences, particularly the experience of going to see high culture performing arts (e.g. opera or ballet). The physical experience starts long before the show begins, and based on our results, users expect the same holistic nature in on-demand digital experiences, too. During pre-experience, participants highlighted the importance of finding information about the season's new premiers, deciding what to watch, when, where, and with whom, getting oneself and the watching environment or experiencescape (Bitner, 1990) ready. During the experience, participants mentioned their involvement in joining the livestream (e.g. ease of use, accessibility), interacting with others, giving feedback, delving deeper into the performance e.g. through a digital brochure, maintaining social connections and building new ones, sharing the experience in real time, and giving feedback. All these elements are identified as important parts of the overall user journey of experiencing digital cultural content online.

For social interaction, the most hoped form of social interaction was live reactions through emojis (60% of participants' hoped for this feature). This was followed by sharing personal pictures of one's setup (e.g. sofa, tv, snacks) with other users (38% of participants), sending messages to other users via chat (30%), reacting to other users' messages via chat (32%), sending questions to the organisers (30%), and up- or downvoting other users' questions (28%). The option to form private watching parties (e.g. private group chat, private video call), although receiving some support, were among the least hoped form of social interaction (28%).

In terms of the timing of the social interaction, the most hoped for timing for social interaction as part of a livestream of a cultural experience were during intermission (68% of participants hoped for this feature), before the livestream starts (60% of participants), and after the livestream ends (53%). The least hoped timing for social interaction as part of the livestream was during the actual performance (38%).

5. Conclusion, managerial implications and limitations

Experiencing cultural content, e.g. going to the opera, is a complex social phenomenon, regardless of whether it is experienced in person or online. In the context of on-demand digital experiences, the older adults particularly emphasized the importance for ease of joining and exiting the livestream, access to technical support, ease of sharing the experience with others through e.g. social media (particularly Facebook and WhatsApp), as well as the opportunity to both stay in touch with old friends and make new social connections. This reflects the findings of Guner and Acarturk (2018), who highlight the role of

friendlier user interfaces (e.g. joining a livestream, using it), available support (access to technical support by the service provides or peer support), and encouragement, which in this case could be the social aspect of using digital cultural services (sharing the experience on social media or other means of interaction throughout the experience).

The findings support the view that online user experience of going to the opera is formed during multiple stages, similar to going to the opera physically. This is in line with previous research, that concludes that user experience journey online follows a similar pattern, from first contact to information gathering and decision making, to planning the experience and getting ready, to the actual experience and related ancillary services, to the post-experience stage (Vakratsas & Ambler, 1999; Lemon & Verhoef, 2016). All these contact points in the customer journey shape the overall customer experience. Digital cultural content developers and managers should therefore take the holistic nature of the user experience journey in consideration when designing new on-demand cultural services, and respond to the user needs as a whole, including the pre- and post-experience expectations. By addressing these needs, digital cultural content increases accessibility, while also holding potential to improve inclusion, especially in cases where limited mobility or geographical location is the main issue for accessing cultural services in person.

In terms of adding social interaction as part of the livestream, quick and simple live reactions through clear and expressive emojis during intermission or just before and after the livestream would seem the most suitable approach. Adding a chat feature, particularly if including elements for reacting to other users' comments or questions, might also be a good strategy. However, because of the limited sample size and generic nature of answer options, more research is needed to better define the types of emojis most suitable for live reaction as part of an opera or ballet livestream, as well as where and how to practically introduce the chat functionality. In the co-design workshops, the option to react by sending virtual flowers (roses) rather than e.g. smiley faces were also mentioned multiple times by participants.

As convenience sampling was applied, the findings of this study are somewhat limited and hold the risk of a biased sample. It is likely that only participants who already had an interest or were active users of cultural content, and/or were somewhat comfortable users of ICT, were reached. It would therefore be beneficial to examine the attitudes, needs, and expectations of a wider group of older adults, that are perhaps active culture consumers but lack ICT skills, or potential but less frequent consumers of cultural content but having strong ICT skills. Potential factors influencing resistance to digitalisation could also be studied, both in the context of Finland but also further afield, as previous research has asserted that national culture plays a role in technology adoption (Steers, Meyer and Sanchez-Runde, 2008).

The study addressed the user experience from a broad, holistic perspective, and specific features or functionalities, in all their alternative ways of technical execution was not explored. Future research should therefore also explore the types of chat functionalities during livestreams, and reactions most suitable for this context and user group. Some avenues for future research could include comparing the impact of joining the chat via made-up username or real name, having the chat behind registration or open access, having a moderator participate and actively prompt users in the chat, adding a feature for sending private messages to other users or for forming closed discussion groups, etc.

Exploring the impact of social interaction to the user experience was done in a very individualistic context and practical level. As accelerating digitalisation has altered our means of communication and social life, another interesting research area would be taking a more sociological rather than information systems management perspective to investigating the digitalisation of high culture, such as its influence on mobility (e.g. cultural tourism), sense of belonging, membership and communality, as traditionally the social aspect has been one of the key motivators to engage in cultural events.

Acknowledgement

This study was conducted as part of the HomeOpera – Digital Cultural Social Experiences - project, funded by the European Regional Development Fund as part of the EU's COVID-19 recovery actions. The project is conducted by Haaga-Helia University of Applied Sciences' Service Experience Laboratory LAB8 between 09/2021-08/2023.

References

- Adikari, S., McDonald, C., & Campbell, J. (2013). Reframed contexts: Design thinking for agile user experience design. In: Marcus, A. (eds) Design, User Experience, and Usability. Design Philosophy, Methods, and Tools. DUXU 2013. *Lecture Notes in Computer Science*, 8012, 3–12.
- Babin, B. J., Lee, Y. K., Kim, E. J., & Griffin, M. (2005). Modeling consumer satisfaction and word-of-mouth: restaurant patronage in Korea. *Journal of Services Marketing*, 19(3), 133–139.
- Bitner, M. J. (1990). Evaluating service encounters: the effects of physical surroundings and employee responses. *Journal of Marketing*, 54(2), 69–82.
- Bolton, R. N., Gustafsson, A., McColl-Kennedy, J., Sirianni, N. J., & David, K. T. (2014). Small details that make big differences: A radical approach to consumption experience as a firm's differentiating strategy. *Journal of Service Management*, 25(2), 253–274.
- Bowen, J. T., & Chen, S. L. (2001). The relationship between customer loyalty and customer satisfaction. *International Journal of Contemporary Hospitality Management*, 13(5), 213–217.
- De la Vega, P., Suarez-Fernández, S., Boto-García, D. & Prieto-Rodríguez, J. (2020). Playing a play: online and live performing arts consumers profiles and the role of supply constraints. *Journal of Cultural Economics*, 44, 425–450.
- Ding, C. G., & Tseng, T. H. (2015). On the relationships among brand experience, hedonic emotions, and brand equity. *European Journal of Marketing*, 49(7/8), 994–1015.
- Edelman, D. C., & Singer, M. (2015). Competing on customer journeys. *Harvard Business Review*, 93(11), 88–100.
- Eijck, K., & Knulst, W. (2005). No More Need for Snobbism: Highbrow Cultural Participation in a Taste Democracy. *European Sociological Review*, 21(5) 513–528.
- Forlizzi, J., & Battarbee, K. (2004). Understanding experience in interactive systems. DIS '04: Proceedings of the 5th conference on Designing interactive systems: processes, practices, methods, and techniques, 261–268.
- Guner, H., & Acarturk, C. (2018). The use and acceptance of ICT by senior citizens: a comparison of technology acceptance model (TAM) for elderly and young adults. Universal Access in the Information Society.
- Kaasinen, E., Roto, V., Hakulinen, J., Heimonen, T., Jokinen, J. P., Karvonen, H., Keskinen, T., Koskinen, H., Lu, Y., Saariluoma, P., Tokkonen, H., & Turunen, M. (2015) Defining user experience goals to guide the design of industrial systems. *Behaviour & Information Technology*, 34(10), 976–991.

- Kim, S., Gajos, K., Muller, M. & Grosz, B. (2016). Acceptance of mobile technology by older adults: a preliminary study. In Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '16), Florence, Italy, September 2016, pp.147–157.
- Knox, S., & Walker, D. (2001). Measuring and managing brand loyalty. *Journal of Strategic Marketing*, 9(2), 111–128.
- Larivière, B., Bowen, D., Andreassen, T. W., Kunz, W., Sirianni, N. J., Voss, C., Wunderlich, N. V., & De Keyser, A. (2017). “Service Encounter 2.0”: An investigation into the roles of technology, employees and customers. *Journal of Business Research*, 79, 238–246.
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding Customer Experience Throughout the Customer Journey. *Journal of Marketing*, 80(6), 69–96.
- Lobinger, K. & Brantner, C. (2020). Picture-sorting techniques. Card sorting and Q-sort as alternative and complementary approaches in visual social research. In: Pauwels, L. & Mannay, D. (Eds.). *The Sage Handbook of Visual Research Methods*, 309–321. Sage.
- Nielsen Norman Group. (2018). [Empathy mapping: the first step in design thinking](#). (Accessed 18th April 2022).
- Pesata, V., Colverson, A., Sonke, J., Morgan-Daniel, J., Schaefer, N., Sams, K., Carrion, F., & Hanson, S. (2022). Engaging the Arts for Wellbeing in the United States of America: A Scoping Review. *Frontiers in Psychology*, 12, 791773.
- Pesonen, J., Komppula, R., & Riihinen, A. (2015). Typology of senior travellers as users of tourism information technology. *Information Technology & Tourism*, 15(3), 233–252.
- Spreng, R. A., MacKenzie, S. B., & Olshavsky, R. W. (1996). A re-examination of the determinants of consumer satisfaction. *Journal of Marketing*, 60(3), 15–32.
- Steers, R., Meyer, A., & Sanchez-Runde, C. (2008). National culture and the adoption of new technologies. *Journal of World Business*, 43(3), 255–260.
- Vakratsas, D., & Ambler, T. (1999). How advertising works: what do we really know? *Journal of Marketing*, 63(1), 26–43.