

## *Introduction*

# Media Innovations and Design in Cultural Institutions

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Media innovations in cultural institutions, archives, museums and science centres affect the way stories and objects are mediated as well as the relations these institutions build with their audiences. Various media have always been central as means of display in these institutions, where screens, cased objects, interactive installations, dioramas, 3D visualisations and collected things and objects have communicated knowledge and stories (Henning 2006). Today these media are attached to not only concerns about transmission of knowledge, but also to an attention towards how such media can involve audiences in new ways in the communication. For example, in the museum field there are multiple concepts trying to come to grips with the new communication forms and organisational shapes that media has introduced: The distributed museum (Bautista & Balsamo 2016), the participatory museum (Simon 2010) and the connected museum (Drotner & Schröder 2013) give examples of how museums and museum visits are not necessarily fixed to a building, but can also exist online and on mobile devices in multiple spaces, in the streets and in excavation areas for example. Museums are therefore, because of media innovation, more and more becoming social institutions that are accessible from ‘everywhere’ and for ‘everybody’. The same tendency can be seen in archives, where digital media have introduced new practices of collecting, storing, management and access as well as new definitions of archival material and conceptions of archiving (Bowker 2005; Røssaak 2011; Stuedahl, Runardotter & Mörtberg 2016; Blom 2017). Therefore, media innovations are also one of the main change agents in the archival sector for development of a new form of institutions, with a different relation to audiences and to society.

Media innovations are central when cultural institutions change from emphasizing presentation of stories and messages that engage visitors, to emphasizing audience interaction, manipulation, participation and contribution. Cultural institutions in this way increasingly define themselves in terms of the audience experiences and engagement they provide, and also in relation to the roles they have and can have in society. Currently, museums are increasingly connected to health and wellbeing (Dodd & Jones 2014), and to community work, equality and social justice (Sandell & Nightingale

2013). Museums are in this perspective seen as having many more societal functions than simply to display objects of history, art, science and nations. While these changes are based on redefinitions of the well-known aims and programs of democratic cultural institutions, we see that various media play an increasingly central role as tools for this re-orientation. This shift of orientation represents a next step from the former digitization focus in the cultural sector, and introduces issues of social networks, and the various forms that mediation, articulation and cultural products can take in the broader societal endeavour of future cultural institutions. The shift does not only include re-orientation and re-definitions of the role of cultural institutions. It also includes innovation in the sense of introducing *something new* (Storsul & Krumsvik 2013) that consists of *new combinations* of existing ideas, competences and resources. While innovation in cultural institutions is still about communicating and sharing cultural knowledge, heritage and history, many museums are nowadays adopting an innovativeness orientation (Camarero & Garrido 2008). This implies being accessible to a wider audience, attracting funds from donors and sponsors as well as investing in improving exhibitions, scenography and digital resources. But innovation in museum management remains mission-driven, borrowing marketing strategies from for-profit businesses (ibid). In short, the communication comes in new forms and shapes that in several ways changes the role and practices of the institutions.

So how can we understand media innovations in cultural institutions, and how does this innovation differ from innovation in the media sector? As we see it, media innovations in the cultural sector include the same aspects as in the media sector (see for example Storsul & Krumsvik 2013), e.g. development of new media platforms, new business models and new ways of producing the media texts of cultural institutions. Consequently, media innovation in cultural institutions can be targeted by the same four P's that has been used to describe other innovation processes; product innovation, process innovation, position innovation and paradigm innovation (Francis & Bessant 2005). At the same time, media innovation in cultural institutions also require a focus on the social innovation, where innovations aim to meet social and cultural needs (Storsul & Krumsvik 2013). The European commission recognized in their Green Paper on Innovation that innovation is not just an economic mechanism or a technical process, but above all a social phenomenon. By its purpose, its effect and/or its methods, innovation is intimately involved in the social conditions in which it is produced (Cresson & Bangeman 1995). Social innovation brings up social change that requires changing existing practices, in some cases also social structures, while technical innovations are directed towards advancements to create new products or artefacts (Cajaiba-Santana 2014).

In media innovations, the focus on social innovation is connected to recognizing how media changes are deeply connected to changing social and cultural practices and conceptions. In cultural institutions, we also see a change of the responsibilities for the welfare of people.

## Background

Since the late 1990s the use of digital media in cultural institutions has been moving into a more advanced phase of integration. Commercially available platforms and devices such as mobile services, multimedia kiosks, virtual/augmented/mixed reality, and web-based and social media technologies are used to enhance audience participation and engagement in activities of reflection and involvement. Meanwhile, these media products are usually not tailored adequately for this domain, and represent challenges for established practices and understandings of how cultural heritage communication should be handled in cultural institutions. The transformations following media innovations in cultural institutions are therefore active on multiple levels that include services, communicational forms and practices as well as institutional goals and social aims.

There is still limited knowledge about the use of digital media and technologies and even less principles for how cultural institutions may apply these media to develop participation, engagement and involvement (Runnel et al. 2013). We see a tendency where existing conceptions of good relations to audiences and the public are translated into new forms to fit with the fluent and networked character of current media practices. For example, the social innovation in museums may include a replacement of the traditional concept of audiences, *visitors*, with the conception of *participants* (Simon 2010) and *users* (Baggesen 2014). The range of hyphenated concepts currently active in the museum sector illustrate the significance of social innovation, where concepts such as the connected museum, the participatory, reinvented, re-imagined, responsive and dialogic museum (Witcomb 2003 Lang, Reeve & Wollard 2006; Simon 2010; Drotner & Schröder 2013) describe the various social and cultural aspects of changing roles of cultural institutions. Equally, in the archival sector we see product innovation related to archiving practices of born digital media material (Røssaak 2011). This also changes the social and institutional role of archives and introduces the concept of participatory archive (Huvila 2008), proposing decentralized curation, radical user orientation and a broader contextualization of archive content. These examples of current application of media in cultural institutions illustrate how media innovation is imbricated with the institutions societal and cultural ends.

### *The social and cultural innovation of cultural institutions in the twenty-first century*

Studies of media innovations in cultural institutions show how changing media products are closely related to social innovations. New media bring new manners and modes of communication, which result in new social connections and new translations of audiences and users (Drotner & Schröder 2013). This may involve a de-institutionalization and de-professionalization where professional and amateur voices are equally important in the communication process, and where professional

practices are challenged by collaborative content creation and de-centralized production of meaning (Holdgaard & Klastrup 2014; van Passel & Rigole 2014).

Hence, there is a need for close scrutiny of social and cultural innovations and new understandings of creativity, participation and collaboration in a cultural institutional setting. This is where a perspective that encompasses the wider cultural and social contexts of media innovations comes to the fore. For example, social media and mobile media have basically been used by museums to re-orchestrate existing institutional communication models that aim at safeguarding cultural heritage. This has resulted in emphasizing audience reflection, wellbeing and social change as the main role of memory and heritage institutions (Russo et al. 2008, Stuedahl 2011). This is different from the previous focus on questions related to simple inclusion of audiences' cultural products and articulations. The mediatized museum has been proposed as a concept to capture this transformation (Rudloff 2013) and it emphasizes the close relation between media innovation and the sense and meaning of cultural institutions.

### *Media innovations in cultural institutions*

The study of media innovation in cultural institutions requires understanding the processes of integration of an additional media product in already existing media ecologies. In this endeavour, concepts from mediatization studies provide interesting analytical tools to identify the character of transformations and how social or cultural activities change (Lundby 2009). These consequences of changes are sometimes vague and unclear when cultural institutions launch new communication projects involving media. The values and the logic of new media products and communication forms have to be translated, criticized, explored and adjusted in practice, to be able to make the right choices in relation to what affordances the new forms of mediation may bring and how the audience may respond to that.

One example is the insights embedded in the concept of the distributed museum, which contains a relocation of cultural heritage communication to sites outside and beyond physical buildings of museums, for example urban and virtual spaces (Bautista & Balsamo 2016). This phenomenon illustrates how mediatization involves new scales and dimensions of user interactions and extends from fixed, physical and material locations in institutional buildings into digital experiences in everyday locations and social situations. It involves social innovation processes where media become central for creating sensitive relations with audiences and negotiating cultural practices and imaginations. This requires an understanding of culture as a serious part of innovation (Balsamo 2011). Media innovations are not linear, the argument goes, but happens in the social and material processes of designing, where media products are created in interplay with cultural practices, values and conventions. The imagination and ideas that were active during these design processes become inscribed in media and are negotiated in all phases of innovation.

### *The process of making media innovation by design*

Media innovations in cultural institutions lead to questions about how the affordances and potentials of new media are translated and related to existing practices and principles of documentation, registration, curation and communication. Media studies offer perspectives into how genre, rhetoric, discourses and semiotics of media and digital technologies may play a fundamental role for developing a critical language to describe, compare and create digital cultural heritage content and communicational forms (see for example; Liestøl 2003; Henning 2006; Philipsen, Agerbæk & Walther 2010; Løvlie 2010; Morrison et al. 2010; Fagerjord 2012).

Remarkably, many media researchers interested in cultural institutions at the same time share an emerging interest in the creative process of designing that underlies and fuels media innovations (Liestøl 1996, 2013; Morrison 2008; Løvlie 2010; Philipsen, Agerbæk & Walther 2010; Fagerjord, 2012; Bolter, Engberg & MacIntyre 2013; Gauntlett 2013). In order to be capable of understanding how the inventions included in innovations come about (Nyre 2014), these voices argue for media studies to focus on the process of creation of the material product or service. Such research calls for an interdisciplinary and practice-based approach that often integrates perspectives from fields such as human computer interaction and interaction design to build a conscious and methodological grounding for an alternative media design research.

This fits well with current developments in cultural institutions and research on cultural production. For example, museums have long had an established practice of experimental design approaches to exhibits, installations, dioramas, catalogues, or public events (Basu & Macdonald 2007, Weibel & Latour 2007). While this tradition in museum design has been primarily focused on processes of exhibition design, we see an emerging trend in these institutions to use experimental methods to explore media and communicational forms and services as well. However, there is a lack of vocabulary and methodological approaches to help museums in the endeavour of shaping the mediation between museum intentions and visitor experience (Macdonald 2007).

This anthology has its point of departure in the fact that the humanities have isolated itself, in effect, by withdrawing from key arenas of interdisciplinary interaction and enquiry that incorporate the communication technologies of the twenty-first century (Liestøl 2013). There is a need for multidisciplinary perspectives of media innovations in cultural institutions, where design methods and design thinking are seen as valuable inputs for research on, and with, cultural institutions in transformation.

### This anthology

The anthology is structured in three parts. The first part focuses on *collaborative design and media innovation in museums*. Here collaborative design methods are used as vehicles for innovation and for rethinking media in a museum setting. The second

part reflects upon *media making and meaning making*. Here it is demonstrated how video and other artistic forms can be used to contextualize and re-contextualize archival and historical material to motivate new interpretations, engagement and cultural understanding. The third part investigates innovation in terms of *civic engagement and local communities*. Here social and cultural innovation primarily takes place outside the traditional institutions and safe-keepers of culture and is to a large degree put in the hands of local communities.

Each part consists of two chapters:

In chapter 1, Dagny Stuedahl and Torhild Skåtun report from the project *To and From the Youth* where a group of young people designed a learning program in collaboration with museum educators, Save the Children and the Norwegian University of Life Science. The chapter describes the collaborative design process and discusses how cultural institutions may integrate co-design as a method for innovations, and in which way mobile media work as a tool for co-creation, sharing and communicating as part of collaborative processes.

In chapter 2, Anne Rørbæk Olesen and Line Vestergaard Knudsen scrutinize two collaborative design processes in terms of how discursive and material design methods enhanced negotiations regarding museum users. These enhanced negotiations informed the design of museum media, namely a digital platform for collecting user-generated content and digital exhibition apps. One collaborative design process took place at a Danish cultural history museum, the other took place at a Danish art museum.

In chapter 3, Lily Diaz and Teresa Macchia describe a project where an introductory video panorama was created for the *Sibelius and the World of Art* exhibition at the Finnish National Gallery. The chapter discusses the aspects of the time and life of Sibelius that inspired the video; it also presents the outcomes of an interview study aimed at analysing the perception visitors had about Sibelius' life after, during, and before watching the video.

In chapter 4, Mariana Salgado presents the argument that archivists and media scholars need to take on new practices to facilitate the co-creative re-use of archival material. The chapter focuses on organizing hackathons or marathons as a possible method. A case study is presented in which a group of international writers and video makers joined forces to re-use audiovisual archive material in Helsinki, Finland.

In chapter 5, Henry Mainsah examines the role design innovation can play in helping cultural institutions to create spaces for civic engagement among youth through social media. The chapter draws on a four-year Norwegian-based research project, *DELTA*, and focuses on the challenges cultural institutions face because they do not fully comprehend the changing nature of civic identities among youth and the particularities of youth cultures in relation to social media.

In chapter 6, Ann Light analyses what happens when communities take their cultural heritage into their own hands. The chapter focuses on *SPICE* (Stimulating Participation into the Informal Creative Economy) – a project to co-research the

meaning and interpretation of place by people concerned with their environment and local economy in four different English locales.

We think that all of the chapters give important examples of the many ways in which innovation take place within different contexts in- and outside cultural institutions. It is our hope that this anthology will not only provide descriptions and analyses of cultural innovation but also provide inspiration and aid for such processes.

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