

Chapter 1

Museums and Web 2.0: Some Thoughts about Authority, Communication, Participation and Trust

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ABSTRACT

Many museums want to use Web 2.0 applications or feel the pressure to do so. In doing so, they might encounter a significant problem as Web 2.0 is based on the notion of radical trust and unrestricted, equal participation, two concepts that are contrary to the museum's traditional concepts of authority, communication and participation. Until recently, museums presumed control of their content. The crucial question is how much control of its content the museum can afford to lose, since they depend on their reputation for expertise and trustworthiness. The paper analyses the role of authority, its influence on traditional and future museum communication and its effects on participation and trust. The challenge for museums is to find a way to cede authority and control over content without losing status as trustworthy institutions and to open up for social media and user participation in order to attract new audiences and maintain existing ones.

INTRODUCTION

Currently, Web 2.0 is the bandwagon everybody has to jump on. In the museum field, many institutions feel the pressure to join this trend but at the same time they are reluctant to do so because there is still a considerable lack of research about the acceptance of this new phenomenon both

inside and outside the museum. Nevertheless, cross institutional projects such as the European Digital Library *Europeana* try out new modes of involving users, for example by providing a community sections for exchange between users and links to Facebook and Twitter.

Outside the museum, the audience is expected to wait for Web 2.0 features to be offered by each and every Web site. According to Web 2.0 enthu-

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siasts, the new generation of the Web is supposed to be the medium in which anybody is zealous to participate and to contribute. This might be true for the digital natives among the users – i.e. the generation that grew up in the digital world (cf. Prensky, 2001) – but does this also hold true for the so called digital immigrants – i.e. the generations that adopted information technology later in life – who make up the larger part of the population in many European countries? Is the willingness to participate the same in all strata of society in one country and in all the different cultures all over Europe or even the world? At the moment, there exists little museological research concerning the crucial question of the readiness for participation on the side of virtual visitors from which one could draw substantial conclusions.

Inside the museum, there seems to be a considerable lack of enthusiasm on the side of the curators to accept user contributions (Cooper, 2006; Varbanova, 2008, pp. 171-172). Therefore, irrespective of the widespread enthusiasm about Web 2.0, it is important to find out if curators are really willing to accept user contributions to the online information and online exhibitions they create as this may influence their authority as experts. For the institution, this is an issue of major importance as “[m]useums are one of a handful of institutions in our society that hold authority in matters of knowledge” (Roberts, 1993, p. 98); and authority is closely related to trust. According to a 2001 survey of the *American Association of Museums* on public trust in various sources of information, museums are the most trusted ones, ahead of books and television news (MacArthur, 2007, p. 59). Therefore it is essential for museums to guarantee a high level of online information quality which might be threatened by user generated content of low quality, so called loser generated content.

At the same time, the notion of trust is one of the core issues of any Web 2.0 venture. User participation can prosper only in a climate of radical trust (Fichter, 2006; 2007; Chan, Kelly, Russo

& Watkins, 2008, p. 25). At the same time, the principle of radical trust collides with the legal responsibility of museums for the user generated content displayed on their websites and the fear that digital vandalism and loser generated content on the institutional website might negatively affect the trustworthiness of the whole institution. Considering these issues, it becomes obvious that Web 2.0 poses both interesting and serious questions for the institution museum. Authority and participation are two focus points that reveal the tension museums currently face both in the real and in the digital world. Before looking closer at this issue, it is necessary to take a museological perspective on Web 2.0.

WEB 2.0: A MUSEOLOGICAL PERSPECTIVE

The term Web 2.0 was made popular by media mogul Tim O’Reilly who identified a number of characteristics that describe how software producers – after the bursting of the dot-com bubble in 2001 – began to use new ways of collaboration on the Internet in order to produce software and rich user experiences. Although being the evangelist of the term, O’Reilly (2005) had to admit that “there’s still a huge amount of disagreement about just what Web 2.0 means, with some people decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom”. Some critics (e.g. Alby, 2008; Kantel, 2009) claim that Web 2.0 is not a new version of the Web as the version number 2.0 may suggest but “a different way of using the Internet” (Yasko, 2007, p. 42). In addition, the criteria established by O’Reilly are meant for producers of software and therefore do not fit the needs of cultural institutions, especially not those of libraries, archives and museums that are traditionally brick-and-mortar institutions with an emphasis on physical objects and not born-digital objects such as software. Nevertheless, these traditional institutions have

to adapt to the digital world of the Web – a fact that challenges traditional thinking in this sector (Finnis, 2008, pp. 151-152). At the same time, the traditional physical foundations of this sector are changed by large-scale digitization and online availability of cultural content. This trend sets the stage for a new institution of digital heritage online, the so called memory institution:

Archives, libraries and museums are memory institutions: they organize the European cultural and intellectual record. Their collections contain the memory of peoples, communities, institutions and individuals, the scientific and cultural heritage, and the products throughout time of our imagination, craft and learning. They join us to our ancestors and are our legacy to future generations. They are used by the child, the scholar, and the citizen, by the business person, the tourist and the learner. These in turn are creating the heritage of the future. Memory institutions contribute directly and indirectly to prosperity through support for learning, commerce, tourism, and personal fulfillment. (Dempsey, 2000)

For memory institutions, online communication with a distant and heterogeneous audience will become more and more important. As communication is primarily a social act, it is important to take a closer look on the social aspects of Web 2.0 which is also called the Social Web emphasizing the ideas of communication and participation (Chan, Kelly, Russo & Watkins, 2008, p. 22). The impact of the Social Web is just about to change the cultural sector, some cultural institutions having readily adapted Web 2.0 functionality to their needs while others are more reluctant, the crucial point being the fact that Web services are born-digital, but the cultural sector is not (Finnis, 2008, p. 151). Nevertheless, cultural institutions have to adapt to the Social Web as it is gaining more and more importance due to the rising number of people who grow up becoming so called digital natives, i.e. the generation that grew up using computers, video games and the Internet, in this

way learning the digital language of information technology like native speakers in contrast to the generations before that moved into the world of new technology step by step and later in their lives, the so called digital immigrants (Prensky, 2001).

Like for all cultural institutions, it is also eminent for museums to be present on the Web because searching information on the Internet has become part of many people's patterns of preparing for actions, more and more users consider the Internet as a digital extension of their physical means of action (Wersig, 2001). As a consequence, institutions that are not adequately represented on the Internet or hard to find because they are not participating in national or supranational cultural portals are facing the danger of being ignored or even being considered as nonexistent as far as action planning is concerned. As the majority of Internet users is also interested in museums, these institutions have to be present on the Internet as museum visits do require action planning (Wersig, 2001). But being present on the Internet is not enough, museums have also to adapt to the changing online user behavior that is part of Web 2.0 (Finnis, 2008, pp. 151-153). However, it seems that museums in the English speaking world are opening up more willingly than institutions on the European Continent (for details see the studies of France, the UK and USA, and German speaking countries, respectively, by Crenn & Vidal, 2007; Economou, Nikonanou & Shahani, 2008; Bieber, Kraemer, Lill & Schweibenz, 2009). So the crucial question is why it is so difficult for many museums to embrace the ideas and tools of Web 2.0. Is it really true that “[a]t the heart of any discussion about museum and Web 2.0 lies the issue of authority”, as Matthew MacArthur (2007, p. 59) states? In order to find an answer to this question, one has not only to take into consideration authority but also communication, participation and trust in the institution museum.

AUTHORITY, COMMUNICATION, PARTICIPATION, AND TRUST IN MUSEUMS

Authority

Authority is a touchy subject for museums that has been discussed controversially since the rising of the movement of new museology in the 1980s (cf. Vergo, 1989, ed.). In this process, museums have been identified as institutions that shape knowledge (Hooper-Greenhill, 1992, p. 4) and where curators were in the position of power (Hooper-Greenhill, 1992, p. 7; Harrison, 1994, p. 169). At the same time, museums were recognized as being involved in establishing canons, “giving authority to certain texts, figures, ideas, problems, discursive strategies and historical narratives” (Hooper-Greenhill, 2000, p. 21) in this way empowering the voices of certain communities while silencing or marginalizing those of others. For this reason, the institution museum was blamed for speaking with an “institutional voice” (Coxall, 1997, pp. 107-108) of authority or even with an “unassailable voice” (Walsh, 1997, pp. 69-70) that was present in all media of presentation and guided completely the visitors’ museum experiences. In recent times, this “epistemically privileged museum authority” (Hein, 2000, p. 5) is challenged by museological theory asking the crucial question of who is speaking in an exhibition and by what kind of authority (Jaschke, Martinz-Turek & Sternfeld, 2005). A recent study comparing three museum exhibits in the United States by Kevin Coffee (2006, p. 435) showed that museums, despite of rising criticism, still tend to stick to their dominant voice: “narratives conveyed by museums are generally viewed as definitive and authoritative”. This makes clear that the problem of museum authority is indeed still an issue of trying to control the visitors’ experiences, a right that is claimed by experts in the museum as Nina Simon points out:

The problem arises when expertise creates a feeling of entitlement to control the entire visitor experience. Power is attractive. Being in control is pleasant. It lets you be the only expert with a voice. But if our expertise is real, then we don’t need to rule content messages with an iron fist. (Simon, 2008)

In the context of the discussion about Web 2.0 and museum authority it is important to take into account that the Web is not the reason for the constant questioning of the institution’s authority. Actually, this discussion started independently of information technology as it is a trend of post-modern society towards a more balanced sharing of power between the museum and its visitors, which is described by Eilean Hooper-Greenhill:

In the modern age, knowledge is no longer shaped by the secret, enclosed, circulating structures of the Renaissance episteme; nor by the flat classificatory table of difference of the classical episteme; now knowledge is structured through a three-dimensional, holistic experience which is defined through its relationship to people. The act of knowing is shaped through a mix of experience, activity, and pleasure, in an environment where both the ‘learning’ subject and the ‘teaching’ subject have equal powers. (Hooper-Greenhill, 1992, p. 214)

The Social Web amplifies this process by shifting the power from curators as creators and producers of knowledge to the users. The users are no longer solely passive consumers of information with an information-receiving attitude, they become active participants and collaborators who start to play an eminent role as creators and producers of knowledge (Varbanova, 2008, pp. 169-170). This shift of power challenges the traditional thinking in museums because – instead of being in total control of their content and its interpretation – now museums “must be cautious of how much control they are willing to lose” (Yasko, 2007, p. 46). In this context it is important to include the quite contrasting views of curators on authority and control over content

as described by Jonathan Cooper in a study about an online exhibition project at the *Art Gallery of New South Wales*:

At one extreme is a belief in the authority of the curator; i.e. that only a professional curator should be allowed to curate exhibitions and interpret artworks in the public arena; this I shall label *authoritism*. At the other extreme is a belief in the equal validity of everyone's views: thus, anyone should be allowed to curate and interpret, and share personal contributions with others. This view, which I shall label *autonomism*, was not represented in its extreme form within the discussion. Not all curators were equally extreme in their *authoritist* views; however, all those tending towards *authoritism* were indeed curators. This may be a natural reflection of the necessary, inward focus of the curatorial profession – in contrast to the outward focus of museum education. However, the extreme *authoritist* view also appears to be a conservative reaction to a perceived liberalism and 'dumbing-down' of art. (Cooper, 2006)

Although the discussion about authority and *autonomism* is not new – see for example Susan Pearce (1995) discussion on critical appreciation and objective knowledge – such harsh reactions on the side of curators should be taken into account when dealing with the application of Web 2.0 for museums as authority is a central issue for the self-concept of the institution as museums "have long been considered special places where the authoritative insights of trained experts are shared with members of the public" (Worts, 1995, p. 165). Although the sharing of the museum's knowledge with the audience was the goal, the way of museum communication used to be traditionally unilateral.

Communication

Traditionally, museum communication takes place in the exhibit. In the established museum communication model, the roles were clearly set: the museum broadcasted its interpretation and the

visitors had to listen and to accept it (Maroevic, 1998, p. 268). One of the reasons for this dominating communicative behaviour is the traditional communication model that was cherished for a long time in the museum community. In the late 1960s, the communication model of Claude Shannon und Warren Weaver was introduced in museums, clearly defining the roles of sender, message and receiver (Hooper-Greenhill, 1994, p. 46). The role of the sender, i.e. the curator, was to create a message based on the objects, the role of the receiver, i.e. the visitor, was to (learn to) understand the message, while in practice the feedback loop from receiver to sender was totally neglected. Since the early 1990s this traditional model of communication was criticized for making "the museum [...] a place of one-way communication" (Weil, 1990, p. 78). A major cause for one-way communication seems to be the authority of the museum in interpreting its objects and collections:

Authority is derived from the primacy of object collections and the patrimony of the museum in their storage, display and interpretation. It is claimed that the recognized authority which museums possess with the community provides audiences with the means to interpret history and science, which in turn justifies the use of mediated representation of artifacts and cultures [...]. As a result, museums have traditionally followed a model of one-to-many communication in which curatorial expertise is 'broadcast' to the community via exhibition and publication. (Chan, Kelly, Russo & Watkins, 2008, pp. 22-23)

Adhering to the broadcast model of communication, museums neglected for a long time the fact, that a successful communication not only requires a sender and a message but also a receiver of this message. This makes communication a two-way affair as Susie Fisher points out:

The message goes out from one side but it is not communicated until it is received by the other.

This is the aspect of communication that museums often overlook. They neglect to think about

what their visitors will find worthwhile, or how they might approach this subject so that it makes sense to people. The assumption can be that the collections have an obvious story to tell, museum professionals have the expertise required to tell it and that this is what the visitor has come to hear. The visitor's own agenda is not taken into account. Many museums think that they are doing this, but in the main they are not. (Fisher, 2002, p. 33)

This indicates that communication is not only about delivering a message but also includes a certain perspective on a specific object or issue. Therefore effective museum communication has also to take into account the agenda of the visitors and their ways of interpreting things in order to support the visitors' meaning making as it is suggested by constructivist learning theory (Hooper-Greenhill, 2000, p. 6; Chan, Kelly, Russo & Watkins, 2008, p. 21). Endeavours such as the British *National Museums Online Learning Project* show how constructivist approaches can be applied in a digital museum environment and how the agendas of learner-users can be served and their voices included (Bayne, Ross & Williamson, 2009).

With the advent of Web 2.0 the social aspect of communication is taking center stage. The model of one-to-many broadcasting in traditional mass media is replaced by many-to-many communication where all senders are receivers at the same time and vice versa. Therefore museums have to adapt their way of communication if they want to be successful because social media are based on participative communication (Chan, Kelly, Russo & Watkins, 2008, p. 22).

Participation and Trust

Regarding participation, the institution museum faces a dilemma. On the one hand, participation is the core element of Web 2.0, as users are supposed to contribute equally to and control the quality of the content that is collaboratively created, for example in Wikipedia. On the other

hand, participation endangers the museum's notion of control over its content and its authority over its interpretation, the major problem – from the museum's perspective – being the unpredictability of such user participation. Due to this inherent unpredictability, the museum is neither in control of how users are going to use its content – see for example the phenomenon of image hijacking as described by Finnis (2008, p. 155, pp. 160-161) – nor can it efficiently and effectively control the quality of the content contributed by a large group of users, the so called user generated content. The problem with this kind of content is that it could be of low quality and therefore represent so called loser generated content that might even threaten the reputation of the institution as a whole when placed on the museum's Web site without quality control which requires a lot of time and effort while resources are often scarce in many institutions. Therefore, the key question is how museums can cope with the problems caused by user participation. In Web 2.0, this predicament is solved by the paradigm of radical trust in the user community. Darlene Fichter defines this concept as follows:

Radical trust is about trusting the community. We know that abuse can happen, but we trust (radically) that the community and participation will work. In the real world, we know that vandalism happens but we still put art and sculpture up in our parks. As an online community we come up with safeguards or mechanisms that help keep open contribution and participation working. (Fichter, 2006)

A major problem is that user participation can prosper only in a climate of radical trust while at the same time, the principle of radical trust collides both with the legal responsibility of the museum (depending on the local legislation) for the user generated content contributed to its website and the fear that digital vandalism or loser generated content on the museum's website might negatively affect the trustworthiness of the whole institution. Therefore, "most museums remain slow to recog-

nize their users as active cultural participants in many-to-many cultural exchanges and therefore social media have yet to make a significant impact on museum communication models, which remains fundamentally one-to-many” (Chan, Kelly, Russo & Watkins, 2008, p. 23). This dilemma lingers on and the difficult task of the museum is to strike a balance between a certain degree of trust in the users and a certain amount of control that is low enough to stimulate user participation while it is high enough to permit the institution to maintain the responsibility for the quality of its content. To rely solely on community control might be too daring for an institution such as a museum whose reputation is based on public trust.

An interesting field for discussing the pros and cons of user participation is social tagging as it allows us to study both the heated discussion about the supposedly inadequate involvement of amateurs in describing museum objects and the potential advantages such an endeavour might bring for laypersons looking for cultural content. What makes this discussion so controversial is the fact that describing and interpreting the collection – which involves tagging of objects – is one of the core competencies and responsibilities of the institution museum. In addition, it highly affects the authority of the institution if tags for describing objects created by subject experts are given the same weight as tags chosen by anonymous amateurs who do this for their delight – as the Italian verb “dilettarsi” indicates from which the infamous word “dilettante” is derived. Nevertheless, the aspect of authority is hardly mentioned in the discussion about social tagging, usually the prevailing argument is that amateurs’ tags lack to meet the high quality standards of museums.

However, social tagging does not necessarily relate to subject expertise, rather it can be applied in order to make cultural materials accessible at all, as Hubertus Kohle (2009) demonstrates in the *Artigo* project. This university project dealt with huge amounts of digital art images that could not be indexed by art historians as there were not

enough subject experts available for this task. In spite of the concerns of art historians against the “wisdom of crowds,” the images were made accessible by allowing laypersons to tag them (Kohle, 2009, pp. 14-15). In order to make the tagging more attractive and to avoid digital vandalism, *Artigo* was designed as a game in which two users who do not know each other cooperate online in describing a set of images chosen at random. Each digital image is presented accompanied by a minimal amount of information, for example the text written on the frame of the slide. Then each participant is asked to enter an appropriate tag for the image; if the two tags correspond the term is accepted by the system irrespective of its art historical appropriateness. At the end of the five minute session, all the tagged images and the corresponding terms are presented to motivate the players. Such a mechanism of cooperative tagging is an efficient way to make digital images accessible while avoiding digital vandalism.

Another social tagging project is *steve.museum: exploring folksonomy in the art museum* which examines the potential of social tagging by laypersons in contrast to professional object description by subject experts. The basic idea of this project is that art museum documentation is made by experts for experts which makes the content hardly accessible for laypersons who most often do not know specialist vocabulary but instead use different terminology for describing an object (Trant, 2006, p. 1). An example for this gap of terminology caused by specialist vocabulary is the website of a San Francisco art museum and its use of specialist terminology for describing its content. This museum holds a rich collection of impressionist works of art but the problems of user online access to these works are caused by the fact

... that the words the curators used to describe works of paintings in museums were not the same that people used to describe the same paintings. One of their starting points was that searches for the term ‘impressionists’ [...] used to come back

with 'no matches' despite the fact that the museum is well known for its impressionist collection. This was because the term was not a curatorial term, so nothing was marked in their system with this language (Finnis, 2008, p. 164).

Just to avoid any misunderstanding, specialist terminology is important for effective and precise information retrieval in an academic or business environment where professional searches – including adequate search terms and efficient search strategies – are applied by subject specialists. However, on the Web the potential audience does not consist of experts only but is rather very heterogeneous. If a museum website targets not only subject specialists but a general audience, the specialist terminology will unquestionably become a major barrier for access to the database content as laypersons usually do neither have much knowledge of specialist terminology nor do they know what content the database contains and as a consequence do not know what to search for and what search terms to use. Therefore Fiona Cameron stated rightfully with regard to searching museum databases:

Generally this solution is more useful to specialists who have an interest in fielded data. Without a clear understanding of the information available, the way data is modelled, and the search terminologies used to access material, an approach such as this is of little use to non-specialist users. (Cameron, 2001, p. 309)

One could also state that this kind of access is not only of little use to laypersons but can actually hamper access to museum content (Schweibenz, in press). To allow access, additional layers of interpretative information should be added to meet the informational needs of non-specialists as Maria Economou emphasizes:

When Web access to the collection's database is offered without any additional layer of interpretation, great care needs to be placed to the design of the user interface and the paths into the collection offered to non-specialists. For users unfamiliar

with databases and similar applications and with only a general interest in the subject, the common search box asking them to type in a term can be ineffective and intimidating. (Economou, 2008, p. 146)

A potential solution at least for the terminology problem is social tagging for digital museum objects online (Trant, 2008). In this context it is important to stress the word "online". Social tagging does by no way mean to open up the museum's collection database to user input. The terms of expert taxonomy and user Folksonomy can be mashed up in a joint database index online. This online index could use different fields for the object description by experts and laypersons in the online database and make these different tags available to the website's search engine and use them in the online presentation by layering and presenting such metadata according to different needs and interests of the audience (Foo, 2008, pp. 25-27). Such a separation of tag creation and presentation would, as David Bearman points out, profoundly affect the museum's authority as it

... permit[s] people other than museums staff to add data to museum knowledge-bases, they will need to adopt sourcing for all their data. In other words, each piece of information will need to have metadata associated with it to say by whom it was created, when and under what authority (if any) and who owns it, and who can change it. No longer will it be acceptable that the contents of the museum databases speak 'for the museum' and with that anonymous authority. Now it will be necessary for individuals to sign contributions to the database and speak with their own authority. By definition this reduces the abstract authority of the museums and brings it closer to the level of other institutions which can then articulate their views more equally. (Bearman, 2008, p. 52)

Although museum curators are often sceptic about the quality of ostensibly amateurish tagging, one should consider that amateurs are not

necessarily dilettantes – a phrase most often used with a derogatory connotation – but often made valuable contributions to science and culture, for example during the Baroque era when so called architect chevaliers were common practice. These persons were noblemen who had to practice a profession adequate to their social position and could therefore deal with architecture only in their spare time, yet often on the level of a connoisseur. But even as hobby architects they made valuable contributions to Baroque architecture, by making new trends known among their peers, by discussing questions with professional architects and even by guiding the actual planning and construction of manors, palaces, and churches. There are also numerous examples of now famous inventors and discoverers who were amateurs in the field where they made their discoveries and contributed to the progress of science and technology, for example the monk Gregor Mendel who discovered the fundamentals of genetics or the business man Heinrich Schliemann who excavated the ancient city of Troy. Often such famous persons were considered to be geniuses in order to put them on the same level as subject specialists and professionals. But apart from the few geniuses that may exist amongst us, there are for sure many enthusiasts who have enormous potentials of knowledge the museum could profit from if they were involved in an adequate way in the institution's knowledge production process. For example, a recent development is the inclusion of so called community curators in exhibit making. These community curators are acknowledged and knowledgeable members of a targeted community, who give voice to the specific perspectives or traditions of a certain community. An example for the inclusion of community curators was the exhibit *Our Universes: Traditional Knowledge Shapes Our World* of the Smithsonian Institution's National Museum of the American Indian, starting in September 2004, where respected members of American Indian tribes described the traditional, social, and philosophical meaning of cosmolo-

gies and religious thinking from a indigenous perspective (Kavanagh, 2006). In the same way as museums start to include communities in the real world, they should also consider doing so in the digital realm. Especially in the context of Web 2.0 and participatory social media it seems indispensable to reconsider the role of amateurs and their potential contributions to the museum's knowledge creation process. Projects such as *steve.museum* will shed some light on the advantages and disadvantages of amateur social tagging but also on yet unvoiced problems regarding the documentation work of museum professionals such as inter indexer consistency in professional indexing of museum objects, an issue discussed for decades in information and library science, which might negatively affect the credibility of professional quality claims often expressed by museum curators.

Terminology and intellectual accessibility of content are definitely the major factors for success on the Web as there is a lot of content available online and cultural content is not as visible as it could be (Finnis, 2008, p. 163). Moreover, search engines become more and more important means of access to digital content as they are the preferred tool for many users (Finnis, 2008, p. 162). Therefore, in order to be found by the users it is becoming indispensable to use the users language and terminology instead of or even better in addition to specialist vocabulary which might be correct from a scientific perspective but is unknown to and incomprehensible for the general public. This can be done effectively by allowing social tagging by users. Nevertheless it is important to unmistakably separate social tags from terms attached by museum professionals in order to make clear the responsibilities and to document the origin of the descriptive terms. In addition, a distinct set of metadata should be used to clearly indicate the origin of and the responsibility for tags attached to museum content. In this way, the responsibility becomes clear and the distinction between museum content and user

generated content is obvious for everybody. This is also indispensable for copyright and digital rights management, archiving and long-term preservation of both kinds of content, topics that are essential but beyond the scope of this paper.

SOME CONSEQUENCES FOR MUSEUMS REGARDING WEB 2.0

First of all, museums have to reconsider the role of authority as the following statement by Matthew MacArthur (2007, p. 59) is definitely true: "At the heart of any discussion about museum and Web 2.0 lies the issue of authority." The question of authority is relevant for both the traditional and the virtual museum (cf. Bayne, Ross & Williamson, 2009, p. 118). Therefore it is worthwhile to reassess different models of participation both in exhibitions and on the Internet. Especially Web 2.0 features could be a means to open up museums and allow the audience a look behind the scenes, an aspect that could let museums make their daily work more visible and comprehensible to the general public. In addition, the possibility to gain behind-the-scenes access is fascinating for the public, as Maxwell Anderson (2008, p. 296, p. 299) points out with reference to successful TV series such as "CSI" or hospital dramas and movies such as Dan Brown's "The Da Vinci Code". Anderson's statement is supported by long-known research into audience needs and expectations such as Melora McDermott's 1988 study which found that novices to art museums look for a personal connection to the objects (McDermott, 1988, p. 149), that they are particularly interested in the human beings behind the works (McDermott, 1988, p. 153), that they believe that objects in museums are there for a reason, and on the one hand they are curious about those reasons but on the other hand they are not really interested in the object's art historical significance per se, but rather why someone felt the piece is wonderful (McDermott, 1988, p. 158). To serve such information needs

and expectations, museums could use Web 2.0 applications such as blogs, videos, and podcasts in order to provide behind-the-scenes access to the public. In addition, community functions can help to establish platforms for the exchange about experiences between different groups of interests. Projects such as the *Europeana* are offering their users the opportunity to set up different communities in order to serve their interests in exchanging ideas. *Europeana* maintains communities such as *Go Europeana* about Semantic Web issues, *Genius* about logic, and *Oscar* about cinema. Each community page contains a short introduction into the topic, an info section stating the number of members and the name of the administrator, a tag cloud of assigned terms and the opportunity to share an idea. The members page presents pictures of the members, their names and the possibility to send a message. In this way, users can get in touch with each other, share their opinions, form groups of interest and finally become a stable community that is closely connected to the museum, enjoying its services and content.

At the same time it is important not only to broadcast museum information but also to allow a two-way communication between the museum and its audience, be it in physical space or in the digital realm. With regard to the Internet, the institution has to be aware of the different communicative traditions of the museum and the Web:

While the museum represents reason and order, the Web is chaotic in its organizational structure. The museum is an organization with clearly established hierarchies, especially over access to information. The Web is available to anyone who has access to a computer and internet connection. The authority of the museum is also emphasized by its rather static nature while the Web is constantly changing. (Witcomb, 2003, p. 120)

As Andrea Witcomb emphasizes, the basic ideas of the museum and the Web with regard to order and authority are very different. If the museum wants to be relevant on the Web, the institution has to find new ways of coping with

its traditional notion of authority; it has to find a mode to share the authority of interpretation with the community of users in the same way it does with community curators in traditional exhibits. By allowing different perspectives on objects and information, the institution can no longer control the interpretation of the content by users but can gain some profile as a provider of reliable information by showing the process in which its information was created and why it is trustworthy. In this way, the voice of the museum is one amongst many; it is no longer unassailable but still carries the institution's authority of research and expertise.

As research indicates, museum visiting is primarily a social experience (Falk & Dierking, 1992, pp. 2-3; Chalmers & Galani, 2008, p. 159). Therefore, it seems obvious that museums should use social media to create a positive online museum experience for virtual visitors. This experience does not necessarily have to be similar to the traditional museum visit, instead it should be considered as an experience in its own right and definitely not as a secondary or surrogate experience to the physical visit (Schweibenz, in press). This aspect is important as research suggests that users who share a co-visiting experience regard a museum website not only as an information space but also as a social place to visit, enjoy and relate to others (Chalmers & Galani, 2008, p. 170). Therefore, understanding the sociality of online visiting should be in the forefront of the research agenda (Chalmers & Galani, 2008, p. 176).

THE ROLE OF THE MUSEUM IN THE INFORMATION SOCIETY

According to Gernot Wersig (2000, p. 462), in the post-industrial society information is not necessarily equal to meaningful information, i.e. information that is useful and practical. This is due to the ever-increasing amount of available information that leads to an information overflow: the quan-

tity of information is rapidly growing while this information is at the same time becoming more and more specific and fragmented. Therefore the receiver of this information is becoming less and less informed although the amount of available information is greater than ever. The result is that the user has to search for relevant information while being hampered by the overflow of information. Wersig (1996) calls this state the paradox of information, a key condition of the information society which is characterized by growing complexity of life that causes ironically a increasing demand for reduction of intricacy and uncertainty. This demand can only be met by reliable information.

This increasing need for reliable information can be served by the institution museum as it is held in high regard for the authenticity and the trustworthiness of its content. The museum can use this reputation to position itself as a trusted partner in the arena of participatory communication on the Web:

A survey of educational Web site usage demonstrated that both students and teachers considered the authenticity of Web content a major concern, with teachers reporting that students often had difficulty judging the validity of online content [...]. We argue that it is precisely because of this lack of reliable online information that museums should engage in participatory communication using social media. The cultural authority of the museum is due in large part to the perception that it can provide authentic cultural knowledge. (Chan, Kelly, Russo & Watkins, 2008, p. 23)

By allowing multiple perspectives on cultural content by different voices in addition to its own, the museums can earn a reputation for being an honest broker and a reliable source of information for different audiences with their own specific requirements for museum content. The fear of many museum professionals that allowing other voices beside the one of the museum might endanger the institution's authority is misplaced there will

always be a safe harbor for the institutional voice, as Maxwell Anderson (2008, p. 294) emphasizes.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

“The history of museums can be written as a history of struggle between scholarly and popular interests. This conflict strikes at the core of the museum enterprise, for it concerns the kinds of meanings held by collections,” as Lisa Roberts (1993, p. 98) points out. In order to be and remain a relevant part of the information society, museums have to be ready to cede authority over and control of content by allowing its audience to contribute its views and opinions on the museum’s content and use it according to its interests and needs. This includes the use of social media on the Internet which does not necessarily mean that each institution does need social media immediately and use the full range of applications at once. It is better to start by trying out various Web 2.0 applications and decide for one or two that meet the needs and fit the mission of the individual institution and its audience. In this process, the balance between authority and control on the one side and participation and trust on the other side can be tested and refined in daily practice. In the meantime, regardless of the efforts of individual museums, further academic research should be conducted into the sociality of online visiting on the one hand and authority, communication, participation and trust in museums on the other hand to better understand how these aspects are related to each other.

REFERENCES

- Alby, T. (2008). *Web 2.0: Konzepte, Anwendungen, Technologien* [Web 2.0: Concepts, Applications, Technology]. München, Germany: Hanser.
- Anderson, M. L. (2008). The future of museums in the information age. In Marty, P. F., & Jones, K. B. (Eds.), *Museum informatics: People, information, and technology in museums* (pp. 293–299). New York: Routledge.
- Bayne, S., Ross, J., & Williamson, Z. (2009). Objects, subjects, bits and bytes. Learning from the digital collections of the National Museums. *museum and society*, 7(2), 110-124. Retrieved March 20, 2010, from <http://www.le.ac.uk/ms/m&s/Issue%2020/bayne.pdf>
- Bearman, D. (2008). Representing museum knowledge. In Marty, P. F., & Jones, K. B. (Eds.), *Museum informatics: People, information, and technology in museums* (pp. 35–57). New York: Routledge.
- Bieber, C., Kraemer, H., Lill, J. M., & Schweibenz, W. (2009). Museum 2.0? Web 2.0 und deutschsprachige Museen im Internet. Eine Studie zu partizipativen Elementen von Museumspräsenzen im Web. [Museum 2.0? Web 2.0 and museums on the German Internet: A study about participatory elements on museum websites.] In R. Kuhlen (Ed.), *Information: Droge, Ware oder Commons? Wertschöpfungs- und Transformationsprozesse auf den Informationsmärkten (ISI 2009), Konstanz, 1. - 3. April 2009* (pp. 281-296). Konstanz, Germany: UKV.
- Cameron, F. (2001). Wired collections: The next generation. *Museum Management and Curatorship*, 19(3), 309–315. doi:10.1016/S0260-4779(01)00052-8
- Chalmers, M., & Galani, A. (2008). Blurring boundaries for museum visitors. In Marty, P. F., & Jones, K. B. (Eds.), *Museum informatics: People, information, and technology in museums* (pp. 157–177). New York: Routledge.
- Chan, S., Kelly, L., Russo, A., & Watkins, J. (2008). Participatory communication with social media. *Curator - The Museum Journal*, 51(1), 21-31.

- Coffee, K. (2006). Museums and the agency of ideology. *Curator: The Museum Journal*, 49(4), 435–448. doi:10.1111/j.2151-6952.2006.tb00235.x
- Cooper, J. (2006). Beyond the on-line museum: Participatory virtual exhibitions. In D. Bearman & J. Trant (Eds.), *Museums and the Web 2006: Proceedings from the International Conference, Albuquerque, New Mexico, March 22-25, 2006*. Toronto: Archives & Museum Informatics. Retrieved March 20, 2010, from <http://www.archimuse.com/mw2006/papers/cooper/cooper.html>
- Coxall, H. (1997). Speaking other voices. In Hooper-Greenhill, E. (Ed.), *Cultural diversity: Developing museum audiences in Britain* (pp. 99–115). Leicester: Leicester University Press.
- Crenn, G., & Vidal, G. (2007). Les Musées Français et leurs publics à l'âge du Web 2.0. Nouveaux usages du multimédia et transformations des rapports entre institutions et usagers? [The French museums and their audiences in the age of Web 2.0: New usage of multimedia and the transformation of relations between institutions and users?] In D. Bearman & J. Trant (Eds.), *International Cultural Heritage Informatics Meeting 2007, Toronto, Ontario, October 24-26, 2007*. Toronto: Archives & Museum Informatics. Retrieved March 20, 2010, from <http://www.archimuse.com/ichim07/papers/crenn/crenn.html>
- Dempsey, L. (2000). Scientific, industrial, and cultural heritage: A shared approach: A research framework for digital libraries, museums and archives. *Ariadne*. Retrieved March 20, 2010, from <http://www.ariadne.ac.uk/issue22/dempsey/>
- Economou, M. (2008). A world of interactive exhibits. In Marty, P. F., & Jones, K. B. (Eds.), *Museum informatics: People, information, and technology in museums* (pp. 137–156). New York: Routledge.
- Economou, M., Nikonanou, N., & Shahani, L. (2008). Museums opening up to communities using Web 2.0: Promise or reality? *The International Journal of the Inclusive Museum*, 1(4), 57–65.
- Europeana – think culture. (n.d.). [Website.] Retrieved March 20, 2010, from <http://www.europeana.eu>
- Falk, J. H., & Dierking, L. D. (1992). *The museum experience*. Washington, DC: Whalesback Books.
- Fichter, D. (2006). Web 2.0, Library 2.0 and radical trust: A first take. Retrieved March 20, 2010, from http://library2.usask.ca/~fichter/blog_on_the_side/2006/04/web-2.html
- Fichter, D. (2007). Radical trust: We're not doing it enough yet! Retrieved March 20, 2010, from http://library2.usask.ca/~fichter/blog_on_the_side/2007/04/radical-trust-were-not-doing-it-enough.html
- Finnis, J. (2008). Turning cultural websites inside out: Changes in online user behaviour, Web 2.0 and the issues for the cultural sector. In Uzelac, A., & Cvjeticanin, B. (Eds.), *Digital culture: The changing dynamics* (pp. 151–165). Zagreb, Croatia: Institute for International Relations.
- Fisher, S. (2002, June). Objects are not enough. *Museums Journal (UK)*, pp. 32–35.
- Foo, S. (2008). Online virtual exhibitions: Concepts and design considerations. *DESIDOC – Journal of Library and Information Technology*, 28(4), 22–34.
- Harrison, J. D. (1994). Ideas of museums in the 1990s. *Museum Management and Curatorship*, 13(1), 160–176.
- Hein, H. S. (2000). *The museum in transition: A philosophical perspective*. Washington, DC: The Smithsonian Institution Press.
- Hooper-Greenhill, E. (1992). *Museums and the shaping of knowledge. The heritage: Care - preservation - Management*. London: Routledge.

- Hooper-Greenhill, E. (1994). *Museums and their visitors*. London: Routledge.
- Hooper-Greenhill, E. (2000). *Museums and the interpretation of visual culture*. London: Routledge.
- Jaschke, B., Martinz-Turek, C., & Sternfeld, N. (Eds.). (2005). *Wer spricht? Autorität und Autorschaft in Ausstellungen*. [Who is speaking? Authority and authorship in exhibitions.] Wien, Austria: Turia + Kant.
- Kantel, J. (2009). *Per Anhalter durch das Mitmach-Web. Publizieren im Web 2.0: von Social Networks über Weblogs und Wikis zum eigenen Internet-Fernsehsender* [Hitchhiker's guide to the Social Web. Publishing in Web 2.0 using social networks, weblogs and wikis and Internet TV.]. Heidelberg, Germany: Springer.
- Kavanagh, T. (2006, February 27). Community curators. *Archives of Museum-L@Home.Ease.Lsoft.Com* [Museum discussion list]. Retrieved April 21, 2007, from <http://home.ease.lsoft.com/scripts/wa.exe?A2=ind0602D&L=museum-l&T=0&F=&S=&P=15233>
- Kohle, H. (2009). Social tagging von Kunstwerken oder: Wie bringe ich junge Leute dazu, ins Museum zu gehen? [Social tagging of works of art. Or: How to make youngsters visit a museum.] *Museum aktuell*, 161, 14-15.
- Lill, J. M., & Schweibenz, W. (2009). Museen und Web 2.0 im deutschsprachigen Internet. Erste Eindrücke und Überlegungen zum Mitmach-Web. [Museums and Web 2.0 on the German Internet. Some impressions and thoughts on the participatory Web.] *Elektronischer Tagungsband "museums and the internet 2009" - Fachtagung am 28. und 29. Mai 2009 im LVR-RömerMuseum im Archäologischen Park Xanten*. Retrieved March 20, 2010, from http://www.mai-tagung.de/mai-tagung+2009/lillschweibenz_wordmai2009.pdf
- MacArthur, M. (2007). Can museums allow online users to become participants? In Din, H., & Hecht, P. (Eds.), *The digital museum: A think guide* (pp. 57–66). Washington, DC: American Association of Museums.
- Maroevic, I. (1998). *Introduction to museology: The European approach*. Munich, Germany: Verlag Dr. Christian Müller-Straten.
- McDermott, M. (1988). Through their eyes: What novices value in art experiences. In *Annual Meeting Sourcebook* (pp. 135-162). Washington, DC: American Association of Museums.
- O'Reilly, T. (2005). What is Web 2.0: Design patterns and business models for the next generation of software. Retrieved March 20, 2010, from <http://www.oreilynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>
- Pearce, S. (1995). Authority and anarchy in a museum exhibition: Or, The Sacred Wood revisited. *Cultural Dynamics*, 7(1), 125–140. doi:10.1177/092137409500700106
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5). Retrieved March 20, 2010, from http://pre2005.flexiblelearning.net.au/projects/resources/Digital_Natives_Digital_Immigrants.pdf
- Roberts, L. (1993). Analysing (and intuiting) the affective domain. In Bicknell, S., & Farmelo, G. (Eds.), *Museum visitor studies in the 90s* (pp. 97–101). London: Science Museum.
- Schweibenz, W. (in press). How to create the worst online exhibition possible - in the best of intention. In Ramaiah, C. K. (Ed.), *Online exhibitions: A handbook to library, archival & museum professionals*.
- Simon, N. (2008, October 8). The future of authority: Platform power. *Museum 2.0 Blogspot*. Retrieved March 20, 2010, from <http://museum-two.blogspot.com/2008/10/future-of-authority-platform-power.html>

Trant, J. (2006). Exploring the potential for social tagging and folksonomy in art museums: Proof of concept. Preprint (Draft of 05/13/06) for a publication in *The New Review of Hypermedia and Multimedia. Applications and Research*. Retrieved March 20, 2010, from <http://www.archimuse.com/papers/steve-nrhm-0605preprint.pdf>

Trant, J. (2008). Tagging, folksonomy and art museums: Results of steve.museum's research. Retrieved March 20, 2010, from <http://conference.archimuse.com/files/trantSteveResearchReport2008.pdf>

Varbanova, L. (2008). The online power of users and money: Can culture gain? In Uzelac, A., & Cvjeticanin, B. (Eds.), *Digital culture. The changing dynamics* (pp. 167–180). Zagreb, Croatia: Institute for International Relations.

Vergo, P. (Ed.). (1989). *The new museology*. London: Reaktion Book.

Walsh, P. (1997). The unassailable voice. In D. Bearman & J. Trant (Eds.), *Museums and the Web 1997. Selected Papers from the First International Conference, Los Angeles, CA, March 16-19, 1997* (pp. 69-76). Pittsburgh, PA: Archives & Museum Informatics.

Weil, S. E. (1990). Rethinking the museum: An emerging new paradigm. In Anderson, G. (Ed.), *Reinventing the museum: Historical and contemporary perspectives on the paradigm shift* (pp. 74–79). Walnut Creek, CA: Alta Mira Press.

Wersig, G. (1996, September 10). *The information service of the 21st century*. Paper presented at SungKyunKwan University, Seoul, Korea. Retrieved March 20, 2010, from <http://web.archive.org/web/20070610023037/www.kommwiss.fu-berlin.de/439.html>

Wersig, G. (2000). Perspektiven der Informationsgesellschaft: Die Zeit des Wandels. [Perspectives of the information society: The time of changes.] *nfd-Nachrichten für Dokumentation*, 51, 461-465.

Wersig, G. (2001, November 29-30). Museumsbesuch und Internet. [Museum visits and Internet.] Paper presented at Fachveranstaltung Akustische Führungen in Museen und Ausstellungen vom Institut für Museumskunde Berlin, Filmmuseum Berlin, Landesverband der Museen zu Berlin, Berlin. Retrieved March 20, 2010, from <http://web.archive.org/web/20061128152314/www.kommwiss.fu-berlin.de/429.html>

Witcomb, A. (2003). *Re-imagining the museum: Beyond the mausoleum*. London: Routledge.

Worts, D. (1995). Extending the frame: Forging a new partnership with the public. In Pearce, S. (Ed.), *Art in museums* (pp. 164–191). Atlantic Highlands, NJ: Athlone.

Yasko, J. (2007). Coming to the second voming: Museums and Web 2.0. *Museum News*, 86(4), 42-47, 72.