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# Mapping an Emerging Field: Local Memory Websites

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**Abstract:** Online platforms for collecting local memories are often claimed to be a driving force of empowerment for individuals, groups and the community as a whole. Long term online participation especially plays a key role in the claims for empowerment on group and community level. However, the present research on local memory websites lacks empirical data to substantiate these claims and leaves aside questions about their wider presence, the way they are organized and how their particular structure and affordances enable online participation. To address these issues, we develop six analytical dimensions in order to analyse a comprehensive number of such sites, examining in particular their organizational and online participatory features. On the basis of a cross-sectional design including 80 cases from the Netherlands, the United Kingdom and various other countries, we show three types of websites can be distinguished, namely residential, institutional and associational. In addition, we find that the expectancy of online participation is maximized not only by organizational aspects that foster autonomy, but also by characteristics that enlarge the sense of authenticity. Our findings also show a limited number of cases with a considerable level of online participation, which offers the empirical data for analysis in terms of empowerment on group and community level. Nevertheless, we conclude that in most cases the organizational characteristics and participatory affordances of the websites are not sufficient to produce empowerment on all levels.

**Keywords:** Digital memories, community memory, empowerment, online participation, community informatics

## Local memory websites as empowering settings

In this article we map the field of local memory websites. These websites are platforms where residents collect their memories of and experiences in their neighbourhoods. These digital memories consist of audio recordings, videos, pictures or texts. A prominent case in the academic literature about such websites is the Sharing Stories project<sup>1</sup>, developed in the Kelvin Grove Urban Village (KGUV) in Brisbane, a former non-residential area that hosted military barracks, a university and indigenous people. As part of the redevelopment process, residents from the surrounding neighbourhoods were invited to a series of professionally led workshops to make short videos about their memories of KGUV's past (Klaebe & Foth, 2007). Another example is the Memory of the East project<sup>2</sup> in Amsterdam, in which, the Amsterdam Museum trained residents from the district's neighbourhoods in the collection of memories of local everyday life. Volunteers from the neighbourhood interviewed other residents or went to group meetings to collect stories together. These online memories were part of a larger exhibition. After the exhibition closed in 2004, an active group of volunteers continued to collect and present online memories (Ernst, 2006).

In the academic literature about local memory websites, empowerment effects are claimed at three levels: for individuals, for groups and for the community as a whole (Kreek & Zoonen, 2013). This fits in with the common notion of empowerment as a 'multilevel construct' covering interdependent micro, meso and macro levels (Maton, 2008; Rappaport,

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<sup>1</sup> See case 15 in the appendix.

<sup>2</sup> See case 1 in the appendix.

1987; Zimmerman, 2000). On the micro level, the benefits for the individual involved in creating digital memories are, for example, the development of technical skills (Klaebe, Foth, Burgess, & Bilandzic, 2007) or the growth of self-efficacy (Klaebe & Foth, 2006). On the meso level we see examples of empowerment like the inclusion in the media landscape of a certain underrepresented group in the cultural identity of a city (Vos & Ketelaar, 2007). An example on the macro level is how residents, by collectively presenting their memories and experiences online, become an authority next to memory institutes in how their environment should be represented for future use (Burgess & Klaebe, 2009; Ferri, Mangiatordi, & Pozzali, 2010; Klaebe, Adkins, Foth, & Hearn, 2009; Kreek & Oosterbroek, 2013). In general, the use of new media tools and the Internet is considered an important driving force for the empowering processes described in the existing literature. More specific, long term online participation on local memory websites is claimed to provide the crucial mechanisms for empowerment on meso and, especially, on macro levels, where past, present and future become connected.

Despite the promising empowering processes on different levels, the existing studies only show insight into a limited kind of local memory websites. The claims are substantiated through data collected predominantly during initiatives hosted by institutes that rely on the method of ‘Digital Storytelling’ – creating short movies<sup>3</sup> – to collect and produce digital memories. This limitation has two important consequences (Kreek & Zoonen, 2013). The first and obvious effect is that more autonomous initiatives of residents collecting local memories online with other methods – including texts or pictures – remain underexposed in the academic literature. Thus, we lack insight into the wider presence of these websites, the way they emerge and how they are organized. The second consequence is that the claims on the meso and macro level of empowerment have hardly been substantiated with empirical data on online behaviour, because the specific studied institutional cases have not generated considerable levels of online participation. Thus, there is a deficit in our understanding of the online activity and participation related to the way local memory websites are organized.

To improve the insights into this emerging field, we have examined a wide and diverse set of local memory websites with respect to their organizational and participative aspects. We first develop the issues with online participation that are identified in the present academic literature into six analytical dimensions. Next, we show how we found and selected 80 cases of local memory websites and how we coded them for the six dimensions. We then explain the analytical techniques before we illustrate the most remarkable results of mapping the cases from the field, including three types of local memory websites. In the final part we arrive at conclusions in relation to the issues with online participation and discuss further research.

## **Articulating the analytic dimensions**

Having two purposes with our analysis – a mapping of the field and insight into what influences online participation – we followed two steps to arrive at adequate dimensions. As a start, we adopted the categories that McWilliam applies in her mapping of the field of Digital Storytelling around the world (2009). These categories were host type, purpose, online presence, location, type of participant and sector of the program. Next, we investigated the academic literature on local memory websites and related topics looking for clues that influence online participation and that could contribute to our analytic dimensions. An ideal continuum of online participation – like Youtube or Flickr – consists of a platform with

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<sup>3</sup> “‘Digital storytelling’ is a workshop-based practice in which people are taught to use digital media to create short audio-video stories, usually about their own lives.” (Hartley & McWilliam, 2009, p. 3).

adequate affordances and a context in which communities of practice can emerge that autonomously create their own, authentic content as a means for social connection (Burgess & Green, 2009; Burgess, 2007; Kietzmann, Silvestre, McCarthy, & Pitt, 2012; Kreek, 2011). However, institutionalized contexts and the method of Digital Storytelling have a number of disadvantages for participation that have been acknowledged by the present academic literature. First, since many involved participants are unable to acquire the level of technical skills that are needed to make videos, professionals remain essential to their production (Burgess, 2006; Thumim, 2009). Second, although the professional is empathetic to the storylines coming from the participants, the aims of institution he or she works for influence the content of the videos (Burgess, 2006; Thumim, 2009). Moreover, in actual practice, most of the studied institutional local memory projects show an emphasis on aims in terms of micro-participation to the detriment of macro-participation (Carpentier, 2009). Third, the fixed notions of what a good and understandable digital story should consist of, force participants to reflect in a certain way on a limited set of themes (Burgess, 2006; Poletti, 2011). Fourth, the content produced often remains on the websites of the institutions, which creates a distance to the intended public (Poletti, 2011). Finally, these websites are often static, which implies that online interaction is almost impossible and that online social networks are unable to emerge around the content (Burgess, 2006).

Reconsidering these issues with respect to participation, we distilled the following final dimensions for our analysis: the initiating parties, the aims formulated on the website, the involved methods for collecting and creating memories, the desired characteristics of the digital memories, the affordances of the memory website and the level of online participation. Obviously, the context of involved parties can be of great influence together with the chosen methods to find and create digital memories. But also, the initiative's aims are important, because they can directly or indirectly affect the authenticity of the digital memories. In addition, the applied methods influence the sense of autonomy and the involvement of professionals. With respect to the desired characteristics of the digital memories, the format – e.g. video or text – influences the required skills, and thus experience of autonomy. Furthermore, the decision on the period and the frame of the digital memories is an important factor to record, because this affects the authenticity of the content. Another important dimension to map consists of the websites' affordances, since this directly influences autonomy. The final dimension we decided to add is a level of online participation by means of recording the number of contributions in the last year before data collection.

Before we turn to coding these dimensions for specific websites, we explain how we collected 80 of them.

## **Finding and selecting local memory websites**

The process to find exemplary cases of local memory websites consisted of four parallel strategies. Firstly, we collected the cases that were studied in existing literature (Kreek & Zoonen, 2013). Secondly, we searched the Internet by using terms like 'my neighbourhood stories', 'our town memory' and 'the memory of X' in different languages. Thirdly, we asked colleagues and friends in our national and international network whether they knew something that could be a local memory website. And fourthly, we snowballed from already found cases. Cases were selected that answered the following criteria:

1. The website had to be part of an initiative of online collecting of local memories.
2. The invitation to contribute a digital memory had to be in terms of a non-fictional expression about a place or an experience in the neighbourhood.
3. The initiative had to have a dedicated website, containing at least 20 digital memories.
4. At least five residents had to be involved in the creation of digital memories.
5. The initiative had to be limited to a neighbourhood, district, city or town.

The selection resulted in a set with 80 cases (see Appendix) that satisfy these criteria. The origins of the cases are: 34 Dutch, 24 British, 9 American, 4 Australian, 3 Argentinean, 3 Belgian, 2 German and 1 Spanish. The dispersion in these origins does not represent the frequencies of the occurrences of local memory websites in these countries, but is a result of the snowball sampling strategy for finding cases (Bryman, 2008). Many local memory websites have unique names such as 'Boisevoices' (case 50) and 'Strandlines' (case 80). A number of cases were found through the involved community software builder: eight through Community Sites in Britain and five through Mediamatic in the Netherlands. The organic process of finding cases and applying the selection criteria produced a set of comparable cases with a certain degree of variation within and across the dimensions. The size and composition of the set allow, in our opinion, tentative conclusions with respect to the field of local memory websites in general.

In the next section we show how the set of attributes for each dimension developed inductively during the coding of the cases.

## **Analyzing the data in two phases**

The analysis processes consisted of two consecutive phases, a qualitative one to code the data as a preparation for a quantitative one in which we applied exploratory data analysis.

### **Coding the dimensions**

This first qualitative phase of the analysis is called 'data reduction' by Miles and Huberman (1994), because it compresses the raw data for each case to text elements organized by a limited set of codes. In order to conduct this process, the websites' texts that contained the information related to the dimensions, were imported into a software program for qualitative data analysis<sup>4</sup>. This way, we elaborated the six analytical dimensions inductively by coding attributes that characterized each of them on a more concrete level.

With respect to the dimension of involved partners, we found participating parties to be local associations, historical institutes such as museums and archives, residents (as initiators), local media, social welfare institutes, knowledge institutes such as schools, universities and libraries and, finally, governmental bodies. We put parties like artists and social entrepreneurs in a rest category 'other parties'. We furthermore distinguished a group of 'supporting' parties which in addition to the already mentioned parties also contained donors, members paying contribution, buyers of products and funds.

The dimension of aims developed into five attributes. One kind of aims focused on preserving memories without any explicit social benefit. Other aims were coded as individual learning on the micro level of empowerment. A third set of aims was coded as inclusion on the meso level of empowerment. Fourth, aims on the macro level of empowerment were coded as community building. Finally, there were aims in terms of products such as an exhibition, a play or a book. To see whether the aims labelled as community building bared a relation to concepts found in the research literature on macro level (Kreek & Zoonen, 2013), we also categorized these aims deductively with the concepts community memory, cultural citizenship and community capacity.

The methods dimension refers to the finding and creating of content for the website and includes researching archives, creating individually from memory, co-creation and interviewing. The former two are done either by a professional or a resident, whereas the latter two can be a professional-resident or a resident-resident interaction.

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<sup>4</sup> The program MaxQDA 10.

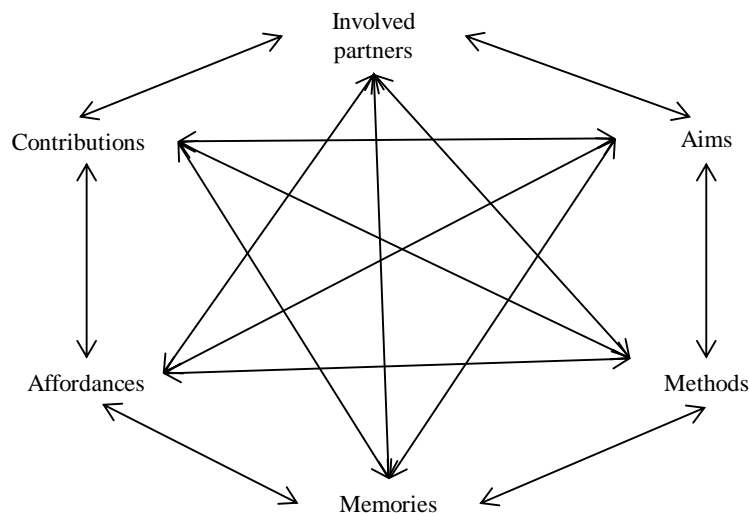
The digital memories' characteristics consist of three elements: format, period and frame. The possible formats found were audio recordings, videos, texts and image. The periods which the content on the website describe, were: the past, the present and the future. The stories were framed with different vocabularies on the websites. We found variations of 'local history' and 'local heritage' on one side and 'everyday memories' and 'experiences' on the other side. In a few cases we found 'reports' as a label for the content.

We divided the kinds of affordances in two groups: interaction and navigation. Interaction was developed into: adding a story through e-mail, adding a story directly to the website, adding comments on a memory, adding a question and adding something to a guestbook. For navigation, we identified: categories or themes, latest stories, latest comments, news, search field, contributors as categories and associative browsing.

As a measure for online participation, we took the number of contributions in a certain period. From the last 27 cases we coded, we collected the total number of contributions and the number of years the website had been in use. This led to an average of 343 contributions per year and a median value of 132 per year. In order to distinguish the more active websites from the less active websites, we decided to record the number of contributions (X), during the last complete year prior to the data collection, in the following ranges:  $X = 0$ ,  $0 < X < 50$ ,  $50 \leq X < 100$  and  $X \geq 100$ .

### Exploring the data

The coded data from the first phase is the basis for the second, quantitative phase of the analysis. It offers the basis for a cross-sectional design with some multiple case study elements (Bryman, 2008). In this article, we focus on an exploratory data analysis (Tukey, 1977) for which we need a specific function of the codes, that of Boolean operator. This means that for each case every attribute, for example 'format: video', gets the value 0 when it is absent and 1 when it is present. Consequently, if we transform all codes to Boolean variables this results in a dichotomous data-matrix on which various quantitative operations can be executed. We have mainly generated frequency tables, hierarchical clusters (Burns & Burns, 2009) and contingency tables in a software program for statistical analysis<sup>5</sup>. We investigated the results for patterns within and between the dimensions as depicted in Figure 1.



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<sup>5</sup> The program SPSS 19.

**Figure 1: The investigated relations between the dimensions**

## **Patterns across the dimensions**

Although the analysis shows interesting results within the dimensions, in this article we only present the results of the analysis across pairs of dimensions and across multiple dimensions.

### **Patterns across pairs of dimensions**

The initiatives started by combinations of institutes – including the government – are relatively rich in aims, especially in terms of individual learning, inclusion and community building. Community building is articulated as constructing community memory once a historical institute is involved, whereas an involved social welfare institute puts more emphasis on community building in terms of cultural citizenship. The cases initiated by residents without partners lightly prefer preserving and community building compared to the other aims. Once they work together with historical institutes this preference gets stronger and shifts towards community building in the capacity of community memory. Solo operating associations also mainly aim for preserving memories. Once they work together with historical and knowledge institutes, constructing community memory and individual learning processes become a stronger part of their repertoire.

Institutes and combinations thereof, are likely to choose for methods in which professionals play a role. At the same time, these cases also involve residents creating content from their own personal memory. Once welfare institutes or governmental bodies are involved, there is more emphasis on residents interviewing residents. Involved historical institutes put more emphasis on residents researching archives and residents depending on their own memories. The cases initiated by residents are characterized by dependence on personal memory to create digital content. Finally, the cases initiated predominantly by local associations prefer residents researching archives and residents interviewing each other.

Across the dimensions of involved partners and digital memory formats, we notice that institutes co-occur with the video format more than average. Cases with associations among its initiators have a higher than average preference for the use of audio recordings. Residents' initiatives, however, show a high presence of images and texts and, at the same time, low presence of video or audio. With respect to the periods described by the memories, local associations prefer a limitation to memories about the past. Historical institutes and social welfare institutes put more focus on the present, whereas involved knowledge institutes and social welfare institutes also incidentally include future expectations. Residents seem equally interested in both the present and the past. When it comes to framing the memories, we see that involved historical institutes or local associations emphasize a historical frame. However, involved social welfare institutes and residents increase the framing of memories in terms of everyday life.

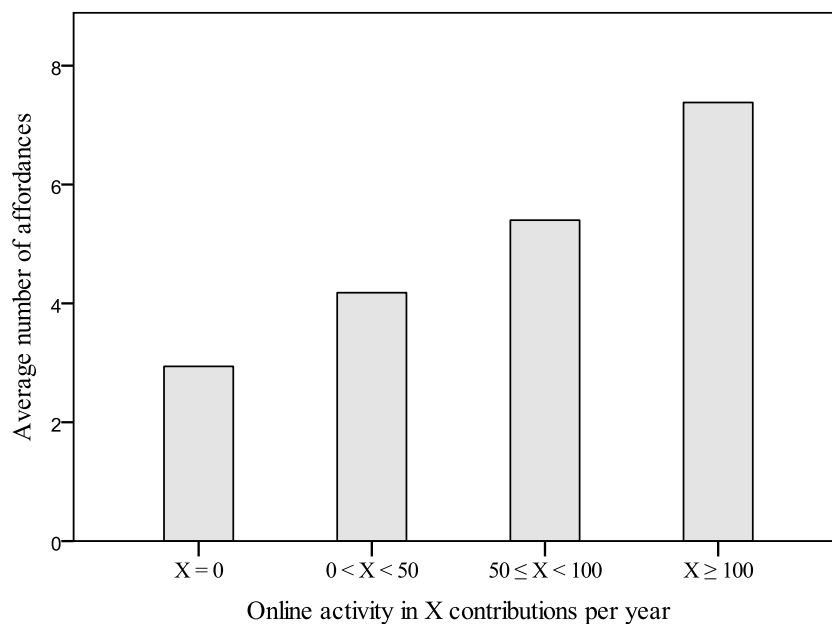
Inclusion, individual learning and community building by means of constructing community memory associate with interviewing methods, both by professionals and residents. In the cases where community building is formulated in terms of cultural citizenship and community capacity, co-creation methods increase above average, both professional-involved and residents-only. These cases also show a presence of products more than average. The cases that are characterized by preserving aims in combination with constructing community memory show a high presence of methods where professionals research archives and residents create expressions from personal memory. On the other hand, the cases that are only characterized by preserving memories show predominantly residents researching archives.

Cases where learning, inclusion and cultural citizenship are important, often also exhibit videos and expressions of the present and future, which are framed as everyday stories. A higher than average presence of preserving aims and community building in terms of

community memory co-occurs with a higher presence of the audio format while the other memory characteristics are more or less equal with their averages for the whole dataset. When preserving as aim is present more than average and the other aims are present below average, the format tends to be combination of texts and images while the period described by the memories shifts to the past and the frame becomes predominantly historical.

Resident-only methods are predominantly directed towards texts and images, and hardly ever towards audio recordings and videos. Professional-involved methods, on the other hand, co-occur with higher presences of video and audio and lower presences on texts and images. In addition, interviewing methods associate with the audio format. Cases with co-creation and interviewing methods – both by professionals and residents – exhibit an emphasis on everyday and reporting stories about the present and the future. A high presence of residents writing from personal memory coexists with a high presence of memories about the present and the past which are more framed as historical than average. A focus on researching archives both by professionals and residents correlates with memories only about the past predominantly framed as historical.

Among the cases in our dataset we found 18 inactive websites ( $X = 0$ ), 38 cases between 1 and 50 contributions ( $0 < X < 50$ ), 10 cases between 50 and 100 contributions ( $50 \leq X < 100$ ) and 13 cases (see Appendix) with more than 100 contributions ( $X \geq 100$ ). One case did not mention any date with the contributions, which made it impossible to identify its online activity. Assuming a relation between the affordances and the number of contributions, we counted the average of the number of affordances (interactional and navigational) for each range of online activity in terms of number of contributions during the last complete year prior to the data collection (see Figure 2).



**Figure 2: The correlation between affordances and online activity**

The bar chart in Figure 2 shows that there is a correlation between online activity and the number of affordances. More specifically, it seems likely that the number of affordances facilitate a higher online activity. We also explored the relations between the first four dimensions and the number of affordances. Initiating institutes have a positive influence on the number of affordances, whereas cases started by local associations have lower numbers of affordances. A rich set of aims also correlates with the number of affordances, as well as methods in which residents write from personal memory or interviews others. The cases where residents research archives show a low presence of affordances. Furthermore, cases with at least text and videos tend to have more affordances than, for example solely video or



audio. Cases with memories describing the present and the past have considerably more affordances than cases where memories only emphasize the past. Similarly, cases where the memories are framed as everyday and historical facilitate online activity better than cases which frame their memories as historical only.

Although the set with more than 100 contributions is small, the observations with respect to the relations between the dimensions and the number of affordances seem to be confirmed by exploring the 13 cases belonging to it. In the set, we see low presence of local associations and high presence of historical institutes and governmental bodies. Aims in terms of preserving in combination with community memory are highly present. With respect to methods, residents creating content from personal memory and interviewing other residents are more present than average. Among the 13 cases we also see either combinations of the formats texts and images or combinations of images, texts, audio recordings and videos. In addition, the cases with memories describing the present and the past are more frequent in the subset than cases where memories only emphasize the past. Similarly, the subset contains more cases where the memories are framed as everyday and historical than cases with a historical frame only.

### **Patterns across multiple dimensions**

We have shown that associations can be identified in the dataset across the dimensions in a pair-wise manner. Re-reading these results leads to the conclusions that these associations are not only identifiable between two dimensions, but often seem to have a transitive character across more than two dimensions. The cluster of local associations, for example, correlates with aims in terms of preserving and with residents researching archives. At the same time, the aim of preserving correlates with residents researching archives. Thus certain combinations of characteristics are interrelated across several dimensions and keep a subset of cases together. This leads to three subsets of local memory website initiatives that describe a relatively large part of our dataset.

The first subset, that we call ‘residents’ initiative’, is the privately financed initiative started by one or more residents with aims directed to preserving local memories in order to strengthen the community. In what area the latter should occur is often unpronounced. Its memory collections contain mainly everyday stories consisting of texts with images created by residents based on their own personal memories about the neighbourhood up to the present. The memory websites initiated by residents facilitate online activity averagely compared to the other subsets.

The second subset could be called ‘institutions’ initiative’, because it consists of a funded or subsidized cooperation of institutions which have various aims. These cases also aim for community building, often made explicit in terms of community memory, but also in terms of cultural citizenship. At the same time they would like to improve the competences of participating residents and include various groups from the neighbourhood. Preserving plays a less important role in this subset. In the methods applied, the professional often plays a role, although residents also create digital memories about their own personal experiences. This results in a collection of everyday and historical memories in various formats in which the present is represented equally as the past and even the future incidentally plays a role. Institutional cooperation leads to a higher level of interaction affordances than the residents’ initiatives.

The third subset, the ‘association’s initiative’, is identified as an initiative by local associations organizing their support mainly by membership fees and donations. Next to community development in terms of community memory, the aim of preservation is a strong part of their agenda. Residents examine different kinds of archives to arrive at memories – texts and images – about their environment, but they also interview other residents, which in turn sometimes leads to the presence of audio recordings. These local memory websites show memories predominantly about the far past framed as historical. The typical association’s memory website has less affordances than the cases in the other two subsets.

In the overlap of these three types we also see some smaller groups of exceptions like local associations cooperating with knowledge institutes and historical institutes with residents. We have also seen government operating solo a number of times.

Among the 13 cases that receive more than 100 contributions per year (see Appendix) we see three occurrences of institutional-only initiatives, three resident-only initiatives and none local association-only initiatives. Local associations, however, do occur three times in cooperation with institutes. The cooperation between historical institutes and residents is also present three times, two times with one other institute. One case is initiated by another party, in effect a communication company. All except one case aim for preserving in order to strengthen the community in terms of community memory. Other aims like learning skills and inclusion of groups are in a minority, but present. The methods applied in these 13 cases are clearly resident-based. In almost all cases residents create stories from their personal memory and in half of the cases residents interview other residents. All cases contain text and images, while two also have audio and video format. The memories cover past and present in all cases except one that focuses on the past only. With one exception, the content is framed as everyday memories, 10 times together with a more historical frame.

## **Conclusions and discussion**

From this description about the organizational and participative aspects of 80 cases we can draw some important conclusions and reflect on the issues derived from the existing research literature. One obvious conclusion is that the field of local memory websites is not an institutional field only, as one might start to believe based on the existing literature. Instead, local memory websites are often initiated by residents and local associations, as the three types of local memory websites show. Another straightforward conclusion is that cases with a high online activity currently are available in the field, whereas they are nearly absent in the studies on local memory websites with its focus on institutional initiatives based on Digital Storytelling. At the same time, the low number of cases with high online activity should adjust the expectations one might have constructed of local memory websites based on the available studies. Although the studied cases might facilitate empowerment on the micro-level, they hardly show a continuum of participation in which participants autonomously create and publish digital memories based authentic topics which invite for affective online communication; the process that fosters empowerment on macro levels (Burgess & Green, 2009; Burgess, 2007; Kreek, 2011). Reconsidering the issues formulated above, we arrive at the following conclusions with respect to the relation between organizational aspects and online participation.

### **Online participation in the field**

High involvement of institutes does not lower online participation. On the contrary, current institutional websites invite well for interaction and, in addition, their aims, the formats, periods and frames seem to vary sufficiently in order to nurture both autonomy and authenticity on the side of the participating residents. This in turn feeds the continuum of participation which is crucial for empowerment on macro levels (Burgess, 2007; Kreek, 2011). One remaining threat with respect to authenticity that might occur is that involved institutes put too much emphasis on the involvement of professionals in the methods.

Indeed, a high presence of professional-involved methods seems to lower the online participation. In the dataset these methods correlate with low presences of affordances and with low numbers of contributions. The presence of professionals seems to influence the participants' feeling of being allowed to tell authentic memories as is indicated by Poletti (2011) and Thumim (2009). In addition, our data shows that the opposite of this proposition is also valid: low presence of professionals – and thus high presence of residents – in the methods generates more online activity.

With respect to the influence of the formulation of the aims on online participation, it is harder to arrive at conclusions. If we apply the Kellogg Foundation's logic model for interventions (W. K. Kellogg Foundation, 2004) on the aims, we arrive at the following. Preserving digital memories could be categorized in 'outputs' which are direct products available in the short term. Individual learning as well as inclusion comply with 'outcomes' which could be defined as longer term achievements like learning certain skills and changed behaviour. Finally, the community development aims are labelled as 'impact' with incubation up to seven years. Carpentier claims that merely focusing on a short term aim like 'preserving' offers too little incentive to reach a high level of long term online activity (2009). Our results neither contradict, nor confirm this claim at this stage.

Less accessible formats seem to lower online participation. Among the cases with 100 or more contributions, four cases are present with audio recordings and videos, but at the same time they also include texts and images. The four cases in our dataset merely with audio or video formats – or a combination – occur with the lowest online activity in our dataset; they are all inactive as is implied by Burgess (2007) in discussing autonomy. Cases where young adults are among the participants might soon become an exception to this (e.g. case 21), because their technical skills are different than most of the older participants in our dataset.

As we expected, a minor number of affordances lowers online participation. In the literature it is assumed that, among other things, a lower number of affordances on the website decrease online participation (Burgess, 2007; Kietzmann et al., 2012). Our data indeed confirms this assumption and also its opposite that a higher number of affordances increases online participation. Obviously, affordances offer no guarantee for online activity as, for example, case 8 shows. This case used to have six affordances, but, after a period of inactiveness and loss of funds, the memories were moved to a more static website of a local association in order to preserve them.

### **Further research**

Some of the cases could be said to organize sufficient conditions in favour of online participation, but still do not realize high levels of online activity. Of course, one explanation is that some of the cases were only small-scale – for example covering one street – which does not fit with our characterization of 100+ contributions as being exemplary of high online activity. In order to get better insight into variations like this, we would have to apply pattern matching analysis to our textual data following the replication logic as described by Yin (2009). Another explanation could be that, like in case 8, the core group of participating residents falls apart and follow up is lacking.

Despite there being no strict or complete recipe for a successful local memory website in terms of online participation, the conclusions constitute an elaboration of the issues in the current academic literature, leading us to propose some tentative rules of thumb. Participants should indeed have a high level of autonomy to contribute memories or comment on them. In addition, and partly following from this autonomy, they should have control over the content of their contributions in order for them to be authentic. Based on our findings, this implies a combination of aims, a minor role for professionals in the methods, a combination of all formats, memories up to yesterday and a reasonable set of affordances. These characteristics maximize the chance of a local memory website to mature into a longer term phenomenon with a critical mass of memories and comments carried by many people from the local community in different roles. How the cultural dynamics of the affective online communication (Burgess & Klæbe, 2009; Poletti, 2011) fuels such a local memory website and its empowerment on meso and macro levels is an important question for future research. As shown in this article, the empirical data for such research is available.

### **References**

Bryman, A. (2008). *Social Research Methods* (3d ed.). New York: Oxford University Press.

- Burgess, J. (2006). Hearing Ordinary Voices: Cultural Studies, Vernacular Creativity and Digital Storytelling. *Continuum: Journal of Media and Cultural Studies*, 20(2), 201–214.
- Burgess, J. (2007). *Vernacular creativity and new media* (PhD thesis). Queensland University of Technology. Retrieved from <http://eprints.qut.edu.au/16378/>
- Burgess, J., & Green, J. (2009). *Youtube*. Cambridge: Polity.
- Burgess, J., & Klaebe, H. (2009). Digital storytelling as participatory public history in Australia. In J. Hartley & K. McWilliam (Eds.), *Story Circle: Digital Storytelling Around the World* (pp. 155–166). London: Wiley-Blackwell.
- Burns, R. P., & Burns, R. (2009). *Business Research Methods and Statistics Using SPSS*. London: Sage Publications.
- Carpentier, N. (2009). Digital Storytelling in Belgium Power and Participation. In J. Hartley & K. McWilliam (Eds.), *Story Circle: Digital Storytelling Around the World* (pp. 188–204). London: Wiley-Blackwell.
- Ernst, M. (2006). East Amsterdam, an outreach project. In R. Kistemaker (Ed.), *City museums as centres of civic dialogue? - Proceedings of the Fourth Conference of the International Association of City Museums* (pp. 107–112). Amsterdam: Amsterdam Historical Museum.
- Ferri, P., Mangiatordi, A., & Pozzali, A. (2010). Don't Break the Memory Line: Social Memory, Digital Storytelling and Local Communities. In M. Lytras, P. de Pablos, A. Ziderman, A. Roulstone, H. Maurer, & J. Imber (Eds.), *Organizational, Business, and Technological Aspects of the Knowledge Society* (Vol. 112, pp. 453–459). Berlin: Springer Berlin Heidelberg.
- Hartley, J., & McWilliam, K. (2009). Computational Power Meets Human Contact. In *Story Circle: Digital Storytelling Around the World* (pp. 3–15). London: Wiley-Blackwell.
- Kietzmann, J. H., Silvestre, B. S., McCarthy, I. P., & Pitt, L. F. (2012). Unpacking the social media phenomenon: towards a research agenda. *Journal of Public Affairs*, 12(2), 109–119.
- Klaebe, H., Adkins, B., Foth, M., & Hearn, G. (2009). Embedding an Ecology Notion in the Social Production of Urban Space. In M. Foth (Ed.), *Handbook of Research on Urban Informatics: The Practice and Promise of the Real-Time City* (pp. 179–194). Hershey, PA: Information Science Reference, IGI Global.
- Klaebe, H., & Foth, M. (2006). Capturing community memory with oral history and new media: The Sharing Stories Project. In L. Stillman & G. Johanson (Eds.), *3rd International Conference of the Community Informatics Research Network* (Vol. 2006). Prato, Italy: Monash Centre. Retrieved from <http://eprints.qut.edu.au/archive/00004751>
- Klaebe, H., & Foth, M. (2007). Connecting communities using new media: The sharing stories project. In L. Stillman & G. Johanson (Eds.), *Constructing and sharing memory: community informatics, identity and empowerment* (pp. 143–153). New Castle: Cambridge Scholars Publishing.
- Klaebe, H., Foth, M., Burgess, J., & Bilandzic, M. (2007). Digital Storytelling and History Lines: Community Engagement in a Master-Planned Development. In *13th International Conference on Virtual Systems and Multimedia (VSMM'07)* (pp. 143–153). Brisbane: Springer.
- Kreek, M. de. (2011). Multilevel participation within on-line collections of local memories as a practice of cultural citizenship. In *Digital Strategies for Cultural Heritage 2011*. Rotterdam: Digital Heritage Netherlands. Retrieved from <http://www.storyhood.nl/2011/12/dish-talk/>
- Kreek, M. de, & Oosterbroek, M. (2013). The Future of Local Memory Websites as Empowering Niches in Amsterdam. In J. A. Botia & D. Charitos (Eds.), *Workshop Proceedings of the 9th International Conference on Intelligent Environments* (pp. 653–662). IOS Press. doi:10.3233/978-1-61499-286-8-653
- Kreek, M. de, & Zoonen, L. van. (2013). New Directions in Research on Local Memory Websites. *Journal of Social Intervention: Theory and Practice*, 22(2), 113–130.

- Maton, K. I. (2008). Empowering community settings: agents of individual development, community betterment, and positive social change. *American journal of community psychology*, 41(1-2), 4–21.
- McWilliam, K. (2009). The Global Diffusion of a Community Media Practice Digital Storytelling Online. In J. Hartley & K. McWilliam (Eds.), *Story Circle: Digital Storytelling Around the World* (pp. 37–75). London: Wiley-Blackwell.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Newbury Park: SAGE Publications.
- Poletti, A. (2011). Coaxing an intimate public: Life narrative in digital storytelling. *Continuum: Journal of Media and Cultural Studies*, 25(1), 73–83.
- Rappaport, J. (1987). Terms of Empowerment - Exemplars of Prevention: Toward a Theory for Community Psychology. *American journal of community psychology*, 15(2), 121–48.
- Thumim, N. (2009). “Everyone has a story to tell”: Mediation and self-representation in two UK institutions. *International Journal of Cultural Studies*, 12(6), 617–638.
- Tukey, J. W. (1977). *Exploratory data analysis*. Reading, MA, 231.
- Vos, V., & Ketelaar, E. (2007). Amsterdam Communities’ memories: Research into how Modern Media can be applied to archive Community Memory. In L. Stillman & G. Johanson (Eds.), *Constructing and Sharing Memory: Community Informatics, Identity and Empowerment* (pp. 330–342). New Castle: Cambridge Scholars Publishing.
- W. K. Kellogg Foundation. (2004). Logic Model Development Guide. Retrieved March 31, 2013, from <http://www.epa.gov/evaluate/pdf/eval-guides/logic-model-development-guide.pdf>
- Yin, R. K. (2009). *Case Study Research: Design and Methods: Fourth Edition*. Thousand Oaks: Sage Publications.
- Zimmerman, M. A. (2000). Empowerment Theory - Psychological, Organizational and Community Levels of Analysis. In Julian Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 43–63). Dordrecht: Kluwer Academic Publisher.

### Appendix: List of cases

- Case 01 <http://www.geheugenvanoost.nl>\*
- Case 02 <http://www.goudanet.nl>
- Case 03 <http://www.geheugenvanplanzuid.nl>\*
- Case 04 <http://themuseumonline.com/westminsterstories>
- Case 05 <http://www.verhalenbankbrugge.be>
- Case 06 <http://www.memoriavirtual.org>
- Case 07 <http://www.geheugenvangemert.nl>
- Case 08 <http://www.geheugenvanheemskerk.nl>
- Case 09 <http://heiloo.geheugenvan.com>
- Case 10 <http://www.geheugenvangieten.nl>
- Case 11 <http://milehighstories.com>
- Case 12 <http://www.geheugenvantilburg.nl>
- Case 13 <http://www.geheugenvanalmere.nl>
- Case 14 <http://www.geheugenvanwest.nl>\*
- Case 15 <http://www.kgurbanvillage.com.au/sharing>
- Case 16 <http://fremantlestories.com>
- Case 17 <http://www.selstonia.org.uk>
- Case 18 <http://www.jacksdale.org.uk>
- Case 19 <http://www.achteruitkijkspiegel.nl/>
- Case 20 <http://www.ourportlandstory.com/>
- Case 21 <http://www.nieuwsenmedia.nl/kleuren/>
- Case 22 <http://www.heiloo.dvonline.net/startscherm.htm>
- Case 23 <http://www.oudcastricum.com/index.html>

- Case 24 [http://www.oudakersloot.nl/jaarboek\\_2011.html](http://www.oudakersloot.nl/jaarboek_2011.html)
- Case 25 <http://www.driebergen.org/jdesqparent.htm>
- Case 26 <http://www.fledderkerspel.nl/W/Tekst/Hp/Totaal.htm>
- Case 27 <http://www.uceestation.nl/>
- Case 28 <http://www.buurtboeken.nl/>
- Case 29 <http://www.onsamsterdam.nl>
- Case 30 <http://www.stichtingstraat.nl>
- Case 31 <http://www.la-floresta.com.ar/historia.htm>
- Case 32 <http://www.dideldom.com>
- Case 33 <http://blog.kroniekvanenhuizen.nl>
- Case 34 <http://www.jordaaninfo.nl>
- Case 35 <http://www.buurtverhalen.be>
- Case 36 <http://www.oranjeboompleinbuurt.nl>
- Case 37 <http://www.buurtmuseumkamperpoort.nl>
- Case 38 <http://www.welkomincrooswijk.nl>
- Case 39 <http://www.ede-west.nl/node/50>
- Case 40 <http://www.flevolandsgeheugen.nl>
- Case 41 <http://www.barriada.com.ar>
- Case 42 <http://luganonuestro.wikispaces>
- Case 43 <http://www.von-zeit-zu-zeit.de>
- Case 44 <http://buurtwinkels.amsterdammuseum.nl/>
- Case 45 <http://neighbourhoodstories.net.au/>
- Case 46 <http://www.columbusneighborhoods.org>
- Case 47 <http://www.thestoryproject.org.au/>
- Case 48 <http://westparkhistory.com/>
- Case 49 <http://www.deridderbuurt.nl>
- Case 50 <http://www.boisevoices.com/>
- Case 51 <http://www.memoriesnorthtyne.org.uk/about.php>
- Case 52 <http://www.oldewythehistory.com/>
- Case 53 <http://www.hoodturkey.com/>
- Case 54 <http://www.verhalenvandordrecht.nl/>
- Case 55 <http://www.bna-bbot.be>
- Case 56 <http://www.cityofmemory.org/>
- Case 57 <http://highfields.dmu.ac.uk/>
- Case 58 <http://www.bottesfordhistory.org.uk/>
- Case 59 <http://www.chaddesdenhistoricalgroup.co.uk>
- Case 60 [http://newhamstory.com/\\*](http://newhamstory.com/*)
- Case 61 <http://www2.lewisham.gov.uk/lbl/LewishamVoices/introPage.htm>
- Case 62 [http://www.heliermemories.org.uk/\\*](http://www.heliermemories.org.uk/*)
- Case 63 [http://www.rodbournehistory.org/\\*](http://www.rodbournehistory.org/*)
- Case 64 <http://www.peoples-story.co.uk/>
- Case 65 <http://www.wildrosearts.net/>
- Case 66 <http://www.morleyarchives.org.uk/>
- Case 67 <http://www.stillingtoncommunityarchive.org/>
- Case 68 [http://www.mybrightonandhove.org.uk\\*](http://www.mybrightonandhove.org.uk*)
- Case 69 [http://www.canveyisland.org/\\*](http://www.canveyisland.org/*)
- Case 70 [http://www.ournewhaven.org.uk/\\*](http://www.ournewhaven.org.uk/*)
- Case 71 <http://www.churchstreetmemories.org.uk/>
- Case 72 [http://www.ourgreatyarmouth.org.uk/\\*](http://www.ourgreatyarmouth.org.uk/*)
- Case 73 [http://www.ourmansfieldandarea.org.uk/\\*](http://www.ourmansfieldandarea.org.uk/*)
- Case 74 <http://www.livinghere.org.uk/>
- Case 75 <http://www.erinnerungen-im-netz.de>
- Case 76 [http://www.heerlenvertelt.nl\\*](http://www.heerlenvertelt.nl*)
- Case 77 <http://www.placesforall.co.uk/>
- Case 78 <http://www.zandvoortvroeger.nl/>

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Case 79 <http://www.stjohnswoodmemories.org.uk/>

Case 80 <http://strandlines.net/>\*

(\* = more than 100 contributions in the last complete year before data collection)