Exploring the Potential of Using Digital Displays and Social Media Channels to Promote Connectedness for the Third Culture Kids Community

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Abstract

This paper explores the potential of using social media channels and digital displays deployed in public places to foster connectedness for Third Culture Kids. Third Culture Kids (TCKs) is a designation that refers to children who spend a significant number of their formative years outside their parents' native culture(s), and who live in several countries other than the one stated on their passport during that time. In order to start understanding the potential requirements for an enabling system, three exploratory studies were conducted: two of these studies focused on the current usage of social media channels by TCKs, while the third study investigated the possibilities of airports as meaningful places to deploy possible community-building technologies for TCKs. The preliminary findings were highly encouraging, providing a basis for us to devise a programme for future work.

Introduction

This paper presents an on-going research effort that intends to bring together two distinct but complementary lines of research. One line of research is currently exploring how a particular migrant community, Third Culture Kids, use social media channels. The other line of research has been exploring how to design digital displays to be located public places to enhance community activities and enrich the physical space with meaningful digital activities. The point of contact between these two lines of research is social media. The open nature of social media enables the potential of new decentralized and less hierarchical social structures and promotes new dynamics of social and cultural practices. These new technologies can foster the perception

among people that they belong to a larger community by virtue of the identity they share online rather than to where they physically lived or culturally belong. In this sense, social media is increasingly playing a key role in enabling *collective identity*, a *sense of community*, and supporting *collective cultural creation* among citizens across the globe. The potential for creativity in online communities is relevant for migrant communities to whom social media is becoming a distinctive arena of social life. Accordingly, we argue that it serves as a source of community-building among people who share social and cultural affinities but with restricted opportunities for offline meetings.

"Third Culture Kids" (TCKs) is a term popularly referring to children who spend a significant number of their formative years outside their parents' native culture(s), and who live in several countries other than the one stated on their passport during that time. While abroad, they acquire meaningful relationships with other cultures (after Pollock and van Reken, 2009). TCKs represent increasing numbers of children of people moving abroad as a result of parental career choices in a globalized labor market (e.g., diplomatic service, corporate employees, military personnel, missionaries, researchers and academics, skilled workers and individual entrepreneurs, NGO employees, international journalists, international school educators, professional sports people, etc.). Culturally, they are defined by the lack of cultural ownership, a sense of liminality between cultures and a sense of community, distinguished from other migrant/expatriate and diaspora communities, based on their onward mobility during their formative years (Pollock and Reken, 2009; Désilets, 2015; Tanu, 2015; Moore and Barker, 2012; Bagnall, 2015). As a global nomadic community, they take fully advantage of Web 2.0 media, not only to "feel connected to the world" and to "be connected between them", but to acknowledge and build their sense of community.

Material posted on social media is also a source of information on TCKs' personal and social self-perceptions, interesting enough to be analysed by any researcher who wishes to relate their personal and collective experiences into issues of cultural identity. Most of this material consists of personal narrations or accounts but, by applying qualitative and quantitative analysis techniques, it is possible to identify familiar elements, similarities and patterns from which we can create a vivid picture of the on-going construction of these community identities.

In relation to other enabling technologies for community-building, situated digital public displays have the potential to offer networked solutions that enables digital displays to become a promising medium of communication medium, promoting exchanges of information between the online and the offline worlds (see for example, José et al. 2008; 2014; Memarovic, 2015; Nisi et

al., 2016). Furthermore, this digital medium has been explored to foster community-building based on place-bound practices to promote connectedness between group members (for a review, see, for example, Memarovic, 2015; Mueller et al., 2010). Wouters et al. (2014) describe the design and evaluation of a situated public display system that aimed at fostering communication between local households and the overall neighborhood. The design of the system followed a participatory design approach. The prototypes thus created allowed the authors to reflect on the functionalities and design options that promoted engagement with the system. In turn, the engagement generated from this approach seemed to facilitate communication practices that were very much based on the particulars of the places and surrounding communities. This paper is relevant to the question because we notice a tension between designing for places or promoting practices that connect distinct places.

The remaining of the paper is arranged as follows: in the next section we present some exploratory research questions, followed by some empirical work investigating how TCKs are apparently making use of social media channels., An analysis of the results from the exploratory studies is set out in the conclusion, taking into consideration the challenges involving the design of situated digital public displays. Following this analysis, we also present the recommended next steps for this line of investigation.

Research questions

In this work, we intend to start investigating methods of designing situated digital public displays to support TCK's social media interactions in public places meaningful for them. Considering the exploratory nature of our current efforts, the research project has been designed according to the following initial research questions:

  a) How is social media being used by TCKs to explore their identity issues and sense of community belonging?
  b) What public spaces are relevant for the community of TCKs?
  c) Can situated digital public displays be accepted as a means to promote communication between TCKs?
  d) Which features should digital public displays have in order to connect TCKs and their meaningful places?
  e) What contributions can TCKs make to the enrichment of meaningful public places to them using digital displays?

However, in this paper, and taking into consideration that our work is in its early stages, the empirical work to be carried out will principally address questions (a) and (b). Questions (c), (d) and (e) will be discussed with respect to future stages of this research.

Exploratory studies and corresponding preliminary results

First exploratory study

According to Schmidt (2013) the main affordances which distinguish Twitter from other forms of online distribution of messages are the particular ways that it articulates relationships: it builds up networked, distributed conversations of "micro-content" or "nano-stories", enabling people to stay in touch over distance and reassuring participants of shared social bonds (Schmidt 2013: 9). Based on these factors, we consider it appropriate to analyse a Twitter chat for TCKs both in quantitative terms (832 tweets generated by 51 contributors) and qualitative terms (discourse analysis). For data collection, we decided to retrieve data from the hashtag #TCKchat, created by an online consulting company for TCKs (Bate Consulting). Between 16 and 17 September 2015, one particular chat forum occurred on the topic "Global Citizenship Explored". Our results showed (Colomer and Schmidt 2015) that, for the topic under discussion, Twitter is a good place to distribute small or micro-conversations but not for the media to debate content. Instead, Twitter demonstrated its ability to help people to stay in touch over a distance and to reassure participants of their shared social bonds, which is an important objective for TCKs. From reading all the tweets recorded from the #TCKchat event, there was a great sense of companionship and amity among the participants, which is certainly a good basis for a sense of community.

Second exploratory study

In the second exploratory study (Sch midt, 2016), a wider analysis of 24 open Facebook groups dedicated to TCKs was performed (using text categorization software packages NVivo 11 and Semantria) in order to identify what is important for members to share and discuss within the community. The findings show that sharing experience, community and identity are the most important topics being addressed within the groups. Words like "moved" and "community" were among the most frequently used in the texts written by TCKs. The main themes (so called nodes) identified by NVivo were Group, TCK, and Community. Semantria identified "identity", "globalization" and "passport" as the most frequently mentioned categories out of a custom category list. The custom query results show TCK, "terms", and "culture" as the main topics of discussion, followed by "education", "globalization", and "identity". 225 places and countries from all over the world appear in the texts, with France being the most common by far.

Third exploratory study

Airports are certainly a common reference in most publications about and by TCKs (e.g., Iyer 2000). To determine whether this phenomenon is part of their collective memories, an e-survey has been developed (Colomer 2017). The results confirm that airports are meaningful spaces for TCKs: they are the places in which TCKs' global mobility occurs, and singularly symbolize the

transitional life and their in-flux worlds, the movement and the journey. In heritage studies terms, Colomer (2017) suggests that the potential value of these places of mobility as actual heritage places thus arises from the affection invested in them by this particular community of users who see them as part of their collective memories – assuming here that affect is a form through, and with which, the world is considered, acted, perceived, and consequently remembered. We see the potential of adopting a participatory design approach to engage with TCKs at this level.

Conclusions and future work

The results from the two exploratory studies suggest that TCKs have a strong interest in building their community identity, sharing their experiences, and discussing selected issues regarding their particular identity. Furthermore, it seems that they are keen to use social media in the process of creating community and identity, and that airports might be the best places to locate public displays as they evoke collective memories among TCKs.

Memarovic (2015) provides an analysis of the current and future challenges arising from the design of networked public display systems in community settings and considers it important to frame the research question with regard to the following issues:

- Challenges arising from the need to understand the place where the display is located and to be aware of the community's specific characteristics and general situation.
- Challenges facing the system design process, and in understanding which approach appears best suited to the location.
- Challenges concerning how to define the notion of design for connectedness.
- Challenges related to the way evaluation exercises are conducted, which involves understanding the methods that are best suited to investigate the use and adoption of the displays. Furthermore, comparative studies will need to highlight the putative benefits of digital displays and other alternative media.

Nisi et al. (2016) describe the design process and corresponding prototypes of a public interactive storytelling system. The design process followed a participatory design approach. In relation to the studies described, the deployment of MStoryG, a system developed involving the re-purposing of a split-flap display in an airport terminal, is particularly inspiring. The choice of this location is an interesting prospect given the known meaningfulness of airports to TCKs. Furthermore, Nisi et al. (2016) explicitly asked experienced authors to contribute stories to the system in order to encourage participation and the sharing of stories by the wider public. In terms of lessons learned, it is interesting to see that experienced authors were actively and enthusiastically engaged with the contribution of stories but that it was much more challenging to

foster participation from in-situ potential users. The work by Nisi et al. (2016) shows great promise in its potential to create engaging situated digital public displays based on the concept of sharing stories in airport terminals.

In the future, with regard to the design of situated digital public displays and the corresponding interactive functionalities for TCKs' community engagements, we intend to:

a) Explore the design space of digital networking tools to help create and maintain a thriving online community of TCKs.

b) Explore to what extent it is possible to design situated digital public displays to foster further engagement with this community and also with other groups that make use of the same locations.

With regard to the participatory design approach, we also intend to explore the framework proposed by José et al. (2014) regarding the dimensions of situatedness as the starting point to understand the needs, likes and dislikes of the different stakeholders of these particular places. The proposed dimensions are:

- *Location of the Display*. The location dimension considers the forms of situatedness that result directly from the location of the display.

- *Spatial Association*. The spatial dimension considers the spatial arrangement of the display with respect to its environment.

- *Activity*. The activity dimension considers the way in which a display reflects on-going activities taking place in the display setting. At the most basic level, this may involve raising awareness about those activities.

- *Community*. This dimension considers the ways in which the display can become a reflection of the community that shares a place in which it is inscribed.

- *Perceived Ownership*. The perceived ownership dimension considers the ways in which the perception that a certain entity is responsible for the display is embedded in the display content.

REFERENCES

Bagnall N (2015) *Global Identity in Multicultural and International Educational Contexts: Student Identity Formation in International Schools*. New York: Routledge.

Colomer, L. (2017). "Heritage on the move. Cross-cultural heritage as a response to globalization, mobilities and migration". *International Journal of Heritage Studies,* http://dx.doi.org/10.1080/13527258.2017.1347890.

Colomer, L. and Schmidt, J. (2015). *How Third Culture Kids Build up their Community Identity Through Social Media*. Unpublished report for the course "Network Society and Internet Cultures", Social Media and Web Technologies Masters' program. Department of Media Technology, Linnaeus University. (Contact the authors for a copy.)

Désilets G (2015) Third Culture Kids as serial migrants' children: understanding some of the impacts of a highly mobile transnational upbringing. In: Benjamin S and Dervin F (eds) *Migration, Diversity, and Education. Beyond Third Culture Kids*. Cham: Springer, pp. 143-162.

Jose, R., Otero, N., Izadi, S., & Harper, R. (2008). Instant Places: Using Bluetooth for Situated Interaction in Public Displays. IEEE Pervasive Computing, 7(4), 52 –57.

José, R., Otero, N., & Cardoso, J. C. S. (2015). Dimensions of Situatedness for Digital Public Displays. Advances in Human-Computer Interaction, 2014, 16:16–16:16.

Memarovic, N. (2015). Understanding Future Challenges for Networked Public Display Systems in Community Settings. In Proceedings of the 7th International Conference on Communities and Technologies (pp. 39–48). New York, NY, USA: ACM.

Moore AM and Barker GC (2012) Confused or multicultural. Third culture individual's cultural identity. *International Journal of Intercultural Relations*, 36: 553-562.

Müller, J., Alt, F., Michelis, D., & Schmidt, A. (2010). Requirements and Design Space for Interactive Public Displays. In *Proceedings of the 18th ACM International Conference on Multimedia* (pp. 1285–1294). New York, NY, USA: ACM.

Nisi, V., Jorge, C., Nunes, N., & Hanna, J. (2016). Madeira Story Generator: Prospecting serendipitous storytelling in public spaces. Entertainment Computing, 16, 15–27.

Pollock, D.C. and Reken, R.E. (2009). *Third Culture Kids. Growing Up Among Worlds.* Nicholas Brealey publishing. Boston/London.

Jan-Hinrik Schmidt, JH (2013) Twitter and the rise of personal publics. In Weller, K., Bruns, A., Burgess, J., Mahrt, M. and Puschmann, C. (eds.) *Twitter and Society*. New York: Peter Lang, pp. 3 – 14.

Schmidt, J. (2016) Categorization of Facebook Group Messages. Unpublished report, for the course "Adaptive and Semantic Web", Social Media and Web Technologies Masters' program. Department of Media Technology, Linnaeus University. (Contact the author for a copy.)

Tanu D (2015) Toward an interdisciplinary analysis of the diversity of 'Third Culture Kids'. In: Benjamin S and Dervin F (eds) *Migration, Diversity, and Education. Beyond Third Culture Kids*. Cham: Springer, pp. 13-35.

Wouters, N., Huyghe, J., & Moere, A. V. (2014). StreetTalk: Participative Design of Situated Public Displays for Urban Neighborhood Interaction. In *Proceedings of the 8th Nordic*

Conference on Human-Computer Interaction: Fun, Fast, Foundational (pp. 747–756). New York, NY, USA: ACM.

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