

# Tutorial on Human Computer Interaction for Third Places - THCI-3P

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**Abstract.** Third places are places that are neither home nor work, where people voluntarily come together to socialize. Third places are essential to social life because they provide a common ground where different communities can meet, and they promote a sense of place. Emerging information and communication technologies (ICT) are changing the way we use such third places, altering how we interact with other people and how communities are formed. The goal of the first Tutorial on Human Computer Interaction in Third Places is to provide a forum where researchers can discuss the intersection between computing and third places. We aim to introduce the theoretical basis of third place concepts as well as methods, techniques and tools to support developing a research agenda and to initiate collaboration between researchers to better understand the roles of ICT in such places.

**Keywords:** Third place · Thirdplaceness · Pervasiveness · Ubiquitousness · Socialization

## 1 Introduction

In his seminal book Ray Oldenburg [2] defined “third places” as places where people come together as individuals to socialize and where communities are formed and shaped. These places are low profile, inclusive, accessible, accommodating, filled with regulars and a neutral ground for stimulating playful conversation. These properties can be found in urban third places such as coffee houses, bars, barber shops or community gardens. There is a growing interest in understanding the roles that pervasive technologies play on places where people interact with each other. Some of these places are “third places”, or places that are neither home nor work – but are instead places like coffee shops and bars – where people deliberately come together to socialize. Third places are essential to social life because they provide a common ground where people with different interests and backgrounds can interact with each other and create the interpersonal ties that keep communities together. New location based technologies and ever increasing pervasive technologies such as situated displays, mobile devices,

passive sensing, or geo-location, enhance such places and affect how we interact with other people. The need to understand how such technologies affect third places has been previously recognized by the HCI community. Yet, we believe that we are at a critical stage wherein it would be beneficial to the research community to discuss a common research agenda tackling common questions regarding human computer interaction in third places. The first Tutorial on Human Computer Interaction in Third Places (THCI-3P) will explore the intersection between different types of third places and human computer interaction. The tutorial will present to participants the theoretical basis of third place concepts as well as methods, techniques and tools to support developing current research and, through a field activity taking place within some of Bamberg third places, provide a common ground to build a research discussion agenda that can lead to collaborative research efforts.

## 2 Motivation and Expected Audience

Over the past decade, computing in public places that are dedicated for sociability has gained a growing interest from the research community [1, 2, 7]. The challenges of collaborative and public interaction within such places, and the benefits of leveraging social technologies within third places, have been outlined by several researchers [4, 8]. Yet, with the increasing number of mobile devices with access to geo-location services, pervasive sensing and place-dependent services, new societal and technical challenges have begun to arise. This has sparked a growing interest from both industry and academia to better understand how humans interact with technologies in third places [3, 5, 6]. We believe that INTERACT2015 is scheduled at an ideal time and possesses an ideal venue to hold a Tutorial on Human Computer Interaction in Third Places. Not only is there a growing interest from the HCI community to understand the role of computing in third places, but there is also a recognition of the challenges that arise when designing third place interactions in novel settings; for example, online communities, non-technical communities, or communities in developing countries. We believe that a forum to introduce theoretical basis to discuss the questions arising from said challenges would not only be beneficial to the community, but would also be indispensable in consolidating a research agenda that reaches into the future of human computer interaction in places promoting the shaping of communities. In particular, the proposed tutorial will focus on the following questions:

- (i) What are the roles of pervasive computing and sensing in third places?
- (ii) What are the paradigms to provide crowd interaction within third places?
- (iii) How can we design technologies that are natural and unobtrusive to existent third places?
- (iv) How does ICT affect the functioning of existing third places in the long term?
- (v) What defines a successful technological intervention of third places?
- (vi) How should ICT adapt to different types of third place communities?
- (vii) What defines the third place of the future and how should ICT support it?

- (viii) In what ways have ICT already altered existing third places or created new third places?
- (ix) How can ICT create the sense of thirdplaceness independent of architectural and temporal constrains?

### 3 Topics of Interest

HCI-3P will focus on the following topics, but similar topics and discussions will be welcomed for discussion during the tutorial.

- Novel interfaces to support human interaction in third places
- Natural and unobtrusive interfaces to support conversation in third places
- Aesthetic approaches to public interfaces within third places
- Crowd-computing in third places
- Comparison of third places with different cultural rooting
- Supporting third places in special communities (e.g. nomad, non-technical)
- Computing for third places in the developing world
- Properties of Third Places to create the sense of thirdplaceness independent of temporal and architectural constrains.

### 4 Proposed Program

The structure of the tutorial is in four modules:

Module 1: Introduction, Concepts, Methods, Tools, Design for Third places (2 h).

Module 2: Field Study, Exploratory research on thirdplaceness (2 h).

Module 3: Compilation of observations, Discussions on third places' properties evolution into thirdplaceness, methods of evaluation (3 h).

Module 4: Conclusions on how to apply the principles of thirdplaceness to define our next steps to keep the participants connected and engaged as a community that would meet from time to time at INTERACT or other venues, to continue evolving the concept of thirdplaceness, independent of architectural and temporal constrains (1 h).

### 5 Presenters

Dr. Junia Anacleto, Professor, Ph.D. degree in Computational Physics, from the University of São Paulo USP, Brazil. She was a Visiting Researcher at the MediaLab MIT, Massachusetts Institute of Technology in 2006–2007. She is currently an International Visiting Research Scholar from Peter Wall Institute for Advanced Studies at University of British Columbia. She is a Professor at the Federal University of São Carlos, Department of Computing, Brazil. She is also the Coordinator of LIA - Advanced Interaction Laboratory. She has experience in the area of Computer Science, with emphasis on Human Computer Interaction focused on: Natural interactions, Culture, Education, Healthcare, Urban Computing, wearable technologies.

Dr. Sidney Fels, Professor, Electrical and Computer Engineering. Ph.D., Toronto. Sid has worked in HCI, neural networks, intelligent agents and interactive arts for over ten years. He was visiting researcher at ATR Media Integration and Communications Research Laboratories (1996/7). His multimedia interactive artwork, the Iamascope, was exhibited world-wide. Sid created Glove-Talk II that maps hand gestures to speech. He was co-chair of Graphics Interface 2000. He leads the Human Communications Technology Laboratory and is Director of the Media and Graphics Interdisciplinary Centre.

Roberto Calderon is a Ph.D. student at The University of British Columbia. His research focuses on the use of situated computing to support the forming of communities in urban third places. His approach brings together Architectural Design and Human Computer Interaction to the problem of third places. He has previously served on the organizing committee of the Interdisciplinary Workshop on Communication for Sustainable Communities collocated with SIGDOC'2010.

All the presenters have previously served on the organizing committee of The First Workshop on Human Computer Interaction for Third Places HCI3P collocated with CHI'2013 and The Second Workshop on Human Computer Interaction for Third Places (HCI3P) collocated with DIS'2014.

## References

1. Brignull, H., Rogers, Y.: Enticing people to interact with large public displays in public spaces. In: Proceedings of the INTERACT 2003 (2003)
2. Churchill, E.F., Nelson, L., Hsieh, G.: Cafe life in the digital age: augmenting information flow in a cafe-work-entertainment space. In CHI 2006 extended abstracts on Human factors in computing systems, CHI EA 2006. ACM, New York, NY, USA, pp. 123–128 (2006)
3. Holopainen, J., Lucero, A., Saarenmaa, H., Nummenmaa, T., El Ali, A., Jokela, T.: Social and privacy aspects of a system for collaborative public expression. In: Proceedings of the 8th International Conference on Advances in Computer Entertainment Technology, ACE 2011. ACM, New York, NY, USA, pp. 23:1–23:8 (2011)
4. Hosio, S., Kukka, H., Riekk, J.: Leveraging social networking services to encourage interaction in public spaces. In: Proceedings of the 7th International Conference on Mobile and Ubiquitous Multimedia, MUM 2008. ACM, New York, NY, USA, pp. 2–7 (2008)
5. Karnik, M.: Social aspects of music and interactive technologies in facilitating face-to-face interactions in third places. In: Proceedings of the Second Conference on Creativity and Innovation in Design, DESIRE 2011. ACM, New York, NY, USA, pp. 431–432 (2011)
6. McCarthy, J.F., Farnham, S.D., Patel, Y., Ahuja, S., Norman, D., Hazlewood, W.R., Lind, J.: Supporting community in third places with situated social software. In: Proceedings of the Fourth International Conference on Communities and Technologies, C&T 2009. ACM, New York, NY, USA, pp. 225–234 (2009)
7. O'Hara, K., Glancy, M., Robertshaw, S.: Understanding collective play in an urban screen game. In: Proceedings of the 2008 ACM conference on Computer Supported Cooperative Work, CSCW 2008. ACM, New York, NY, USA, pp. 67–76 (2008)
8. Scheible, J., Tuulos, V.H., Ojala, T.: Story mashup: design and evaluation of novel interactive storytelling game for mobile and web users. In: Proceedings of the 6th International Conference on Mobile and Ubiquitous Multimedia, MUM 2007. ACM, New York, NY, USA, pp. 139–148 (2007)