Chapter 1
Shared Encounters

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Introduction

The approach often adopted by Human Computer Interaction (HCI) focuses on exchanges between a person and the interface of a device situated within a specific context of use. This view is increasingly challenged by the complex and dynamic world of the physical and social environment integrated with ubiquitous technologies, which requires an alternative view that sees people creating settings which frame and structure their encounters. As a result, in recent years, HCI researchers have recognized the need for social and physical data to be gathered and interpreted, but have often been frustrated in their attempts to codify and make sense of the complex and dynamic nature of the real world of human experience. Developments in the early 90s such as the emergence of the field of Computer Supported Cooperative Work (CSCW), the introduction of the concept of social navigation (Hook et al. 2003), work on ambient environments, the UbiComp conference series as well as more theoretical positions on embodied or situated interaction (Dourish 2001, McCullough 2005) have all lead the way to a new understanding of HCI.

Another driver for this change in emphasis in HCI is the emergence of mobile and ubiquitous computing that has brought significant changes in social and cultural practices in spatial settings. Interactions through and with ubiquitous technologies no longer require physical co-presence and have broadened the range of possible interactions as well as the range of settings in which these interactions can unfold. The basis for this lies in the fact that physical distance no longer prevents many of the types of interactions and encounters that had previously been confined to face-to-face contact. As a result, there has been much discussion on the role of spatial setting and interaction mediated through technologies such as that on the role of space and agency in the quality of the interaction (Dourish and Harrisson 1996) and also the broader concept of the situated behavior and actions (Suchman 1987).

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A good deal has also been written on the subject of social collaboration among individuals using communication devices and the conditions or features that are required to enable such activities (Gaver 1992; Paulos and Goodman 2004; Hook et al. 2003; Churchill et al. 2004). Further discussion has focused on the technologies themselves, assessing the social impact of the emerging forms of behavior, such as the activities of ad hoc communities enabled through mobile technologies (Rheingold 2002), or the patterns of mobile phones' use (Katz and Aakhus 2002). Finally, numerous applications and locative media projects (e.g., Harle and Hopper 2005) which explore interactions through realization have been developed. These projects and research offer many useful insights, but there still remain many questions about how to create the conditions for meaningful and persisting shared interactions in public space. The challenge is not only to build systems that respond to rich and dynamic social and physical events, but also to provide a structure for sustainable participation and sharing.

If we are to design for such changes in social practice then we need to understand them in the actual context in which they occur in everyday life. Methodologies, particularly ethnographic studies, have started to become popular means by which one can analyze the qualitative as well as the quantitative aspects of user behavior and interaction in everyday settings (e.g., Ito et al. 2006). Yet, several challenges lie ahead before it is possible to fully capture and interpret the multiple and diverse interactions of people on the move in urban places. We believe that to address these challenges, it is necessary to build on contributions from fields outside of HCI to inform both theoretical and empirical work; with sociology, architecture, anthropology, and urban planning providing valuable perspectives that can offer us new insights and solutions.

In this chapter, we address the topic of shared encounters in two stages; first by discussing in depth the characteristics and features of shared encounters and how they are enacted in our everyday lives. The second half of the chapter then focuses on reviewing appropriate methodologies for the study of shared encounters in public space.

Background

The topic of shared encounters derives from the conversations at the Shared Encounters workshop held as part of CHI 2007 (Willis et al. 2007). In our discussions during the workshop, we investigated the nature of interaction in public space as mediated through new technologies and in particular we questioned "what is the glue that creates links between people in public spaces?" Interestingly, it turned out that one of the most provocative questions during the workshop was the most obvious; what constitutes a shared encounter and what sets it apart from other experiences? In particular, when does an interaction between a person and another or between members of a group become a shared encounter? A further core question was to identify the ways in which the physical setting affects the nature of an encounter.

In the development of the topic, we respond to these questions by first outlining an explanation of what we mean when we talk about shared encounters. We then continue by differentiating shared encounters into four sub topics; shared experience, playful encounters, spatial settings, and social glue. These subtopics reflect not just the range of contributions in this volume, but also outline the multifaceted nature of shared encounters.

Characterizing a Shared Encounter

The way we behave when we encounter others is differentiated by many diverse factors; whether our encounters are in a public or private place, with an individual or a group, planned or by chance. Our encounters are therefore situated or defined by the particular set of available background information that we make use of to structure our interactions. According to Goffman, the physical setting in which an encounter takes place is not insignificant, but rather acts as a frame for how people interact and helps define the nature of the situation (Goffman 1963). Goffman referred specifically to face-to-face encounters, but communication technologies have allowed for many types of interaction to occur where we are not necessarily physically sharing the same space with those we encounter. This fundamentally affects the nature of presence in an encounter, since we may experience a sense of shared space, yet be acting on different signals from the distinct settings in which we find ourselves. In such situations, we still manage to act differently with different people, but our encounters are no longer so strongly framed by the physical setting (Meyrowitz 1986). Communication technologies, like physical places, create structures which include and exclude participants and in so doing they can create social boundaries equivalent to the walls and windows in physical space. These boundaries define the nature of social access to situations, and also help to frame awareness among individuals of whether an encounter is accessible to them or not. Put simply, this affects whether someone can clearly identify and develop a role for themselves and others in the interaction, a factor that is often necessarily based on existing social conventions. Once the basis for an encounter has been established, the subsequent process of exchange also needs to have a dynamic quality with a system of feedback, where participants can mediate their interaction and develop a sense of persistent, shared space (Mynatt et al. 1997). This shared setting does not need to be explicit and it can be passive as well as actively experienced, but it will involve some negotiated factors; for instance there will be a shared sense of "being there" or co-presence even when participants are quiet or absent.

In the study of encounters in everyday settings, it is also important to consider the role that performance plays in the interaction. This concept was outlined by Goffman, who uses the term performance to refer to activities of an individual before a set of observers, whether these are friends or strangers (Goffman 1959). In order to give an action of coherency those participating need to agree upon a definition of the situation and this involves playing a "role." However, this is rarely

a conscious behavior since the conception of role becomes second nature and is infused into an individual's personality. Through this process, interaction can be defined as the reciprocal influence of individuals on one another's actions, when in one another's immediate physical presence. In sharing an experience, individuals co-operate to enact a goal-oriented performance. This is very significant for our understanding of shared encounters since peoples' behaviors are performed through a filter of an unspoken negotiation of social roles and terms of the situation in which the individuals find themselves. In addition, the terms of the situation are not just socially constructed, but are also framed by the physical setting of the interaction which acts as a stage.

We therefore define a shared encounter as:

> "the interaction between two people or within a group where a sense of performative co-presence is experienced and which is characterised by a mutual recognition of spatial or social proximity"

Fundamental to this whole discussion is the concept of sharing, which extends a notion of an interaction to one that is experienced on some common level. This sees technology as affording a background to what is the most important interaction; that between one person and another.

Shared Experience

We experience many encounters in our daily life, but the ones that tend to make an impression on us are those in which we are aware of some form of shared experience. Although the human-to-human interaction is still the key aspect, ubiquitous technologies can provide a valuable background to such encounters and can reinforce levels of connectivity since they lend themselves to content sharing. For instance the use of mobile phones, which have been readily adopted by youth cultures, reinforces and extends existing social networks and drives them toward a higher level of networked sociability. In these interactions, face-to-face interaction is equated with mobile phone-based communication and a "full-time intimate" community develops (Castells et al. 2006). Other technologies allow alternative modes of communication; for example, Bluetooth enables people to engage in more intimate and timely information exchanges dependent on proximity, whereas WiFi can provide the infrastructures for neighborhood-wide communication (Rheingold 2002). A theoretical approach to this subject is introduced by Diamantaki et al. (this volume) who explored the social implications of using locative media in the context of urban everyday life. Although technology may appear to augment shared experiences and the types of ad hoc encounters practiced through the use of mobile technologies are widespread, this sharing is often limited or "minimal sharing" (Wellman 2001) such as showing off on-screen photos within a peer group. Sharing practiced within a context can be referred to as "selective sociality" (Ito et al. 2006); since it occurs within small, selectively insular social groups. To explore this topic, Konomi (this volume) discusses the

advantages and drawbacks of data mining into historical data in order to reveal existing patterns of subtle social relationships.

Ubiquitous technologies such as situated interactive public displays in the city enable an interplay between large displays and mobile end-user terminals, which brings shared experiences into a public setting. These media offer a different model of sharing; joint and widespread reception of media content. Screen-based content, such as Television, has often been criticized not only due to the quality of the content and on the passive nature of the watching activity, but also on a social level, the shared viewing of content creates a strong mutual experience (Kubey and Csikszentmihalyi 1990). In fact, shared viewing and discussion about mass media content can provide a valuable common reference point in everyday life. The possibility of rethinking fixed screens in ubiquitous contexts lies in the use of content-enriched communication to enhance awareness and human connectedness in public spaces. By connecting large outdoor screens with experiments in online worlds, the culture of collaborative content production and networking could be brought into a wider context (Struppek 2006). The nature of such collaborative experience is discussed by Chorianopoulos and Rieniets (this volume), who describe an interactive video installation that allows participants to explore a map narrative and engage in group interactions through a shared screen. Jacucci et al. (this volume) also study behavior around a public screen and found that key practices could be observed where social roles were played out. One practice observed was that of turn-taking, which formalized roles in the transient social space that was created by the screen.

Playful Encounters

The concept of play has at its very core the need for shared experience. During play, a shared space is created, which establishes the medium for collective activity between participants and their informational environment. Social games structure defines the context of action and distribution of roles, expectations, and responsibilities in the framework of the activity that is taking place. They contribute to making encounters meaningful and shape the conventions governing the course of interactions. To explore this further, Licoppe and Inada (this volume) evaluate the features of situated and mediated encounters in a location-aware game called Mogi and found that players played not just within the game format, but also were playful in the way that they sought to exploit "gaps" they discovered within the game structure. A key practice was that of "cara-gattai" or achieving co-presence, where players deliberately froze their icons at a particular space and sought to create an overlap of their icon with another player's icon. Thus, the playful encounters that occurred were not always those that were designed into the game experience, but also those where the players had fun within the game format itself.

This new generation of locative games, such as Mogi, brings mediated play out of online spaces into urban public settings. They develop the social potential of location-aware devices, which seek to extend and reappropriate the functions

of locative technologies, through exploring ways in which the game format can be socially constructive and facilitate new dynamics within everyday life. Stukoff (this volume) describes the development and features of one such project that supports the creation of emotional, cohabitable spaces that facilitate urban play with public screens. This study found that play occurred on a number of levels; unconscious, conscious, as well as dynamic play. However, the key aspect that motivated people to become playful was that of "social infection" where onlookers felt more at ease with getting involved when they heard other people talk about it or observe what is expected of them before they joined in.

Jennings (this volume) highlights a further useful characteristic of playful experience, which is the desire for tangible or tactile experience. Although, locative gaming may involve moving through a space, the bodily engagement through playfully manipulating is an aspect of play that many of us have been familiar with since childhood. This way of playing brings face-to-face interaction back into the frame of playful encounters, and can therefore appeal to less technically minded individuals or people in transit.

Spatial Settings

The way in which we communicate with others also bears a strong relationship with space, and our interactions with others can be considered as situated in that they are shaped by both the physical setting (Goffman 1963) and the social situation. Consequently, we behave differently in different situations depending on both where one is and who one is with, and this is influenced by the degree to which they are present in the situation. Yet, Meyrowitz points out that communication technologies undermine influence of the physical setting on the situation so that where one is in space has less and less to do with what one knows and experiences (Meyrowitz 1986). McCullough underlines this by stating that that ubiquitous technologies require new ways of grounding digital information in order that they do not undermine ways of acting in the physical world (McCullough 2005). One such example of how behavior is changed is that space enacted through such technologies conforms to a different concept of boundedness (Willis 2008). Instead of some form of definable extent, space is instead experienced more in terms of regions that are not only defined by spatial extents, but also by patterns of informational or social access. Consequently, collectively defining boundaries becomes part of the pattern of communication, such as the common practice of asking for and reporting location at the beginning of a mobile phone call (Laurier 2001). This highlights the fact that shared experiences are still framed not only by the spatial setting but through patterns of connectivity enabled through technology rather than by physical boundaries. Therefore, it is critical to find ways of spatializing ubiquitous technologies and thus reconnecting them to spatial settings. This requires new views on the interconnectedness of location and behavior in public space.

Schieck et al. (this volume) study how the deployment of two prototypes that augment face-to-face social communication affects the manner in which people act in public space. They point out the importance of creating settings for encounters and introduce the concept of a digital stage that can facilitate and encourage different types of social interactions. Through proactive staging of encounters, they create an urban performance that unfolds over time and the authors report that in order for this kind of public display to be engaging, the viewer needs to be able to construct a socially meaningful relationship of which the display and the human observer form a part. Garcia et al. (this volume) also observe encounters in public space, but over a more extended timeframe and in a specific physical setting. They discuss an approach that utilizes methods from archaeology to analyze the social encounters between residents, visitors, creative content, and the built and natural elements of the environment in an urban village. They found that the built environment creates stages for encounters, but that sometimes the features of built space can actually hinder rather than allow these shared experience, and that media can be used to replace the advantage lost in the spatial setting.

Khan introduces (this volume) the concept of underspecification, and describes two artistic projects that provide ways for participants to participate in collaborative behavior in public space. He claims that people need to be able to continually negotiate their own sense of place as they confront one another in a dynamic public sphere, and only when this process is facilitated can the conditions for a collective public come into being. Both Khan and Schieck et al. highlight how everyday ubiquitous technologies have the potential to create powerful shared connections in public space. It is just these types of mediated situations that can overcome the "lost advantage" of the physical spatial setting.

Social Glue

Social spaces emerge through multiple one-to-one interactions and by participation in groups. These encounter spaces can disperse as rapidly as they are created, but some can become more established and exist for a period of time. For most people, the sense of identity which they draw from their interaction in such shared social spaces is the key to the way they relate to the world. Social spaces are developed around communities, such as those described by Packard:

> " a social network of people of various kinds, ranks and ages who encounter each other on the streets, in the stores, at sports parks, at communal gatherings. A good deal of personal interaction occurs... all recognize it as a special place with ongoing character. It has a central core and well understood limits. Most members base most of their daily activities in or near the community" (Packard 1972).

New communication technologies exacerbate the network effect where access and membership is defined not by entering and leaving a physically bounded space, but instead by the making and breaking of nodes and links. Inhabitants of such communities are separated physically and interact strictly through computer systems,

such that users are aware that their virtual lives will rarely intersect with their real lives. The question is therefore, how to enable bridges between online communities and patterns of behavior in physical settings. In attempting to understand the nature of everyday online activities, Graham et al. (this volume) provide a literature review of blogging and sharing practices in order to suggest directions in future research of mobile blogging in the context of everyday life.

Martin (this volume) discusses empirical findings from a long-term research program that involved local communities in developing content about their neighborhood through ubiquitous applications. She discusses the complex issues associated with the motivation for participation by members of existing place-based communities, and highlights how researchers may need to overcome participants' reluctance to engage due to pressures of time or lack of perceived relevance. She also points out that access to an "authentic context of use" often requires facilitation from a third-party organization and consequently researchers' relationship to some portion of the community may be indirect. Grimes (this volume) found that, working within a similar local community setting, a system for sharing experiences about healthy eating facilitated a sense of community empowerment. This highlights the fact that technology introduced into an existing local community infrastructure needs to be carefully facilitated and that community gatekeepers need to be involved from the outset. Grimes proposes the terms "deeply local" to describe this, which refers to both the geographic and social qualities of involvement.

This aspect of locality further underlines the fact that studies of practices around the topic of shared encounters often encounter issues when the social scene is not closely linked to a static physical setting (such as a neighborhood or workplace). The use of mobile media often incurs such problems, since the community is no longer defined by a shared physical setting. Instead the community is more transient, collaboration is ad hoc and the core interaction is not necessarily face-to-face. Bardren and Bossen term this "local mobility," which is the intermediate space between working together over distance on the one hand and working face-to-face on the other (Bardrem and Bossen 2003). These spaces of collaboration show a fine balance between remote interaction and face-to-face meeting, a practice that has also been referred to as "zooming with the feet" (Bertelsen and Bødker 2001). This practice of acting remotely, but then coming together for a specific purpose is also highlighted by Ito in the context of use of mobile media, who terms it a "flesh meet" (Ito et al. 2006). Interestingly Ito points out that although the physical co-presence among friends is seen as a heightened experience, it is also often augmented by the presence of others through mobile media and it is this constant nonphysical contact that creates a feeling of intimacy and closeness between people in a social group.

Studying Shared Encounters: Some Methodological Challenges

The primary focus of much HCI in terms of methodology to date has been on designing and measuring the performance of new ICT in terms of usability. Yet, the development of ubiquitous and pervasive computing technologies has seen the

context of the digital task extend beyond the desktop toward an ambiguity of activities in the public space and in everyday life. In this context, it has become practically difficult and sometimes inappropriate to use many of the established techniques (interviews, direct observation, and questionnaires). A number of alternative methodological frameworks for studying shared encounters have therefore started to be developed and implemented. Early works in CSCW involved videoconferencing being installed in researchers' offices or in student dormitories which was used to link distant offices of the same organization (Jancke et al. 2001, Karahalios and Donath 2004). However, these early innovative systems were only evaluated for technical feasibility and basic user acceptance. In addition, the effects on behavior and attitudes were not formally evaluated over a longer period of time. However, longitudinal evaluation of ICT has been established as a worthwhile data collection technique during the adoption phase (Kraut et al. 2002).

The topic of shared encounters covers a broad spectrum of disciplines; such as computer science, sociology, architecture, and art which, in itself, presents significant methodological challenges. A further issue is that the topic responds to an inherently intangible concept; the nature, motivation, and outcomes of shared experience. For instance, everyday social interactions are not necessarily either explicit or even consciously recognized and they usually leave no tangible trace. Furthermore, they are not planned events. Even when media afford such shared interaction, encounters can happen either unexpectedly or on an entirely different level from that which is expected. For example, O'Hara et al. found that children using a mobile information system in a zoo type of environment were far more motivated to collect and keep location-based content, rather than the expected interaction with it in-situ (O' Hara et al. 2007).

A key methodological priority in understanding such encounters is that it is preferable to study them in natural or real-world settings and as part of peoples' daily activities. This also presents challenges, since real-world situations pose a number of practical problems for data gathering and analysis. First, it is often difficult to meaningfully document a shared experience between people without the researcher themselves becoming part of the situation and thus affecting it in some way. Second, users are usually mobile, and activities can take place over long time-scales, which can make it difficult to frame and document their actions. Finally, the focus on often a small number of people and the interpretation of gathered data can make analysis and evaluation a lengthy process, a factor that can be at odds with early responses and rapid prototyping required in a design process.

Data Gathering, Design and Evaluation

Due to the multidisciplinary aspects of the theme of shared encounters (e.g., novel technology, social aspects of ICT, and physical space considerations) the contributors to this volume have employed a broad set of methodological approaches. Although, in studying a topic such as shared encounters there is no general methodological approach, ethnography, with its focus on the situated nature of interaction

and the social character of use, has been shown to be a valuable method for understanding how shared encounters occur and the characteristics of such interactions. The overall approach of such methodologies is still user-centered, where the user is regarded to have many roles, such as casual passersby, or author of content. However, the aims of an ethnographic study are much broader than traditional user-centered design and involve identifying routine practices, problems, and possibilities for development within a given activity or setting. Wolcott further extends this idea and distinguishes ethnography as more than just a set of field methods and practices, but instead as a way of seeing "through the lens of culture" (Wolcott 2008). This highlights the fact that ethnography is motivated by a need to understand the social and cultural qualities of people's actions.

In the context of situated technologies, ethnographic methods have been further adapted for system evaluation, in addition to requirements gathering, which was their initial role in CSCW. In particular, cultural probes are considered to be a lightweight' and nonintrusive data collection method (Gaver et al. 1999). In terms of analysis, cultural probes data usually can be analyzed and visualized with affinity diagrams (Beyer and Holtzblatt 1999), and additional data collection techniques include data logging. However, the data collection and analysis generally needs be performed continuously over long periods of time in order to record the temporal and social effects. The analysis of the data focuses not only on differences due to age, gender, culture, but also on differences related to socioeconomic background as well as differences of attitudes toward the alternative modalities of the situated computation. For example, text vs. abstract video representations, or shared vs. solitary use. The final stage of ethnographic methodology is the interpretation of gathered data. These results are generally in the format of text or visual (e.g., photos) descriptions, records, and explanations. Therefore the outcomes are by necessity subjective and qualitative.

Situating Ethnographic Methods

A number of researchers have successfully engaged with ethnographic approaches to understand the nature of shared experiences. All these approaches use participant observation as a core method. However, the situation in which the observed group can be studied varies, and this has implications both for the exact methods used, for how the outcomes can inform the design process, and also for the particular challenges undertaken during the fieldwork. These settings can be termed as cultural scenes, which are defined as "the information shared by two or more people that define some aspect of their experience….and closely linked with recurrent social situations" (Spradley and McCurdy 1989). In the following text, we review existing work where ethnographic methods have been employed to study shared encounters and consider this within the framework of the particular "scene" in which the research is undertaken.

Technology Scene

Ito et al.'s study of Japanese teenagers, which discusses how social relationships develop through the use of mobile technology, is a prime example of how beneficial ethnographic study can be in understanding emerging practices within a certain cultural group (Ito et al. 2006). A similar social group to that of Ito et al. is studied by Licoppe and Inada (this volume); their detailed evaluation of communication in the Mogi game reveals a set of definable practices that is hard to imagine being discovered through any other methodological approach. In studying mobile subjects, Licoppe and Inada benefited from the fact that, although the community was physically disparate and interactions took place all over Japan, the technology platform created a trace of both the user's location and the corresponding social interaction. This aspect of data logging with GPS or similar location-based sensing provides a valuable method for capturing the interlinked social and spatial aspects of mobile experience.

Barkhuus et al. took the approach of using a specially designed application to capture data documenting everyday usage. They created a mobile diary application, which automatically constructed questions based around the users' own activities with the phone, such as the incoming and outgoing calls they made that day and text messages they may have sent (Barkhuus et al. 2008). This was followed by focused interviews to elicit more specific information. Graham et al. took advantage of an everyday blogging application to observe the interactions within a small group of participants of their experiences of giving up smoking. The blog format became the site of focus, and the particular uses of the technology revealed characteristics and practices among the participants. Both of these studies benefited from the fact that they focused on one primary application. Such analysis of behavior is far more complex and time consuming when interaction is distributed across different applications and devices.

Social Scene

A useful approach to understanding the nature of shared encounters within a social group is to cite the study in an existing community, and to study any changes in practices that occur due to the introduction of technology. For example, Grimes (this volume) worked within an African–American social group, where even though the participants had never met before they were aware that they were people living in the same community. The critical aspect of this approach is the ability of participants to identify and empathize with others using the system, and thus the sense of shared experience is heightened. In the social setting studied by Grimes, the use of a narrative method was found to be particularly useful, which Miskelly et al. also established in a series of workshops that were held in an existing community in Bristol, United Kingdom (Miskelly et al. 2005). In this research, the participants were encouraged to create mediascapes documenting their experience of places as a way of formalizing shared experience.

Running workshops within existing community settings can help to elicit specific requirements of the social group. For example, Williams et al. used a series

of workshops where children aged 9 and 10 years old were encouraged to think about their use of an outdoor space before their introduction to the technology (Williams et al. 2005). Martin (this volume) also documents how workshops were run among residents of a housing estate to identify issues and concerns about everyday local environment. However, the author raises questions about the sustainability of such methods, since they may initially yield useful outcomes, but tend to be difficult to integrate as a method into longer-term ethnographic studies.

Spatial Scene

In this volume, Schieck et al., Jacucci et al., and Stukoff undertook their studies in urban public spaces, such as streets and open-public spaces, in order to investigate collaboration around interactive screens and spaces. In these studies, screens or interactive stages were installed into existing public spaces and the changes in behavior of passersby was observed. The studies identified the fact that two layers of interaction needed to be observed; those who participated actively, and bystanders who watched the activities, but tended not to join in. Public squares also present useful sites for study since they not only have a highly mobile population, but also reveal common practices. Paay and Kjeldskov undertook a survey of interactions at Federation Square, Melbourne with participants they recruited, but were then interviewed and observed undertaking everyday socializing experiences in the setting (Paay and Kjeldskov 2008).

Laurier et al. present an alternative approach by undertaking their fieldwork in an interior spatial setting; a local café. The researchers conducted the study primarily through observation; since it was a fixed place it was possible for them to simply "hang-out" and watch people. The authors report that they "learnt a great deal about the life of our café by becoming regulars, thereby following the ordinary paths through which a person becomes a regular and finding ourselves with the particular rights and obligations that go along with this mundane identity" (Laurier et al. 2001). The café environment had the benefit that it was possible for the researchers to observe behavior in a way that they were unobtrusive, and thus they did not significantly shape the activities they were documenting. In fact, through this ethnographic approach Laurier et al. highlight a valuable method for studying shared encounters in public space; that of choosing a specific physical setting and simply observing in detail patterns of behavior over time. The performative and public characteristics of shared encounters that are enacted in such spaces lend themselves particularly well to study in this way.

Future Directions

In this chapter we discussed the topic of shared encounters, and highlighted the fact that such encounters are a crucial ingredient of everyday social life. In a discussion of methodologies, we considered the use of ethnographic research as a valuable

way to both understand and evaluate such encounters. In HCI, such methods are becoming increasingly widespread and yet there remains the issue of whether the design for such interactions is sustainable. In this volume, Martin highlights the concerns of the researchers on a community project who found that creating long-term integration of technologies that support shared encounters, particularly within existing community scenes, is often difficult to achieve. Therefore, a critical aspect of future research is to investigate how sharing through media can provide ways for people to communicate and engage with others in networked communities, whether these are on or offline. The fields of HCI and CSCW are evolving and the implied dichotomy created between humans and technology is no longer a useful metaphor. Cooperation and sharing within everyday situations provoke a research agenda that demands that these fields reassess the approach of providing solutions through technology to perceived social "problems" in what is often an isolated research environment. As ubiquitous technologies are now entirely interwoven in everyday life, the challenge is to find ways of integrating research fieldwork within everyday infrastructures and practices. This will require an approach that is already starting to emerge, where computer scientists team with professionals such as ethnographers and partners in the community to take a long-term view of how changes can be made to the way in which shared experiences are facilitated in these social scenes. This can only be achieved when all parties focus not on creating quick solutions, but on building for learning and change in the design process. Only in this manner can such work become integrated into what Lave and Wenger term a "community of practice" (Lave and Wenger 1991).

A parallel agenda for future research and one that we have sought to clarify in this chapter is the importance of also understanding how encounters are enacted within the physical setting. Public space is experienced with and through media, whether this is fixed screens and routers or mobile technologies, and finding ways to merge these experiences is critical, if social activities in these spaces are to be sustained. In this way, the field of HCI needs to address the issues of working with designers and users of urban-public space in order to gain with a longer-term view. The form and use of physical-public space changes slowly; buildings tend to take more time to design and build than a software application and in order to create a synergy between built space and media space it will require the field of HCI to reassess both its working methods, and also what can be defined as a successful outcome.

Summary

Our everyday encounters are increasingly mediated by communications technologies that free up our social interaction from fixed spatial settings. We propose that content sharing through mobile and ubiquitous technologies, consciously situated in public space is a valuable new social practice. It can contribute toward redefining boundaries of access between communities and contribute to more fulfilled sustained encounters

in spatial settings. In this context, we discussed how it is necessary to acquire a clearer idea of the diverse types of encounters that can occur and gain a better understanding of the specific characteristics of situations that influence these encounters. We highlighted how this can only be achieved by the use of methodological frameworks that can evaluate and respond to everyday interactions in natural settings and proposed that ethnographic approaches have great potential in this area. We discussed the challenges of studying shared encounters through ethnographic research and summarized with a review of settings or scenes in which such studies can be usefully undertaken. In conclusion, we proposed some areas of future research, with a focus on HCI reaching out to other fields and working with a long-term vision of how sustainable relationships can be afforded within existing social frameworks.

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