Practices of Parallel Media: Using Mobile Devices When Watching Television

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Abstract

We have been studying how people use mobile phones and laptops while watching television. Our results show that these are not necessarily used to access content that is related to what is being watched. However, this is not to say devices are being used in isolation from their surrounds; their use is interwoven with watching television and with interacting with other people. We suggest that designing for 'the connected home' is more than an integration project, and should take account of the social fabric of domestic life.

Author Keywords

Television, Mobile Devices, The Home

Introduction

Televisions, smart phones, laptop computers and tablet computers are present in many homes; the home has become a multiscreen environment (see [2][3][4][6][7]). As Hess et al [4] note, these devices are rarely used in isolation from one another; phones and laptops are often used and switched between while watching or interacting with the television. Hess et al [4] characterise this situation with the term "parallel media". They use another term, "cross media", to envisage the potential for interoperation and linkages to be made between the television and personal devices.

This paper focuses on parallel media. It discusses how people use mobile devices while watching television together with others. Our analytical interest is in how and why people divide their attention between different technologies.

The Study

We have studied how people use mobile devices while watching television. We have done so by logging their mobile devices and videoing them in their homes. Four households were recruited (each comprised of young professionals and/or postgraduate students in their twenties and thirties). These households were selected primarily on the grounds of access (i.e. whether all participants in the household agreed to the study, whether they had a suitable living space for video recording, and whether we could log their devices).

To video the households we positioned cameras, and allowed the householders to switch these off and on at will. We developed loggers for iOS and Android and installed these onto the householder's mobile devices at the beginning of the study. We used these to log app launches (the name of the app, the time it is launched, and how long it is open for). We asked for one month of log data, and a minimum of three nights of video data over the course of that month.

This research has been undertaken in the context of a much larger study of how people use digital devices (see [1]). The majority of work in that study has been log based, quantitative analysis. The study reported here was undertaken in order to augment and contrast log analysis with rich, qualitative data in order to better understand how technologies are used in combination. The home environment was chosen as an interesting

setting for multi-device use, and one that is relatively amenable to video.

Findings

Many of the practices discussed by Hess et al [4] are present in our data. We see people undertaking information-search; we see them browsing the web; we see them consuming social media, and so on. Our data show some instances of social media, Wikipedia, TV guides and so on being used with relevance to what is being watched on television, but overwhelmingly we observe the devices being used for separate purposes. We see web browsing, social media use, games playing and so on occurring alongside TV viewing.

Brown and Barkhuus [3] discuss television watching in terms of "viewing" and "ambient viewing", but we find such terms do not characterise what is going on. The Use of a digital device does not necessarily turn the television into background, "ambient" noise. We observe that people undertake multiple activities in parallel or close sequence. These parallel activities do not necessarily happen all at one, but they can be closely interwoven.

Figure 1 presents a vignette from our video study. It shows a cohabiting couple, Jade and Sid, watching television with their housemate Lisa (Jade and Sid sit together). They are watching the show Strictly Come Dancing. The vignette begins with the two females expressing displeasure at the contestant Julian being voted into "the Strictly Come Dancing dance-off". A notification then sounds on Jade's phone, which is out of reach. Jade looks and smiles at Sid, persuading him to retrieve it. On seeing him do this, Lisa jokes Sid is "a loser". Jade opens Snapchat (a photo sharing app) and

Figure 1

This figure presents a vignette from our video study. The figure uses the graphic transcription format developed by Laurier [5].
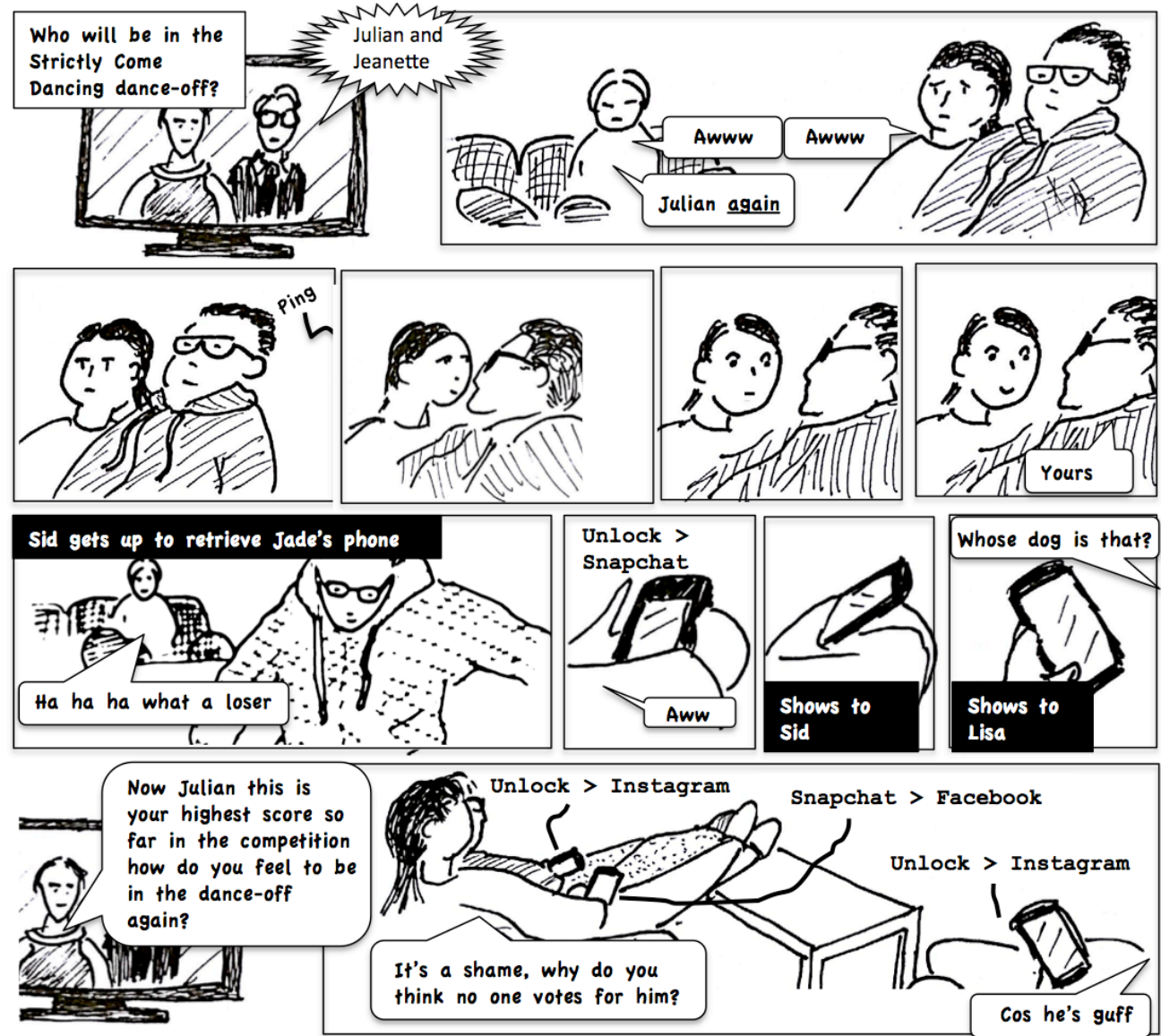
views an image of a person with a dog. She shows it to Sid and then Lisa, who asks whose dog it is. Sid and Lisa also get their phones out, and all three of them access social network sites. A question on the television prompts Jade to ask Lisa why no one votes for the contestant Julian.

Figure 1 shows how three people shift their attention from a television show, to a Snapchat image, and then to social network sites. At the end of the vignette, they are using their personal devices and yet are giving verbal assessments of what is happening on the television show.

The practices we have observed are thoroughly social. There is much co-present interaction. As figure 1 shows, this can be to discuss what is happening on a television show, or to discuss images shared on social media. But we also see a boyfriend being persuaded to retrieve his partner's phone, and then being teased for doing so; and we see that an image sent to someone is looked at by that person first, and then shown to others. Co-present interaction seems to be more than adding commentary to or interacting with media. Parallel media, we are recognizing, enters into the chat, the teasing, the relations and the sitting about that constitute television watching, and more broadly, domestic life.

The situations we have observed are dissimilar to those described by Turkle in Alone Together [8]. Our data does not point to new technology leading to a breakdown of social and domestic life. On the contrary, we see new technology being adopted within the melee of domestic relationships. While mobile devices do allow for people to engage in personal activities even when in the presence of others, this does not negate the ability to follow and discuss a TV show. These devices also allow for other topics and media to be brought into discussion, for favours and kindness between couples, and for teasing between friends.

Regarding the combination of video and log data, we have found that these complement each other well. The videos show in rich detail the talk and embodied action of the householders, but do not always capture what is happening on their personal devices. Logging provides this detail, and in some sense is preferable to using screen recorders on the devices because this would intrude on what is after all a *personal* device. The logs also provided a valuable scaffold when transcribing the videos. The videos are also a helpful resource for understanding the logs (not just the logs made during the periods videoed, but across the study). They show that such log-based studies miss a good deal of rich and interesting detail, but moreover that the 'use' that they describe manifests in myriad ways.

Our logs are of the devices as they were used over a period of time, and so are not just limited to device use in the home. It remains an open question as to whether domestic or other settings are important considerations when thinking about the design of mobile devices. We did not observe 'home specific' apps being used, but rather we observed people interweaving apps into their home life.

Conclusion

This paper reports work in progress. Something our work is pointing to is that designing for domestic life is more than a technical integration problem. While there is obvious potential in cross media and the use of

personal devices as a second screen when watching television, we suggest that the design space is much bigger than this. We suggest that designing for domestic environments might fruitfully take account of the ways in which people interweave media. This may, to an extent, be designing for "parallel media". But our discussion may also have implications from "cross media". Cross media will not escape the domestic relations our study highlights, and is unlikely to escape that people seem to enjoy doing parallel, quasi private activities on their devices while watching television.

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