

Teenage ‘Phone-talk’ and its Implications for Design

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ABSTRACT

This paper demonstrates how the fine-grained analysis of conversational talk and face-to-face interactions can be incorporated into the activity theory framework and subsequently used to elicit design suggestions. The research draws on field study data of teenage mobile phone users. The work has two main contributions. First, it shows that rich and detailed qualitative descriptions of computer-mediated activity can contribute to the project of design. Second, it provides a practical example of the role activity theory can play in bridging the divide between field studies and design.

INTRODUCTION

Field studies following an ethnographic tradition have, for some time, been presented as a means to get at the complexity of technology-mediated, social activity [14]. However, there continues to be some debate over the ways in which such studies might inform design [1,10]. The conceptual framework, *activity theory* (AT), has been presented as one possible solution to bridge the apparent divide between field studies and design [12,16].

Although several authors have made efforts to use AT to depict techno-centric work settings and, in particular, their development [5,9,11], there remains no definitive way of using the framework to elicit design suggestions [15]. The suggestions that have been made revolve around altering the nature of field study research so that it is more in line with AT’s conceptual underpinnings [4]. This approach is, without doubt, a workable one, offering a coherent theoretical structure to design practice. However, it is unlikely to be a final solution as it necessitates that, at least to some extent, field study researchers give up their own systems of practice.

This position paper introduces work that explores AT’s role in using field study data that originates from forms of analyses with their own tradition. Rather than attempt to prescribe a reformulation of the practice of field study investigations, it examines the extent to which AT is able to incorporate field study findings into its structures and use these to inform design.

FIELD STUDY

The presented research makes use of data collected from a field study of mobile phone use amongst teenagers. The fieldwork took place at a sixth form college located in an English suburban town. A familiar part of the English education system, sixth-form colleges are institutions in which students between the ages of 16 to 19 are taught for two years in preparation for their advanced level examinations that qualify them for entry into university. Run over a four-month period, and consistent with the general trends in ethnographic research, the study employed various qualitative procedures, including observational and interview techniques. This resulted in a substantial collection of both observational field notes and

group interview transcripts.

Analytical orientations

Drawing on methods for examining talk, the reported research examined the face-to-face interactions between teenage mobile phone users. A conversation analytic orientation, based on works by Sacks [13], was used to inform the analysis, and use was also made of both Goffman’s [6,7] and Goodwin’s [8] observations on gestures and postures in talk.

The results of this analysis have been systematically modelled using a framework based on AT. The framework draws heavily on Engeström’s [3] representation of the ‘activity system’ in which motive-driven activities are shown to be mediated by mental, physical and social artefacts—such as language, computer-based tools and social norms and roles. It also uses the notions of *contradiction* and *breakdown*, detailed by Engeström [3] and Bødker [2], and more recently by Turner and Turner [15,16].

Analysis of conversational talk

The analysis of teenagers’ talk about and with their phones revealed that teenagers sometimes use the mobile phone to order to their everyday, face-to-face conversations. Specifically, it was found that, amongst teenagers, talk about the phone, or more generally ‘*phone talk*’, is routinely used in the management of a conversation’s *topic* and the organisation of *participation status*. Of particular interest in this paper is the manner in which these features are occasionally drawn on to participate in covert forms of talk that can be seen to subvert the ongoing course of a conversation.

Topic

The findings from the field study indicated that the mobile phone and, in particular, reference made to it as a tangible object, offers a resource that teenagers call upon to collectively manage the topic of talk. The teenagers who were observed and interviewed appeared to regularly use the phone to order their talk with those around them and, specifically, to start-up or change the topic of their conversations. A great deal of this conversational ‘work’ seemed to rely on the use of the phone’s material presence in talk and its apparent value as a topic in its own right.

Numerous examples in the data, for example, revealed that attention could be turned towards the phone during talk by, for instance, making reference to one of its features or to the content of a text message. As such, phone-talk was seen to be a wholly observable, yet taken for granted, ‘device’ through which topic is routinely managed. Being always at-hand and its very ‘taken-for-grantedness’ seemed to be what made the phone a likely topic of talk.

Participation Status

As well as possessing qualities that help to manage a conversation’s topic, the field data also suggested that

the phone has its part to play in managing and organising *participation status* in local talk. It was apparent from the data that when the mobile phone is present in conversations between teenagers, it can determine who becomes engaged in talk and the conversational roles that are taken.

Several instances were recorded, for example, of teenagers establishing small conversational interchanges by way of the phone in which other bystanders were excluded. The phone would be picked up and handled to draw conversants together and small groups would huddle together often around a phone. From these instances, it appeared that the phone provided a legitimate reason to manage participation status, not only through its presence in occasioned talk, but also because of its particular physical characteristics. In particular, the phone's size provided a means for phone users to manage the statuses made available to those present in a situation.

Covert, subversive talk

Over the course of the fieldwork it became apparent that the management and organization of topic and participation status by way of the phone allowed teenagers to participate in what was thought to be 'covert' talk that undermined or 'subverted' the course of a conversation and the socially constituted order of an occasion. Teenagers appeared to use the phone to initiate a sub-topic of conversation. This could result in the members of a group being excluded from the conversational exchange. This might happen for example between a group of teenagers sat at a table in the college canteen. The separate topical talk about the phone between two or three at the table would separate them from the other group members.

Occasionally, this shift in topic and management of participation status was used to conceal the content of talk from excluded group members. The exchange would be covertly undertaken through the use of the phone. For instance, gossip exchanged between the select members of a group might be concealed by what appeared to be talk about a text message. By playing on the ambiguity of phone use, the talk served to be 'subversive' in so far as the forms of covert talk served to countermine the recognized order of an occasion. Thus, talk through a phone in class could be a demonstrable display of subversion against 'classroom-order' or the concealed talk by way of the phone between friends could subvert the orderly progress of a wider conversation between a larger group. This view depicts the subversive act as a concealed, locally assembled and produced resistance against an established set of social structures or 'rules' appropriate to a particular occasion.

ACTIVITY THEORY

This descriptive interpretation offers some interesting insights into teenage phone use. It reveals that phones are not purely used as a means to communicate with those who are in physically separate (i.e., remote) locations. It shows that teenagers, in particular, use their phones to mediate local social encounters. This use of the phone, however, is not something that is immediately obvious or something that can be explained simply by considering the phone's design.

This section will demonstrate how AT can be used to interpret the findings described. It explains, at least in part, how phones have come to be used in localised forms of subversion amongst teenagers.

Mediated actions

With respect to AT, the mobile phone can be seen as a

mediating tool or artefact. From a traditional standpoint, the mobile phone serves to mediate communicative actions between a subject and his or her community that are remotely distributed. This conventional view is not, however, consistent with the presented findings.

For teenagers, mobile phones are shown to be, on occasions, tools for mediating face-to-face talk and, specifically, the management of topic and participant status. At this level, it is the physical and interactive features of the phone that play a mediating role. These features dictate how topic and participant status can be managed and the social roles that come into play in doing so. For example, the phone's at-handedness and presence in talk allow it to be a legitimate topic of talk and its size influences how many people and who (according to proximity) is able to attend to its content. Using Engeström's well-documented notation, this is presented graphically below. (Fig. 1)

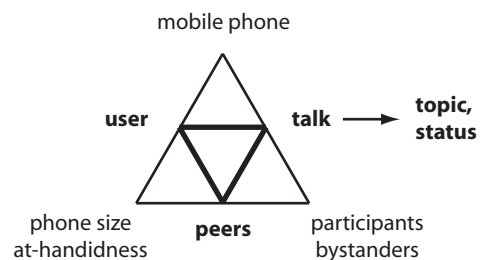


Figure 1. Phone-mediated conversational talk.

Activity Systems

Presumably, as phone use amongst teenagers has developed, these actions have come to be incorporated into what is termed in AT higher-level *activity systems* that are culturally and socially evolved. The findings suggest that one activity system that may have been invoked by teenagers and their use of phones in conversational talk is that of subversion: in particular, locally subversive talk.

This activity system has its own pre-existing rules, norms and social roles. Socially sanctioned rules dictate how 'resistance' can be legitimately performed and made demonstrable. The division between the 'subversives' and those who sustain the order of an occasion is also cast (Fig. 2).

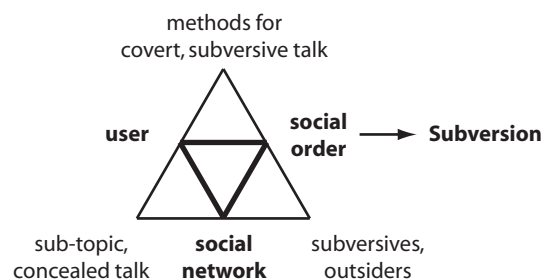


Figure 2. Locally subversive talk.

It is this incorporation into a higher-level activity system that, at least partially, explains why teenagers understand the phone to be more than merely a tool for distributed communication. By invoking this system, phone talk and the mobile phone come to be 'coloured' by the culturally constituted elements of subversive talk. Thus, the actions of managing topic and participation status first invoke commonsense understandings of the way subversive talk gets 'done' and then these understandings assert themselves so that they colour the

way phone-mediated actions are demonstrated and made observable.

DESIGN: CONTRADICTIONS AND BREAKDOWNS

To consider how this representation of phone use might be used to inform design, attention must be turned to the contradictions and breakdowns that occur in ordinary activity. This section describes two of several contradictions that were identified in the analysis and suggests some resulting design possibilities.

Keeping talk private

One practical problem that arises in sharing messages covertly is that there is always the possibility of being ‘found out’. The fieldwork data indicates there are at least three ways in which teenagers have managed this problem. One method is simply to delete incriminating messages. Another is to use the message composition screen as a temporary display, where messages can be written, passed between conversants and then cleared. A third is to make the exchange ambiguous by using the phone’s physical characteristics (such as its size) so that they appear to necessitate intimate proximity between conversants.

Notably, these solutions were not intended in the design of mobile phones: messages are ‘designed’ to be deleted because of memory restrictions; the composition screen is meant, purely, as a means to compose messages to be delivered over the network; and the phone is designed to be small in size so that it is portable and at-hand. Teenagers, however, seem to have learnt and adopted practical means to manage private and in some cases subversive messaging through these features. In short, they have overcome breakdowns that arise in using the technological tool to mediate private talk.

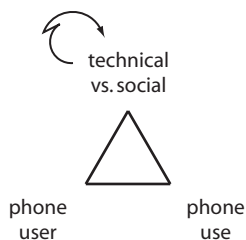


Figure 3. Conflict within mediating artefact.

Seen in terms of the AT framework, the problem of keeping messages hidden or private amounts to a contradiction (Fig 3). The contradiction exists within the mediating artefact, between its technological and social functions. On the one hand, the technological features of the phone are designed to achieve mechanical operations, subject to material and physical constraints—the phone has a limited memory capacity, it is meant as a device to transfer information over a wireless network and is designed to be portable and at-hand. However, when the phone gets used in practice, the influence of the social collective comes to have an impact on its use. The specific goals for using the phone become evident—the phone is no longer seen as a technology for distributed communication, but comes to serve as a device to covertly engage in local, subordinate talk. These local acts of phone-mediated subversion are subject to social rules ordering how such exchanges are practically accomplished—subversive talk must be divisive and must also be seen to be so. This evokes particular roles or divisions of labour—those present at an occasion fall into the roles of those participating in the subversive act and either bystanders or those subject to the subversion.

Seeing teenagers’ phone use within such a system of activity offers some insight into design possibilities. One possibility for exchanging messages locally is to design a system so that messages can be transferred through bringing phones into close proximity or by physically touching the phones together. This solution might be extended so that messages that are exchanged can remain hidden, thus resolving the problem of having content, or locked messages, visible to all. Such a solution might be designed to operate so that messages are only revealed when particular phones are in contact with one another. Messages could be made ‘visible’ to particular people’s phones so that when they are brought near these phones the messages are shared. This would cement teenagers’ social groupings and permit messages to be exchanged locally whilst concealing messages’ contents from bystanders.

To make this form of sharing ambiguous, a further feature that might be added to mobile phone’s is the capacity to display content across multiple screens. Thus, two phones brought into contact could be configured to display one phone’s content on the two screens. This feature could be designed to work across two or more phones and to display ‘hidden’ messages across multiple screens. Offering this feature would provide teenagers with a legitimate reason to bring their phones together. As with the sharing of a single phone, it would also make the reason for the exchange ambiguous.

Public displays of private talk

A further, more subtle, problem arises in phone use because of a conflict between the apparent need teenagers have to demonstrate their resistance against ‘outside’ groups and the need for subversive content and practices to remain concealed. In practical terms, this means that teenagers who work to subvert occasions using the mobile phone face two opposing goals. On the one hand, they aim to make their actions observable so that they can be shown to be subversive—resistance is only valued if it is observably demonstrated and seen to accomplish subversion in sanctioned ways. On the other hand, teenagers aim, in part, to conceal their subordinate, phone-mediated exchanges. They aim to conceal them from particular members present in an occasion such as teachers in the classroom or adversaries in the school canteen. In terms of the AT framework, this conflict constitutes a contradiction between the methods used to mediate phone talk and the socially sanctioned rules of localised subversion (Fig. 4).

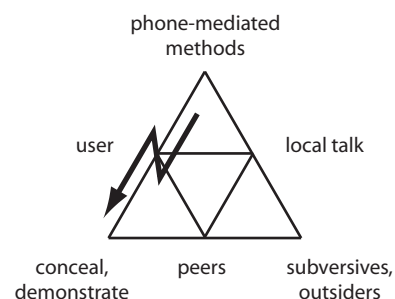


Figure 4. Conflict between mediating artefact and rules.

Phone users appear to manage this problem, in part, by relying on the ambiguity of mobile phone use. Thus, the subversive act is made apparent to the other(s) engaged in the subordinate talk but left open to interpretation for those present but not engaged. The problem is also countered through established rules of conduct when performing particular acts of subversion.

Particular methods for accomplishing subversion have become observably recognisable. For example, ways of holding the phone and posturing in places such as the classroom are recognised as subversive acts by those in the 'know'; there are, in essence, socially sanctioned methods for demonstrating subversion via the phone.

A problem that these methods reveal is that local forms of subversion can only be made clear to those who are observing the act or who are immediately next to the person displaying the phone content. If a phone user wishes to include others who are present but not in view of the phone's display, there must be some certainty that they are attending to the act, understand the sanctioned rules and can decipher its ambiguity.

With respect to design, these problems indicate an opportunity for considering new features for the mobile phone that allow subordinate and covert talk to be directed to others who are co-present, but not physically contiguous or directly attending to the interchange. A design feature that might serve to contribute to this practice is one that provides for inclusion in or exclusion from concealed subordinate talk.

During the observational fieldwork, it was noticed that some teenagers placed their phones on their sides with the screen pointing towards them. According to the participants who were interviewed, this was done so that incoming messages would be noticed on screen when the ringer was switched off or when the ambient noise prevented ringing from being heard. Such placement of the phone might also be used to demarcate the boundaries in which a subordinate message exchange might occur. Thus a user with a phone that is placed outside of the 'marked' area might be prevented from sending a message to the positioned phone. Access would have to be negotiated either by movement of the phone, or movement by the sender into the demarcated boundaries. Noticeably, the exclusion and potential for subversion is achieved in the most casual of ways—through the placement of the phone—but effectively serves as a marker of exclusion. In some respects, the importance is not in the prevention of the exchange of messages, but in the symbol this serves. It can, in a particular situation, be seen as a symbol of defiance or resistance against those outside the boundary but only in a way that is ambiguous. It is reminiscent of the simple crossing of arms—it serves to cordon off one's social proximity to an occasion, but is open to negotiation.

CONCLUSIONS

It is hoped that this short paper provides an early demonstration of how the interpretive accounts produced from field studies can be integrated into the AT framework and subsequently be used to inform design. Effort has been made to reveal how the social order that is revealed in distinct field study traditions can be mapped onto AT's structural apparatus. Specifically, it has been shown how the socially constituted rules and orderings in teenagers' phone-mediated, conversational talk can be represented using the AT framework.

Time has also been given to explicate how design implications can be made through the further analysis of these representations. The identification of contradictions and breakdowns has been shown to be one way in which to raise design suggestions. In future work the aim is to implement some of the suggestions that have resulted from this work and assess their compatibility with the sorts of phone-mediated activities that teenagers participate in.

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