INTERPRETING DIGITAL GAMING PRACTICES:
SINGSTAR AS A TECHNOLOGY OF WORK

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Abstract

Embedded within discourses of the enactment of information and communications technologies (ICTs) at work is often a tightly constrained range of legitimate application areas of study, a rather thin concept of user-developer relations and a context of use that precludes simultaneity, multiplicity and informality. This situation persists despite the increasing relocation of work to informal settings beyond the traditional boundaries of the work organization. In this paper we argue for the consideration of digital games as premier and hallmark examples of socially rich ICTs and demanding the attention of researchers concerned with work orgainzations. Through two intersecting ethnographies of the use of the Sony PlayStation console game, SingStar, we provide an account of ICT mediated experiences associated with playing the game. We consider SingStar in particular as socially rich as it invites us to think about: the wider capabilities of ICTs beyond work-orientated organisations; the expansion of conditions of ICT appropriation, extended collaboration practices and the co-production of sociotechnical arrangements in situ. We argue that SingStar can be thought of as glue technology that assists in crafting and strengthening social linkages amongst players. Our examination of the play and experience of this game provides a fuller account of the inter-relationships of people to socialising technologies that reaches beyond traditional discourses regarding technology, organizations and work.

Keywords: Digital Games, User Relations, Technologies of Play, Collaboration

1   Introduction

In general, ICTs at work are conceptualized in organisational terms. This translates into a focus upon the management of work in areas such as process improvement (Hammer and Champy 1994) and control (Wilson 1999). In doing this, there is the potential to overlook other capabilities of ICTs including the facilitation of experiences that are fun, enjoyable, pleasurable or loving. Moreover, notions of the 'user' are tied very much tied to organizational settings implying almost synonymous meanings to that of 'worker'. This constructs an implicit set of employment relations and technology ownership conditions. In Lamb and Kling's (2003) terms this necessitates particular characterizations of expectations of identities, interactions, environments and affiliations. Such a narrow definitional focus leaves open the potential for a wider range of user contexts to be discarded that do not fall within the norms of such conditions. For example one might consider users alongside friends and relatives, as users of technologies under the influence of drugs and alcohol or usage as a means for recreation. Research of ICTs at work also tends to position the user in a one to one relationship with 'the computer' despite several calls for the need to understand the shifting contexts surrounding computer use (Nygaard 1986; Suchman 1987; Lamb and Kling 2003). Even the technologies that aim to encourage group collaboration, participation and the sharing of ideas operate primarily on the basis of enabling interconnection between individual and physically separated associates through shared databases or other technologically mediated communications (Orlikowski 1992; Orlikowski 1996). Thus, for example, the possibility and possible benefits of two or more people using the same input device at the same time remains unarticulated. With the paradigmatic research focus upon the work organization setting there is, we argue, usually a bounded range of acceptable ICT applications; those that support traditional 'legitimate' organizational aims such as office automation, production control and managerial reporting.

Organizationally focused ICT research is also informed by traditional notions of the structure of work which can lead to the artificial, and arguably politically informed, separation of development and use, and developers and users. This type of understanding supports an intellectual affiliation with the design fallacy which characterizes the assumption that technologies are pre-built and have a fixed idea of use which plays out as the original designer intended (Fleck 1994; Stewart and Williams 2005). The combined impact of these conceptualizations is the downplaying of the role of users as developers and developers as users as well as the continuous and mutual shaping of sociality and technology.

In this paper we address these range of concerns regarding the relationship of ICTs to work by taking up the challenge issued by Crawford and Rutter (2007) albeit within a gaming context. "There is little in the way of understanding elements of the gaming experience that are not limited to the actual playing of the game itself" Crawford and Rutter 2007: 273). Through our field study we found that the *SingStar*[1] game and game play was not the central focus of interest but rather the manner in which the game acted as a facilitator for a range of social arrangements that could not be observed 'in game' or even 'near game' but rather across a far broader range of experiences and engagements. Through this analysis we are thus able to comment on the value of considering the affordances of digital games and their applicability and suitability to a work organization context.

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[1] The official site for the game can be found at www.singstargame.com. Other sites players use are the SingStar VIP Lounge (www.MySpace.com) and the SingStar Appreciation Society group (www.facebook.com). Video clips of the use of SingStar can be found on YouTube by searching for "SingStar". It is interesting to note that YouTube does not just contain performances in the traditional sense. Users have also made videos on how to play the game and also ones which show their ability by pointing the camera at the game screen to record their scoring, rather than them.

2 Digital Games at Work

A stereotypical view of digital games is that they are isolating technologies. Such perceptions of digital games reflects some of the academic and public discourses that have tended to focus upon issues such as addiction, isolation and impaired social skills (Yates and Littleton 1999). Representations of this kind largely reflect dominant discourses around the 'hack and slash' of dungeons and dragons style role playing games. Thus it would seem an anathema to make the claim for digital games as socially rich ICTs and an appropriate environment for extending understanding of the shifting worlds of work. In this light, it is important to recognise that contemporary gaming research now shows that gamers are actually incredibly social beings who see collaboration and socialisation as a necessary and integral part of their game play (Chen 2005; Smith 2006; Taylor 2006). Moreover, we have to remember that gaming is often performed within the home (and given the rise of so called 'casual gaming' (Juul 2010) often at work via sites such as Facebook) with the attendant connection to family and friends. Despite it being argued that ICTs lead to the fragmentation of domestic life, research has shown that this can be far from the case. Kennedy and Wellman (2007) for example argue that ICTs are enrolled into domestic life to tie those residing within a house together. For example, digital games become a way of mediating social activity involving several members of a household (and beyond) in much the same way as earlier board games like Monopoly. As Crawford states:

> "Digital games are not played in a social vacuum but, rather, are located within the players' everyday lives and even social networks. Though undoubtedly the majority of digital games are played alone, for many digital gaming can have wider social links and consequences. Digital gamers may frequently play with other people online, meet up at conventions and 'LAN parties', or more commonly play with friends or family members" (Crawford 2006).

The construction of meaning around games, gaming and gamers contrast significantly with representations of work, working and workers. The temptation therefore, is to dichotomise these nexus of concepts and argue that games are counter-weights to work. However, the changing nature of work and the normalisation of digital game technology – in the homes of the so-called 'West' at least - makes such a simplistic binarism increasingly problematic. The popular business press has for instance even gone so far as to single out gaming interactions as a way to structure work to take advantage of the so called 'Gamer Generation' (Beck and Wade 2006). Digital games do have distinguishing and defining features that importantly inform understandings of work through their differences. Games are also, along with pornography, significant technology foretokens of mainstream ICTs; defining the use, capacity and capabilities of other future technologies[2]. Games take at least partial responsibility for expanding the understanding of how ICTs can be used in new and innovative ways to extend human capability and capacity. These capabilities include the constant re-definition of the relationship of individuals to the technology and to each other including, for example, the number of participants using a single interface simultaneously, the mechanisms for engagement and forms of sharing experiences remotely. Games are also assumed to be 'fun', however this claim in itself requires critical examination as it implies a universal quality to a broad range of technological applications and tacitly suggests that 'work' is not, or cannot be, fun. Smith (2006) suggests three aspects of social dilemmas in gaming as particularly important: cheating, grief play (players choosing playing styles that, although afforded by the game code, run contrary to the enjoyment that others can achieve from the game) and irresponsible participation (disrespecting interaction conventions that players must abide by if they wish to keep the playing experience enjoyable for others). The attention and recognition given to such social dilemmas, highlights that the element of fun as the defining parameter of games is

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[2] An excellent example of this can be found in the shape of Johnny Chung Lee's Wiimote project. As part of this he has reconfigured a Wiimote, a controller for the Nintendo Wii gaming console, to facilitate electronic whiteboard functionality via a standard personal computer. See: http://www.cs.cmu.edu/~johnny/projects/wii/

highly subjective and shows that when cheating becomes necessary in order to complete a game (and achieve a defined goal) that the boundaries between gaming and working have effectively been crossed. Both games and work require careful positioning and contextualisation in order to determine whether they are fun, or otherwise, to the individuals being observed. The broadly mandatory and imposed nature of organisational activities and the ICTs that are employed to this service contrast with the optionality and range of choice that are experienced with games. Yet, although somewhat technologically deterministic, it has, for example, been argued that by modelling the relation of an act to its consequences, games designers signal social approval or disapproval (Brey 1999). It has also been suggested that games designers decide the set of possibilities and meanings for a game including the atmosphere, interactions, actions and feedback (Dodig-Crnkovic and Larsson 2005). However, such distinctions between home and work are further crafted by the association of games and work with the informality of domesticity and formality of organisationally based practices respectively. However, this distinction also provides significant understanding to the meaning of work as gamers can often be observed carefully preparing their environmental circumstances by adding additional elements such as food and drink to ensure that the actual practice of gaming 'works'. All of these parameters of difference and the degree to which this complexity eschews simply binaries reconfirm the degree to which games and work define specific social orders and cultural logics that integrate socially rich ICTs.

3   Research Approach

Our study is based upon two intersecting ethnographies of *SingStar* game playing. *SingStar* a game released for the PS2[3] platform is a karaoke based game – a sing-a-long to a popular song. The role of the ethnographer is to gain an understanding of the symbolic forms and discourses of groups within their natural setting (Schultze 2000). It focuses upon social activities and examination of their relationship to the context in which they happen (Hammersley 1990). Ethnography has of course been used to understand the world of work (Zuboff 1987) and digital gaming (Taylor 2006). Both authors have been separate ethnographers of *SingStar* game-playing groups since March 2006. There have been several occasions in which the authors have participated in *SingStar* gaming sessions at the same event. In total we have interacted with over 100 game players (it is difficult to be precise as players come and go at gaming sessions where other activities in different rooms might be taking place too, e.g. chatting in the kitchen at a party or younger people having to leave because of parentally imposed evening curfews). Our gaming groups have been demographically diverse in nature. They have included people from the ages 5 to their early 60s, boys/men and girls/women, and people from a wide range of countries including Australia, Congo, Egypt, Ghana, Greece, India, Iran, Kenya, Malaysia, New Zealand, Nigeria, Oman, Pakistan, Spain and the United Kingdom. These players have also held a wide variety of their relationships with one another – partners, colleagues, family members, friends, friends of friends and even people who had never met before (on one occasion one of the authors was at a Karaoke night in a bar and several people at that event were invited back to join in a game of *SingStar*).

Data was collected through our participation at gaming events and within online groups dedicated to the game. With respect to the latter, we joined the *SingStar* appreciation society on Facebook and watched many public YouTube broadcasts related to the game. Data was recorded via note taking at events, semi-structured interviewing of participants and the creation of photographic and video evidence. Our data collection and analysis was guided by a general desire to understand how *SingStar* is made to work in situ. Thus, both authors proceeded to construct their ethnographies with this idea in

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[3] A version of the game was released for the PS3 console in December 2007. Game play remains broadly the same although there are some structural changes. Our ethnographies have followed this version too, but we do not pick up implications of this change in this paper.

mind and we met regularly to discuss our findings in order to feed these in to each others future participation. In particular, for the purposes of this paper, we were interested in what *SingStar* might attune us to with respect to the world of work. Thus, we reviewed and coded our data in the light of dominant themes regarding ICT use at work – namely notions of their purpose, conditions of appropriation, configurations of practice with respect to usage and the boundaries drawn regarding development and use. These themes are used to structure the interpretation of our findings in the next section.

4 Making *SingStar* work

SingStar adds a range of features not found in karaoke that for many create the game's appeal including scoring based on the proximity of the player's singing with the original pitch, high score tables and team components. A less readily acknowledged aspect of the *SingStar* disks are the use of original artists' recordings that distinguish the game from karaoke and other broadly comparable console games. Figure 1 is a screen shot from the game which in particular shows the graphical method of recording performance (the blue and red lines for player 1 and player 2 respectively), lyric prompts, current score and of course the video of the song playing in the background. There are currently 12 disks in the UK-orientated collection with a range of country variations available for many releases. Country-specific oriented releases are identified by varying track listings that accommodate more localised 'hits' and occasionally variations in the title, for example the UK "Popworld" disk is the sibling to the "Pop" releases in other markets. The first disk in the series, the self-titled ' *SingStar*', was realised in 2004 in Europe with country specific customisations for a range of Western Europe countries. This first version included 'career mode' whereby improved performance unlocked additional songs and virtual club venues for your on-screen character to sing in. However, subsequent disks did not have this aspect of game play and instead the game was significantly weighted towards multi-player and team play. This general focus on social interaction and engagement is also borne out by our study which only revealed a few people who were prepared to acknowledge that they played *SingStar* individually, including one of the authors. Even those that did told us that they preferred to play the game with other people. Despite US orientated releases, notably the recent "Amped" and "Pop" variation, *SingStar* has been particularly successful in the UK and Australia – an observation that has some relevance to its positioning as a social and domestic technology.
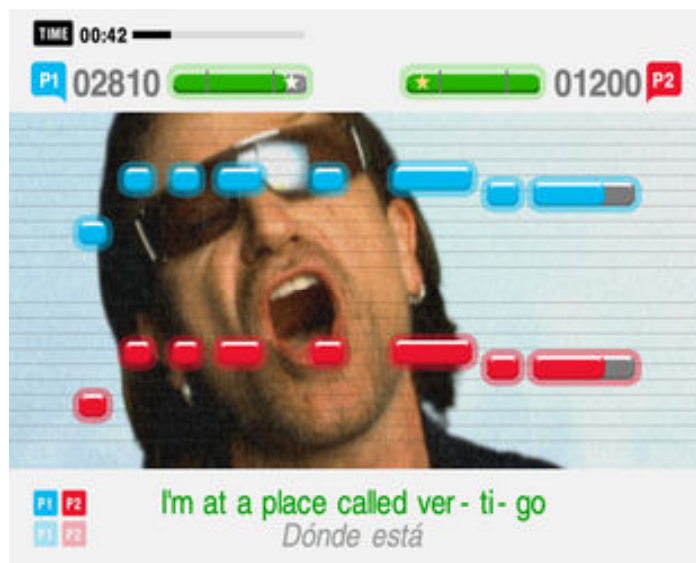

Figure 1. A SingStar Screenshot

We contend that although organisational research acknowledges the importance of the sociality of ICTs this is unnecessarily parameterised. Moreover, and perhaps more importantly, this can lead to socially thin conceptualisations of the appropriation of ICTs. To support this assertion we set out a number of implications because of narrowing of our conceptions of: the capabilities of ICTs; conditions of use; collaboration practices and users and developers. Drawing from our findings we argue that conceptualisations of the appropriation of ICTs in work organisations can be enriched if we include attention to experiences of domestic ICTs such as Digital Games.

4.1   Expanding the capabilities of ICTs

We have argued that organisationally oriented ICT research has a tendency to overlook the capabilities of ICTs such as those which facilitate experiences that are fun, enjoyable, pleasurable and loving. Unsurprisingly everyone we played *SingStar* with said they did so for fun. Yet, the ideas of fun, enjoyment and pleasure presented themselves in different ways. One Woman in her 40s told us she particularly enjoyed thrashing her sons. Indeed, regular players often enjoyed taking time to improve their performances, for example, a number of the teenage males we played alongside added songs like Tiffany's 1980s charting song "I Think We're Alone Now" to their MP3 playlists. One of the youngest players we spoke to (born in 1996) once spent an afternoon improving his score for Culture Club's "Karma Chameleon", also first released in the 1980s, to 9,810 points (out of a possible 10,000 points). In contrast, a Man in his 20s said he just liked singing and a woman in her 20s acknowledged she wasn't the best singer in the world but took great delight in singing and dancing in the privacy of her own home. Another aspect of fun was the activities interweaved with game play. We found that *SingStar* encouraged players to 'perform' in a variety of ways such as dressing-up or ad-libbing lyrics with localised or simply obscene variations of the original. The various 'rap' songs found on many of the discs were most commonly the target for obscenity. One player we spoke to insisted that he got better scores by replacing all of the words in the song with 'fuck'. Observed performances confirmed that not only did he get better scores but also rapped with much greater engagement than he did with the original lyrics. Often a dressing up box would be brought out at certain gatherings where wigs, gowns, feather boas and other items of clothing would be worn by singers and the audience. The dressing up box would usually lead to comedy performances whereby any desire to win by points or hit the right notes was overridden by the desire to make the performance as funny as possible. These performances were often recorded via mobile phones or digital cameras and played back during a game play session or sometime after. Some have even been posted on YouTube. As for us, the authors (both men in our 30s), one of us enjoys the singing because they like singing but also because they like performing for an audience, the other one likes getting the points and learning new songs. These themes of enjoyment were very common experiences within our gaming groups. Some people just wanted to sing for its own sake, others wanted to perform and some played to win. Love also entered into why people played the game, or rather more specifically, sang certain songs. Various couples were part of our experiences of game play and they often sang particular duets with each other or individually sang each others favourite songs to show how much they loved each other. Perhaps most ironically of all these examples was the use of the Nick Cave and Kylie Minogue duet "Where the Wild Roses Grow" which narrates the murder of a naïve woman by their lover. Love was also enrolled in competitive ways – it was common to hear people say "if you loved me, you would let me win" and "if you let me win, I'll give you some loving tonight". The same could be said of love in the context of a platonic relationship. Love was also a feature of family game playing, at one session, two sons sang a song in appreciation of their Mother for all the family to see.

4.2   Expanding Conditions of ICT Appropriation

The conflation of the conceptualization of user and worker come with particular contractual obligations regarding how and when technologies can be used, and indeed which technologies can be used, if at all. We argue that this leaves open, the potential for a fuller range of user contexts to be

discarded which do not fall into the norms of such conditions. For example one might consider users alongside friends and relatives, as users of technologies under the influence of drugs/alcohol or usage for recreation.

Much of the *SingStar* play we experienced was in the home, on a few occasions it was brought into the University we work in as part of social events with our students such as Christmas parties and the end of the academic year. We shall focus more upon the context of game play in the home as it offers greater scope for expanding the conditions of ICT appropriation (for example, at University we did not supply any alcohol yet in may home gaming sessions, for adults at least – this was the social lubricant of choice). With respect to the use of food and alcohol most people saw this as an integral part of the *SingStar* experience. Alcohol in particular was singled out, unsurprisingly perhaps, as required for 'Dutch courage' for some players. What was more revealing was that some users of *SingStar* seemed to improve their interaction with the game as they drank more (which could be directly evidenced by higher scores). Moreover, because the interface is relatively simple, even those who had several alcoholic drinks were able to continue to navigate game menus and use the game.

A key element of the success and significance of *SingStar* is its use of a broad range of contemporary and popular music. It thus becomes a form of 'social glue' as it enables a connection across generations and potentially even cross-generational understanding. A number of the players we spoke with had a cross-generational relationship: i.e. mother-son, mother-daughter, and father-son. In the majority of these relationships it was clear that the songs, and even in some cases an appreciation, had been carried across these relationships. As one Mother in her 40s commented – 'I'm down with the kids!' We also observed another mother taking significant pride that she and her son gained exactly the same (high) score for songs that both described as personal favourites. One of the fathers maintained a constant friendly banter with one of his sons regarding their respective singing abilities, however, while the general tone of the banter remained consistent the position that each took depended on who scored consistently higher on a song by song basis.

A more complex influence of the game is the way that it enables a crossover of musical taste and preferences. While many of the people who we spoke to, and played with, expressed specific preferences for particular songs that fell within a common genre very few hesitated to sing songs outside of these favourite genres. This preparedness for participation and the open-minded attitudes that the game generally generates also reveals that players who had previously resisted some of the songs offered by the game disks are prepared to sing them in a game context. This is significant as it makes regular players familiar with the timing and complete lyrics of songs that they might otherwise reject or prefer not to listen to. While the game developers do not explicitly state that they are aiming for any form of social change many of the currently available disks while broadly categorised by a genre or period, i.e. 80s, 90s, R&B or Rock, offer a range of songs that fall into distinct style that would not have originally been played on a single radio station or television. As an example, the recently released R&B disk offers songs currently played on the BBC's Radio1 such as Mark Ronson and Amy Winehouse as well as songs from Diana Ross, Womack and Womack and Salt N Pepa revealing the broad social space that any given music genre can occupy. The preparedness to initially participate in the singing of 'any' song – sometimes reinforced with a local 'no spin' rule, i.e. the singing of whichever song the game first offers up - backed up with encouragement for repeated performances almost enforces a type of music appreciation not normally experienced outside formal primary or secondary education systems. Encouraging the memorisation and recitation of a song also produces a personal satisfaction that can potentially overcome any particular musical preference or bias.

In this paper and as a mechanism for recognising the importance of specific technologies in supporting social ordering and cultural logic we also introduce the notion of the " *SingStar* moment." We claim that usage of *SingStar* crafts a meta-category of social identity that is not intimately bound to immediate physical proximity with a named technology. This identity is revealed in the " *SingStar* moment" when a song that has been experienced through *SingStar*, possibly for the first time and across genres or generations, is recognised firstly and primarily as a *SingStar* song irrespective of the

experiential context, for example, in a shopping centre, as a soundtrack to a television advertisement, in a nightclub or as a re-released single. Particularly among the younger people we spoke to, many of the songs they had sung and knew, had been subsequently experienced as a *SingStar* moment including ambient music heard from 'loud' cars, in specific stores or as backing music for things such as ringtones (ironically echoing the music used in karaoke or other singing games). This potentially positions *SingStar* as a type of indoctrinating mechanism for contemporary mainstream culture. Advertising and other semiotic level messages that rely at least partially on the parallel meanings offered in song are only useful when the audience can recognise and contextualise the implied message. At a brutal level Edwin Starr's message in "War (what is it good for)" found on the R&B disk was originally a political comment on the Vietnam War but will now be equally applied to the current situation in Iraq and Afghanistan by new 'singers' who will not have heard it on any form of commercial or public broadcast media. Possibly even more significant are the social networking opportunities that knowing a song at the detailed lyric level can offer. A small number of the people we spoke to recognised that lip-syncing or quietly singing songs in public that were understood as *SingStar* songs could regularly attract reciprocal looks of understanding from people in the same physical environment. One of the regular players that we spoke with related how he was quietly mouthing the words a familiar *SingStar* song on the escalator in a shopping centre when he realised that a woman on the escalator travelling in the opposite was similarly mouthing the same words and smiling at him over (he presumed) their shared recognition of the song. In this way the context of the game, the impact of the game and the understanding of the game extend beyond any digital social network or singular social event.

4.3   Collaboration Practices

The possibility for two or more people to use the same input device in the same place and time is commonly left unarticulated in organizational orientated ICT research. However, singing in a semi-formal gaming structure with others facilitates the maintenance and establishment of social bonds of varying strengths. Superficially this could be seen as a trite observation that is found with other group orientated, multi-player games. However, significantly, where other games solely invoke social networking capabilities and return to assumptions regarding one user per computer, *SingStar* arguably offers a richer experience. We experienced a wide variety of configurations of *SingStar* appropriation:

- One of us sang on our own, to practice
- One person held the microphone and sang to another person
- One person held the microphone and sang to a group of people
- Two people held a microphone each and sang to each other
- Two people held a microphone each and sang to a group of people
- Two groups of people hold microphones between them and sing at each other or at other people (we were told of a 'sing off' at a party where 10 people sang on each microphone).

Irrespective of the nature of the performance – even if it was simply straightforward singing - more confident players would often encourage others to participate. A number of tactics exist to encourage reluctant players such as choosing songs from a familiar genre or songs considered to be 'easier' by regular players. Moreover, reluctant players would often sing along in the background before taking up the microphone themselves. In effect, a number of the participants we spoke and sang with have overcome their reluctance and become what we would describe as regular players. Interestingly the one person we spoke with who was adamant that he disliked the game, and singing, also said that he continued to play regularly because it was what his friends did and he would just be watching TV if he did not come over and sing. With few exceptions these regular players have also become less self-conscious about singing and will often confidently sing a few lines of a recognised song when they are in public with other players.

This experience is not a simplistic consequence of the face-to-face aspects of game play or advocacy for the benefits of this specific form of social interaction. *SingStar* utilises cultural referents drawn from contemporary popular culture, coupled with a competitive and collaborative scoring system, the use of non-intrusive and familiar technologies including the microphones alongside the potential benefits of face-to-face interaction that in combination binds people together. This was most concretely illustrated whereby at some events everyone in the room sang along with those holding the microphones – we don't often think of 30 people sat around a computer screen, although it does happen (for example, PowerPoint usage or meetings where Excel is used via an LCD projector). Of course other technologies draw upon one or more of these same features but none offer such a dense amalgam that is complementary and logically inter-related. Each of the features that we claim as contributing to the power and significance of *SingStar* are found elsewhere in successful and popular environments, games and experiences. The social glue of MySpace is, as with *SingStar*, orientated around music but is undertaken without any directly competitive elements. MySpace's social networking is also entirely mediated by Web technologies; the chances of more than one person experiencing the Web-site's offerings in the same location are possible but clearly not a requirement for engagement. The concept of Karaoke is the key and original reference point for *SingStar*'s game play. The popularity of Karaoke in Japan and China is well reported and often used as a form of entertainment for business travellers. Many late night venues around the world utilise karaoke as their primary (cheap, customer supplied) source of entertainment. Karaoke is not however a game. There is no scoring and generally little judgement of the individual quality of a performance although clearly superlative performances are usually acknowledged in some way. Karaoke also very rarely utilises original artist performances.

4.4   Constructions of Users and Developers

It has been suggested that games designers decide the set of possibilities and meanings for a game including its ethical stance, atmosphere, interactions, actions and feedback (Brey 1999; Dodig-Crnkovic and Larsson 2005). This approach configures the analysis of games and gaming within a familiar approach that parallels the relationship and understandings of worker to organization. Clearly *SingStar* was made to function according the rules of a particular game and certain assumptions about the context of its use were made by designers. Yet, although games may be, to use Akrich's term 'inscribed' with a preferred reading, clearly such technologies are subject to further revision as they are enacted in situ (Akrich 1992). Moreover, given the potential for differing structural arrangements outside of a work organization setting the world of gaming offers us interesting opportunities to consider such appropriation processes. Of course the formal developer user relation as it would be traditionally understood – Sony developers make *SingStar*, people use the game. However, the boundary between the development and use of the game does become blurred and 'negotiable' (Bloomfield and Vurdubakis 1994; Burns and Light 2007). Perhaps the most obvious blur is how usage of the initial *SingStar* game resulted in its trajectory changing significantly, as with the 'cluster ball game' that (Holmström 2001) describes. Users engage in the production of a new version of the game (albeit not to the same extent as Clusterball players in terms of altering code). The result was that later versions of the game became more multiplayer, and arguably, socially oriented rather than pursuing the single player 'career mode' trajectory.

Moreover if we consider the co-production of technologies outside of traditional developer-user relations we see a number of interesting interventions by users to make the technology work for them in situ. First, *SingStar* is reportedly one of the few games with no known cheats. Cheating can be seen as the user making the technology work for them in situ in the same way as the development of workarounds might be experienced in a more formal organizational setting (Pollock 2005). We experienced cheats in the use of *SingStar* in two ways. First, when someone was singing, we saw another person disconnect their microphone without the singer realizing and thus making them loose points. This usually happened to people who were felt by other players to be taking the game too seriously. The second cheat deployed was by experienced players who realized that humming at the

right time would act as a high scoring surrogate for singing the words of a song. This would be done for short periods in public and we were made aware of people generating very high scores on the game on their own via this method. Also it is clear to us that the game 'works' better for people with the addition of other things such as props, disco lights, food, drink and even the right combination of people. In one of the authors' groups, there were some 'hard core' *SingStar* players known as 'the best ones'. Players will also introduce further information and communications technologies, and technologies into the play space. At some of the parties, for example, a guitar was produced and what became known as a ' *SingStar* Unplugged' session was held whereby one of the players played the guitar and people sang along. At another, a Karaoke DVD was put on for a while. We were also involved in the use of mobile phones and digital cameras for taking pictures and video clips – these were used in preference to the Sony Eyetoy camera sold to work with the game. This was because the Eyetoy camera only saved sections of a performance and players often wanted the whole of their performance recording – they didn't want to miss any of the 'best bits'. Indeed, even some of the functionality and game options that are offered by the standard game are not used – these tend to be the standard Karaoke – no scoring game and some of the voice effects that can be applied to replays of performances. Players thus create an ensemble that works for them which goes beyond anything the designer could prescribe in the standard game.

5   Conclusions

Accompanying the focus upon organisational contexts is often a narrowing of what is deemed a legitimate application area of study, a thin concept of user-developer relations and a context of use that precludes simultaneity, multiplicity and informality. In contrast, in this paper we have argued for the consideration of digital games as examples of socially rich ICTs. Through two intersecting ethnographies of the use of the Sony PlayStation console game, *SingStar* we provide an account of ICT mediated experiences associated with playing the game. We consider *SingStar* in particular as socially rich it invites us to think about: the wider capabilities of ICTs beyond work organisations; the expansion of conditions of ICT appropriation, extended collaboration practices and the co-production of sociotechnical arrangements in situ. This is important given shifts in the location of work to informal environments such as the home.

In moving beyond an organisationally based notion of ICT appropriation, we are able to, arguably, more readily witness ICT capabilities that go beyond process improvement and the like. In our case, evaluation criteria coalesce around how much fun the game produces in a number of ways, whether this is through allowing competition, performance, gaining pleasure from the act of using the ICT in for its own sake or giving pleasure to others. Expanding the conditions of appropriation also brings to the fore new user relationships – this may include colleagues as friends, but also we are given the opportunity to witness families and friends enact ICTs. Moreover, we are able to attend to the everyday of domestic life as key ingredients of such enactments and such as food, drink and prior experiences of popular culture and contemporary politics. Such combinations produce collaborations that lead us to witness the shared usage of a set of sociotechnical arrangements in an incredibly interactive fashion. Within such collaborations we are able to gain insights into how people support each other in technology use, such as the cases teaching new players how to play and encouraging shy people to sing. However, we also see how people are drawn into situations when they might not want to be – consider the case of the teenager who only sang to keep in with his friends. Finally, we are able to very clearly articulate the notion of the incomplete nature of technologies at the end of the formal design stage and signify the importance of the ongoing work and experiences of users post-production. Would *SingStar* have been as popular a technology if it had not shifted focus after feedback on the first disk? Who can say? But what we can say is that such user input has proved to be important. Moreover, the fact that the technology can be further appropriated into particular settings adds to its value.

In sum then, we argue that the investigation of socially rich ICTs such as digital games allow us to expand the horizons of research about the world of work. Consider the themes in this paper – we raise the need to think about the wider set of capabilities for ICTs, informal conditions of appropriation, collaboration practices and the ongoing work that goes into technological development post formal production.

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