'SnapShots': A Household Visualisation and Planning Tool for Major Family Events

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ABSTRACT

This paper describes the development of a methodology for informing the design of new technologies for the domestic environment that harness the potential affordances of broadband technology. With reference to one possible new broadband service, 'SnapShots', a prototype application is being developed. This is a household visualisation and planning tool for major family events and will be evaluated in a home setting. A primary outcome of the research is to outline usability issues for designing such artefacts together with discussing the socio-cognitive implications of being 'always-on' in the home.

Keywords

Design Methodology, Ethnography, Broadband Technologies, 'Always-On', Domestic Environments

INTRODUCTION

Within the domestic environment there are a number of artifacts used to mark major family events and milestones as well as aid with time management and utilisation. For instance, the photo album or 'home video' collection is a pictorial record of major events (weddings, birthdays and/or other milestones), the diary is more of a personal and therefore, private artifact to help organise personal priorities (such as work, leisure and family time) as well as time allocation or for personal thoughts ('Dear Diary…'). Within the home there might also be some sort of shared artifact such as a calendar or possibly even a dedicated 'notice' area (i.e. refrigerator door or pinboard) which will be used for communicating details of a shared activity, event or other relevant information (i.e. important extended family birthdays), as well as other personal activities that may impinge on mutual time [1]. My research is concerned with using ethnographic findings to inform the design of new domestic artefacts, intended to help family groups collaborate and communicate more effectively. It is part of an on-going research project, looking at how to exploit effectively the capability of having broadband in the home. A series of field studies and interviews were carried out to find out what kinds of activities families carry out but which require considerable time and effort and which could potentially be more effectively supported with a shared tool, that is always available to all. This would therefore seem an ideal situation to develop some form of device or service harnessing the affordances of broadband technologies in order to aid family member communication within the domestic setting. What I'm proposing is some form of virtual visualisation tool ('SnapShots') that forms a multimedia record of the planned event that can be shared and celebrated amongst family members as well as a means of organising and aiding communication for that event.

KEY OBJECTIVES

My research is concerned with developing an appropriate design methodology in order to produce relevant new artefacts, technologies and/or information appliances for the domestic environment. In particular, I will consider broadband technologies and the key usability issues for designing 'always-on' services, applications and devices. Further, I will consider the socio-cognitive implications of being 'always-on' in the home as well as looking at the way it might change the way people/households carry out their day-to-day activities. The methodology of my research will be to consider one aspect of home life (i.e. planning for a major family event such as a wedding) and how the affordances of broadband technologies can support these activities and to inform what might be the most appropriate digital device or tool.

PRIOR RESEARCH

O'Brien, Rodden, Rouncefield and Hughes [2] undertook and ethnographic study of a number of homes in order to, 'highlight key aspects of the social dimensions of households relevant to the potential uses of new domestic technologies'. Their findings with regard to the social organization of the home were used as a focused framework for an in-depth field study undertaken to compare the Internet usage if twelve households with broadband access. With respect to the social implications of this new technology within the home, the studies examined Internet usage trends and how these may have developed and/or changed now those households have 'always-on' capabilities rather than dial-up access. This was determined by conducting semi-structured interviews in order to define how the technology had been adopted into the social organization of the household environment based on four parameters as expounded by O'Brien et al.

The main findings concluded that households with broadband Internet access spent significantly more time online and visited more sites than when they had regular dial-up access. The two main benefits of ADSL/broadband, as perceived by participants, were the permanent connection and speed. Other perceived benefits included the fixed fee, freedom to use the telephone line and, even, a social concern regarding the benefits of working from home.

FURTHER RESEARCH UNDERTAKEN

An ethnographic study was used to examine the process of planning major family events as well as organizing domestic life via the use of diaries, calendars and other artefacts within the home. The main findings showed that planning a wedding or other major family event can be a complex, stressful and time consuming process. There are a number of details to be worked out and everyone, from the in-laws to friends and more distant relatives, will all have opinions as to how the day should look and progress. For example, in terms of planning a major family event such as a wedding people prefer a bespoke approach that reflects their personality, likes and dislikes. The findings suggest that there are many 'hazy' areas where members of the family need advice from suppliers or are at odds with each other as to how to resolve their problems. One design implication is to provide a means of helping them visualize their idea in order that these can be shared amongst involved parties or to be discussed amongst suppliers.

SNAPSHOTS

'SnapShots' is a prototype tool I have designed to enable users to plan and organize major family events such as weddings, family reunions and other milestones. It incorporates functions to aid the planning and organization of such events including temporal requirements (e.g. three months before the event you should be doing these activities…), 'to-do' lists, guest lists, prompts etc. but because of the higher bandwidth associated with broadband it has been designed to allow users to do other things, like create their own visualization of the event. For instance, 'SnapShots' is based on the idea that all young girls (and boys) dream and picture from an early age what their ideal wedding will look like. 'SnapShots' enables users to create the image they have for their wedding or other event in a digital format which can be shared amongst friends and family members but also acts as a starting point to complement and aid the planning process. A prototype is being developed at the moment and will form the basis for field trials over the coming months.

SNAPSHOTS – DESIGN REQUIREMENTS

The design requirements for 'SnapShots' can be viewed in terms of the visualization functions of the tool as well as the planning and organizational capabilities. It is envisaged

that the 'SnapShots' tool could be used collaboratively amongst family members (parents of the bride and groom, extended family and friends etc.) as well as potential suppliers (florists, caterers etc.). Although, 'SnapShots' will include this collaborative functionality it will be left to the discretion of the principal players (mainly, the bride and groom) to determine to what extent they wish to use these capabilities. The visualization capabilities of the 'SnapShots' tool serves two purposes but is also an integral part of the planning and organizational process. Firstly, it could be used to develop and build-up a picture of the proposed wedding which could then be shared amongst family and friends for comments but, more importantly, also given to suppliers as a basis for preparing quotes, as well as offering suggestions or alternative ideas. The design of 'SnapShots' recognizes that not everyone has a clear idea of the wedding they would like or find it difficult to visualize their perfect day, as one participant quoted, 'I think the florists that I approached wanted me to have a definite idea of what I wanted...but it was more a case of knowing what I didn't want'. 'SnapShots' would then offer the opportunity to work collaboratively and in conjunction with a potential supplier in order to design and develop the perfect day as well as automatically adjust any budgetary requirements accordingly. The schematic visualizations, of say, the reception venue, are included to help aid the organization of the seating plan but also to build-up a database of guest information. For instance, this might include personal details (names, addresses etc) as well as wedding appropriate information such as guest lists etc. The ethnographic information suggests that determining the seating plan can be a very difficult and stressful process as personal relationships can dominate (For example, Auntie X cannot sit on the same table as Uncle Y because…). Some suggestions have included taking into account guest's personal interests when seating groups' of friends or attaching 'magnetic' type forces to guests that will attract or repel depending on their vicinity in the seating arrangement. The 'planning and organizational' functions of the 'SnapShots' tool will be temporal based and will offer suggestions and prompts based on calendar requirements (for example, 'Six months before the event you should consider doing these activities…') and the creation of 'to-do' lists. Various checklists will also be available depending on the task. For instance, when considering appropriate flowers the checklist might include bride's bouquet, headdresses, buttonholes, corsages, the wedding venue, the reception etc. It is envisaged that any such purchasing decisions will automatically affect the overall budget, which will reflect the cost of the wedding thus far and will be presented as a budgetary spreadsheet for the information of those concerned at the discretion of the bride and groom.

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