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Family Rituals and the Potential for Interaction Design: A Study of Christmas

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ABSTRACT

Drawing on a field study with eight families in northern England, we explore the traditions and rituals carried out at Christmas, looking at the artefacts and processes that constitute family life at this time of year. Besides individual differences, a common pattern emerges: an extended preparation is carried out by the hosting household over a few weeks to set up the celebration and build expectations; preparation gives way to a short but intense celebration shared with the family or intimate friends; then decorations are stored and there is a return to normal life. The celebration is across generations and everyone takes part. We note examples of new and evolving rituals. Starting from the three identified phases, we discuss the theoretical and technical implications of our findings for the design of more sympathetic technology that holds potential for augmenting family rituals sensitively and possibly creating new ones.

Categories and Subject Descriptors: H5.m. [Information interfaces and presentation]: Miscellaneous.

General Terms: human factors

Additional Keywords and Phrases: Ritual, remembering, anticipating, social, tangible interaction, celebration, digital mementos, family.

1. Introduction

Christmas in Britain is celebrated as secular, religious or both, and is widely observed by non-Christians, therefore acting as our major mid-winter annual celebration. Unlike many other

festivals, it is associated with a date as well as a season. It is therefore possible to count down on a calendar to the same annual event every year. Studying the rituals of Christmas from an anthropological perspective, Kuper suggests that "Christmas is probably the only one annual occasion when virtually everyone in England is doing the same thing at the same time" [Kuper 1993]. Cultural festivals, such as Christmas¹ in Britain or Thanksgiving in the USA, offer a special time when many families and friends make an effort to get together and spend time preparing for the occasion, but there is not much work on what this involves as either co-ordination or celebration within HCI.

For designers and researchers, these occasions offer a particularly interesting time to examine material culture [Miller 2008] and its uses, with a focus on design. In each home, there is an opportunity to see uses that are untypical of everyday life, yet repeat year after year. We can witness manifestations of the ritual of Christmas both in the present, and, through the common practice of revisiting former Christmases, for recipes, tree ornaments and less tangible details of each household's special touches, also as the present meets the past. Occurring annually, this is a unique opportunity for people making the preparations and celebrations in one year to rediscover what has been stored away during the previous year with recognition, affection and surprise, after a time of defamiliarisation, and, often, within an overall positive context and among friends and/or family. This remembering is expressed as stories, which become more established as time passes and attach to the material artefacts - the chance to revisit special items may be a chance to reflect and reminisce about special moments. Hearing these stories presents researchers with a means of learning about the particular practices associated with Christmas, through reviewing the past and present as they converge in the rituals of the festival and its preparation. To explore this intersection between shared meaning and the things that support it, this paper reports on field research with eight families into their secular traditions at Christmas time, what is valued and what is performed. In particular we aim to ask what makes Christmas special and, in learning the answer, to use this to reflect on broader design issues.

¹ This is true of other festivals such as Eid, Hanukkah or Diwali, but we focus here on the festival that unites much of Britain in celebrating on a single day.

In summary, this paper offers a detailed exploration of practices in the run-up, celebration and aftermath of Britain's largest annual festival. After introducing Christmas as we understand it (S2), and giving an overview of studies that relate to how we might design for it (S3) we turn to anthropological studies on rituals and rituals as performance in particular (S4) and use this framework to interpret the data collected in the field study (S5) before briefly discussing the phenomenon of creating new rituals as captured by our data (S6). The findings are then used to discuss if technology should enter the space of family celebration (S7) and we outline approaches for doing so (S8). Through these sections, we ask how people use ritual processes in their lives at these special moments and what this might mean for designing sensitively for these circumstances.

2. Christmas

In this section, we devote attention to the festival of Christmas and show why the British Christmas is a particularly useful case study through which to explore the questions we are asking, being celebrated by atheists and believers, Christians and non-Christians alike on the same day each year.

2.1. The Origin of Christmas and its Significance Today

Christmas is simultaneously a religious and a secular festival. Some aspects, e.g. gift giving and the December date, can be traced back to Romans times; Christianity later adopted the existing pagan celebration as the day to commemorate the birth of Jesus [Miller 1993]. Today Anglo-American Christmas is considered 'an invented tradition' with symbols and rites taken from several cultures, blended in a single package that is spreading beyond the limits of the western culture [Kuper 1993]. With the exception of Santa Claus, created in North America [Belk 1993], most of today's traditions seem to have been shaped in Victorian England: the Christmas tree, originally a German tradition; Christmas as a time for charity following Dickens' 'A Christmas Carol'; and the 12 days of Christmas are a break from factory work [Kuper 1993]. The strongest image emerging from popular culture is of Christmas as the celebration of the family and its continuity [Kuper 1993]. Spending the season with the family is also a determinant factor for Christmas happiness [Kasser and Sheldon 2002]. Christmas, at its optimal, however, is not "a straightforward celebration of 'the family', but rather of the creation of a sacred time that defines and reverses certain everyday rules", e.g. work, hierarchy and

everyday life [Kuper 1993]. It is the time in the year where kin get together and catch up on what has happened; when the children are centre stage and work subsides to domesticity. Ironically, women often work much harder at Christmas than at other times of the year – “the irony lying in the denial that this is ‘work’ (since it is done for love and not for money).” [Kuper 1993:171]. Love and affection is key to the meaning of Christmas (though not always borne out by the reality of assembling the family). Even the ritual of gift giving, often criticized as a form of consumerism, acquires, within the family, status as expression of sentiments, i.e. gift giving at Christmas is not reciprocated equally [Carrier 1993]. Moreover careful selection and wrapping transform gifts from commodity to expression of love [Carrier 1993]. In fact, home-made gifts, e.g. jam jars, are often presented unwrapped as the making already expresses the affection and identity of the donor [Carrier 1993]. Taking this perspective, gift giving is “a ritual, the heart of which is really home and family, the joy of giving” [Carrier 1993: 70]. This is supported by empirical studies that show how the buying of gifts negatively affects the perception of Christmas only when it is not associated with a strong family presence [Kasser and Sheldon 2002].

2.2. The British Christmas

Our study is set in Britain, so we offer an overview of the British Christmas here. Allowing for individual differences, Christmas, as noted, is probably the only one annual occasion when virtually everyone in Britain is doing a variation of the same thing at the same time. Being north in the northern hemisphere, Christmas in the UK occurs in a chilly winter season and therefore the activities are mainly indoors; it is the occasion for family reunion and often the only time of the year when relatives meet [Kuper 1993]. Streets and shopping centres are decorated with lights switched on sometime before the beginning of Advent, four weeks before the 25th.

Writing cards to friends and family and displaying those received is another typical British tradition, with more than 1,500 million cards sent in 1992 [Searle-Chatterjee 1993], though this figure has fallen as postal mail decreases. The tree and the house are decorated. ‘The 12 days of Christmas’ are historically the period for celebration, with tree and decorations to be down by the 12th day (Jan 6th). Christmas itself is understood to be the 25th, the day in the year when the Queen speaks to the nation (at 3pm on the BBC, the national TV broadcaster).

Christmas Eve has its own rites like carol singing and Midnight Mass. Although carols are mainly religious songs, the singing can occur anywhere, e.g. the street, the pub, the park, and the motivation is often not religious, but to be found in the pleasure of singing together. Church is the place for Mass, at about midnight on the 24th or in the morning of the 25th, and many people attend who do not go to church at other times of the year.

Traditionally, stockings (or pillowcases) are filled with small gifts on the night of the 24th by Father Christmas (i.e. Santa Claus) and left at the end of children's beds. A mince pie, a little pastry filled with a mix of dried fruit and spices, and a glass of sherry are left for Father Christmas to enjoy. Presents are wrapped and left under the tree.

The typical Christmas meal is roast turkey, served with several sauces, roasted potatoes and winter vegetables. This is followed by a rich dried-fruit dessert served with aromatic butter or cream: the Christmas pudding. Also typically British are crackers, pipe-like parcels which produce a small explosion when pulled by two people to reveal the content of a paper hat, a small gift, and a joke.

The 26th is Boxing Day, a public holiday signalled by the eating up of leftovers (usually cold turkey) and the starting of the winter sale in the shops.

3. Background

Although our field research occurred at Christmas time, it is nonetheless a study of people gathering and sharing moments that has much in common with other domestic and family pursuits. The next sections look at what makes the season particular and how we understand ritual, as a framing for the study. First, here, we situate that discussion in a far wider review of other work that aims to support sharing, making meaning and engaging in profound experience. We note that, despite the religious nature of some celebration of Christmas, the festival is the focus for study in this paper because of other characteristics, such as its time-out-of-time quality and shared nature. Therefore, although we acknowledge that there are studies of technology in spiritual practices (e.g. [Bell 2006; Wyche and Grener 2009]), we are not intending to complement this field, but others, which we now go on to describe.

3.1. Making our Memories

How do we augment a series of encounters and relations that repeat annually, involving some of the most special time spent together with others? Can we make this richer or only seek to preserve the moments for other, less engaging, times? Can the depth of the experience in the present be enhanced by bringing moments from previous years back into the mix? And does the act of recording the 'now' propel thought into the future and involve participants in projecting about life's changes and what might have value 'then'?

To ask these questions is to draw upon considerable HCI research on digital support for remembering. The social dimension is important: memories are not facts to be retrieved within our brain. The human memory is a combination of factual retrieval, narrative recollection and creative projection [van Dijck 2007] and in remembering we reconstruct our past experience and feeling through the mood and identity of the present self [Brockmeier 2010].

Different digital devices and artefacts hold important aspects of life: personal email and phone messages are full of memories [Kirk and Sellen 2010; Petrelli and Whittaker 2010] while home-made websites or digital craft capture creativity and skills [Marshall 2007; Kirk and Sellen 2010; Petrelli and Whittaker 2010]. However, despite the attachment, digital belongings end up forgotten in some home PC, DVD or CD [Marshall 2007] and are revisited only intentionally, since chances of serendipitous rediscovery are hindered by their invisibility [Kirk and Sellen 2010; Petrelli and Whittaker 2010]. Moreover, there is no personal practice of digital preservation: at best, files are backed up but still exposed to the risks carried by technology change [Marshall 2008]. By contrast, material mementos are persistent and do not need specific preservation: people are happy to keep memorabilia for a lifetime [Kirk and Sellen 2010] and revisit them only every 10 years [Petrelli and Whittaker 2010]. Interestingly, rare use does not diminish value, but contributes by generating emotion when looking at something that has been forgotten [Bowen and Petrelli 2011].

If preservation is guaranteed, forgetting digital belongings can be positive as the process of defamiliarisation and rediscovery generates emotions. This is an interesting challenge for interaction design: how can we make the access to personal digital belongings more affective by exploiting the natural process of forgetting? An attempt to induce personal reminiscing with digital content has been conducted with Pensieve [Cosley et al. 2012], which automatically

selects old items from one's social media account and sends them as a phone message (though the timing can be wrong if a merry message arrives at a sad time). While Pensieve uses a personal repository of digital content to focus on solitary reminiscing, our starting point is the material world and the collective memory of the family.

3.2. Technology at Home

But Christmas offers more than memories; it is rich in domestic detail that shares many characteristics with other studies of the home and life within it. Outside the formal rules of work [McCracken 2005], digital interventions can be made with no real intended 'function' beyond inspiring active engagement. Ludic design plays up the fun of engagement, characterised by work such as the *Other Brother* that autonomously captures images and video in the home to offer an alternative view of personal daily life [Helmes et al. 2009]. The ubiquitous games scene has a domestic side: intergenerational sharing emerges from families playing video games together, indicating opportunities for designing for social fun within the family boundaries [Voida et al. 2010].

It is also possible to foster reflection and tranquillity; there are a number of experiments with sound, light and information display that embrace slow technology (eg [Hallnäs and Redström 2000]). These affective interventions contrast with the more functional work of living together. Much HCI has looked at the family from the point of organizing and planning. Studies of sharing calendars across dispersed family members and across generations have found that more-technological or less-technological devices should be offered to younger and older generations respectively to foster the participation of both (e.g. [Plaisant et al. 2006]). Further, support of existing calendar practice is essential to help adoption, allowing new features enabled by technology, e.g. ubiquitous update, to be successfully introduced [Neustaedter et al 2007]. These tools can be used for the 'work' of being a family (such as collecting children and managing pack lunches), but also for shared leisure. We learn that the 'sociopetal' (bringing together) or 'sociofugal' (setting apart) function of the computer in the family home can be controlled by designing its functions for shared places and tasks [Frohlich and Kraut 2003].

The crossover point between functional and social uses of technology is most apparent in communication devices. Videoconference calls [Ames et al. 2010] and continuous links [Judge et al. 2010] between the grandparents and the families of the grown-up children have

highlighted potential uses, while raising more critical issues such as the need for technical skills to set up and troubleshoot the technology [Ames et al. 2010] as well as the privacy issues of keeping an open connection with someone else's home [Judge et al. 2010]. Less intrusive live connections between households include message tablets [Lindsey et al. 2010], which show both practical task-fulfilling and entirely ludic uses co-existing on the same platform. Further themes - keeping in touch at a distance, organizing activities and people, and facilitating being together – also emerge in our study and are emphasised by the special celebration that Christmas represents.

4. On Rituals

Ritual is a major theme in anthropological writings while garnering less attention in HCI and design literatures, though often implicit in looking at the relationship of the meaning of actions and objects. This section, then, while by necessity an oversimplification (e.g. it skips evolutionary and ethological approaches and just mentions the psychological, structural and cultural perspectives) gives a sense of the many approaches existing within the study of rituals and provides the background for our work. (We refer the reader to [Bell 2009] for a consideration of the nuances, differences between commitments and an extended discussion.)

4.1. From Religious to Secular

Rituals have been the focus of much anthropological research since the early 20th century and different theories have been put forward to define and explain their role in society [Bell 2009]. Early studies focussed on the origin of religion, in myths or rituals, and the way this affects people's attitudes to experience. The three main interpretations of rituals as expressions of religion are psychological; sociological; and cultural. The psychological interpretation sees rituals as a way to affect the individual through their experience of religion, what is allowed or forbidden gives meaning to individual behaviours. In contrast to this individual interpretation is the view of religion as a social construction that provides structure and order beyond the individuals taking part. For the sociological interpretation, beliefs, religious ceremonies and the associated rites are social phenomena that express and reinforce the shared identity. Rituals carry specific functions in the social organization; they set roles and maintain hierarchy. A third approach to the study of rituals is cultural. The cultural approach sees the symbolic content of

rituals as a mean for communication rather than a reinforcement of social organization: symbols compose a language that is used in rituals. More than fixing social structures, rituals are expressions of cultural ideas that orient social behaviours. The focus on culture, as opposed to the societal structure or the individual psychology, provides a framework that explains both the changing and the continuity that is found in rituals. The role of symbols in rituals splits the 'culturalists' into those who focus on syntax and the power of specific formulae, e.g. the "I do" pronounced at weddings, versus those that look at the semantics of the ritual, e.g. the values and ideas that are expressed.

The framework of ritual as performance we use in this paper derives from this second strand: it sees ritual as a process, a changing, dynamic entity rather than an articulated formal system of symbols. Developed in the mid 70s to give account of how cultural ideals become embodied in social attitudes and personal experiences, e.g. hippy communities, the rituals as performance theory and its focus on dramatization and bodily expression in particular, proved effective in widening the spectrum of ritual events worth studying beyond religious ceremonies. Contemporary studies on rituals now include secular celebrations such as state ceremonies - e.g. the coronation of a monarch that involves an entire nation and formal protocols; sport events - e.g. the Olympic games; and even activist campaigns. [Bell 2009] distinguishes six genres of ritual actions:

- *rites of passage*, such as birth or marriage, mark major life events suggesting a bio-cultural order; as rites of passage mark the life cycle,
- *calendrical rites* such as New Year or Christmas mark the passing of time, they are periodical and predictable and correspond to seasonal changes or commemorative celebrations;
- *rites of exchange and communion* mainly capture the human-divine relation while
- *rites of affliction* aim at healing body and mind of a suffering individual;
- *religious rituals* that go beyond the individual and involve the community include both merry (e.g. carnivals) and contrition (e.g. Ramadan) rites.

- A final category is that of *political rites* that capture the spirit of a nation (e.g. the National Day) or the view of the dominant political party (e.g. 1st of May in the USSR).

It is a common misconception that rituals are essentially unchanging and of remote origin, thus reinforcing the belief of rituals as “a given” from a superior entity rather than a cultural construction. However, the list above includes invented rituals, e.g. 1st of May in USSR. The self-conscious invention of rituals is not a modern phenomenon: examples such as the UK royal ceremonial or the Masonic initiations date back to the 19th century [Bell 2009]. How rituals come to be and are modified over time is discussed in the next session.

4.2. Rituals and ritual-like activities

The most obvious rituals are activities that pertain to a specific canon of rites, e.g. those specific to a religion. Contemporary anthropology tends to consider rituals as situational, i.e. what is done, how and where, as opposed to abstract canonical principles of execution. As a result, multiple activities that people ritualize to various degrees are now a matter of study: ‘a variety of common activities [can be] “ritualized” to a greater or lesser degree’ ([Bell 2009]:138) by, for example, formalization or periodic repetition². The creation of new rituals by formalization requires an intentional effort in defining specific sequences of actions that compose the rite, such as the gestures of greetings and parting. Rituals by repetition are not established by imposing a formal protocol, but by a more natural evolution into established traditions, i.e. repeating the event as in the past. Although formalism and traditionalism are often paired in the definition of rituals, traditions can occur in informal settings, e.g. Thanksgiving as celebrated at home, where the family is more likely to observe their own little traditions than to formalize the meal [Bell 2009]. By repeating the same (or a similar) set of actions, traditions are established among a culturally homogeneous group, e.g. the family. Ritual and traditions are therefore tightly connected: “a ritual that evokes no connection with a tradition is apt to be found anomalous [...] while activities that are not explicitly called ‘rituals’ may seem ritual-like if they invoke forms of traditionalism.” ([Bell 2009]:145) This point is

² Other features that imprint a ritualistic form on human activities but are irrelevant to our study are [Bell 2009]: invariance, such as in monastic daily routines; rule-governance, such as that displayed in sport; and sacral-symbolism, such as taking the oath on governance duties.

relevant for this paper as it legitimates individual family traditions as rituals, independent of any official formalization. At Christmas, each family implements elements of culture-wide rituals in their own idiosyncratic way, thus reinforcing in its members a sense of identity and belonging. Moreover, by accepting that rituals can be created by repetition we allow for new rituals to emerge spontaneously. Seen as an intentional creative act, the rituals performed within a specific group capture and reflect the group's identity: "ritual as a performative medium for social change emphasizes human creativity and physicality" ([Bell 2009]:73) The tight connection between the rituals and the social group performing them allows understanding of the social group and its culture through the close observation of their rituals [Crespo 2012].

4.3. Ritual as cultural performance

The theories that see ritual as cultural performance, shift the focus onto lived experience and its emotional significance. They share three core concepts³:

- a ritual is an event that expresses cultural values and affects people's perception;
- participants are active and the sensorial aspect of taking part is important;
- ritual performances are 'framed' in some ways to contrast with everyday life.

Performative rituals are implemented through 'cultural media' (Singer in [50]:23) - i.e. modes that include language, songs, dance, acting out, the sharing of food, etc. - that are orchestrated to communicate the values of the culture. The multi-sensorial element is important to trigger high physical and emotional engagement in the participants and signal, through pleasure or pain, this time as something other than normal life. The lived experience is what gives meaning to the shared celebration within the established community.

Rituals as performances bring to the fore the importance of explicit construction, a clear separation and distinction of the mundane from the exceptional. Through clear frames people, places and activities are made special, prepared for the ritual, and set apart from routine and daily life [Bell 2009]. The framing clearly splits 'sacred' from 'profane' (here with none of the

³ The transformational effect, i.e. the change of status from 'before' to 'after' the ritual is not universally acknowledged.

religious connotation originally determined by Durkheim): it creates real as well as symbolic thresholds, an important part of the ritual and the individual experience of it. An example of framing is Turner's: *separation* – the transformation of mundane space into the right setting for the ritual; *liminality* – the celebration as a world apart from mundane life; *return* – the re-aggregation to normal, mundane life [Turner 1969]. Separation and return are essential to signal and make prominent the celebration that “occurs in privileged spaces and times, set off from the periods and areas reserved for work, food, and sleep.” [Turner 1987:25].

4.4. Interpreting Human Behaviour through Rituals

In the use of rituals as a framework to interpret human behaviour we are not alone. Disciplines as diverse as management [Trice and Beyer 1984; Ismal and Zyphor 2009], psychology [Schofield 2002], family studies [Crespo 2012], and consumers' behaviour [Rook 1985; Belk et al. 1989] have used rituals as lens for analysis. Rituals within the family “promote feelings of belonging and security that foster group closeness and cohesion” [Crespo 2012]. They help construct relationship within the biological family as well as between foster parents and children [Schofield 2002]. Partners of a new family negotiate and create shared rituals, loaded with meanings and expectations [Crespo 2012] that become, in established families, expressions of their beliefs and values. Rituals have the power to sacralise objects of consumption and maintain those objects as sacred over an extended period of time [Belk et al. 1989]. In particular, the ritualistic use of space and time, as at Christmas, creates and holds a clear, continuous separation of sacred and profane [Belk et al. 1989]. The family also curates sacred objects (heirlooms) that capture family ties and continuity across generations, a gift from the dead to the living [Belk et al. 1989]. The notion of sacred used by Belk et al. [1989] is beyond religious beliefs; it is a “sacralisation of the secular” centred on which feelings are engendered in the consumer by objects or experiences that then become extraordinary, set apart, sacred [Belk et al. 1989].

Rook [1985] deconstructs the concept of rituals in consumer behaviours by identifying four fundamental components: *artefacts*, the nature and extent of consumption; *script*, the presence of a well-defined process; *role*, a clear perception of who does what; *audience*, the presence of a well-defined audience beyond the immediate participants. Following the reasoning that rituals are intentionally created and can equally well disappear if not enough interest surrounds

them, she assigns to each of the four dimensions a score to measure how vigorous the ritual is. Not surprisingly Christmas scores very high although Rook [1985] recognizes how scripts are changing with the changing form of the traditional family, e.g. single-person household or multi-marriage families.

These different studies resonate with our own research in several ways. First rituals are a way to study the family at large and the relation between different members. Second, the strong feelings our participants showed are close to a “sacred consumption” supporting our choice of rituals as a lens for analysis despite the non-religious connotation of our data. Third, this previous research points to several elements we found in our own data sample, from the creation of traditions, to gift-giving, to different agencies of role and audience, to processes that transform the ordinary into extraordinary.

In summary, this section supports our view that Christmas in the family can be interpreted as a set of rituals enacted year after year. Objects and processes (or artefacts and scripts) are integral elements of family traditions. These rituals are participative and multisensory; they function at several levels, on individuals with a specific role and the group as an audience; they are an expression of identity, history and belonging. The celebration is marked by rites that precede (preparation) and follow (return), and that set the celebration apart from mundane life.

5. The field Study

5.1. Motivations

The purpose of the field study was to understand, as design researchers, a cultural festival when families congregate and celebrate being together once a year. We do not intend to suggest that everyone is always merry at Christmas: most of us can draw on our own family histories to recognise that tensions and arguments are for many part of the Christmas experience, but we can reasonably expect that people with a negative attitude would not be interested or engaged regardless of what is proposed by us or others in this sphere as a design intervention. Design may be open for appropriation, but we cannot expect it to be universally accepted.

Within the limit of our study, deliberately picked as a small heterogeneous sample of enthusiastic volunteers, Christmas allowed us to look at both collective and individual behaviours:

Christmas is the festival which unites the general and the particular; it is the most universal in the sense that everyone, in a hundred countries – today, even non-Christian countries – is imagined to be celebrating the same thing on the same day. Yet it is simultaneously the most specific of all the festivals, since no one else ever celebrates Christmas in the way ‘we’ celebrate it. [...] Each celebrant brings their own unique traditions. ([Miller 2008]: 22)

The design of the study attempted to capture both the general and the particular: the broadest possible set of activities from the most diverse set of people in quite some detail. In practical terms, in the selection of the participants we favoured different demographic backgrounds as opposed to a homogeneous sample, and the breadth of activities of each individual as opposed to the depth of interaction within each nuclear family.

The study was designed around individuals, considered the entry-point into the family, to elicit stories which included other members of the nuclear and extended family and/or recollection of the Christmas of the interviewee’s childhood. This approach was effective in capturing the nuances of Christmas traditions as a network spreading from the individual and the nuclear family toward the extended family, friends and acquaintances and it supported our analysis of what is common across a varied set of people and situations. The method used, described in 5.2, was centred on participants self-recording their rituals and then sharing their stories with the researcher. One could argue that the methodology, essentially an enriched diary study, is simplistic and other methods, such as video recordings or direct observations, would have been more effective in capturing what ‘really happened’. Our decision for a less intrusive, participant-controlled method was based on both theoretical and ethical grounds. Despite being a crucial centre of interest for research on human behaviour, not many extended observational studies have been conducted in the home as people value their privacy and feel awkward as the subject of study within their most private space [Gifford 2002]. Moreover, research ethics best practice suggests that whoever takes part must be able to decide what the researcher can see and possibly censor some recordings. Our own experience [Dib at al.

2010] shows that some participants want to present a sanitized version of their family life and indeed deleted recordings. It was, then, essential to design a study with which participants would feel comfortable and at the same time one that would enable us to collect rich data. The study is not meant as an ethnography of Christmas, but as a way to gain an initial understanding and create a space for design thinking that would help our research progress toward concepts, prototypes and field evaluations [Randall et al. 2007]. Light (e.g. [Light 2006]) has frequently used methods that allow people's own evaluation of what is significant to lead data collection and analysis as an acknowledgment of Schutz' position that 'The social world is not essentially structureless. It has a particular meaning and relevance structure for the human beings living, thinking, and acting therein. They have preselected and preinterpreted this world by a series of common-sense constructs of the reality of daily life, and it's these thought objects which determine their behaviour... The thought objects constructed by the social scientists refer to and are founded upon the thought objects constructed by the common-sense thought of man [sic] living his everyday life.' [Schutz 1973: 6]. To this end, the diary study was perfectly adequate and actually collected a much larger and more varied range of events than we anticipated, as discussed below.

5.2. Procedure

To capture as many rituals as possible, the period covered by the investigation lasted more than a month, from the end of November to early January, with the beginning and the end marked by two meetings. This extended time allowed us to go beyond the Christmas celebration in the family to include activities before and after. In the first meeting, in November, participants were prompted to talk about their Christmas traditions, e.g. writing cards, food preparation and home decoration, religious functions, family reunions and visits, gaming and TV watching (e.g. the Queen's speech). They were also asked what they liked best, what they did to please others, if they get annoyed if things are done in a different way than expected, and what they did as children. Last, they were introduced to the task of self-recording their traditions. A series of diary pages and multimedia phone were given as an aid to recording; the latter was left as a token of gratitude for participation. As our intention was to explore ritual as broadly as possible, a range of different media, i.e. image, video, sound and text, were mentioned to make participants aware of the different possibilities. The diary pages were left to be annotated with thoughts and feelings at the time of events, and also proved valuable for

those occasions when recording was not appropriate, e.g., mass in church or tipsy colleagues at the office party, or when the participant forgot to record something, but remembered later.

The meeting in January was for storytelling: participants went through their collected data and the diary describing different activities. They often made connections with what they said in the first interview. It was essentially a non-directive interview; questions were only posed when an interesting point was made, and comments on the experience of taking part in the study were solicited. We were keen on collecting every detail of each recorded tradition and we prompted participants for specific information: what it was, who took part, where and when it was performed, and when the tradition started. These were then the dimensions along which the initial analysis was carried out. We placed no particular emphasis on uses of media and technology during the period under consideration, despite our theme, since we were interested to see how far this aspect was introduced by the interviewees.

5.3. Participants

The field study was conducted in one multicultural town in northern England. The participants were recruited through local mailing lists and, being self-volunteered, all had a positive attitude to Christmas. This positive view is a clear feature of the study; however, as our goal was to explore the experience of the family Christmas, we do not see this predisposition as detrimental to our design objectives. Quite the opposite: we could create new experiences by building upon this known positive attitude.

Eleven people overall took part in the study: in three families, both partners were active and were interviewed, while in the other five cases, only one partner or a singleton took part. Table 1 shows the participants' demographics. While we did not request children to take part in the study, we welcomed their contribution: Jon and Sarah's younger child took part in both interviews and was active in the diary recording.

As discussed above, we aimed for variety, rather than homogeneity, and recruited people at different stages of life: young singletons; young couples (with and without children); established families (with teenagers). As participants were in different life stages, we were able to gain some insight on how traditions might evolve and change over a lifetime. We spoke to eight households and, in the three cases where both partners were active participants, the

interview was conducted with both partners simultaneously. As some of the quotes below show, this facilitated a dialogue between the partners, providing insight in how traditions created within the family they were born into became adopted or adapted when two partners formed a new family.

To capture the variety of Christmas traditions, we tried to cover different approaches to faith and its absence. In our sample, one young family identified themselves as openly religious (Anglican) and one singleton (of Roman Catholic faith) declared “*I believe but I don’t practice*” (Mark). The others identified themselves as having Anglican, Protestant or Jewish roots, such that religion has become a cultural marker rather than a regular adherence or faith. Thus, religion was not prominent in the life of most of our participants, reflecting a widespread trend in 21st century Britain. So, while our sample was not (and did not attempt to be) statistically representative, it was able to help us capture how Christmas has become integrated into British life as a festival of connection, regardless of faith. In other words, this grouping allowed us to focus our analysis on more secular aspects of the gathering, capturing family rituals within the established cultural context, as well as acknowledging the role of Christianity in the origins of the festival. We also surmised that it is here, where religious tradition is not as dominant, that we might learn of local rituals being shared and fostered, within the grander narratives of Christmas.

Pseudonym	Code	Profile	Religious belief
Angela	Female Single	In her mid 20s, single, originally from Germany, her family lives there. She returns home for the Christmas holiday.	Secular – Protestant background
Mark	Male Single	A single man in his mid 20s, he lives about an hour away from his parents and sister. His all extended family lives in the same village.	Roman Catholic – a believer but does not practice
Sam	Male Partnership	In his early 30s, he lives with his partner, no children. His wider family lives in the UK, a few hours away by train.	Secular - The mother is a practicing Anglican.
Daniel (Sandra's husband)	Male Toddlers	In his early 30s, he lives with his wife and their two children (aged 4 and 2). The wider family live about 2 hours away. He is involved with the Church in many activities, e.g. designing the Christmas cards, carol singing, etc.	Practicing - Anglican
Sandra (Daniel's wife)	Female Toddlers	In her early 30s, she lives with her husband and their two children (aged 4 and 2). A practicing Anglican. Parents' family and sister live about 3 hours away.	Practicing - Anglican
Sarah (Jon's wife)	Female Young	In her early 40s, she lives with her husband and their two children (aged 11 and 8). She grew up in	Secular - Jewish background

	children	the USA where her family still lives. She defines herself as secular but keeps up Jewish traditions for important cultural celebrations like Hannukah and Passover.	
Jon (Sarah's husband)	Male Young children	In his early 40s, he lives with his wife and their two children (aged 11 and 8). His father and brothers live in different European and Middle-East countries. He defines himself as secular but keep Jewish traditions alive, e.g. Hanukkah, as a connection with his cultural background. Jon grew up in France where Christmas is celebrated.	Secular - Jewish background
Jane	Female Young children	In her late 40s, she lives with her husband and two children (aged 13 and 6). Her parents and sister's family live a few hours away.	Secular - Anglican background but non-believer.
Sylvia	Female Grown children	In her early 50s, she lives with her husband and 3 children (aged 18, 15, 12) close to her father. Her brothers and her husband's family live hours away from her.	Secular
Steve (Florence's husband)	Male Toddlers Secular	In his mid 30s, he lives with his wife Florence and a child (aged 2), a few hours away from his parents. He does not have siblings but still has grandparents.	Secular
Florence (Steve's wife)	Female Toddlers Secular	Steve's wife, in her mid 30s. She has a sister and her parents live about 1 hour away. She has an extended family with uncles, aunts and cousins.	Secular

Table 1. Demographics of the eleven participants (a pseudonym is used in place of their real name).

5.4. Data collection and analysis

Meetings with families were held at their home; while singletons preferred to be interviewed at their workplace. Conversations were recorded and then transcribed verbatim, all the digital recordings copied and the Christmas diary collected and transcribed. Some participants used multiple devices (in addition to the phone provided) to record the material they shared with us (multiple phones and cameras belonging to different people, high quality video cameras).

Transcriptions and diaries were systematically analysed and coded to extract data on: what type of ritual, where it was held, when it started, who was involved, how it went, when and why. If details of a ritual were repeated more than once in the data collected, e.g. both the diary and the recording, only one entry was registered. Overall 145 unique entries were coded, with a few rituals matching more than one entry, e.g. *“we always have Chateaubriand on Boxing Day so my dad always cooks a huge fillet of beef that’s fairly set in, in tradition, and we always have a toss for the cook”* (Florence) – this description would be counted as three: the cooking, the eating, and the toss. This level of detail was considered important, to reveal aspects of agency and sociality: one person takes charge, all share and enjoy, the cook is thanked and

the effort recognized. The multi-faceted coding supported a compositional analysis of a complex data set (e.g. to extract the subset of who did what, when, where and why) that helped us reveal aspects that were not immediately apparent. In the analysis, we explicitly looked at functional constraints (e.g. being indoors or outdoors) and emotions (e.g. excitement due to anticipation), both important to inform understanding. Descriptive statistics and cross-tables were used to gain an overall sense of the activities, what was done, by whom and where. We also carried out an in-depth qualitative analysis to discuss our findings within the framework of rituals as performance.

In our analysis, we maintain a secular perspective. Indeed *family* was mentioned by all participants when discussing the meaning of Christmas, whereas the birth of Jesus was only talked about by the religious family, who recorded 6 of the 9 religious events noted. Furthermore, comments made by the Jewish family clearly mark Christmas as a cultural event:

Sarah: *“I guess it’s a holiday I would never celebrate by myself, as opposed to Jewish holidays that I might - I guess the only meaning for me is the fact that it is celebrated by the population around me, which is a way of participating in something that people around me are doing.”*

Child: *“why would you celebrate a Jewish holiday by yourself, you are not religious are you?”*

Sarah: *“No but I have a lot of memories and associations and thoughts about it and what it signifies - whereas I have very little for Christmas, it’s the fact that people around me are doing it: I want to participate in what neighbours are doing and friends are doing.”*

Jon: *“and you know, like all the festivals of lights in the winter time, I think it’s beautiful.”*

As such, our analysis is exclusively focussed on the ritual as non-religious.

5.5. Digital Media and ICT

Just as we did not wish to intrude into other people’s special moments, we also hoped that the means of collection would not prove intrusive, but we were simultaneously aware that some of our findings might lie in the intervention we had introduced. We reflect briefly on these aspects now.

Although all participants use computers daily and are very familiar with digital technology in general, of the 145 recorded events, only 5 were digital, of which 4 were for organizing and planning, i.e. Facebook to get wish lists, to keep a list of addresses, and 1 to “*send text messages to friends on Christmas day*” (Angela). Recording was mainly through images (55%) and diary entries (38%) with a few examples of dynamic media like audio (4%) and video (3%). Interestingly, the younger participants only recorded images while the more mature were more experimental: “*you have encouraged us to use a bigger variety, we would tend to just use cameras. The audio has been good fun. Thinking audio... we tend to be very single sense. Next bit would be smell, we have to record smell, of the Stollen and Christmas lunch! That would be fantastic.*” (Sylvia).

Photos were used to capture snapshots of the beginning or the outcome of an activity - e.g. the table set for the meal, the decorated cake, the game board set to start - as visual recording required for one person to stand back from the action to use the camera (Figure 1).

“*That’s C’s face when he’s got his PSP. He said to me ‘I didn’t think I was getting it’, ‘but you asked for it, sweetheart’, and he said to me ‘yes but you told me it was lots of money’ [laugh] I think I must have done it to put him off the scent... he thought he wouldn’t get it so that’s why he was so delighted*” (Jane)



Figure 1 A moment of excitement

A few attempts to record *while taking part* used audio only as it supports passive recording of the social activity, e.g. carol singing, the father and child discussing the cake decoration, snippets of conversation during the Christmas meal. This seems to indicate that our sample prefers to take part rather than to step back to capture activities, despite the extreme documentation visible on social media, for instance. Moreover, it was clear that the recording was made because of the study. We note that, overall, Christmas is not as exceptional as an exotic holiday or a wedding that must be recorded in full; much the same thing will be done again next year.

Nonetheless, the effort put in by two participants knowledgeable in video editing in creating a persistent memento (a self-playing DVD) out of their collected data indicates that there is some

value in such types of recording: “*well, I made a DVD for my parents; I think they are going to be overjoyed with this.*” (Sam) A comment from a participant who used only the mobile phone further supports this observation: “*I relooked at [the recordings on this phone] just last night, and it was so lovely to have them all in the same place and just scroll through it ... it is really, really great to have all in the same place.*” (Jane).

6. Results

The data we collected can be analysed at different levels of detail, from the broader brush of tradition down to the details of the components of each micro-ritual. Instead of choosing one perspective, we try to be comprehensive and include in the analysis both the generic and the particular. In doing so, we consider the results using three tiers of performance: macro, meso and micro. Much of what is celebrated collectively appears similar if we only look at the macro level of activity, whereas we start to see what makes each family special if we look at the micro processes and thus the idiosyncrasies. The meso level captures the structure of the ritualistic performance with its different stages. In section 6, we discuss in depth our results with respect to the framework of rituals. Here we briefly summarise relevant additional findings that can impact on the design of digital technology. We look at what is done, by whom, where and why.

Converse to common perception that Christmas is too much focussed on consumerism, rituals related to gifts (buying, making and giving) accounts for only 12% in our sample, well behind food (27%), socialization and reconnection (21%), and the decoration of the house (18%). Other traditions are related to communicating with distant others (via phone calls or cards, 9%) and religious practices (7%). Besides these categories, consistent across the sample, every household or individual has their own idiosyncratic activities (4%) such as going for a run, or going for a walk, and selectively joins in the wider opportunities that Christmas provides, such as watching the *Doctor Who* Christmas special or listening to *The Queen’s Speech* on TV, or going with mum to the Boxing day sales. In these cases, idiosyncrasy also lies in how these activities are undertaken, for instance in the last example, it is the pairing of mother and daughter that has become enshrined and this detail makes it special.

Our data show that family (the nuclear or extended) is not the only group with which our participants shared Christmas as friends (8%) and the community (13% - colleagues, neighbours, other school parents) are integral part of the celebration. Similarly, the family

home is not the only place where the celebration takes place. We classified places with respect to how much control the participant had over the environment: *home* is where any intervention is possible, including the installation of devices; *indoors* are other places where some agency is possible (e.g. recording or display) such as at the parents' home; *outdoors* includes settings such as the street or the park, as well as public places where recording or display would not be easy, such as restaurant and pub. Of all the events recorded, 45% occurred in the participant's home, 26% indoors but elsewhere and 29% outdoors or in a pub or restaurant. Interestingly, large groups (more than twenty people) exclusively congregate in outdoor or public settings.

The motivation behind carrying out a tradition changes according to what is done by whom. Duty, i.e. 'what must be done', accounts for only 6% while personal enjoyment (17%), to donate (17%), and to maintain family bonding (17%) are the most frequent. The pleasure of anticipation is almost exclusively associated with the decoration of the house (15%) while social bonding (15%) is mostly split between communication (phone calls or cards) and socialization (meeting or partying).

6. The Three Phases of Christmas

As discussed in section 4, a critical function of rituals is that of separating the exceptional from the mundane, the sacred from the profane. Organized by time, the data show a progressive increase of *preparation* building up to a short time of multiple *celebrations* that take place in a privileged space and during a dedicated time. When the celebration is over, the accessories used to transform the space into a ritual place are *stored* to mark the return to normal, mundane life. Preparation and storage frame the celebration time, as discussed below.

6.1. Preparation

More than half of the rituals recorded precede the actual celebration on Christmas Day. This lengthy preparation contributes to the building up of anticipation, by setting up the space and making the food that is part of the actual celebration: "*Well, I like going home and eating the Christmas meal especially. I really like the turkey so that's quite special, and Christmas pudding as well, is kind of exciting because it's, you know, traditional recipe*" (Sam, the "home" here is actually his parents' house). The preparation also includes less exciting activities, like

planning, booking, shopping, buying and wrapping gifts. This 'organizational' preparation is often carried out by a single person motivated by personal enjoyment, as an act of love, or simply because it must be done: *"I find that sort of lengthy cooking quite therapeutic, quite relaxing"* (Sylvia), *"buying presents for everybody else, I do for them [...] to take that off [their] shoulders"* (Jane); *"It's all this military planning, isn't it? Like with the Christmas cake - got to make it sufficiently far in advance that you can leave it mature, and then you have to make sure you leave enough time for the icing to dry."* (Daniel). The time to start getting ready for Christmas depends on the family and their interests: *"we normally design the card [during the school holiday at the end of October], and then start making it after that"* (Sylvia); *"I make the same kind of Christmas chutney in November, and store it in my cupboard for a month until I can get my hands on it."* (Jane).

Activities simmering through November are limited to preparing cards, hand-make presents or cooking food that needs maturing. Very little happens before Advent (four weeks before Christmas) and, in some families, nothing at all is done until very close to the 25th. In December, preparation becomes social and the members of the nuclear family join in to decorate the house and the advent calendar: *"we have an advent calendar - you open the door and it tells a little bit of the Christmas story to build up."* (Daniel). The decoration of the house and tree occurs at different times in different households, possibly intertwined with other family events: *"the tree goes up the closest weekend to Connor's birthday, on the 7th, he quite likes the decorations up for his birthday"* (Jane), *"we never put the Christmas tree up until Christmas Eve, after Arianna's birthday on the 23rd"* (Jon). The inclusion of family events into Christmas rituals is not limited to the decoration: *"the building up is actually up to Megan's birthday on the 22nd and then we can relax into Christmas"* (Sylvia), *"my mum's birthday is on the 20th, so the whole thing of my mum's birthday – it's all integral with Christmas now"* (Steve).

Decoration has its own rituals, different in every family (Figure 2). It clearly includes setting up the tree and the lights, sometimes the nativity or preparing the table with the crackers, but also creating the right mood by playing certain music: *"listening to Handel's 'Messiah', a tradition started by my family in California and now in our home!"* (Sarah, from diary).

Figure 2 Different decoration rituals.



“Since when we moved into this house 10 years ago, the decorations always go in the same place in the living room. We wrote our cards on that weekend as well. Oh! It’s when it snowed - that is nice to remember.” (Jane)



“We put up the tree and various decorations that we have got. We have prescribed music: the Phil Spector Christmas album, my Star Wars Christmas album and some other records that we listen to while we are putting the decorations up.” (Sam)



“There is a lot that goes on about decoration in this house, because I really like making things. We have, like, giant paper chains that get put together every year, and there is the decoration of the tree... some tortured hazel in a vase in the front room, even they get decorated each time. Everything gets something put on it, wrapped up and decorated. Even the bookshelf.” (Sylvia)



“Decorating tree. This is the 23rd, when I arrived [at my parents]. If I were living at home it would have been done much earlier, this year they let me put some stuff on so I felt involved, I guess.” (Mike)

More than any other recorded ritual, the decoration of the tree and the house triggers anticipation. Indeed, with the exception of the two singletons, everyone decorates their home even if they will be celebrating elsewhere. The streets and the shops are also decorated and going to see this is a ritual for two families: *“One thing we have done over the last few years [with the children] is go to see the Christmas lights switched on” (Sandra), “J thinks it’s amazing to walk round the village, is tiny you can do it in 10 minutes but she loves going down the village, and this is the Golden Lion pub, they always dress up this lion in tinsel.” (Sam)*

The most intense time of preparation is the week preceding the 25th but how much is done depends on where the actual celebration takes place as the hosting house takes care of the food and day’s rituals. There seems to be a “life pattern”. The younger generation (including a young couple with very small children) is looked after by the older generation (while they are

capable), in the sense that they are not responsible for or involved in the preparation: “[decorating] is pretty much all we do actually. My parents have quite a lot of preparations like making puddings and various things, which started at the start of December, I guess.” (Sam). Later in life, the younger generations start their own traditions, or get more involved and share the preparation until they take full responsibility, prepare and host, and look after the older generation. Frantic in the weeks of run-up, by Christmas Eve, preparation is over, but for the stockings, the table decoration and final cooking. On the 23rd or Christmas Eve (24th), guests travel to the place hosting the celebration, while those who have been busy preparing talk about “*relaxing into Christmas*” (Sylvia) after weeks of organizing and planning (Figure 3).

“The study made me think how important some of the rituals are: the planning and the preparation so that you can sit down and you know it’s Christmas, because everything just happens the way it always does and in a funny way you can relax into it.” (Jane)



Figure 3 The Christmas tree, an anchoring point.

In summary, preparation is about getting ready, both practically and emotionally. There is a clear distinction between the organizational preparation (e.g. shopping) and the emotional preparation (e.g. decorating). In the first, a single person takes charge of the planning and organizing because of personal interest, love for others, or just because it must be done. Most of this work occurs in the hosting house with minimal support. The emotional preparation is social and merry, and has the function of building up expectation and excitement. The emotional preparation is not limited to the hosting house: those who join in put up their own decorations to get in the Christmas mood. When the preparation starts - and what it entails - depends on the household but the shared purpose is to create the special time and space for celebration.

6.2. Celebration

The opportunity to spend time with the family is one acknowledged meaning of Christmas: *“it’s a time to be together with one’s family”* (Angela), *“Family. All getting together, having a laugh, its all about family”* (Florence), *“I am away most of the year from where my family lives, back at home, so that is the only real time of the year when I see everybody.”* (Mark). However, our data show that, beyond family reunion, Christmas is also a time to reconnect with friends and revive acquaintances. Although the purpose is the same, the mode and time of reconnecting varies, depending on whether it is family, friend or acquaintance, as discussed below.

6.2.1. The Week(s) before Christmas

Celebrations with colleagues and school friends occur well before Christmas, generally in public settings like pubs, restaurants and the school hall. The ritual of sending cards extends the togetherness of Christmas outside the boundary of close family and friends [Searle-Chatterjee 1993]. It is a way to reconnect: *“I think it’s important to write cards as well. Not so much people in town, who I see, but anybody who is further away I will write to. I always get fed up when people just say ‘love from’, because you know it’s an opportunity to be in touch, and to catch up with people”* (Sylvia). Getting in touch via cards is often about updating others on what has happened in the past year and the card is often paired with a letter. Rituals surrounding greetings cards start with making-your-own: *“[I went with my son to a] card making session and actually I did engage with making so we have given some home-made cards”* (Sandra). Traditions related to card writing and display were common: *“I use a special pen with a very smooth line”* (Jane), *“we open a bottle of Port and we drink and write”*, *“steadily we have been putting Christmas cards up, which I actually really enjoy”* (Sylvia). None of our participants sends e-cards, and only the young single woman uses technology to send good wishes: *“on Christmas day I send texts to my friends.”* (Angela)

Phone calls were not a popular way of connecting, although we saw a positive and negative example and this shows how temporal aspects inform behaviour – what is acceptable in the run up to the festivities (Jon) is not acceptable on the day of Christmas itself (Sylvia):

“We call family, we make a point of calling everybody. I think we do it to a large extent because we know that they would care about that, of us keeping in touch, it would be important to them.” (Jon);

“Matt’s family always do this thing of ringing round the family at Christmas, so you will be having a really nice relaxed Christmas Day and then you will get handed the phone and its like ‘What am I going to say to these people?’ I have got to remember what presents they gave us and I have forgotten and, you know, it’s a bit stressful. My family is a bit more relaxed.” (Sylvia).

The first case is further justified because the family lives on another continent from their relatives. In the second case, with a large family all in the UK, a phone call on Christmas Day is perceived as an intrusion: a card, an asynchronous mode, has a more respectful pace as the recipients can attend it in their own time.

6.2.2. The Days around Christmas and Christmas Eve

The closer it gets to Christmas, the closer the relations among the people gathered. In the days before Christmas, our participants reported making an effort to meet close friends or family who would not take part in Christmas. Meeting close friends takes place mainly in a public place: *“on Christmas Eve I usually go to a pub quite a long way away and meet up with all my old school friends and talk about what we have been up to in the past year”* (Sam), *“my friends from back home, because obviously I am [here] most of the time and I very rarely see them so I will like go and see them the day after Boxing Day, spend a few hours with them.”* (Mike) These meetings happen in the days around Christmas, but the 25th is ring-fenced; it is family time.

The days leading up to Christmas (the 23rd and 24th) are also the time for celebration in the area through carol singing. Three households talked about this type of semi-public celebration, which occurred at a neighbour’s house, the local pub, and in the street (Figure 4).

Christmas Eve ends with the ritual of leaving the stockings or the pillowcases for Father Christmas to fill. While gifts are for everyone, stockings are intended for children, although things might not always go according to plan: *“my nephew is 20 in January, and I said ‘you are not having a Christmas stocking from Santa this year’ and he said ‘well is C. having one?’ I said ‘yes, but C. is 6’, and he said ‘well if C. is having one, I am having one!’”* (Jane). Indeed Christmas is a time when conventions are subverted, children get centre stage and parents are more accommodating [Kuper 1993].

“the bits I really like about the carols is the raucous backchat and the little bits of conversations with people as you walk from place to place... Jim organising us all.

[listen] J. S. did some fiddling. Oh so painful and so slow, do we have to listen to it? [laugh]” (Sylvia)



Figure 4 Listening to the audio recording of carol singing.

6.2.3. Christmas Day

But for the religious family that spent the whole of Christmas day with the church community, our sample spent Christmas Day with family: at home, at the parents' or a close relative's house. The day has many traditions: those shared across the sample are gift giving, food sharing and game play. However, as observed by Miller [2008], even within the same tradition not two rituals are alike, as in the following example of the exchange and opening of presents:

- *My auntie always places all presents next to the manger, so you see [gesture to picture] there are sort of camels waiting outside. [laugh] She has done this since I can remember, to be honest. (Mark)*
- *Another ritual of Christmas Eve is the selection of the pillowcase [to be left at the bottom of the bed]. Pillowcases are for little silly things like a chocolate orange, a magazine or a pair of socks. The main presents are under the tree. (Jane)*
- *Jo didn't wake up, and I went into his room and said 'Jo, has someone been in your room? Have you had a visitor in the night?' and he looked at the bottom of the bed and saw the stocking and he had a big wide smile on his face. He went 'Father Christmas has been!' He was so excited. [...] Their main presents [under the tree] will be from who they are from, not from Father Christmas. (Daniel)*
- *Actually it's funny: it's got slower and slower and slower, the opening of presents over the years. It's done on Christmas morning but it isn't, you know it's done during the whole of Christmas day. We might do a couple of rounds of present opening, and then go off and have a walk and then a bit more present opening, and then make lunch and very paced, so*

now often people have got presents at the end of the day, and in fact there is a competition to see who has the last, who can drag it out the longest. (Sylvia)

- *We have two Christmases, with the meal and the presents: one at my parents and one at home for the two of us.* (Sam)
- *At Hanukah every night there is a present; it's 8 nights. Christmas is a bigger present because it's one night.* (Jon) *And the stocking. I always like checking my stockings in the morning, but what I don't like is when the alarm goes off and then my mom and dad come down and see us checking our stockings.* (Jon's child)

Little acts of love are often manifested through informal gift giving: *"I have mint sauce with everything. It is for lamb but I have it with turkey as well so when [Christmas lunch] is at my auntie's house, she always makes a big deal about, you know, 'I have made you some mint sauce especially', like it's a special dietary requirement [laugh]"* (Mike). There is a sense of pleasure on both sides in knowing the nephew's taste and in receiving the token of affection. The pleasure of being able to interpret the receiver's untold wishes was expressed explicitly several times: *"seeing how other people respond to what we have bought them, although we don't buy huge presents, they are quite carefully thought about"* (Sylvia), *"J. usually buys me like a record or CD which is always quite exciting because she is like the only person who knows me well enough to buy me a record"* (Sam), *"when people are really delighted with something you have given them, it's lovely. It feels good, doesn't it? When you give somebody something and you can see that they really like it rather than, you know, being polite... that is special"* (Jane). As reported in the literature [Carrier 1993, Kesser & Sheldon 2002], for our participants, gift giving is not an expression of consumerism, but a display of love and care: gifts are tangible evidence of the kindred interaction [Belk et al. 1989].

A second main theme consistent across participants is food. The communal sharing of ritualistic food is well documented in anthropological study [Bell 2002] and adds a more complex sensorial pattern to the celebration [Turner 1987]. Sharing food is not exclusive to the 25th and some rituals are of making and donating food, mainly biscuits or preserves such as the mint sauce above or Grandma's chutney: *"My gran used to make cranberry sauce but she died this year so we are not..., this is probably the first year we are not going to have homemade cranberry sauce, which is quite sad really. And she always used to give me a jar of*

chutney as well to take home with me which was very nice, because she made really good chutney” (Sam).

Food rituals starts on Christmas morning: “*we always have champagne breakfast on Christmas day*” (Sam), “*croissant - this must be Christmas breakfast, we have nice things for breakfast*” (Sylvia), “*my sister always has leftover Christmas pudding and brandy sauce for breakfast on Boxing Day*” (Jane). Numbers of people involved vary: an intimate meal for two, the family sit around the table for the traditional lunch (Figure 5), or a large group of over 80 people at the church’s Christmas lunch. Sharing the Christmas meal seems to be the most important tradition even more than gift giving, but accommodating a meal with everyone can be complicated:

Florence: *we always have Christmas dinner on Christmas Eve with his family,*

Steve: *Then we go to your mum and dad’s Christmas Day, and we go to my grandparents Boxing Day,*

Florence: *It is fixed, the timings as well because we don’t want to offend anyone. It’s how long we spend with each family, and it gets to about 2.30 – 3 o’clock and we think ‘oh, we need to make a shift to my family otherwise, it’s difficult’ [...] we did two Christmas dinners in one day one year and it was too much and now they don’t mind doing it on Christmas Eve as they get to see [grandchild] opening the presents on Christmas morning, don’t they? And then you go over to Grandma and Granddad’s so I suppose, yes, they are all very accommodating of the fact that we move.”*

Food is also used to reinforce the family identity and sense of belonging: “*Christmas Eve is always ‘hot ham’, as we call it in the family, a piece of gammon with cheese sauce and cauliflower and peas and roast potatoes*” (Jane), “*the local beer to [my parents’] village and you can’t get it anywhere else; my dad got a keg and he knows that, like me, my brother and brother-in-law will drink it*” (Sam).

These excerpts show that food fosters a strong sense of identity: belonging to the family, the village, or the region. More than other aspects traditionally associated to Christmas such as gift giving, food and eating together seems to embody what Christmas is and joining different food traditions when forming a new family may be challenging for some: “*It’s strange how now we*

sort of do Christmas twice, we do it with his family and then with my family, and I definitely prefer my Christmas to your Christmas, it's a bit too sedate, your Christmas, you don't have turkey - that's not right. You have chicken - it's wrong. So, my Christmas is the proper Christmas and you are coming round to my way of thinking now" (Florence).



*"It's always the turkey with like the trimmings, and my aunty always brings like a big sort of thing of Yorkshire puddings she has made. It's not typical Christmas, but it's typical Yorkshire."
(Mike)*

Figure 5 A family reunion around the Christmas table.

A third recurring theme is playing: every participant reported playing games together as an enjoyable way to share time with the family. For some households, this is very informal: *"play with everything that the kids have got [as present]"* (Jane), *"We have a jigsaw over Christmas as being a thing to do together that is sort of communicative"* (Sylvia). For others, it is highly organized. For one family, the reunion is at the parents' with siblings and their partners: *"my dad always buys a new game every year and they are always like these complicated ridiculous games and [my parents] they have a practice run, like 2 or 3 days [before] so they know what they are doing, but they always lose. Those [pointing to picture] are the winner's prizes - you get a bottle of wine and if you come last, you get like a wooden spoon"* (Sam). One group of players is large, with the families of four siblings with their grown up children. Playing is taken very seriously by all of them: *"We play Trivial Pursuit and this is quite competitive, it is 'boys' versus 'girls' and we keep an aggregate score and we are 5 - 4 to us [the boys]. We all play, all uncles and aunties, and it has gone on for years it is really good fun. [...] My uncle is like a quiz master for this pub quiz [...] he buys a new edition every year"* (Mike). In both families, there is a person that dedicates time and effort to organizing it: buying the game, keeping the score, getting the prizes.

6.2.4. Boxing Day and After

The far side of Christmas looks very much like the days preceding it: the 26th and the days immediately after are dedicated to catching up with extended family who did not meet on the

25th, e.g. elderly grandparents and old friends: *“we went over to Liverpool for New Year to some friends, who tend to do quite a big thing”* (Jane). There could also be the occasional public event: *“on Boxing day there is a group of Morris men go to the local pub and we always go and see them because that is always quite amusing”* (Sam).

In summary, reconnecting within and outside the family is the purpose of the majority of Christmas rituals. How this is done depends on the relation and the distance: cards are for acquaintances and friends far away; parties and informal meetings are for friends and colleagues close-by; long meals, playtime and gift giving are for the close family. Additional rituals, religious or otherwise, are incorporated, but what takes place and how depends on the family.

6.3. Storage

The third phase of ritual as performance is ‘return to mundane life’; and here we use the idea of ‘storage’ because the taking down of decorations to be stored until next year marks the end of the celebration. The return to mundane life varies across our participants: singletons leave the place of the celebration a few days after Christmas and do not partake in the storing. Other households have a similar pattern, with the decorations coming down after New Year, although precisely when changes from household to household: *“the decorations, we leave them up right to the last minute, so that’s 12th night after Christmas, the decorations are up”* (Sam), *“the decorations don’t necessarily last till the 12th night, they usually come down the weekend before we go back to work”* (Florence), *“the [street] Christmas tree shredding has become a ritual at the end now, which is around the 12th day of Christmas but whenever it fits with everybody else”* (Sylvia), *“the decorations come down on the 12th night, and everything just gets put away in the same box in the same place up in the attic for next year”* (Jane). As the tree decoration signals the starting of the Christmas season, so shredding the tree, re-planting it in the garden and putting the decorations away marks the end. But only for this year, until the preparation will start again and the traditions will be re-enacted.

6.4. The Creation of Traditions

Although the rituals discussed above are repeated every year, they must have started somehow. The most established are those related to food that seems to pass across generations with little change, while new form of socializing are the most recent rituals with

activities such as attending the school nativity play. Indeed our data shows that initiating new traditions is often connected to important changes in the person's life (marriage, having a child, or moving home to a different country); it is a way to connect with one's past (what the person was used to do in their family of origin) or to the new context (others' personal beliefs or needs). Indeed the forming of a new family provides an opportunity for creating new traditions that can then become rituals even if the (possibly contrasting) expectations of the two families of origin need accommodating.

About a quarter of the rituals recorded were quite recent, created in the last 5 years. Sometimes it is an accommodation that incorporates a break from old ways to find something shared for a new start. An example is Sam's Christmas split between his family, meeting at his parents, and his own house, shared with his partner: *"when we come back we open our presents and we usually have another a sort of vegan Christmas meal [for the two of us]"* then *"we play a card game to determine who opens the presents first."* These traditions mark the couple's intimate Christmas as different and other than that shared with his parents. Examples of traditions springing up are not uncommon: *"we make home-made Christmas cards... now a lot of my family make home-made Christmas cards, so there tends to be a separate [display] section for all the home-made Christmas cards and it's not competitive, but there is a certain element of 'ah, I wonder what they have done this year'."* (Sylvia). A recurring pattern is the positive anticipation for what will happen; the setting of the scene through preparation; and the acting out of the ritual. If, the first time, the process happens by chance, the next is often intentional and constructed: *"Our friend M is a brewer, and he gave me a bottle of one of their beers in May and I have held it back until Christmas. It's going to be my Christmas drink. It should have matured a bit so it should be really nice. Quite looking forward to that."* (Sam, before Christmas)

Sam has gone a step further than enjoying a nice beer and shaped a little ritual for next Christmas: the special box, the careful selection of the beer every month, the anticipation and the final climax of drinking them all. The intentional construction and the formalization of the actions compose the ritual and, over time, the tradition.

In summary, new traditions can be created and old traditions modified over the years. Very little seems to be needed for this to happen, a little pleasure, a bit of fun. We therefore see

some space for the creation of new traditions fostered by new devices or old traditions that find new rituals through technology.

“That was my special Christmas drink. I am doing it again this year, except I am building it up now, so every month I am buying like a special bottle of beer that I am going to keep for Christmas and then I am going to have like a week of just drinking this beer. So that is something I did for the first time and I am doing it again. I have got a special box in the garage for all these beers.” (Sam, after Christmas)



Figure 6 A new tradition.

7. Deconstructing Christmas Rituals

The previous sections discuss the data in quite some detail. Here we reflect more broadly on the different elements that compose rituals and attempt to provide some thoughts and a firm ground for design. We intentionally do not offer concepts or prototypes; the interested reader can look at how findings inspired us and which kind of concepts we developed in Petrelli et al. [2012]. We see the value of the research in this paper more as opening up possibilities, and discussing the nature of this time-out-of-time, rather than listing solutions. The hope is that designers will be inspired by our findings and will start looking at special times as something to design for: even if the use is only once a year, the interaction is very special.

We use the multiple concepts of rituals in section 4 to discuss our findings on three levels: *macro* looks at Christmas as a calendrical ritual, an event that happens every year (in 7.1); *meso* refers to the three phases of preparation, celebration, and storage (in 7.2); and *micro* inspects the single components of the ritual – artefacts, script, role, and audience (in 7.3). We consider this detail of analysis essential for a proper understanding as our intent is to look beyond the mere digitization of some of the more obvious practices of Christmas, e.g. sending digital Christmas cards. To design for such as sensitive context, it is only by looking progressively deeper from the macro to the micro elements of what makes up a family specific time that we can learn, find inspirations and directions for acceptable new proposals.

But first, we note the curious case that the celebration of Christmas makes when we think about technology design. This is a moment when people leave their phones and computers alone and the only screen-based technology incorporated in the festivities is the long-running television, watched selectively, only for Christmas specials, and as a group. Work activities are eschewed, but social media, online gaming and other highly social electronic activities are also being passed up because they are a remote pull on the attention of those present in the here and now (see Light 2008, Light et al 2008). Suddenly, in much of the country, people are behaving as non-users for a couple of days (contrasting with many other understandings of non-use). Being-present-to-each-other is part of the gift offered to other members of the family for this short duration. Instead of using electronic media, which may be interactive and social but distracting from the physical environment, activities and games that focus attention on the people in the room are undertaken, such as playing the *Trivial Pursuits* board game.

7.1. Christmas: Once a Year, Every Year

Christmas is a calendrical ritual, i.e. it occurs on the same day every year. As such it has a number of interesting aspects worth considering. To start with, by occurring always on the same date and by being a familiar event, Christmas triggers expectations and obligations. Many things are done specifically for Christmas and time is set aside to be together. It is a cross-generational and egalitarian event toward which people tend to have a positive and participative attitude. Designers can plan for an overall positive attitude and willingness to be engaged even with the odd or unusual during the run-up to Christmas; they can count on people having time and attention for each other, being open to experiment with new things and having fun. New design can look at the opportunities offered by an 'only-here only-now' approach as opposed to 'anywhere anytime'. Design challenges can be found in addressing the harmonization of contrasting attitudes and potential tensions.

A second observation is that its repetition supports the progressive building of a collection of family mementoes that captures life and changes. Recording the family one year becomes more meaningful if there is a legacy of past Christmases to build upon and a sense of more to come. In isolation, one year may bear little interest, but added to the past 20 Christmases, it could capture the life of the family, taking a snapshot of each year as it passes. With technology purposefully designed for this use, Christmas could become a time for constructing,

remembering and celebrating the family through digital media: grandma and her sauce, the old uncle cracking bad jokes, the competitive *Trivial Pursuits*, the little children singing carols. The value of an annual recording is supported by the spontaneous effort some participants put in creating more elaborate showcases of the media they collected during the study; interestingly the celebration did not dominate the DVD and recordings of the preparation were a substantial part of the show. Although these participants had yet to feel the effect of building portraits, year on year, to capture Christmas as a marker of what changes and what remains in one's intimate circle, they already saw some value in a record to be revisited in the far future.

The different stories we collected, on Christmas as a family event, highlight it as an expression of shared values, a way for the members of the family to recognize themselves as part of the group, reinforce their sense of belonging and revisit their roots. Every single family has their own set of values that are celebrated and reflected in many rituals: ecology and anti-consumerism is expressed in Sylvia's family, through much home making and recycling; Jane's passion for food and eating together is shown in having names for meals, in remembering to buy the special terrine, and eating at the fast food restaurant as an exceptional treat; Mike's family has a strong identity as being Yorkshire (in food and political orientation) and "us" as driver for the game. Rituals presuppose significance: all these examples show there are specific meanings for the local culture of the family.

There is an apparent need for plurality in unity that design can attempt to disentangle: within the same cultural framework every family implements Christmas in their own idiosyncratic way. The right balance must be found between the constrained cultural context of Christmas and the need to leave space for individual/family augmentation and appropriation. One can argue for general-purpose proposals, but we believe that the opportunities offered by designing for the specifics of Christmas can be gainfully exploited. We have only to look at the distinction between the organizational preparation (e.g. shopping) and the emotional preparation (e.g. decorating) to see how subtly different overtly similar behaviors (preparing) may be.

Thus, we have an interesting set of constraints to work with: the time of year is fixed and repeats annually to the day; the mood is celebratory, playful or at least familial; the purpose is to be out-of-the-ordinary, special and social; many of the augmentations are to embed new

relations or acknowledge changing ones, but the way that this plays out in each household is different and so the design of any augmentation must be open to interpretation.

7.2. Framing Family Christmas as Sacred

Although, in abstract, Christmas could be considered as one event, at a closer investigation, it shows a number of distinct merrymaking times. Family, though the centre of most activities, is not the only context of Christmas celebrations: old friends, distant relatives, and communities are all part of some rituals. Similarly, the family home is not the only place where get-together occurs: relatives' home, public places and even the outdoor are settings for different types of celebration with different people. Christmas Day is ring-fenced for the family at a friendly home, while all the other events occur before or just after the 25th.

Space and time play a key role in distinguishing and maintaining the mundane apart from the special, the sacred from the profane. Space and time are used to frame the Christmas celebrations with an extended preparation and a phase of storing away, marking this time of the year as special. The *preparation* can be lengthy and articulated and has the function to “set the scene” for the celebration with decorations, special food, games and gifts. Preparation occurs mainly in the hosting house and is carried out mostly by the hosting family, often by a single person. Although Christmas is about being together, this phase is carried out in relative isolation and, even if the dispersed family has an interest in what is going on at the host site, there is little chance to peep in the kitchen. However, even if not actively participating in the preparation of *their* family Christmas, everyone is touched by the feeling of anticipation fed by their private or openly public rituals, e.g. home and street decoration. These details provide great themes to inspire design, from the count down or building up (e.g. advent calendar), to the connection of the dispersed family in anticipation of the meeting, to combining inside family and outside family events. These preparatory events are markedly different from the ones, already characterised, on Christmas Day itself (and sometimes those days round it). Linking remote people during preparation and storing activities is a way of heightening the intensity of the moments that are shared.

By contrast, *celebration* is about coming together and being part of it. This is a stated feature across the sample: no one is standing one step out of the action, ready, as the wedding

photographer is, to take commemorative snaps. The strong value of the here and now seems to be the reason for the exclusion of technology from Christmas celebration: even a phone call from the family, much appreciated at other times, can be perceived as an annoying interruption if it occurs at the “wrong time” on Christmas Day. Frohlich and Kraut [2003] argue that technology affects the social group with sociopetal or sociofugal force. Today, much ICT takes attention away from the here-and-now: devices are designed for individual use and social networking sites are not intended for co-present groups. Even video games designed for co-located play [Vaida et al. 2010] divert the attention from the people around the screen towards the screen: people share the time, but do not pay attention to each other. This type of tool has limited appeal when co-presence is highly valued, since it is sociofugal, taking the attention out of the us-here-now. Further enquiry with the same group of participants [Petrelli et al. 2012] revealed that technology has been policed in more than one family and that the technology excluded.

For this highly communal context, design should focus on creating experiences that are sociopetal [Frohlich and Kraut 2003], that facilitate and foster the interaction between the people taking part in the celebration, *here and now*, while offering new experiences that are not possible in any other way, to make their use compelling, even in the current technology-free setting.

Another space for design is the consideration of passive recordings that do not require any active intervention from users. Lifelog devices, e.g. Narrative⁴, can be of inspiration here. Clearly any intervention has to be meaningful for the intended context and sensitive to the environment - that can be as diverse as a large family celebration at the parents’ house or a small group of old friends meeting yet again at the usual pub after a year. But, clearly for some, ephemerality, casual intimacy and the chance to leave the previous year behind as well as recall it are important values that may be at odds with such recording.

⁴ Narrative is a tiny automatic camera and app to automatically collect and search photographic memory
<http://getnarrative.com>

Last, the framing of Christmas as a special time is marked by the *storing* away of artefacts, most commonly the decorations, as closure. This can be the time to engage the individual or family members in packaging something special to be discovered and reused in about a year's time.

7.3. Orchestrating Rituals

When inspected at the micro level, rituals reveal four components: artefact, script, role and audience (see 4.3). *Artefact* refers to objects of consumption that can be of many different sorts, not only the Christmas paraphernalia. Food and decorations are the first that come to mind, but in the analysis we have discussed many others such as cards, music, games, purposeful objects, e.g. stockings and advent calendars. The environment created through these artefacts is multi-sensorial and would call for a creative approach to exploit this feature beyond the obvious. Anything can become an object of experience (and thus an artefact in the sense used here); even time can become an artefact when captured by media and stored for reuse next year. This use of 'artefact' as meaning-loaded stands in contrast to the commodification of objects and experiences by capture, exploitation and desecration, a point made well by Belk, but worth recalling in turning time into packages through recording and reordering.

A *script* is the well-defined process followed in the ritual. The definition of a script is the core aspect in the creation of a ritual, e.g. putting the decorations on the tree in a certain order. While it is always done with deliberation, the way it is formed may be very different: sometimes it emerges naturally (e.g. buying the terrine or the home made cards competition); sometimes it is directed by external constraints (e.g. the making of the cake with specific time for maturing); sometimes it is the adoption of a "rigid" script (e.g. preparing the box for the beer and regularly buying a bottle every month to store) to turn a happenstance into a celebratory event.

Beyond the script, there is an assignment of *roles*: who does what. Different people do different things and they can adopt different roles at different times. Our data showed examples of the same people being performers (preparing food, making/writing the cards, buying the presents, decorating the house, preparing the game) or partakers (enjoying what

others have done, e.g. eating, receiving cards or gifts, playing). There is a frequent shift between the two roles with performers becoming partakers and vice versa: a person can decorate their home (performer), but stay uninvolved in preparing the food he or she eats (partaker).

The last component of a ritual is the *audience* that, progressing toward Christmas, decreases in size from acquaintance and community, to friends, then family, and finally to who attends the celebration on Christmas day. The smaller the audience the more participative it is. Christmas lunch or game playing, prepared and organized by one person, is actively enjoyed by all. No one stands outside the immediate circle in terms of the rituals observed.

8. Conclusions

The purpose of the study was to better understand family rituals to inspire the design of technology that builds upon existing family celebrations in engaging and fun ways. Our findings show that the celebration is short, intense and people concentrate on the *here and now* of the hand-picked and intimate social group present. The extended preparation that precedes the celebration creates the space and time for the celebration. The decorated house, the special food, the presents, are all signs that mark a 'sacred period', a special time where different rules apply and important values are celebrated within the family. Much of the preparation is not shared; it stays with the hosting household. However signs of Christmas approaching that appear in the street, shops and public places contribute to the anticipation and excitement felt by the members of the dispersed family who will congregate at a single house for the celebration. In the days around Christmas an effort is made to spend some time with old friends, reconnect and catch up. These very different stages and qualities, linking the macro tradition of celebrating Christmas to the micro-rituals observed at different points of the day point the way to a form of technology design that is more situated in time and space and more focused on the here and now than much of the activity-orientated tool-making we are so often busy with. Given the size of the market - a country of non-users for these days each year - we might consider it worth innovating in this context, looking at tangible interfaces and mediated play that centers itself in the immediate surroundings. Further than these immediate and practical concerns, we can ask what paying attention to the details of this period might offer. By reflecting on what makes this period of the year unusual, we are able to learn more about

what characterises much of our present design practice, what we want to promulgate through our designs and how we might go about doing so. We can focus on how meaning is nurtured through material culture and how designing for closeness – here, a convergence of closeness in familial, affect and proximal terms – might support small acts of celebration at other times and places.

REFERENCES

1. Ames, M., Go. J., Kaye, J. Spasojevic, M. Making love in the network closet: the benefits and work of family videochat, *Proc. of CSCW'10* (2010) 145-154.
2. Bell, C. *Ritual: Perspectives and Dimensions*. Oxford University Press, 2009.
3. Bell, G. No More SMS from Jesus: Ubicomp, Religion and Techno-spiritual Practices, *Proc. of UBICOMP 2006*, Springer LNCS 4206/2006 (2006) 141-158.
4. Belk, R. Materialism and the Making of the Modern American Christmas. In Miller, D. (ed.) *Unwrapping Christmas*. Clarendon Press, Oxford, UK (1993).
5. Belk, R., Wallendorf, M., Sherry, J. F. The Sacred and the Profane in Consumer Behaviour: Theodicy on the Odyssey. *Journal of Consumer Research*, 16 (1989).
6. Bowen, S., Petrelli, D. Remembering Today Tomorrow: Exploring the Human-Centred Design of Digital Mementos. *IJHCS - International Journal of Human Computer Studies*, 69 (5), (2011).
7. Brockmeier, J. After the Archive: Remapping Memory. *Culture & Psychology*, 16(1), (2010).
8. Carrier, J. The Rituals of Christmas Giving. In Miller, D. (ed.) *Unwrapping Christmas*. Clarendon Press, Oxford, UK (1993).
9. Cosley, D., Sosik, V., Shultz, J., Peesapati, S., Lee, S. Experiences with Designing Tools for Everyday Reminiscing. *Human Computer Interaction*, 27 (1-2), 175 -198 (2012).
10. Crespo, C. Families as Contexts for Attachment: Reflections on Theory, Research, and the Role of Family Rituals, *Journal of Family Theory Review* (2012) 4(4), 290-298.
11. Dib, L., Petrelli, D., Whittaker, S. Sonic Souvenirs: Exploring the Paradoxes of Recorded Sounds for Family Remembering, *Proc. of CSCW'10*, 391- 400 (2010).

12. Frohlich, D., Kraut, R., The Social Context of Home Computing. In: Harper (ed.) Inside the Smart Home, Springer, 127-162 (2003).
13. Gaver, W., Bowers, J., Boucher, A., Gellerson, H., Pennington, S., Schmidt, A., Steed, A., Villar, N., Walker, B. The Drift Table: Designing for Ludic Engagement. *Proc. of CHI'04 Extended Abstracts*, ACM Press (2004) 885-900.
14. Gifford, R. Environmental Psychology: Principles and Practice. 3rd Ed. Optimal Books (2002).
15. Grimes, A. and Harper, R. Celebratory technology: new directions for food research in HCI. *Proc. CHI'08*, ACM Press (2008), 467-476.
16. Hallnäs, L. and Redström, J. Slow Technology – Designing for Reflection. *Personal and Ubiquitous Computing*, 5 (3), 201-212, (2001).
17. Helmes, J., Hummel, C. and Sellen, A. The Other Brother: Re-Experiencing Spontaneous Moments from Domestic Life. In *Proc. TEI 2009* (2009), 233- 240.
18. Islam, G. and Zyphor, M. Rituals in Organizations – A review and expansion of current theory, *Group and Organization Management*, 34 (1), (2009) 114-139.
19. Judge, T., Neustaedter, C., Kurtz, A. The Family Window: The Design and Evaluation of a Domestic Media Space. *Proc. CHI'10*, ACM Press (2010), 2361-2370.
20. Kasser, T. & Sheldon, K. What Makes for a Merry Christmas? *Journal of Happiness Studies* (2002), 3, 313-29.
21. Kirk, D., Sellen, A. On Human Remains: Values and Practice in the Home Archiving of Cherished Objects, *TOCHI Transactions on Human Computer Interaction*, 17 (3), (2010)
22. Kuper, A. The English Christmas and the Family: Time out and Alternative Realities. In Miller, D. (ed.) *Unwrapping Christmas*. Clarendon Press (1993).
23. Light, A (2006) Adding Method to Meaning: a technique for exploring peoples' experience with digital products, *Behaviour & Information Technology*, 25 (2), 175-187
24. Light, A. (2008) Transports of Delight?: What the experience of receiving (mobile) phone calls can tell us about design, *Personal and Ubiquitous Computing* 12 (5), 391-400
25. Light, A., Miskelly, C. and Thompson, S. (2008) An Analysis of Building Habitat with Networked Tools, *Proc. OzCHI 2008*, Cairns, Dec 2008

- 26.Lindley, S., Harper, R., Sellen, A. Designing a technological playground: a field study of the emergence of play in household messaging. *Proc. of CHI'10* (2010) 2351-2360.
- 27.Marshall, C. How people manage personal information over a lifetime. In Jones and Teevan (eds.) *Personal Information Management*, University of Washington Press, Seattle, Washington, 2007.
- 28.McCracken, G. (2005). *Culture and Consumption II – Markets, Meaning, and Brand Management*. Bloomington, IN: Indiana University Press.
- 29.Miller, D. *The Comfort of Things*. Polity Press, Oxford, UK, 2008.
- 30.Miller, D. A Theory of Christmas. In Miller, D. (ed.) *Unwrapping Christmas*. Clarendon Press, UK, 1993.
- 31.Neustaedter**
- 32.Oleksik, G., Frohlich, D., Brown, L. and Sellen, A. Sonic Interventions: Understanding and extending the domestic soundscape. *Proc. of CHI'08* (2008) 1419-1428.
- 33.Odom, W., Pierce, J., Stolterman, E. and Blevis, E. (2009). Understanding Why We Preserve Some Things and Discard Others in the Context of Interaction Design. In proceedings of SIGCHI Conference on Human Factors in Computing Systems. Boston, USA. CHI '09. ACM Press, 1053-1062.
- 34.Petrelli, D., Bowen, S., Dulake, N., Light, A. Digital Christmas: An Exploration of Festive Technology, *Proc. of DIS'10 Designing Interactive Systems*, (2010)
- 35.Petrelli, D., van den Hoven, E., Whittaker, S. Making History: Intentional Capturing of Future Memories. *Proc. of CHI'09* (2009)
- 36.Petrelli, D., Whittaker, S., Brockmeier, J. Autotopography: What can Physical Mementos tell us about Digital Memories? *Proc. of CHI'08* (2008)
- 37.Petrelli, D., Whittaker, S. Family Memories in the Home: Contrasting Physical and Digital Mementos. *Journal of Personal and Ubiquitous Computing*, 14 (2), February, 2010.
- 38.Petrelli, D., Villar, N., Kalnikaite, V., Dib, L., Whittaker, S. FM Radio: Family Interplay with Sonic Mementos. *Proc. of CHI'10* (2010) 2371-2380.
- 39.Plaisant, C., Clamage, A., Hudtchinson, H., Bederson, B., Druin, A. Shared Family Calendars: Promoting symmetry and accessibility, *TOCHI*, 13 (3) (2006)

40. Randall, D., Harper, R., Rouncefield, M. *Fieldwork for Design: Theory and Practice*. Springer – CSCW series (2007).
41. Searle-Chatterjee, M. Christmas Cards and the Construction of Social Relations in Britain Today. In Miller, D. (ed.) *Unwrapping Christmas*. Clarendon Press, Oxford, UK (1993)
42. Sarvas, R., Frohlich, D. *From Snapshots to Social Media – The Changing Picture of Domestic Photography*. Springer (2011)
43. Schutz, A. *Collected Papers, volume 1: The Problem of Social Reality*, Martinus Nijhoff, The Hague, Netherlands (1973)
44. Schofield, G. The significance of a secure base: a psychosocial model of long-term foster care, *Child & Family Social Work*, (2002) 7 (4), 259–272.
45. Susani, M. The Sensible Home. @HOME – 2nd Doors of Perception (1994) <http://museum.doorsofperception.com/doors2/transcripts/susani.html>
46. Svensson, M., Höök, K., Laaksolahti, J., Waern, A. Social navigation of food recipes. *Proc. CHI'01* (2001)
47. Swan, L., Taylor, A. S. & Harper, R. Making place for clutter and other ideas of home. *ACM Transactions on Computer-Human Interact, TOCHI*. 15(2) (2008)
48. Terrenghi, L., Hilliges, O. and Butz, A. Kitchen Stories: sharing recipes with the Living Cookbook. *Personal and Ubiquitous Computing* (2007) 11, 409–414.
49. Trice, H., Bayer, J. Studying Organizational Cultures Through Rites and Ceremonials, *Academy of Management Review*, 9 (4), 1984, 653-669.
50. Turner, V. *The Ritual Process – Structure and Anti-Structure*, Aldine Transaction, 1969.
51. Turner, V. *The Anthropology of Performance*, PAJ Publications, 1987.
52. Van Dijck, J. *Mediated Memories in the Digital Age*, Stanford University Press, 2007.
53. Van Gennep, A. *The rites of passage*. The university of Chicago press. 1960.
54. Volda, A., Carpendale, S., Greenberg, S. The individual and the group in console gaming. *Proc. of CSCW* (2010)
55. Wyche, S., Greener, R. Extraordinary Computing: Religion as a Lens to Reconsidering the Home, *Proc. of CHI'09* (2009), 749-758.