Age and Experience: Ludic engagement in a residential care setting

ABSTRACT

The "older old" (people over eighty) are a largely invisible group for those not directly involved in their lives; this project explores the ways that technology might strengthen links between different generations. This paper describes findings from a two-year study of a residential care home and develops the notion of cross-generational engagement through ludic systems which encourage curiosity and playfulness. It outlines innovative ways of engaging the older old through "digital curios" such as Bloom, the Tenori On and Google Earth. The use of these curios was supplemented with portraiture by three local artists, nine school children and the field researcher. The paper describes four technological interventions: "video window", "web window", "projected portraiture" and "SoundscapeRadio". These interventions attempt to reposition "off the shelf" technologies to provide a space for cross-generational engagement The notion of inter-passivity (the obverse of interaction) is explored in relation to each intervention.

Keywords

User Experience, Older people, Residential Care, Cross-generational engagement, Inter-passivity

INTRODUCTION

In a recent episode of *South Park* older people are depicted as zombies, staggering into their automobiles and terrorizing the townsfolk who flee from "old people driving!". Similarly, in *Father Ted,* elderly females attack the Parochial House in a parody of Romero's *Dawn of the Dead* series. Representations of older people as the undead are not new, nor are they confined to popular culture.

Figure 2: Goya: Two Old People Eating Soup

In Goya's "Two Old People Eating Soup" (figure 1) the faces are skeletal and the soup eaters look like corpses, they are not truly alive yet neither are they dead. Histories of old age indicate that fear and horror of the aged are common though not of course the only attitudes taken to the elderly [29]. Although the Goya and South Park representations are extreme they correspond to real fears about our own as well as other people's ageing. This paper reports on a long term study of a residential care home where a series of interventions were staged to create cross-generational engagements that might challenge stereotyped and negative representations of care homes and the older old (commonly defined as people over eighty).

An eighty-year old person today has a life expectancy of, on average, another eleven years [7]. Such figures are often presented as dire and urgent problems: "old people are described as helpless dependents imposing burdens of healthcare and pensions on a shrinking population of younger workers" (Ibid p.9). Governments around the world have reacted to the unprecedented ageing of populations with plans for older people to live in their own homes for longer supported by information and communication technologies (ICTs).

The field of Human Computer Interaction (HCI) has responded to this vision enthusiastically, producing numerous smart home technologies and innovative means of keeping older people in touch with their families e.g. [22; 4]. Ingenious and subtle means of providing low level awareness of distant relatives have exploited increasingly cheap yet powerful computing technologies in order to address the "care gap" that is already being felt in the "developed" or "dominant" countries.

But the UK charity Age Concern has found that one of the main problems for older people living independently is isolation and depression [1]. Aside from ethical and social critiques of the model of older people living independently for longer there are also pressing environmental concerns. Households are responsible for 30% of the UK's total energy use [6]. Since 1970, household energy demands have grown by almost a third and still continue to grow in part due to increases in the number of consumer electronics in the home (Ibid). Rising energy consumption currently means increased CO_2 emissions so domestic energy consumption is very much a world problem [33]. In 2050 30% of the European population will be sixty five or older [31]. The techno-utopian vision of ageing populations cared for in single occupancy dwellings equipped with "smart" technology may well be unsustainable.

So in this project we chose to shift the conventional approach to ageing by exploring the ways in which it might be possible to make communal care-home living *better* than staying at home. In part, we have been inspired by Huizinga's description of Homo Ludens [17], which conceives of humans as essentially playful creatures. This perspective emphasizes curiosity, diversion and humour as defining facets of humanity which are just as worthy of attention and respect as labour or logic [9]. But in addition we have sought to frame the ageing Homo Ludens as a social creature and to explore social interaction across generations.

The project has involved extended observation of an ordinary care home and a series of technological interventions using (for the most part) commonly available technologies to socially engage residents.

Residential Care Homes

Many older people fear care homes more than they fear death itself: they would literally rather die than go into one. This is an international phenomenon reported in surveys in the UK [19], the USA [24], and Australia [25]. The reasons for this are complex but one important shaper of such beliefs is the media. A search on "care homes" in the BBC news archives of almost any period will return in the main very negative stories largely concerned with neglect or abuse. Stories of well run care homes with dedicated staff doing their best for residents seldom make the headlines. The fear of crime amongst older people is far greater than its likelihood [15] where the fear of care homes is the fear of neglect or abuse it is an exaggerated fear. But in addition to media scares there are also historical reasons for the fear of care homes. In the United Kingdom the development of care homes is rooted in the history of the workhouse. Workhouses were abolished in 1947 and welfare care provision improved drastically in the latter half of the twentieth century, but care homes are still far from desirable residences [30. 23]

THE SITE

"Jacob House" is a residential care home in the north of England funded by the local council. There are twenty eight residents the majority of whom are in their eighties and nineties. The oldest resident was one hundred and four years old when the study began, three of them will be one hundred next year. The majority of residents have high levels of dependency requiring assistance in most activities of daily living. Some of the residents also exhibit early signs of the onset of dementia.

The daily routine in Jacob House is quite fixed although it was emphasized during interviews (and frequently observed) that residents are not obliged to follow it. Residents are served breakfast, lunch and dinner in dining rooms at fixed times; tea and coffee are served regularly throughout the day. Many residents cannot get to the dining rooms without assistance so a major part of the work of the care staff is moving them into wheel chairs using hoists. This activity punctuates the times between meals when residents have to be taken to the toilet. There is usually an afternoon activity led by a carer such as karaoke, dancing, catch or a quiz. A hairdresser and manicurist visits once a week. Most of the residents go to bed at around eight pm although there is no compulsion to do so. Night staff check on each resident throughout the night to ensure that they have not fallen. Falls for this age group are the most common cause of admittance to Accident and Emergency wards and the longer an older person lies on the floor after a fall, the longer the recovery time (HASS 2001). Although the nightly visits were occasionally complained about because it woke them up the residents appreciated that they were necessary.

It would have been possible to focus on the carers rather than residents and develop systems intended to make the site function more efficiently as a workplace. This impulse was resisted here, and the focus was on the care home as a home rather than a site of labour although it is of course both. Rather than approach residential care as a set of tasks and a problem to be solved the researchers attempted to engage with residents as individuals and to introduce playful technologies which might improve their general quality of life.

METHOD

There were a number of methodological challenges in working with the older old in this setting. The normal ethnographic interview method we have commonly used at previous sites proved particularly difficult.

Residents were sometimes suspicious of the interviewer. They found interviews demanding, quickly became tired and sometimes distressed. For example, during an early interview with the hundred and four year old it was observed that she quite quickly became exhausted and upset *"Why are you asking me all these questions? Is it over now? I hope so!"*. Therefore the fieldwork has required a number of methodological innovations. As in previous studies observation during technical set up was useful [13]. While technologies such as the video window and broadband were set up the researcher maintaining the equipment made naturalistic observations.

The staff of residential care homes in the UK are inspected regularly and frequent media stories that feature undercover researchers make for a sense of constant surveillance. Some of the staff believed that the project researchers were something to do with the inspectors even though they were assured that this was not the case. It was not until a real inspection occurred during a research visit that all staff were finally convinced that the researchers were not something to do with the process. Those staff that were happy to talk would become extremely self conscious when a tape recorder was introduced.

Tickets to talk

Svensdon and Sokoler [28] have built on what Garfinkel called "tickets to talk" in their understanding of interaction between elders in a care home. Garfinkel described dogs as "tickets to talk" for the people who are walking them and it has been observed that the presence of dogs in care homes are tickets to talk for residents. This project drew on the following tickets to talk:

> ***Google Earth Biographies*** (Residents were introduced to google earth on a laptop by the researcher who showed

them all of the places they had lived in over the years encouraging stories and reflection)

Archive Photography Reminiscence (Residents were shown online archive photography of the city as it changed through the years to provoke reminiscences)

Digital Curios and Novelties (Residents were shown bespoke prototypes and off the shelf interactive technologies such as the Tenori-On, Bloom and the iPhone Flickr app which require only single touch interaction. They were also encouraged to play with as novelties such as toys which change colour when squeezed)

These engagements yielded some insights but were not without their difficulties. For example, digital curiosities were great ice breakers but interest was of a limited duration. Likewise, creating a Google Earth biography was engaging and provided a wealth of material not only on the person's life but the changes technological and otherwise that they had witnessed, but it could, like an interview, be quite exhausting for the participant.

Tickets to be Silent: Portaits and Sketches

In *Pulp Fiction* Mia Wallace asks "*why do we feel it's necessary to yak about bullshit in order to be comfortable*?" She goes on to say that you know you have found someone really special when you can comfortably share silence. Often during interviews and even during "ticketed" talk there is an obligation to keep the conversation going which could be overly demanding for these residents. Tickets to be silent were as important as tickets to talk in this setting.

By chance the field researcher happened to know Phil Reynolds, an artist who usually paints abstract landscapes but also practices life drawing and portraiture. Having worked in a care home himself, Reynolds was interested in ageing and the challenges of creating beautiful images of the elderly. Upon hearing about the research project he suggested that the residents of Jacob House might enjoy having their portraits made: they would be likely to sit fairly still and to enjoy the social encounter.

Portraiture, in contrast to the talk intensive engagements listed above allowed for a protracted and intimate engagement where observation as well as conversation could take place more easily.

Observing the enjoyment of the residents and the very natural conversations that resulted from the process the field researcher also began sketching the residents albeit in cartoon form.

With Reynold's help, two other artists also became involved and carried out extended projects in the home. Children from an art club at a local primary school were also recruited and they became regular visitors.

The art work in the care home not only provided a ticket to silent but also a rich source of representations of the residents. Unlike the South Park and Goya's images, these were positive. Positive images of older people are difficult to find and organizations like Age Concern have noted the difficulty of representing dignity in old age. There has

therefore been great interest in this work in the community and direct support from the local Age Concern.

The artists and field researcher worked closely together to create a series of representations of the care home which eventually became a travelling exhibition which was premiered at a popular gallery in the city centre before moving to the care home itself where members of the public could see the work from 1-3 from Monday to Friday for a period of three months. In this sense the artists were co-researchers and the project became a form of "action research" where the research not only describes but changes the site e.g. [26].

ANALYSIS: ARTISTS IN RESIDENTIAL

The sketches, paintings and photographs of the artists and children are all traces of events, engagements and relationships with the residents. The purposes of the artwork were multiple: it was a means to an end (a ticket to talk or be silent), an end in itself (engaging and educative for artist and researcher alike), and a form of 'giving voice' to the community (with particular regard to the exhibitions). They were also forms of "cultural commentary" from non-native sources [11]. The following section is based on a grounded theory [5] analysis of field notes, interviews and images produced over the two year period. Each of the following sections represents a theme that has emerged from the analysis.

Stains and Plastic Flowers

In answer to the question: what use is art? Kurt Vonneugut formulated the "Canary in the coal mine theory" which claims that artists are useful: "because they are so sensitive. They are super-sensitive. They keel over like canaries in poison coal mines long before more robust types realize that there is any danger whatsoever" [32]. This sensitivity is apparent in the critical photography of Yan Preston, a Chinese photographer currently living in Manchester. She was intrigued by Jacob House partly because such homes are not common in her country of origin: "*From my knowledge we don't have any care homes like this ...before we used to have something like a state owned older people's care home but that's normally for people who don't have any families to look after them at all almost like old orphans*" (Yan Preston Interview). Preston's early photographs were of stains on the walls, caged birds, fire warnings, safety signs, a bike outside the home with the wheel stolen (see figure 2). There were also a great many pictures of plastic flowers: "*I found it quite sad, they don't have a life do they? And they are everywhere*". Similarly "sad" were photographs of the furniture at corridor ends and in the lounge areas: "*There are a lot of cabinets, wardrobes outside in the corridors and the corners and guess what? They were all empty! We opened them, we checked and [laughs} what are they doing there?"*The early images then, were of simulacra, the copies and fakes of a "real" or lived home.
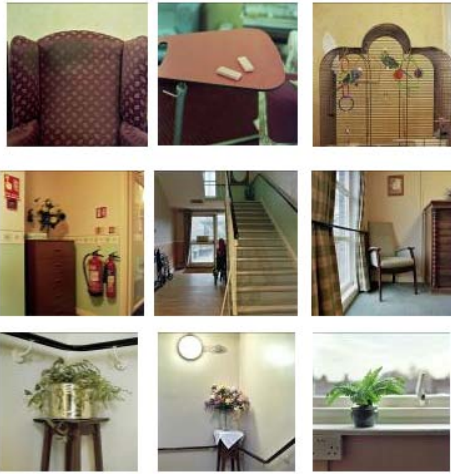
Figure 2: Photographs, Yan Preston

The photograph of the chair in the top left corner of figure 2 shows a stain left in the back and wing of the chair where a resident's head had made a dark impression on the patterned cloth. The residents of Jacob House were quite territorial about the chairs they usually sat in. The fabric of the chair itself bore an impression of its intimate relationship with a particular person. Of course the fact that the chair is stained and dirty is also emphasized in the photograph and it is, like many of Yan's early pieces, critical.

Her later images focused on the residents and staff. She asked the residents to allow her into their bedrooms- their private spaces, and the resulting photos are intimate, powerful and celebratory.

Figure 3: Portraits, Yan Preston

The first two pictures in figure 3 were very much appreciated by their subjects who had them framed and displayed in their rooms. The camera is placed below the subject creating a powerful sense of presence. However even here there is perhaps a sense of unease. Almost in the centre of the picture of Vera (the central image in figure 3) is a discoloration on her raised leg which is very obvious when the picture is viewed as a full sized print. The picture of Dai on the far right of figure 3 similarly foregrounds a bruise on his shin.

The Trouble with These Boiled Sweets

The appearance of octogenarians, nonagenarians and centenarians can be somewhat disconcerting to those who are not in regular contact with them.

Figure 4: Gladys, Ken and Fred by Phil Reynolds

Grace (pictured in the line drawing in figure 4) was partially bald but the hairline in the drawing fades before this would be represented. Any photograph would draw attention to Gladys' baldness but this sketch emphasizes instead the strength of her features. Gladys herself liked it: *"She's got a copy of it in her room. One of the carers took a photocopy of it. She seemed quite pleased with it. In some ways it's not a flattering image of a young woman… but there again she's a hundred and four so maybe she has a reasonable* [laughs] *idea that she's getting on."* (Phil Reynolds Interview). The work of both Reynolds and the digital artist Paddy Smith was much more clearly celebratory than the photographs. Indeed, it has been argued that sketches and drawings are inherently more dignifying media than photographs [20]. Reynolds sketched an empty chair and Smith turned it into a Warholian print, replicating the image so that it took on an iconic dimension as in the background of figure 5.

Figure 5: Digital Print Patrick Smith

The repetition of the chair against the purple and red backgrounds echoes the flock wall paper of the main lounge. The shared focus on these chairs is interesting. The focus is not a quirk of artistic temperament, rather it indicates very clearly how important these chairs were in the lives of the residents. For the residents and the staff the daily routine revolved around getting into and out of those chairs.

This focus on the minutiae of the space extended to the residents' bodies. Reynolds was sketching one of the residents and there had been a protracted silence when he *"came out with a little gem"* which Reynolds quoted at the top of the drawing. The resident's remark, "*the trouble with these boiled sweets is there's no end to them*" later became the title for the exhibition of the work. It was seized on with delight because it made Reynolds laugh but also because, like the focus on the chair, it got very close to the residents lived experience. When mobility is so restricted that help is needed to get into and out of a chair the

possibilities for action are primarily around the mouth: what can be put into it, what can be said. The acts of portraiture which comfortably include protracted silences then offered glimpses into the felt life of the residents in all of its banality and profundity.

TV and "Activities"

One of the first things a new visitor to Jacob House will notice is that the television in the main lounge is always on although it is not always clear that anybody at all is watching it. Residents drift in and out of sleep and the television provides a minimum guarantee of sociability and contact with the outside world. The importance of television in care home literature is well documented [18]. It serves a number of useful social roles – it is a focal point, an excuse to gather, sometimes a ticket to talk [28].

Staff regularly co-ordinate group activities such as karaoke sing-a-longs, games of catch and quizzes but television was the primary source of entertainment for most of the day. Quizzes often featured a flip chart to record answers to memory games. Occasionally these activities would be met with some resistance. A staff member would suggest, for example, a quiz to think of as many boys names beginning with "B" as possible. Some residents suggest names but some would mutter "*Bugger off*".

As we describe in detail later, interactive technologies have obvious potential in supplementing such activities. Ken, a ninety eight year old who had suffered a stroke was shown a Tenori on and laughed delightedly when he made his first loop. Similarly the iPhone Flickr app proved very successful with residents who very quickly understood the one touch interaction necessary to flick from one image to another when a search had been made. Here the researcher or carer entered searches e.g. "birds" and in this sense mediated the interaction. Mediated interaction has previously been used to develop an online shopping scheme where volunteers shop on behalf of older people who do not have access to a computer [3]. Once the initial set up was made (activating the Tenori On, Bloom and setting searches in Flickr" residents were able to enjoy the one touch interactions - activating notes in Bloom and the Tenori-On and skimming images in the iPhone Flickr app.

Fluid Conceptions of the User

User requirements analysis frequently focuses in on particular demographics, older people are often characterized as a collection of disabilities rather than individuals [12]. The two year period of study in Jacob House made it clear that users are not static entities. The abilities of the residents was in a state of flux varying day by day.

Several of the residents have died during the course of the project. Grace, the 104 year old woman, was the first to pass on. The death of a resident was traumatic for those that survived not just because they had lost a friend but also because it reminded them so forcefully of their own mortality. One resident was so terrified of death that when anyone died she would retreat to her room and not come out for two or three days.

The artists and field researcher created a timeline in the corridor featuring the drawings, old photographs from the residents and memorabilia brought in by visitors. This focus on photography led the staff to place snapshots of each resident on their door rather than leave the sole identifier as a number. When a resident died the meaning of their pictures on the timeline changed and took on the aspect of a memorial.

TECHNOLOGICAL INTERVENTIONS

Clearly the problems and concerns of the residents of Oliver House are not solely technological. Their struggles were physical, psychological, social and spiritual. There could be no quick technological fix, for example, for the fear of imminent death. It is possible to imagine interactive systems which might improve staff efficiency so that there were more of them available in the lounge. There are limits to staff efficiency however and such problems ultimately become economic and social. Much improvement could have been made with increased funding and additional staff. As noted, however, we resisted the impulse to treat the site primarily as a workplace. Focusing on a care home as a home is many respects a more difficult and profound challenge. The following technological interventions then sought to explore ways in which residents and visitors could might engage with playful, curious systems.

Video Window

The "Video Window" is a relatively simple technological intervention developed which extends the views available in a building by connecting a monitor in a picture frame to a video camera on the roof [10]. The first iteration of the design was too small and few of the residents noticed that the view changed. This was replaced with a larger monitor and frame several months into the deployment (see figure 6). The size and location of monitors was crucial in all of the technological interventions on the site.

Figure 5: Video Window

The monitor is adjacent to large French windows and at first glance it might appear that providing a different view of the one already available through large patio doors is redundant. However many of the chairs in the room do not face these doors and the system enlarges their view, showing a footpath and part of the city walls which are used regularly by locals and tourists.

The system has been in place for over a year and a half and has become very popular with residents, staff and visitors. Interaction with the system is sometimes not easy to observe as it consists of occasional glances and remarks. However, its value to the residents becomes apparent when it is accidentally left off. Night staff turn the monitor off when the residents have gone to bed and occasionally the day staff forget to turn it on. When this happens the

residents complain, in Ken's case by pointing and gesturing as he lost his speech following a stroke.

During the summer one of the carers noted its possible practical benefits. Many of the residents were sitting in the garden. Vera suggested that if the camera was pointed at the garden then carers would not have to go all the way out to check on them, they could simply poke their head into the lounge and see that everyone was alright. While this may have improved efficiency it was precisely not the point of the intervention and changing its function towards one of surveillance was resisted. This allowed for the picture to be considered primarily as a picture and either beautiful or not. During one winter visit large flakes of snow fluttered slowly across a white landscape "*Isn't that beautiful?*" One of the carers stopped and pointed at it "*Can we keep it like that?* [laughs] (Field Notes). Occasionally it is spectacular, lightning storms in particular were remarked on and enjoyed by both residents and staff. But it is more often a slow technology reflecting gradually changing skyscapes and seasons. When independent movement is limited to turning one's head then new windows on the world become very significant.

Projected Portraiture

Although the residents enjoyed having their portraits made by the artists and children, interaction was largely one on one. Following consideration of the television as a source of ambient image we experimented with making the acts of portraiture more open to view. Reynolds was set up with a tablet PC the "ArtRage" drawing and painting package, so that his work could be projected onto the walls of the main lounge.

Figure 7: Projected Portraiture

Figure 7 shows Reynolds's and his first projected portrait of Poppy, with a snapshot of Poppy taking the somewhat unflattering image with very good humour. When another resident walked by and said – "*Oh who's that horrible old woman*?" a more abstract piece was attempted. Reynolds began by tracing the pattern of the flock wall paper. He then made a very fast and spectacular abstract which fascinated the residents although some were more bemused and amused than impressed with the art.

Following Reynolds's tracing of the pattern on the wall some experiments with portraiture were conducted with the large roof mounted projectors at the university.
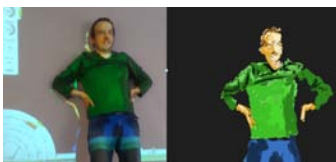

Figure 8: Test with overhead projector

Standing a subject in front of the projector it was possible to literally colour them in to produce a portrait on the tablet (see figure 8). Participants who described themselves as having no artistic ability whatsoever very quickly produced work that they never thought they would be capable of ordinarily. Edwards (2001) argues that students of art usually draw what they know to be there rather than what they can see; she encourages techniques which require the student to look exclusively at their subject rather than their drawing. Colouring people with projected light seemed to be an effective way of doing this.

The children from the school art club were particularly enthusiastic about projected portraiture when it was set up for their next visit. They were extremely excited by the tablet PC and projector. None of them had ever seen such a set up before so the experience was novel and all were eager to take turns trying it. Projected portraiture requires that the user look not at the tablet but the position of the cursor on the subject. The children were encouraged to "colour each other in" keeping their eye not on the tablet but the subject and projected colours.

Figure 9: landscape and portraiture

Again, this created an engaging spectacle for the residents as well as the children. The value of the technique was immediately apparent to the art club teacher and the headmaster invited us to speak about the work at a school assembly which resulted in more volunteers for the project.

Carers were also highly engaged. The manager volunteered to be a subject to be coloured in. Some of the residents who were able to hold a pen also made their own projected art images. While taking it in turns to either engage in projected tracing or direct project portraiture the children also drew the residents using more traditional media. As with the artists and researchers the children found this a very effective ice breaker and comfortable way to engage with the residents on each occasion they visited. These visits are ongoing and it is hoped continue beyond the life of the project.

There is of course a great deal of work in arts therapy which encourages older people to create art [27]. Although this happened spontaneously on occasion this was not the focus of this work. The residents were subjects of and viewers of the art work rather than its creators. The work the children produced was very powerful and very much appreciated by the residents. Visitors to the home were also very positive: When one resident's niece was about to leave she came over to thank us saying she had not seen her Aunt so alert and happy in a very long time.

Web Window

Following the success of the projected portraiture a blank canvas in a frame was hung up in the main lounge. Residents gave instructions for it to be hung higher or

lower to give the best view from each corner of the room. The blank canvas was used for further projected portraiture but other possibilities were also explored. Flickr images were projected onto it from searches dictated by the residents. Initial searches included: the Yorkshire Dales, York, Scarborough and Whitby. These locations were important to the residents and accessing them was very difficult. Several years ago a trip had been arranged to Scarborough as a dying wish for a resident who loved the place and wanted to see it one last time. The photographs were often of a very high quality and both residents and staff were immediately engaged in speculating about which exact locations were being depicted and whether they had been there or not. As most of the residents were from the city or surrounding regions many of the landscapes were familiar though they had not seen them in years.

Unlike the flickr iPhone app this enlargement of the show facilitated group conversations about the places and scenes depicted.

Co-incidentally the home was being inspected while the researcher and artist were setting up the web window and the inspector was keen to discuss our work. The manager, Babs, said the inspector had been very impressed with what we were doing. Babs later said she thought the work may have contributed to the home being upgraded that year from "good" to "very good".

A second lounge was used as a "quiet room" where there was no television and the more active and talkative residents would go there. It was felt that this would be a better location for the blank canvas or "web window" because it would not have to compete with the television. This move proved successful, the system was set up on many occasions and never failed to engage the residents immediately. Carers who had been resistant to technology "*you're not trying to educate me are you?*" were also enthusiastic. One early session quickly became a slightly bawdy and politically incorrect game. A carer asked them what they wanted to see. "Men!" Gladys shouted. The term was entred into Flickr and the carer led a humorous conversation rating how handsome the various men were.

The images produced a range of discussions. They could also be thought of as tickets to talk for the residents. These systems were valuable resources for the residents – potentially turning individuals in an institutional setting into a much more intimate community. One Spanish carer did a search on her home village and showed photographs of the jazz festival that took place there each year. This was a revelation to the residents and the carer seemed delighted to share the information and images. Upon seeing a steam train in an unrelated search one resident described how her father had worked on steam trains for his entire life, this led to a long and lively conversation about steam trains and remembered journeys. A picture of Clifford's tower in York lead to a discussion of the infamous massacre of the Jews which took place there in the middle ages, this discussion was followed up on Wikipedia following questions about how the tower got its name. Although some of the residents were partially sighted or blind they were able to participate

in the conversations generated by the images although they could not see them.

SoundscapeRadio

SoundscapeRadio takes environmental / soundscape recordings from soundtransit.nl by reading that site's RSS feed and mixes them together into an automatic continuous soundscape composition. The system layers up to four different recordings at the same time, creating some fascinating interplays of sound and location. The whole cycle of playback takes an hour, after which the program takes another look at the soundtransit.nl rss feed and starts working again on the basis of what is now there. In this way, what can be played slowly changes over time (depending on how often users interact with soundtransit.nl). The programme runs on Applescript and an Apple Automator, streaming the playback from soundtransit.nl rather than retrieving the files and playing them back locally, so the system was shown to residents on a Macbook.

A demo of the system was set up in the increasingly noisy quiet room. The residents were curious to hear each sound journey and attempted to guess what each of the sounds were as well as reflecting on the places named in the title of each piece. A "web window" flickr search on the place names of the sound file added another dimension. One resident recognized a particular part of Canada from a photograph and said that she had lived there for six years. Nobody in the room appeared to have known this before and animated conversation followed. Poppy remarked that a relative had invited her to move to Canada when she split up with her boyfriend. She almost went but she made up with the boyfriend and married him. Again, this story was new to the residents and it seemed as if Poppy herself had not thought of it in a long time.

Residents in the main lounge were also curious to hear the sound journeys. Agnes, the very frail and blind ninety nine year old agreed to wear a pair of quite uncomfortable headphones to hear but she did not tolerate this for very long. Her on / off boyfriend Fred on the other hand listened eagerly to all of the files lifting the earphone to speculate about what kind of sound he was hearing "What's that then? Where? Is that a market then?" Fred also listened to all of the examples available although he drifted in and out of sleep as he did so.

The successes and failures of each of these relatively lo-tech interventions will inform the development of a bespoke system for the home.

Exhibitions

From Goya's image of the old people eating soup, to the negative portrayal of residential care homes in the media, the public face of the older old and care institutions is quite different to how the research team including our artists came to see the Jacob House, its residents and its staff. For all of the team and for the staff and residents it has been a learning process and for some it has been life-changing. As a way of sharing these experiences with the public, an exhibition of the work conducted by the artists, the children and the research team was held at the City Screen Cinema's

gallery. It featured framed photographs, paintings and drawings as well as a digital frame with photographs of residents engaging with Video Window, Web Window, Projected Portraiture and SoundscapeRadio. The exhibit was described in accompanying articles in the local press as an attempt to make the institution more "permeable".

Figure 10: Private view and press coverage

This phrase had originated in a design meeting and circulated in conversations throughout the project enough to make it into the press release written by the artists. A private view was attended by the children and staff of the care home though heavy snow meant that the residents could not attend as planned.

The exhibit was hung in the corridors and waiting area leading up to the main cinema screens and also up the main stairs in frames that usually advertised films or products. Here Preston placed quite formal photographs of the carers she had taken. In the place where a photograph of an actor or an advertisement might be expected was a portrait of a very ordinary looking young carer from Jakob House, further up the stairs was an ordinary looking middle aged kitchen worker. The location radically changed the meaning of the portraits transforming them into a critique on we usually choose to celebrate and who we generally ignore. The exhibit ran with James Cameron's Avatar was showing so there was a heavy footfall.

Of course, engaging with an artwork about a different generation is not the same as engaging with an older person. Following the exhibition at City Screen the exhibit was moved into Jacob House itself. For a period of three months the home was open to the public between the hours of 1 and 3 from Monday to Friday. A private view again included the artists and children but also workers from nearby offices. Their reactions were entirely positive:" *It's amazing. It shows it's nothing to be afraid of, just part of life." (Office worker. Field Notes)*. One of the office workers noted that she had often been curious about the place "*but there was always a barrier somehow*". Pictures were hung in the corridors but also in the quiet lounge along with a digital frame again featuring records of the work. This provided visitors with tickets to talk and the residents would proudly point out where pictures of themselves were hung. The manager of the care home invited her supervisors and enthusiastically explained that for her, the main reason for the exhibit was stimulation for the residents: "*they're over the moon*" she said.

INTERPASSIVITY

Interpassivity is a term which was first applied to discussions of interactive technology by the cultural critic and philosopher Slavoj Zizek [36]. One example of interpassivity is recording a film we don't have time to watch (Ibid.) "Although I do not actually watch the films,

the very awareness that the films I love are stored in my video library gives me a profound satisfaction, and occasionally enables me to simply relax and indulge in the exquisite art of far niente – as if the VCR is in a way *watching them for me, in my place*" [37]. This "far niente" or pleasant idleness may also apply to the laughtrack on a comedy. Here the studio audience does our laughing for us, saving us the trouble (Zizek 1999). The notion of inter-passivity has made fleeting appearances in HCI. McCarthy and Wright [21] for instance note that setting an iPod to random is an instance of inter-passivity. Rather than directly choose what music to listen to the user wills randomness and chooses to be passive. Inter-passivity is clearly an important aspect of the residents' experience of technology.

If a DVD recorder watches movies for us does this suggest that "video window" watches the weather for the residents? Or notices the changing seasons on their behalf? No. However, it is interesting to recall that one of the carers immediately saw the potential for the system to keep an eye on the residents on the carers' behalf. This was resisted but perhaps there is a sense in which the system does go outside for the residents, extending their view beyond the bounds of the garden glimpsed through the patio doors. There is undoubtedly an element of vicarious enjoyment in the audio journeys of "Soundscape Radio" and the views glimpsed through the "Web Window". The residents will probably not go to Texas, but the machine can do it for them and give them access to a part of the experience. They are not very likely to again climb the hills of the Yorkshire dales. But the " Web Window" gives access to aspects of place. Similarly very few of the residents have any interest in creating works of art, but the "Projected Portraiture" system allows them to participate in the production of art as well as engaging their young visitors.

Unlike art therapy the projected portraiture here required no activity from the residents. They were the subjects and receivers of the art created by the artists and children. But this was inter-passivity rather than passivity. As Berger and others have argued a portrait is a collaboration between an artist and a sitter [2].The Web Window might be thought of as a form of mediated interaction, where carers or researchers enter searches on behalf of residents. But the randomness of the resulting images and the consequent related conversations also mark this as a form of inter-passivity. The term inter-passivity then captures quite precisely an under-developed potential in computing technology – the exact obverse of interaction - which may be particularly well suited to the situation of the older old and designing for cross-generational engagement.

CONCLUSIONS

Like the project team, most of the people reading this paper will not be older old and will not have experienced what is like to live in a residential home. There are large distances to be negotiated in order to try and understand the lived experience of our older old participants and to respond to that understanding through design. As Wright and McCarthy have argued [34] a focus on lived experience, forces us to reframe our approach to 'knowing the user'

away from objectively and dispassionately observing them towards establishing relationships with them, relationships that can support the meaningful dialogue, empathy and shared learning that make change possible.

In this project, the research team was forced out of their professional identities as researchers. The involvement of the artists and the school children as co-participants and co-researchers, materially changed the meaning of our involvement in the Jacob House. The portraiture work offered a means of intimate engagement and evolved into a form of convivial engagement as we moved from sketchbook through tablets to wall projections. The children added a new set of meanings to our encounters bringing the kind of fun and energy that only children can. Having established wall projection as a meaningful experience for our participants it became easier then, to introduce the picture frame which was used to engage residents and staff with flickr. Each intervention evolved in a natural way from what had gone before, offering a continuity to experience.

If we have succeeded at all in enhancing our participants' experience of ageing through technological interventions, it is not by observing users, identifying needs, goals and activities, then specifying the requirements of design solutions. It is by spending time, living with them a little, and by letting our relationship grow to a point where we could respond empathically with something. The form of response was less of a solution to a problem and more like a gift [34] .

Philip Larkin captures very well the horror of old age in his cruel poem "*The Old Fools*" where he asks: "*do they fancy there's been no change, / And they've always behaved as if they were crippled or tight, / Or sat through days of thin continuous dreaming / Watching the light move? If they don't (and they can't), it's strange, Why aren't they screaming?"* It ends with the ominous final line "*we shall find out*". The poem is less about ageing and more about the comparatively young looking at the very old. There is an extent to which the young can never understand what it is like to be old. Empathy is essential but requires an imaginative leap. This paper has attempted to look beyond standard models of interaction towards inter-passivity and ludic systems for cross generational engagement.

ACKNOWLEDGMENTS

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