

# New approaches to banking for the older old

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## ABSTRACT

An eighty year old today is expected on average to live well beyond the year 2020. However the needs of the older old are seldom considered in relation to banking and financial services. This project started with a qualitative study investigating the meaning of money to a group of people aged over 80. Participants were asked to tell their financial life stories. This focus on biography allowed them to relate rich narratives that indicated enduring values and concerns. The findings of this study fed in to the next phase of the research which was to involve a groups of people aged over eighty in the design of new banking products and technologies to support their practices. We discuss the implications of this work in reference to the results we will soon be presenting to the banking industry, policy makers and the design/HCI communities, and also how these results could also benefit the broader community.

## Categories and Subject Descriptors

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## General Terms

Design, Economics, Security, Human Factors.

## Keywords

Banking, older old, cheques, paper.

## 1. INTRODUCTION

Today an eighty year old in the UK will live, on average, for another eleven years [4]. Indeed eighty to eighty five year olds make up the fastest growing section of the population in the world (United Nations 2002). This demographic are commonly referred to as the “older old” [3], though they themselves would probably not recognise the term.

In 2007, the United Kingdom’s (UK) Treasury put into place a financial inclusion strategy intended to ensure that ‘everyone has the opportunity to access the financial service products needed to participate fully in modern-day society’ [5]. It acknowledged that the rising numbers of older people, particularly the older old, in the UK was a central problem to be tackled by the new strategy. Not much has happened since 2007 and a recent report from Age UK concludes that the payments that older people consider essential are often difficult to make except using cash.

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"Although more people than ever before in the UK have bank accounts, this has not necessarily led to full financial inclusion and the focus is shifting to examine how the newly banked use their accounts. For example, advisers told us that bank accounts are often used solely as a method of receiving benefit payments, with budgeting and other payments taking place exclusively in cash." [1]

Further to this, for many older people accessing cash is difficult and almost one-fifth of people aged 65+ use others to withdraw cash for them and disclosure of PINs is common [1]. The project is working with the older old, their representatives, and financial service providers with the aim of suggesting new banking products and technologies to alleviate these issues and meet this age group’s desires.

## 2. Financial biographies

The project started with a small scale in-depth qualitative study investigating the meaning of money to people aged over 80. 12 people aged 80+ were asked to tell their financial life stories. In addition, interviews were conducted with care professionals at Age UK and experts from the financial sector. The aim of this part of the research was to understand how the 80 and 90 year olds that we talked to used cash and banking facilities, also their values and concerns, and then to present the this understanding in a way that allows the designers of new banking facilities to see the this aspect of their world through the eyes of our participants.

Interviews lasted between two and three hours and participants enjoyed relating their life story and relaxed enough to share some quite intimate details with the interviewer. The interview transcripts were analysed through a grounded theory methodology [2]. Data were summarised with open-ended codes. Four themes emerged from this analysis; materiality, control, locality, and transferability. Full details of the study can be found in [6], and a brief summary of the four themes follows.

**Materiality** - The participants grew up in a period where financial transactions were cash-based. They were paid in cash, rent money was collected door-to-door and everyday perishables such as milk were paid for on the doorstep. This theme had to do with how they still rely on the materiality of cash to manage their money and provide the flexibility they need for payments. This despite their recognition of the risks involved.

**Control** - Control over finances and control over themselves appears as a central theme to the lifetime of financial experiences of the participants in this study. They are very wary of debt and many of our informants keep meticulous records of even small monetary transactions.

**Locality** - The participants in the study had spent most of their lives within a highly localised area. It was not unusual for people to have lived within the same neighbourhood their entire lives, going to school and working in nearby streets. Similarly, the

services they used—financial or otherwise—were situated within the neighbouring locale. This familiarity and sense of community influenced many of their dealings with money.

**Transferability** - The interviews unveiled many of the participants' intimacy in dealing with other people's finances and, in later life, having others deal with theirs. The transition to an economy dominated by electronic transactions performed through passwords and PINs has seen the continuation of these sharing practices. There is here a very wide gap between theoretical banking procedures as envisaged by the designers of these systems and actual procedures.

### 3. Participatory design

The results of the ethnographic study informed the content for a series of Participatory Design Workshops with eleven people aged between 80 and 87. Over a period of four months we met with these groups in four separate workshops.

#### 3.1.1 Workshop 1: Discussion.

The first workshops began with a discussion about what banks people used and how they manage their finances. The participants were encouraged to question one another and the researchers on their behaviours and habits. This would often lead to useful dialogues between the older participants and younger researchers, highlighting the generational differences in financial knowledge.

#### 3.1.2 Workshop 2: Design postcards.

At the end of workshop 1, participants were each provided with a set of ten 'design postcards' (Fig.1). These were A6-sized folded cards with an illustration, a sentence-length description of an idea, and some quotes from the biographies relating to the themes of materiality, control, locality and transferability. The cards asked two questions for the participants to respond to and provided space for them to construct their own idea.



Fig. 1 Banking 'design postcards'.

Two weeks after giving the participants these packs, we met for a second workshop where we discussed their reactions to the ideas. The discussion were valuable in both providing the researchers a clearer understanding of the values and needs of this group, and in providing the participants the space to form their own ideas. Key areas for development that were identified included biometric-based payment systems, the keeping of records and confirmation receipts, and disguising sensitive information. Most importantly however was a consensus that cheques are of high importance for many of the older old, and that they should not be abolished (as was threatened, at the time of the workshops).

#### 3.1.3 Workshop 3: Inventions

In workshop 3 we used components of various technologies that related to some of the ideas developed in the previous workshops as materials for participants to co-invent new ideas with the researchers. The technologies brought to these sessions included

fingerprint readers, digital pens, voice recorders, RFID cards and readers, and a visualisation of real-time transactions. These were not demonstrated as solutions to the discussions in previous workshops but rather as prompts to invent new ideas based upon the problems, needs and desires of the participants.

### 4. Design outcomes

Following on from the inventions workshops, we have thus far developed a number of design outcomes that have been co-developed with our participants (Fig.2). First, the Biometric Daemon is a multi-biometric device that uses fingerprint readers, gyroscopes and accelerometers to give the owner access to personal security information. Secondly, we have put into place a service called 'Cheque Mates' that receives cheques from people and actions transfers of money without needing to visit a bank. Thirdly, expanding on the Cheque Mates service, we have developed a number of 'Digital Cheque' prototypes using Anoto digital pen, scanning and crowd-sourcing technologies.

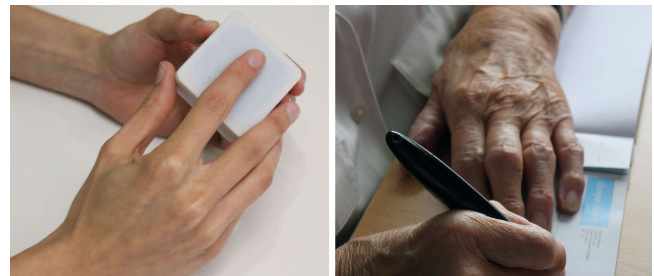


Fig.2 A developmental prototype of the 'Biometric Daemon' (left) and the 'Digital Chequebook' (right).

### 5. Conclusions and further work

The project is currently in the final phase of participatory design workshops, where the ideas co-developed with the over-eighties are to be further refined and iteratively developed. We still have more design spaces to explore, particularly in relation to record keeping and confirmations of transactions, and in memory aids for security information. Following this, the final stage of the project will focus on impacting upon the banking sector and on policy within the financial, security and design fields.

### 6. Acknowledgements

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