

## The joy of cheques

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An electronic cheque which eliminates the need for costly processing by banks but preserves the simplicity and ease of a traditional cheque book has been designed by a team of academics in the UK.

Drawing on the life experience and concerns of a group of 80 year olds in the Newcastle area, the team from York, Newcastle and Northumbria universities have come up with a novel way of making quick and easy electronic transfers, while preserving the value of a paper cheque as something physical to be handed to the recipient.

The system uses a cheque book identical to those currently issued by <u>banks</u> except for the greyish background on each cheque which is in fact billions of tiny dots laid out in a specific pattern.

Using widely available digital pens – the account holder writes the cheque and as they do so a camera in the pen tracks the position on the



paper, 'reading' the cheque as it's written. Once complete, they tick a box – the only difference to a normal cheque – and the information is transmitted directly to the payee's bank account.

The research, carried out at Newcastle University's Culture Lab, is being presented today at the Computer Supported Co-operative Work (CSCW) conference in Seattle.

Dr John Vines, of Newcastle University, said that since starting the project, which is funded by Research Councils UK through the Digital Economy Theme, the team had quickly realised this was not just an 'older' issue.

"Sending a cheque in a Christmas or Birthday card is something many people do – not just the older generation. It's easy and safe but it's also personal," he explained.

"The groups we worked with to design our system felt transferring money into your loved-ones account was very impersonal while a cheque was more meaningful.

"The beauty of this system is that it is a safe and cheap electronic transaction for the banks but it's a physical paper-based transaction for the customer."

Project lead Professor Andrew Monk, a psychologist at the University of York, said it was the "clear understanding of the value of cheques" held by their 80 year old volunteers that had been influential in developing the idea.

"Many of us still use cheques and in some cases the only alternative is to hand over cash which often isn't ideal," he explains.



"For the banks, it's not only the time and cost of processing cheques but, at present, where you store them after they have been processed.

"But for the bank's customers – and particularly the older generation – cheques are seen as a vital part of their financial independence. They provide a permanent record which means they can easily keep track of what's being spent. The people who worked with us also valued the experience of handing over a signed cheque to a named individual rather than the anonymity of online transactions.

"The beauty of our design is that you not only have something physical to hand over to the recipient, you also have a cheque book stub as a record."

Cheque use has been falling in the UK since 1990. So, whilst the number of cheques being written each day is still high – around 3.5million a day – this is down from 11million in 1990.

However, a study by Age UK last year entitled The Way We Pay revealed 73% of people over 65 in the UK still frequently use cheques.

The topic of cheques was suggested by the 80 year olds in the research study group to address their concerns about the inaccessibility of banks and how they would manage their finances if cheques were scrapped or banks started to charge for processing them.

Modern payment systems usually assume users are a typical younger adult with some level of technical expertise but Paul Dunphy, a computer security researcher from Newcastle University's Culture Lab, said "real life isn't like that."

"It is important that people are supported to carry out day-to-day tasks such as paying a bill using a procedure they can relate to their past



experience. What this system illustrates is that electronic banking doesn't need to be done via a computer or smart phone – there are alternatives," he says.

This research builds on Newcastle University's reputation as a world leader in research relating to Aging and Health, addressing the challenges of aging in order to make the very most of our increasingly long lives.

Michelle Mitchell, Charity Director-General of Age UK said: "We're delighted these researchers asked older people what they need and want in this critical part of daily life, paying bills and making payments.

"Hopefully banks will now see the potential and invest in this kind of innovative design which preserves what many people find invaluable about cheques but also makes the most of modern technology."

Dr Vines added: "The larger lesson from this story is that we all need to listen carefully to what 80 and 90 year olds have to say to us.

"They grew up in a time when financial practices were quite different to the ones we are used to now but their values are pertinent to all of us."

Provided by Newcastle University

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