

# **EURO Soups Position Paper**

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I have been working in the usable security area for the past 9 years. My initial work was in alternative forms of authentication, with Antonella De Angeli. Within a few years I branched out into a number of related areas. I have collaborated with a number of people in academia (Antonella De Angeli (UMIST), Marc Conrad & Marcia Gibson(Luton), Elme Smith (Unisa), Ron Poet & Paul Cockshott (Glasgow) and Mike Just (Glasgow Caledonian)) and industry (NCR, NHS, Amaze Ltd, Amazon, ABSA South Africa).

I am supervising six research students working in this area, and I chair our School's TRUST group, which hosts talks covering all aspects of usable security (<http://www.dcs.gla.ac.uk/trust>)

My main areas of interest are as follows:

## **Alternative Authentication**

I have a strong interest in alternative authentication mechanisms. I proposed, developed and evaluated the Jiminy locimetric authentication mechanism with Antonella De Angeli. Latterly I have developed other mechanisms, including Dynahand [1], Tetrad mechanism [1], Mikon Authentication and MusiPass. We summarised our findings in a CACM paper.

## **Cueing Mechanisms**

Another way to approach the problems people have with passwords is to provide cues. In this area I have proposed cueblots and colour-coded PIN pads. We have also been working on a picture-based cueing mechanism to replace traditional challenge questions .

## **Privacy**

My PhD student, Dora Galvez-Cruz, proposed a mechanism for maintaining privacy in e-grocery shopping .

## **Security Policies**

I have been working with the NHS to determine the efficacy of their policies, and their effects on employees. We have published preliminary work .

## **Electronic Voting**

Paul Cockshott and I have proposed a mobile-phone-based electronic voting mechanism called Handivote. We have carried out some pilot studies and are currently seeking funding to widen our research.

## **EUROSoups – A new direction**

The usable security area is relatively new in the world of Computing Science/HCI. With the advent of SOUPS we have a venue to publish our work. However, this conference is somewhat North American in focus, and it would be ideal to have a sister conference to attract participants who perhaps cannot afford to attend SOUPS but who nevertheless are doing exciting work in this area.

I would like to see a PhD consortium as part of this conference for various research students working in this area in the UK. I would like to be involved in organising such conferences and I am also willing to review papers.

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