Taking research to members of the public

Recipients of a Society Public Engagement Grant describe their work developing a forensic exhibit

It is the mission of Research Councils and other funding bodies that their investigators communicate findings to the public. Hands-on science centres provide a great outlet to contribute to this objective, as well as to potentially contribute to impact of research. Here, we report on our experience in communicating our work on memory for faces in three Science Centres, using an exhibit built around the EvoFIT facial-composite program.

In 2006, with funding from the Engineering and Physical Sciences Research Council (£30k), we built a themed exhibit with the Sensation Science Centre in Dundee. In the main part of the exhibit, which was kitted out as a 'police station', a visitor would see a video of a man pretending to commit a crime and construct a composite of his face using a simplified version of our EvoFIT facial-composite system. Visitors were asked, using written and spoken prompts, to select faces from an array of alternatives, with selected items being 'bred' together, to allow a composite to be 'evolved'. The exhibit then presented a picture of the man's face alongside the evolved composite, example composites created by previous visitors and an average ('morphed') composite from the last four visitors. The exhibit took about five minutes for a user to complete and was accompanied by a 'Research Lab', a station which explained more of the underlying science: themes around evolution, computer-based generation of faces, forensic use of composites, etc. We expected the exhibit to last five years but, partly due to the robustness of the hardware, it remains today and is still popular.

To update the exhibit (including improvements emerging from research in the last few years: e.g. Frowd, 2014) and to disseminate it more widely, the British Psychological Society awarded a 15-month public-engagement grant of £8,500. The grant was to develop the exhibit for installation in the Glasgow Science Centre and the At-Bristol Science Centre. Most of the money was spent on computer hardware and touchscreens. The science centres provided purpose-built tables and graphics along with staff time to help develop a program that would engage the public. Laura Foord, a UWE final-year student, carried out an evaluation of the original Dundee Science Centre exhibit in At-Bristol to assess the impact of the planned improvements; a similar evaluation was conducted at the Glasgow Science Centre.

The main changes allowed visitors to (i) select hair and other external features last (Frowd et al., 2012), and (ii) adjust their evolved face using a number of holistic scales for attractiveness, weight, age, etc. (Frowd et al., 2010). Staff at the Glasgow and Bristol science centres were extremely helpful in suggesting changes to the program to make it work well on the exhibit floor. The aims were also to speed things up, now only taking about three minutes, and to remove voice prompts, to reduce general noise in the exhibition. The At-Bristol centre also use an armband system to upload user-specific content to their 'Explore-More' web pages – in particular, a visitor's evolved face. How the program was changed was presented by Frowd et al. (2013) at the Emerging Security Technologies' conference in Cambridge (available for download at www.EvoFIT.co.uk).

Figure 1.

Figure 2.

Figure 3.

The “Eye Witness” exhibit. A visitor selects the top four faces from three screens of eighteen alternatives (Figure 1). When a visitor has evolved a face, he or she can make overall adjustments to it using the holistic tools (Figure 2). Lastly, a visitor can judge the likeness in the presence of a photograph of the target (Figure 3).

This final version of ‘Eye Witness’ in At-Bristol was evaluated by another UWE final year student, Laura Russell. It was found that the exhibit was user friendly and compared well with other exhibits. The study showed that visitors understood that the EvoFIT programme was to help the police catch criminals. However, it did not communicate much more about what psychologists have discovered about face processing, such as how it involves both feature and global processing – this suggests that researchers may like to work more with science centres to provide relevant hands-on experiments. This kind of activity can provide considerable *reach:* for example, the total footfall at both the Glasgow and Bristol centres is estimated at 1.6 million over the next five years.

This year, we also presented developments at the British Interactive Group, held at the Natural History Museum in Oxford. This is a super three-day event for people who work in science centres or outreach activities, and is a great networking opportunity for anyone wishing to bring science to children, adults and the public at large (http://www.big.uk.com/).

It is important to help spread an understanding of what psychology is and what it can do to improve our society. There are many opportunities and much support available. It has been a pleasure to work with the BPS in furthering this aim, and we would encourage other members to consider applying for funding to support public engagement.

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