

the nearby Glasgow Science Centre, and finding ways to make the materials more attractive and engaging is important to help improve engagement and outcomes. From an initial concept of creating an AR booklet, an interactive print poster format was decided on. This benefits from the larger scale, visual layout and the low requirement for strict narrative ordering further favours this approach.

A series of posters were developed, with a range of textual, 3D modelled, and animated AR content. These help explain what RA is, and to highlight how RA affected joints compare to healthy joints.

Rheumatosphere AR was shown at a 'Science Lates' public event at the Glasgow Science Centre in the summer of 2018. A set of posters were displayed and tablet computers with the companion app pre-loaded were made available for members of the public to use to explore the posters (see Fig. 1). Feedback was highly positive, supporting the initial hypothesis that interactive print can help promote public engagement with science.

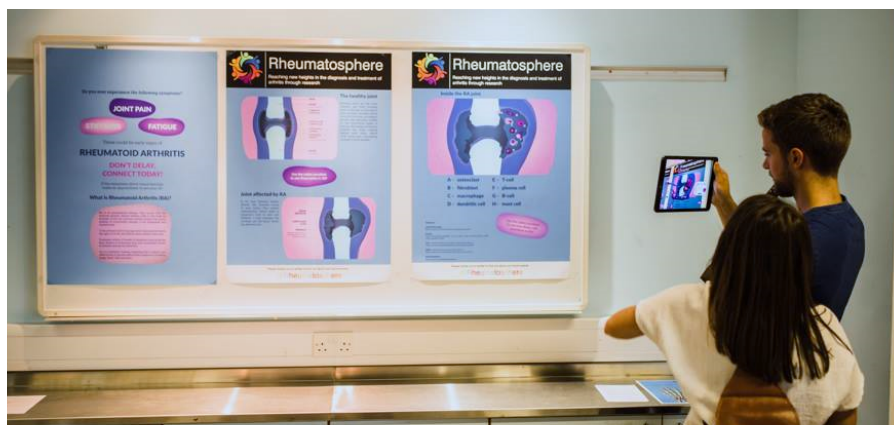


Fig. 1. Visitors at the Glasgow Science Centre using the application to view augmented reality content over the posters. Image: Glasgow Science Centre.

Key advantages of the approach are improvements in engagement and the ability to place information into the companion app allowing for a reduction in the information contained in the posters themselves. Disadvantages are increased development time and costs and a possible decreasing return as AR becomes familiar or even routine.

References

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2. Nadolny, L.: Interactive print: The design of cognitive tasks in blended augmented reality and print documents. *British Journal of Educational Technology*. 48, 814–823 (2017).