

Visioning Catchment Futures: Bringing the Landscape to Life

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Research objectives

To establish to what degree people understand the importance and the location of ecosystem services in catchments

To investigate how scientific information might be translated into practical applications.

Key messages

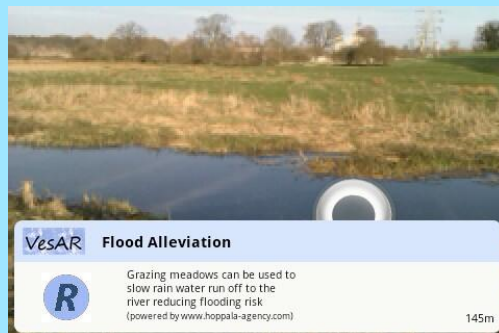
- Use of technology engages people otherwise unused to visiting the countryside
- Innovative media technology can be applied as a catchment engagement tool
- Location and importance of catchment ecosystem services can be communicated

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Description of research/methods

Augmented reality (AR) on smartphones is used to show the location of catchment ecosystem services (described as “nature’s benefits” to improve engagement). The viewer sees the landscape through the phone's camera, overlaid (augmented) with additional information to locate and describe the ecosystem services in view.

The (AR) application was developed using free online applications (Hoppala & LayAR). Ecosystem services were identified using the National Ecosystem Assessment (2011) and Millennium Ecosystem Assessment (2006). Hoppala was used to digitise the location of the ecosystem service and add text and imagery. Various parts of the smartphone are used: GPS determines the exact location of the device (within a few metres) and the compass and accelerometer determine the direction of view (see image).



A pilot study in June 2012 compared the AR application to a printed leaflet, with participants taken on a short, predetermined walk. Preliminary results indicate participants gained new understanding of the landscape, with one describing the tool as “*uncovering the hidden processes which go on without anyone seeing them – like a circuit drawing*”. Improvements to the AR technology were also suggested, such as an audible alert of new information to allow users to focus on the landscape rather than continually checking the screen.

The research will now be extended into other catchments to engage more people with the ecosystem services that catchments deliver and the need for sustainable multi-functional catchment management.

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knowledge

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