

# Labella

Teresa Almeida, Gavin Wood, Dean Saraf, Madeline Balaam  
Open Lab, School of Computing Science  
Newcastle University, Newcastle upon Tyne

t.a.almeida, g.wood2, m.a.mohammad-saraf, madeline.balaam@newcastle.ac.uk

## ABSTRACT

Labella is an augmented system that employs non-traditional on-body interactions and explores the potential of using a mobile device as an interface to discover and learn about hidden parts of the body (figure 1). The system is designed to support pelvic fitness in women. It blends wearable and mobile technologies with modern lifestyle by combining a pair of underwear for embodied playful interaction, and a mobile phone as a tool for embodied discovery.

The mobile app connects to the female body through the recognition of bespoke printed markers on specialist underwear (figure 2). We explore AR as a tool to help reveal the body in a playful way.

We designed a system that aims to provide an enhanced experience to women in gaining awareness of their pelvic floor and to promote pelvic fitness. We use humour to address this topic of taboo and explore how embodied technology can contribute to make learning more accessible. By augmenting perception, our altered reality device makes visible the inside out (figure 3). It also shows potential to enhance engagement in intimate care practices.

## Categories and Subject Descriptors

• Human-centered computing~Interaction Design.

## Keywords

Wearables; wellbeing; learning; mobile technology; intimate care; on-body interactions.

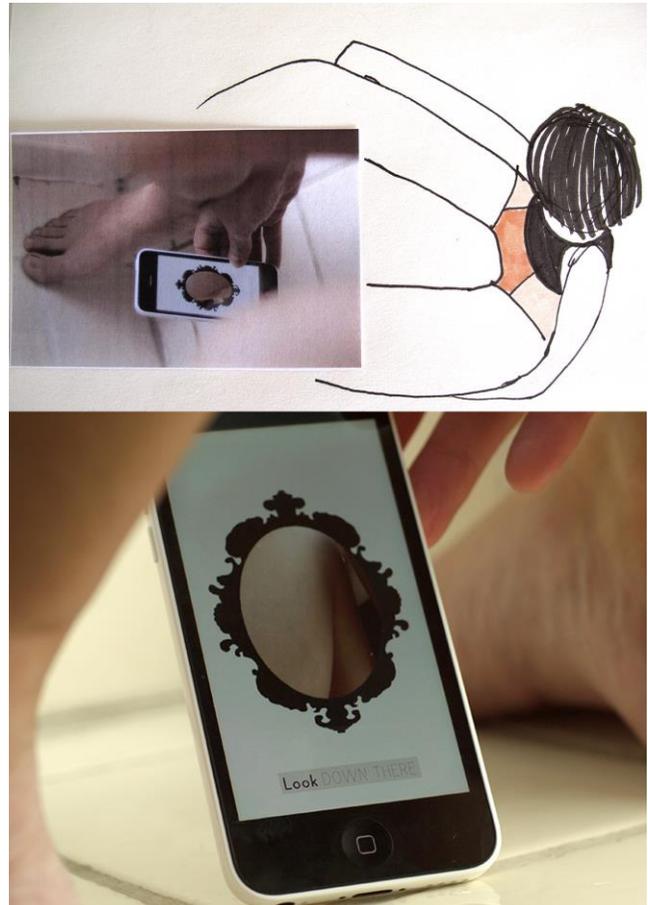


Figure 1. The surface printed visual marker is recognised by the camera phone starting a series of onscreen interactions that promote self-discovery.



Figure 2. Fabric swatch, surface printed bespoke visual marker.

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author.

Copyright is held by the owner/author(s).

*British HCI 2015*, July 13-17, 2015, Lincoln, United Kingdom

ACM 978-1-4503-3643-7/15/07.

<http://dx.doi.org/10.1145/2783446.2783626>

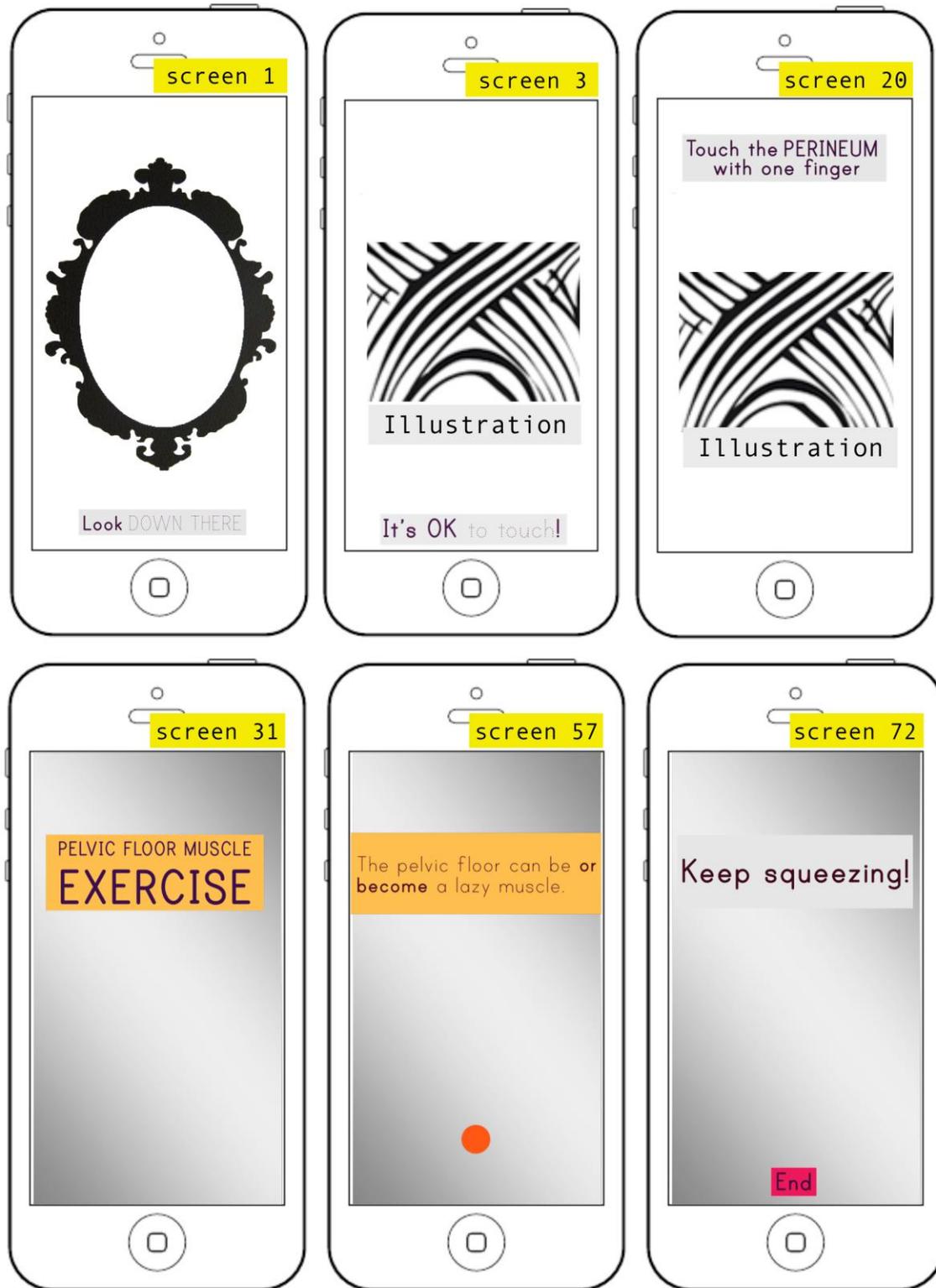


Figure 3. Labella: A selection of screen designs