Chameleon

Overview

Many people value the ability to have quick and frequent sight of their mobiles when in public settings. However, in doing so, they expose themselves to potential risks, ranging from being targets of robbery to the more subtle social losses through being seen to be rude or inattentive to those around them. In nature, some animals can blend into their environments to avoid being eaten or to reduce their impact on the ecosystem around them. Taking inspiration from these evolved systems we investigated chameleon-like approaches for mobile interaction design. Our Chameleon device prototype is an Android app that takes a photograph of the surface on which the phone is to be placed, and then allows the user to zoom and pan the image to match the underlying pattern. When a notification is received, a colour in the image glows for several seconds to discreetly alert the user, before returning to its initial state. This extended functionality provides the device with a dynamic, environment-dependent appearance that protects against theft by making itself hard to see, but at the same time allows discreet interactions.
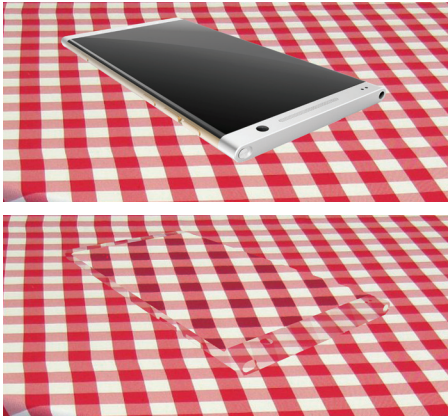

Chameleon devices can change colour to blend into their surroundings, while also providing subtle glowing cues for notifications that not only respect their users' privacy, but also minimise social interruption.

User Interaction

Optically camouflaged mobiles: hiding in plain sight on everyday objects. Left: a Chameleon device "camouflaged" on a patterned surface. While the outer fascia of the phone is still visible, the screen displays an exact replica of the object underneath. Middle: the user discretely waves his hand over the disguised device to check his notifications. Right: subtle visual alerts are provided by changing the colours in the image. In this example the dark blue background glows lighter to indicate that a notification has been received. The colour that glows indicates the type of notification (e.g., email, SMS, social media,etc.).

This tool is part of the Digital Inclusion and Participation Toolkit. For more information see:

digitalinclusiontoolkit.org

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