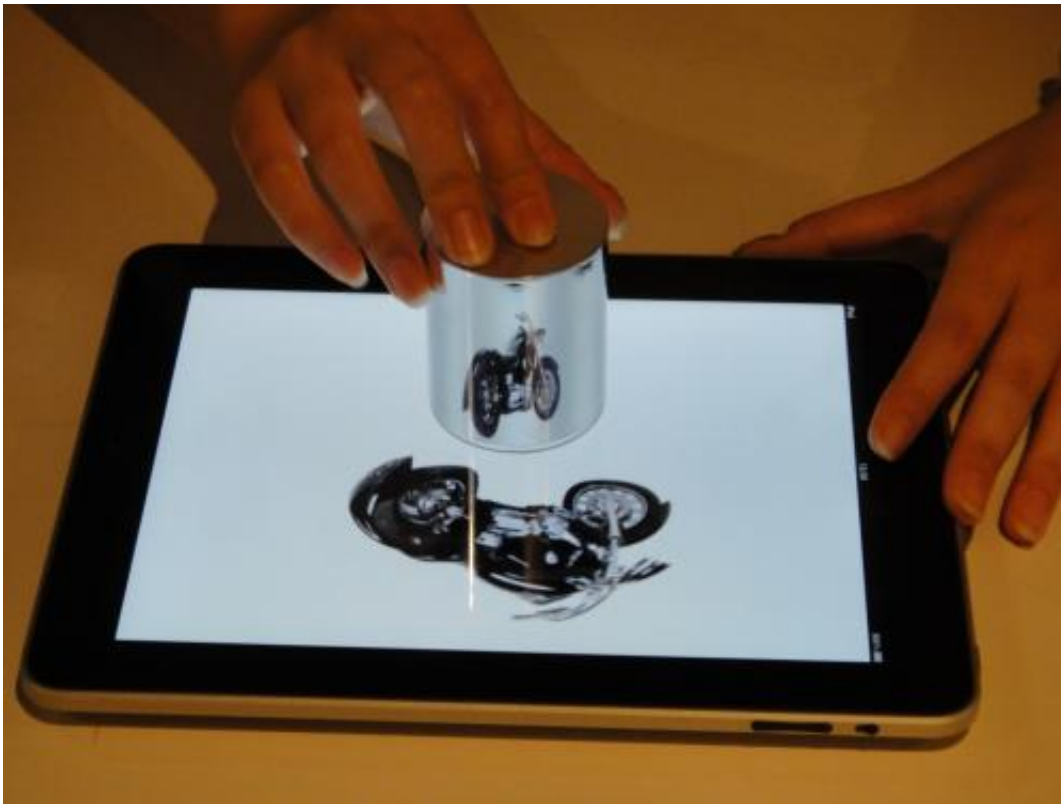


# Researchers showcase cylindrical mirror on iPad

October 30 2011, by Nancy Owano

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(PhysOrg.com) -- A research team from a women's university in Japan is developing a cylindrical mirror for use with the multi-touch iPad. The mirror could send online shoppers into new optical highs. The group, from Ochanomizu Women's University, recently demonstrated their mirror display. The device makes use of what they call

"Anamorphicons," inspired by the term used for the optical illusion method of mirror anamorphosis.

The cylindrical mirror display works its magic when the user rotates the mirror on the [iPad](#) so that objects reflected in the mirror are also rotated. This creates a 3-D illusion. An aluminum cap controls the cylinder. A team member detailed how it works in a DigInfo video.

Inspired by the anamorphosis method, the team worked on what they called an interactive system featuring their Anamorphicons. "The coordinates of two points on the bottom of the pillar are obtained by an iPad application. The coordinates of the pillar and the rotation angle are obtained relative to them, and the content is provided accordingly."

The pictures distorted by anamorphosis can be generated by converting them to polar coordinates using image processing software. The screen can switch among 70 pictures of an object from different angles, which are converted to polar coordinates and rotated in the mirror.

As an invention looking for an application, the university team is practical in suggesting, in the video demo, that their cylindrical mirror would be especially useful for online catalog shopping. Users, whether hunting for coats, wigs, or better mousetraps, like to see the object of their interest from all angles, front and back. Such a viewing experience on an iPad display makes shopping sense.

In fact, Miss Boo created a stir for the right reasons years ago, as an early avatar guiding online viewers through their online shopping with clothing views that could be rotated so that viewers could see more details in the clothing item. Then in 2000 Miss Boo created a stir for all the wrong reasons, in news that the short-lived shopping site was going bust. The Boo.com site was upheld thereafter as a management case

study of a failed dot.com attempt.

The cylindrical mirror for the iPad, however, is a reminder that there is always room for new technologies in new places that can pump up the online retail viewing experience.

"Looking at objects in an online shopping catalog through 360 degrees can already be done with Flash. But that's 2-D...I think it can be hard to truly get a feel of the item. Now, we can project information onto 3-D objects, and let users manipulate them by hand in a tangible fashion. So we think this system could be used to make shopping sites more user-friendly."

**More information:** via [Diginfo](#)

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