

Virtual experiences can cause embellished, false memories

December 18 2006

The next time you're in the market for a new camera, it might be best to read about the product's capabilities in a brochure rather than taking it for a test-run in an interactive, computer-generated virtual world. New research finds that's because while Web sites offering object interactivity may improve vivid mental images compared to those with simple static pictures and text, those virtual experiences can lead to the creation of fabricated recollections that pose as memories – commonly referred to by psychologists as false positives.

The study by Ann Schlosser, an associate professor of marketing at the University of Washington Business School, showed that virtual experiences may help improve true memories but actually lead most people to think a product – in this case a digital camera – could do more than it was capable of.

"Although learning through interactive experiences with a product is vivid and can enhance knowledge, it can create an illusory sense of competence," Schlosser said.

Schlosser tested how well people could use a camera after studying its capabilities by exploring its features through an interactive simulation or as described in text and photos. She found that virtual experiences can be a double-edged sword: While they are generally better for helping people retain information, they often cause people to imagine features and functions that don't exist.

As part of her study, Schlosser had 173 undergraduate students learn how to use a digital camera through a virtual, object-interactive site or through a site featuring simple text and static pictures. At the object-interactive site, participants could interact with the product by rolling the cursor over it and clicking on its image to produce changes and gather additional information about it. The picture site contained the same information but in a storyboard format that did not allow any user interaction. The students then were given a survey and asked whether certain digital camera attributes were present or absent on the camera they viewed.

Schlosser found that a higher proportion of false positives were made by those who visited the object-interactive than the picture site, meaning that most people believed the camera had features that did not exist and could perform functions that it really couldn't do.

"False positives seem to occur because people determine whether a feature is present by retrieving and searching a mental image for it," she said. "Because the retrieved image is more vivid for those who visited the object-interactive site, they experienced greater confusion regarding which elements of this image are real or imagined, which led to more false positives."

When evaluating an advertisement designed to educate consumers about a new product, marketers often try to determine whether consumers remember information presented in the ad – a true memory – but neglect to assess whether they incorrectly remember information that was not presented – a false memory. Based on this study, Schlosser determined that communications tools that elicit vivid mental images can improve certain true memories while increasing false memories.

Companies that offer interactive demonstrations to consumers could ultimately suffer from this kind of marketing, she said, because

consumers who discover that the product does not have attributes generated through false memories are likely to feel misled by the company and be less inclined to buy it.

Source: University of Washington

Citation: Virtual experiences can cause embellished, false memories (2006, December 18)
retrieved 9 April 2024 from
<https://phys.org/news/2006-12-virtual-embellished-false-memories.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--