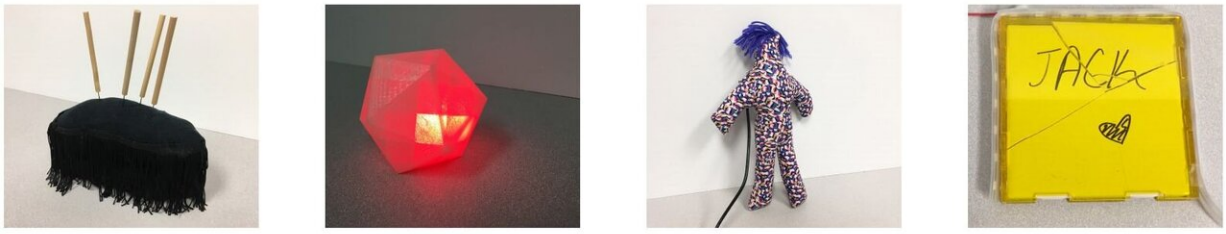
Making a case for robotic objects as anger outlets

May 8 2019, by Nancy Cohen



(a) Object 1 (b) Object 2 (c) Object 3 (d) Object 4

Cathartic Objects. Four objects that were designed for interactive expression of negative emotion through slow, reflective, forceful or verbal cathartic interactions. Credit: Michal Luria, et al.

Coochi coo. Robots have undergone impressive designs and engineering for social use, manifested in puppy-like robots with expressive, blinking eyes, to little space robots. These little pals and helpers appeal to the home-confined elderly and children. These are social robots designed to understand and respond to cues.

Flip it.

A research paper said, "not much research has gone into designing interactions with technology what would support behaviors of destruction and catharsis. This project focuses on objects that are designed to support negative expressions of emotion."

The research project is derived from previous work that included a theoretical review of the historical and cultural background of destruction, and created a destruction robot for creation, catharsis and emotional release, iNkondi. It is a robot-doll that is interacted with by inserting pins into its body.

The team looks at robotic objects designed to be beaten, rained on with angry words and stabbed. How many times? No mercy. Knock yourself out, or better still, knock out the object better until you feel better.

A paper about this type of robotic objects was prepared in time for a human-computer interaction conference in Glasgow. Carnegie Mellon University researcher Michal Luria talked to *IEEE Spectrum* about their paper, "Challenges of Designing HCI for Negative Emotions." Authors are Luria, Amit Zoran and Jodi Forlizzi. Affiliations as per the paper are Carnegie Mellon's HCI Institute and (Zoran) Hybrid Lab, Hebrew University.

Yes, this project focuses on objects that feature destruction and catharsis. Well, at least the robots proposed would be non-anthropomorphic. The authors maintain psychology research shows that engaging in negative emotions can improve well being.

Hnh? A reader reaction in *IEEE Spectrum* mirrored what many may question: How can anger release supported by tech possibly help the person when there are alternatives such a anger management and meditation?

"I would not support a company that build [sic] machine which get hit by a human because that person is to [sic] lazy or stupid to find another method to defeat anger. The only benefit of that video is to see that humans can be very sadistic."

Find another method? Her thoughts indicate awareness that encouraged expression of anger in this manner may be controversial.

"I think we need to find a way to safely conduct this kind of research so we can better understand the potential consequences or benefits. Catharsis has been controversial since its early days, but recently researchers have been finding that physical expression of anger in particular contexts, or combined with reflection can be beneficial."

The team noted the idea of catharsis persists in people's beliefs in both historical and modern-day expressions. "Recent studies have also shown that venting can improve perceptions of fairness and can help relieve physical pain."

The designs she chose for her prototypes had to be expressive, but "very non-anthropomorphic." Her hope, she said, was for a creature you interact with, nothing like a human, yet "can still give a sense that it absorbs your pain, it might work."

More information: Challenges of Designing HCI for Negative Emotions, www.researchgate.net/publicati … or_Negative_Emotions