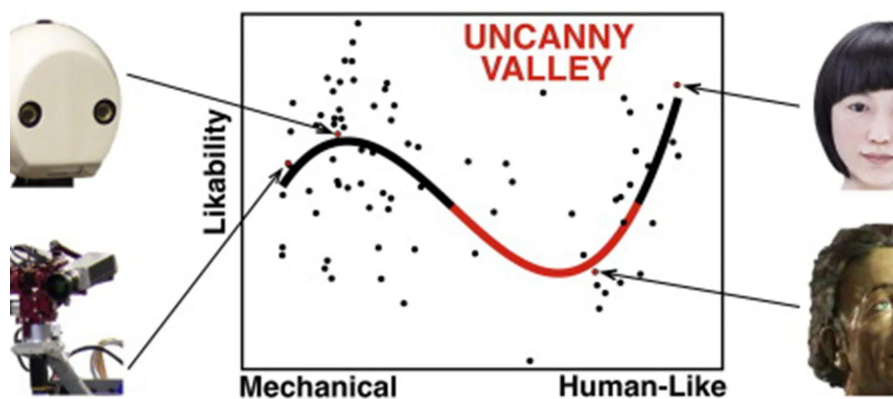


David Raxa

Project Research Proposal: The importance of Designing Human, but not Too Human

INTRODUCTION

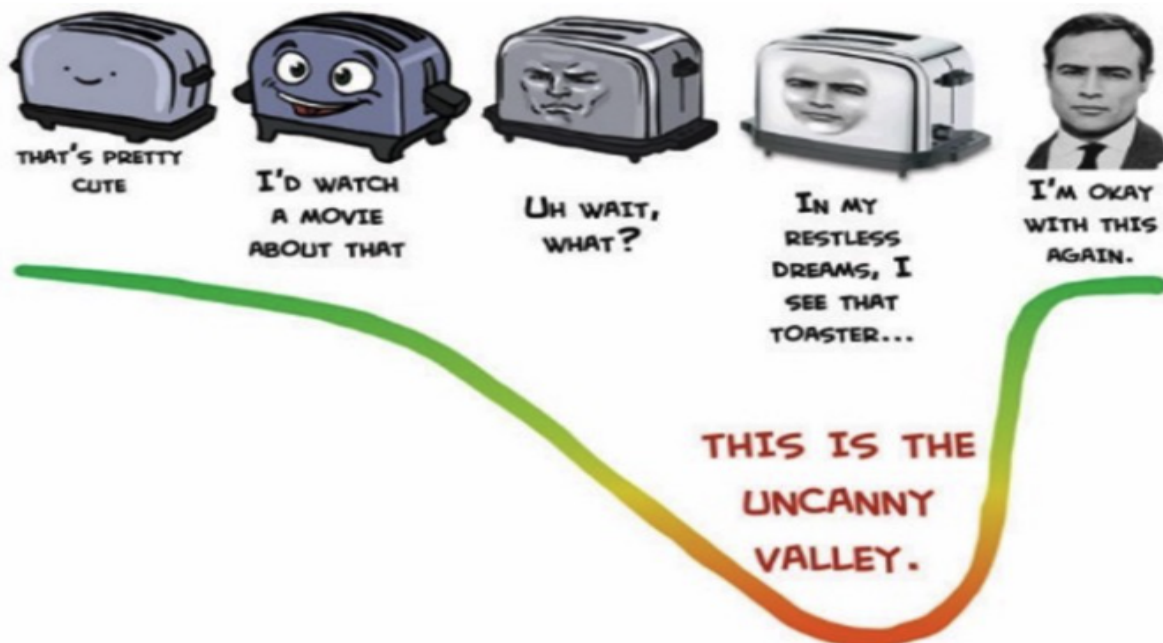
When designing a product, it's important that the user is able to connect and relate with the item. What better way to connect emotionally with the product than with a face? Toy creators use our psychological nature of nurture by creating proportionally similar designed products akin to young children and babies. Large heads, large eyes, soft edges, and soft features are methods designers use to abstractly relate their toys to our experiences, thus invoking an emotional response from its users. An abstract idea of a face in a robotic object not only adds a sense of presence, but also builds empathy for its users. However, as we continue to design emotive toys and robots, there's a chance of uneasiness that makes us think: "that's too far". That's where we meet the theory of the uncanny valley. The uncanny valley describes the relationship between human-like appearances between robotic objects and humans. This theory is important as it describes the scale that designers must look into when designing products from toys to artificial intelligence. Although it is important to design human, it's also important for us not to design *too human*.



BACKGROUND RESEARCH

Humans are nurturers by nature. Rounded heads, small size, big eyes, are features of our pets, children, and small babies which gives nurturing responses to our brains, no matter the age. Why else do toddlers love to cuddle that small teddy bear whenever they leave? According to an article by mentalfloss, “In 1943, Nobel laureate Konrad Lorenz, one of the founding fathers of ethology (animal behavior), proposed that features like a rounded head, small size, big eyes, promote parental care. This nurturing response can serve to enhance offspring survival, and has been described as a fundamental function of human social cognition” (mentalfloss.com). Therefore, it’s empirical that designers who want to create products with emotion will imitate these characteristics that humans adore. However, simply additionalizing a face simply won't alleviate all of their concerns. There is a balance between having human characteristics, and becoming human-like.

When designing a product or artificial intelligence with emotion, there are therefore two options presented before you. Either creating something child-like and non-violent, or perfecting a product that humans will undoubtedly perceive as conscious. Any sort of design that is put in between will likely cause uneasiness towards the user. This balance of right - wrong - right is theorized as the Uncanny Valley. The uncanny



valley describes that when the human-likeness of an object increases, our sympathy increases as well.

However, too much realism causes uneasiness and strangeness.

An example of this theory includes Telenoid. Developed by Osaka University and ATR, the Telenoid robot is a video conferencing tool that transfers conversation from the speaker to its user, using its speakers and ai. However, these speakers are illustrated as a mouth and 80 cm figure. The telenoid robot is a ghost-white colored humanoid with stubby limbs and missing legs, imitating a strange and creepy image. To many, this odd design seems unsettling because of its likeness to human features. This design easily falls into the uncanny valley as many would rather avoid this product entirely.

Other examples of this theory may not limit itself to just robots.



One case includes *Cats*, a film that featured humanoid felines imitating human-like movements as well as cat-like motions. The movie was poorly received because of its eeriness and weird hybrid

combination. This is because the movie attempted to combine characteristics of different entities, thus falling into the uncanny valley.

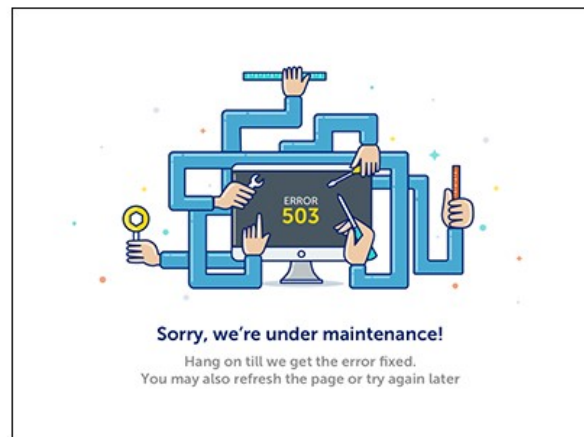
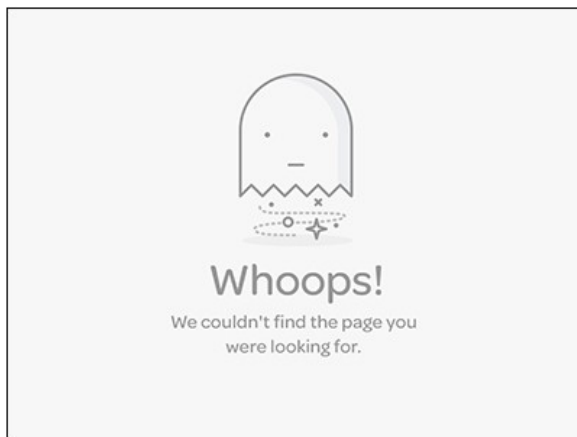


The uncanny valley is an important theory for designers and engineers to base their products off of when creating products that draw emotion. This theory doesn't simply apply to physical objects, but also artificially, as cgi movies also apply this method when creating their characters. Well rendered characters are 'brought to life' when realistically adapted, while poorly created ones are thought of as creepy.



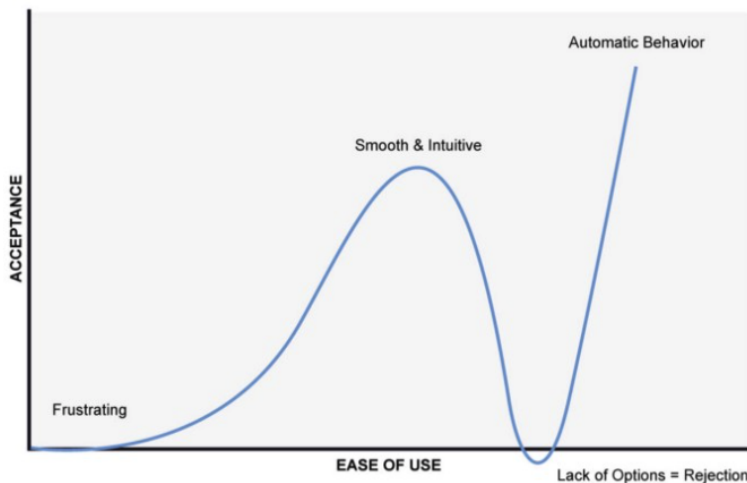
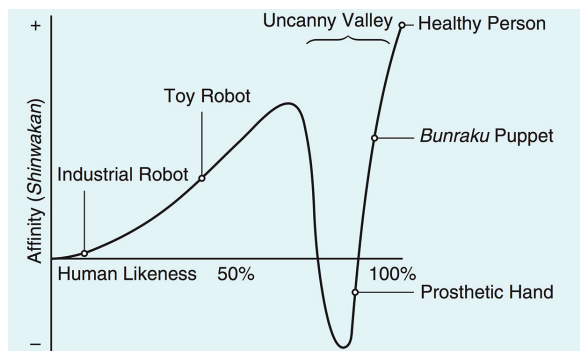
Universally loved CGI that gives similar emotions and features of humans, vs. universally panned CGI that attempts to be human and creaturistic at the same time.

The uncanny valley could also potentially be utilized as a guide for all designers to increase sympathy for their product. Automated interactions and user flows that convey sympathy or more likely to grant satisfaction to the user. Instead of receiving an error code, a designed ui could explain the problem clearly to the user, and show emotion in its interface. Because users will understand more of the problem, thus gaining more empathy for the situation. All in all, the uncanny valley theory is an important aspect that all designers should understand in order to bring their products to life, without becoming a Frankenstein.



RESEARCH PROPOSAL

This project will be an analysis and comparison of the importance of designing human, but not too human. As discussed in the last paragraph, the uncanny valley has the potential to not only reach the grasps of robotics, but to the entire field of human-centered design. Human-centered design focuses on the goal of creating intuitive and empathetic interfaces and pathways for the user. However, similar to the uncanny valley, there is a point of annoyance and distastement when designers attempt to remove the industrialization of interfaces to gain empathy. Just like the uncanny valley, the dip is important for all designers and product makers to understand in order to have settling in an unsettling world of design.



Graph: trish w

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