GAME DEVELOPMENT

CSC 3150/9010

Instructor: Dr. Edward Kim

Games as means of communication

- That Dragon, Cancer

Games

- As effective visual communication mediums
  - Cameras
  - Avatars

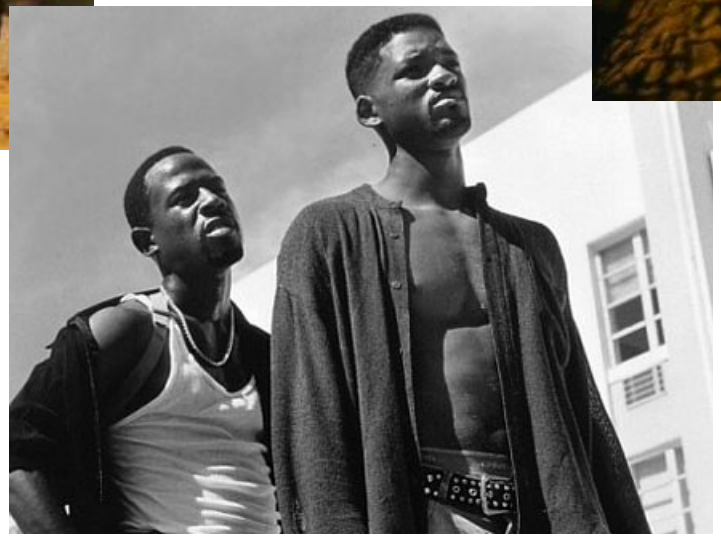
Games as Communication

- Effective visual communication - Camera + Viewer position

Camera + Viewer position

- Vertical camera angle
- Distance
- Horizontal angle
- Subjective camera

Vertical camera angle



Vertical camera angle

Vertical camera angle

- High angles – object small / insignificant
- Low angles – object powerful/ viewer insignificant

- Mandall and Shaw – Judging People in the News – Unconsciously (1973)

When to use high/low vertical angles

- Tiemens –delivering a message
  - low camera angle is more effective

When to use high/low vertical angles

- McCain et al. –delivering a message,
- High angles are more persuasive + attractive
- So which one is right? (professor vs peer)

Profile vs Straight on (Jon Baggaley)

SAN DIEGO
NEW YORK
LONDON
TOKYO
CHANNEL 4 NEWS TEAM

WORLD NEWS
NOW

Distance

- Informational Zoom

Distance

- Fear appeal

Distance

Distance

- Identification

Tilted on Horizontal plane

Subjective Camera

Subjective camera on persuasion

Subjective camera on identification

- Not sufficient for identification
- Need a closeup shot of the persons face

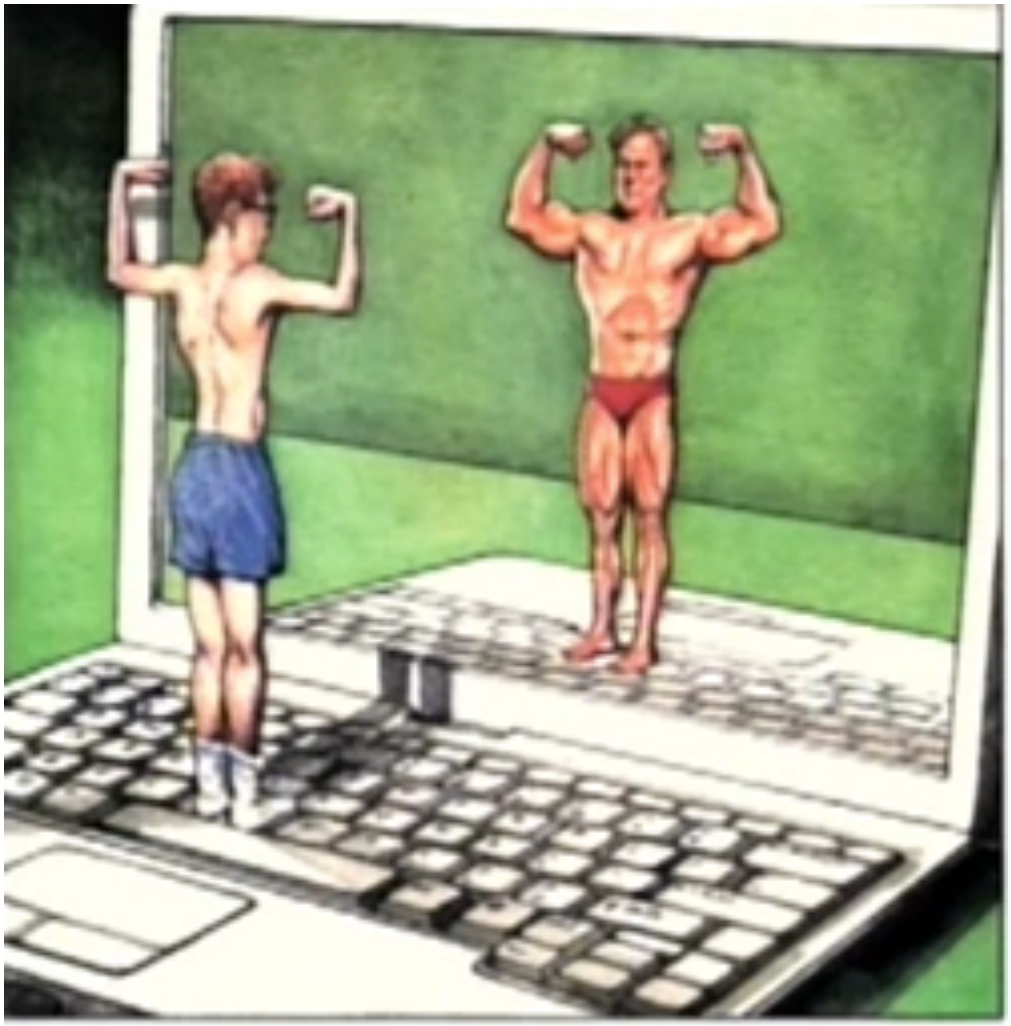
- How can we engage the user, and have a player identify with the player?

- Effective visual communication via cameras

identification

- How can we engage the user, and have a player identify with the player?

Avatars – Jeremy Bailenson



Who uses Avatars

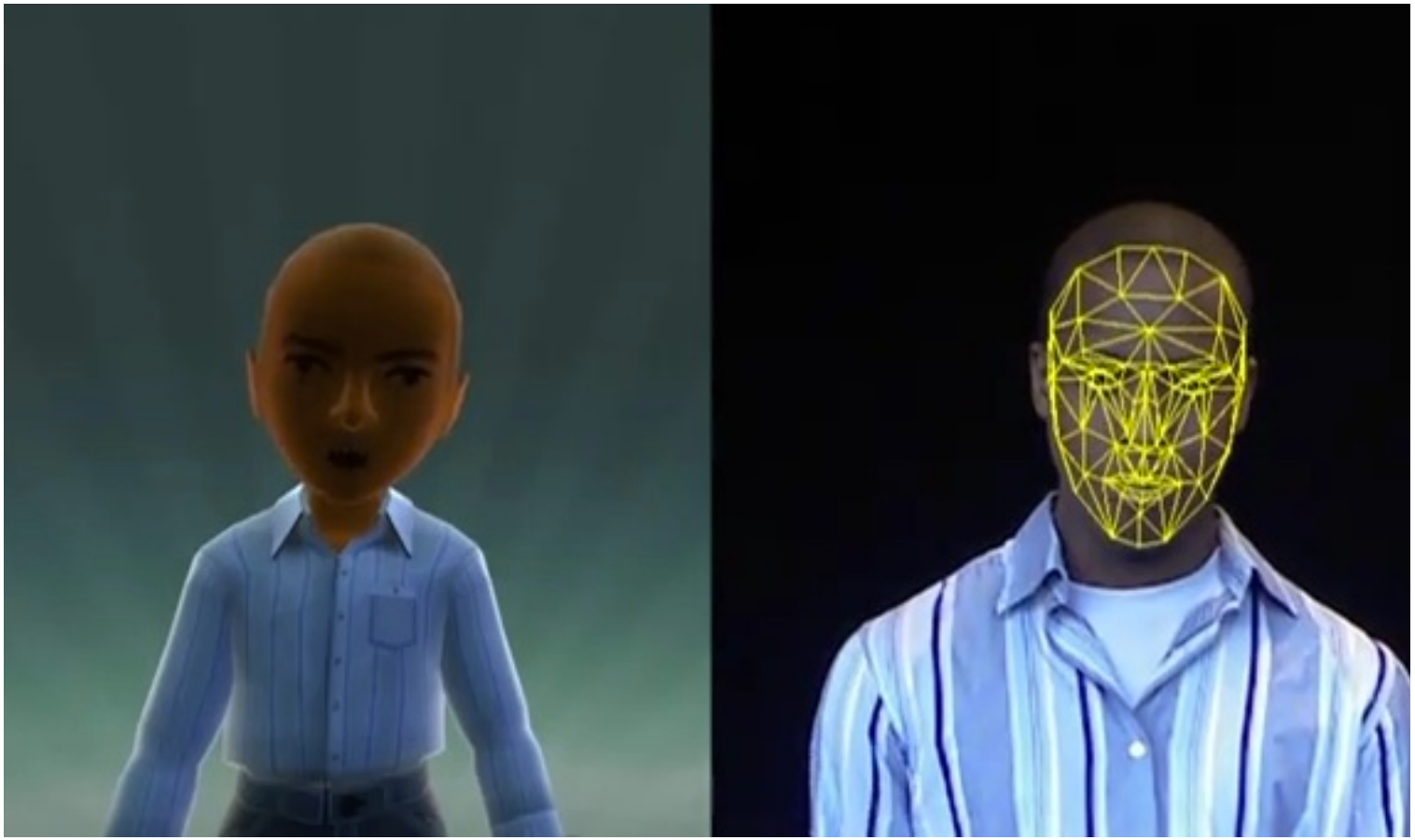
- 100M americans played a game last week
- 12M world of warcraft subscribers
- 1M in second life in the last 30 days
- 80M farmville users on facebook

- 10 hours per day in front of digital media

- 2 hrs using avatars

Avatar Kinect

Avatar Kinect

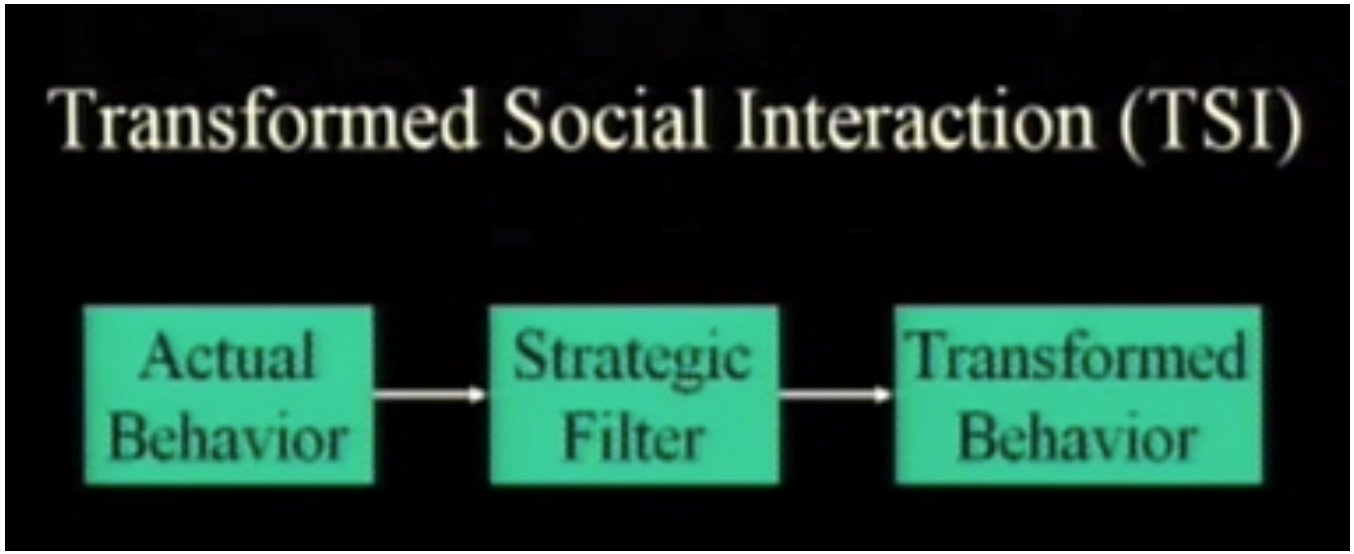


http://www.youtube.com/watch?v=7pXtfZ43rPU

Avatar Kinect

- How does this work?

Avatar Kinect



Gaze

- Learning (Sherwood, 1987)
- Persuasion (Morton, 1980)
- Physiological Arousal (Wellens, 1987)

Augmented Gaze

- Zero – sum
- Augmented gaze – more than 100% gaze time..

Mimicry (Tanya Chartrand)

- http://www.youtube.com/watch?v=7BKwBsPlR04

Mimicry (Nick Yee)

- Avatars

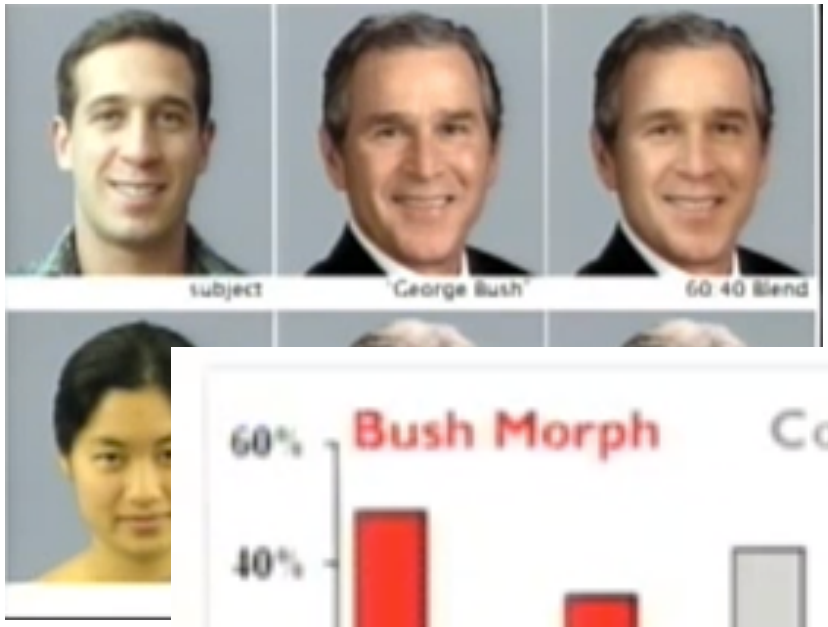
Avatar looks

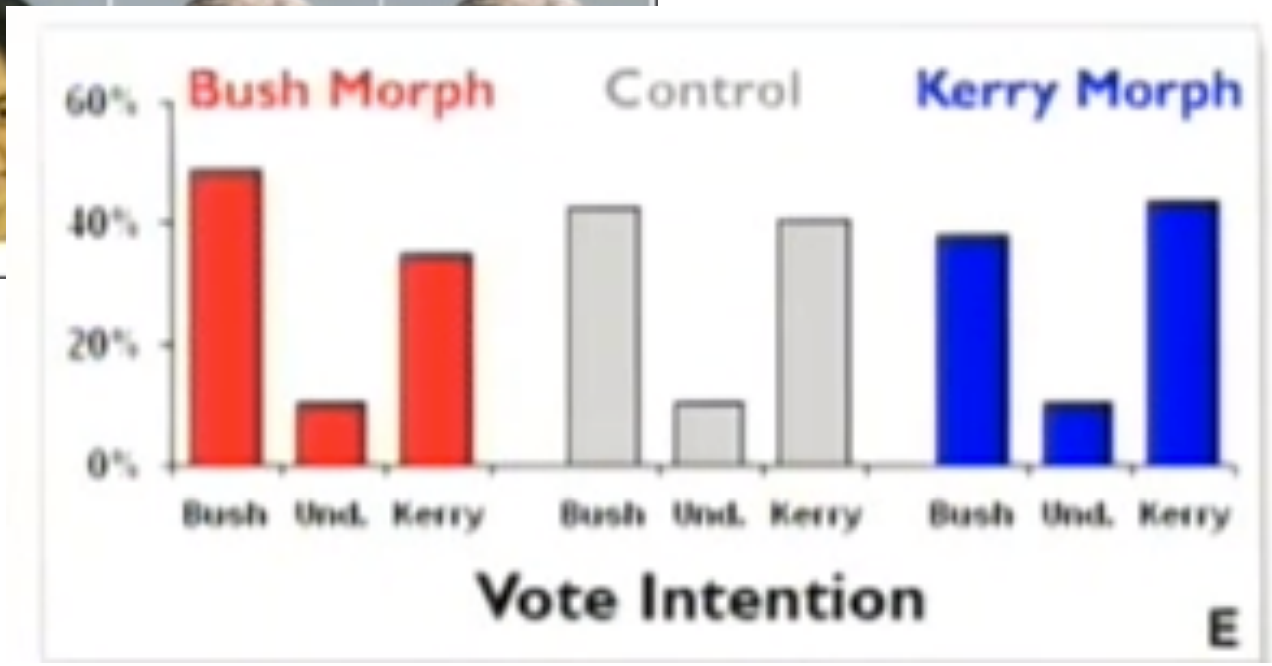
- Similarity in avatar looks
  - More persuasion (Chaiken, 1979)
  - More purchases (Brock, 1965)
  - More altruistic behavior (Dovidio, 1984)
  - Trust (DeBruine, 2002)

Attraction vs Trust

What can we do with avatars?

What can we do with avatars?





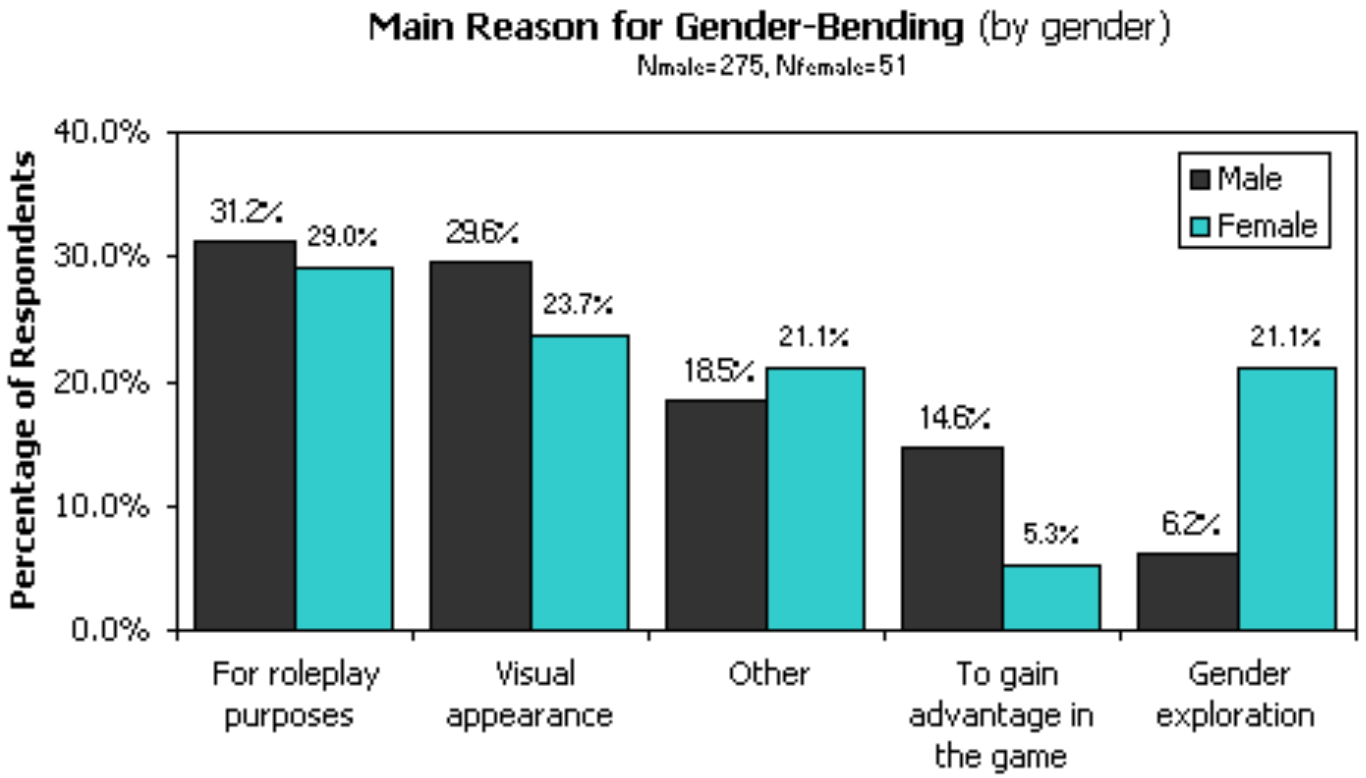
“Gender Bending”

“Gender Bending” in Avatars

- Who is playing as the opposite gender?
  - Of 801 men in WoW
  - 53.3% had a character of the opposite gender
  - 29.3% of men’s primary character were female
  - Of 281 women in Wow
  - 9.1% had a character of the opposite gender
  - 7.5% of women’s primary character were male
- Why do people play as the opposite gender?

“Gender Bending” in Avatars

- Why do people play as the opposite gender?



Gendering bending - Visual

- Personally, for some of the races, the female graphic just "looks better" than the male graphic, and that is why I chose the female gender. The male graphics for some races just looks generic, and bland. [m, 22]

- mainly just because I like the appearance of the character [f, 22]

Gendering bending – Tomb Raider effect

- I don't pine to be treated better or different by other players, I just like to see a woman kick some butt [m, 25]

- Um probably had something to do with lara croft i figured i would rater watch a pretty girl run around on the screen than a sweaty guy. [m, 22]

Gendering bending – in game advantage

- People in EQ are nicer to a cute Dark Elf girl. (Advantage, advantage) [m, 24]

- Personally, you recieve a LOT more stuff when you start out as a female. [m,14]

Gendering bending – role playing

- Roleplaying, mostly. I wanted to try something different. So when the iksar race came out, I didn't like how the females looked, and decided to finally try making a male character, to try roleplaying a male and to see how I was treated as well. After making my first male character, the two characters I have made since him have also been male. [f, 22]

- I find a roleplaying experience (which is what EQ is to me) to be much more enjoyable when you are roleplaying someone that isn't very much like yourself--having a character of the opposite just happens to be one of many ways to create a character that is vastly different than yourself. [m, 14]

Gendering bending – introspection

- I never realized how irritating it can be to have to put up with unwanted advances. [m, 38]

- I'm amazed how throughtless some people can be, how amazingly inept men are at flirting and starting a conversation with a female, and how it really does take more effort to be taken seriously as a female versus a male. [m, 24]

- No, I know most males think with their gonads, and act accordingly. They live up to my low expectations. [m, 25]

Gendering bending – introspection

- I used to think men had it easy! Now I know they have issues too; they are socialized to be more independent and not ask for help. That has to be tough. [f, 37]

- I learned that I use too many hehe's and :)'s to play a guy, that people are far less helpful and friendly, if they responded at all. I had never tried playing a character of another gender before. [f, 23]

I can affect you by changing my avatar…

- But how does that effect me?

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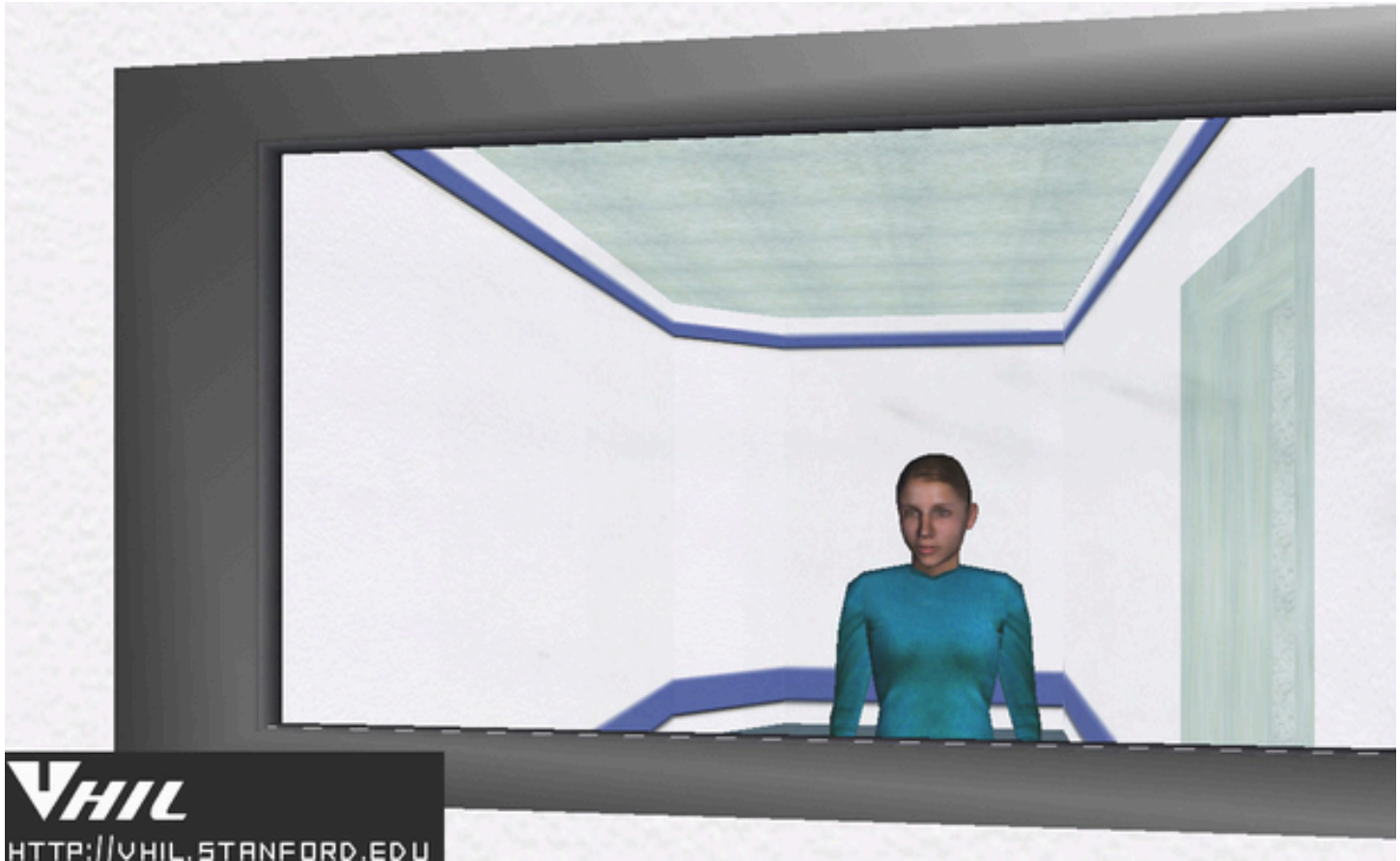
- But how does that effect me?
- “Proteus Effect” – Nick Yee

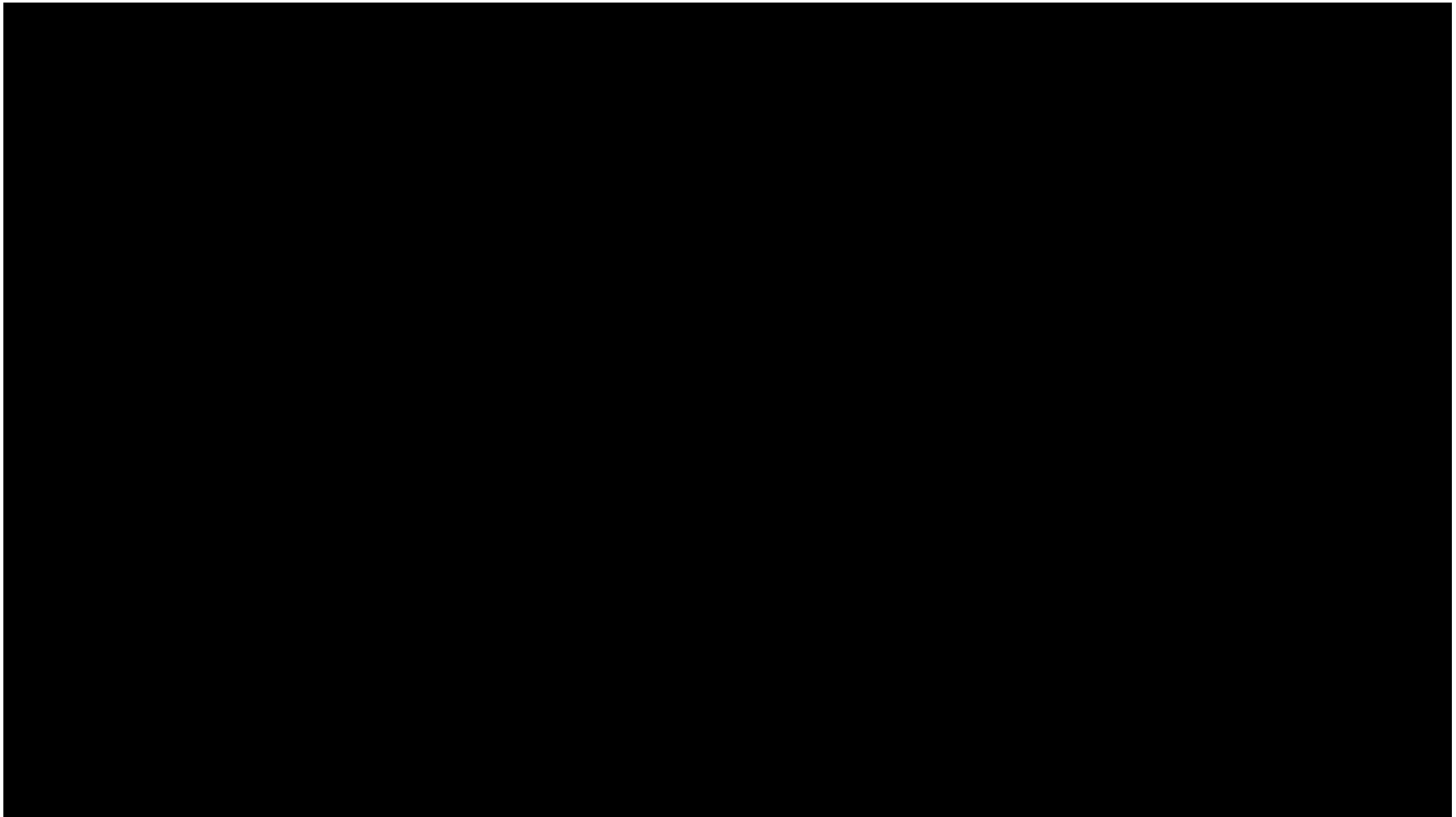


I can affect you by changing my avatar…

- But how does that effect me?
- “Proteus Effect” – Nick Yee
- What about the real world?

Veja Du (I’ve never been here before)

- Mirrors – (Jesse Fox)



False memories

False memories

- Two groups of elementary students
- 1 week before, you are put in a scenario where your avatar is swimming with a whale
- 50% of kids created false memories

Self endorsing (Grace Ahn)

Future Discounting

- Tendency for people to discount rewards as they move to the future

- $100 today
- $1000 tomorrow

Future self (Laura Carstensen)

Violence in Video Games

PROS

- **Playing violent video games causes more aggression, bullying, and fighting.**
  - 60% of middle school boys and 40% of middle school girls who played at least one Mature-rated (M-rated) game hit or beat up someone, compared with 39% of boys and 14% of girls who did not play M-rated games

PROS

- **Many perpetrators of mass shootings played violent video games.**
  - The teenage shooters in the 1999 Columbine High School massacre of 13 students played violent combat games. Many mass shootings have been carried out by avid video game players.

PROS

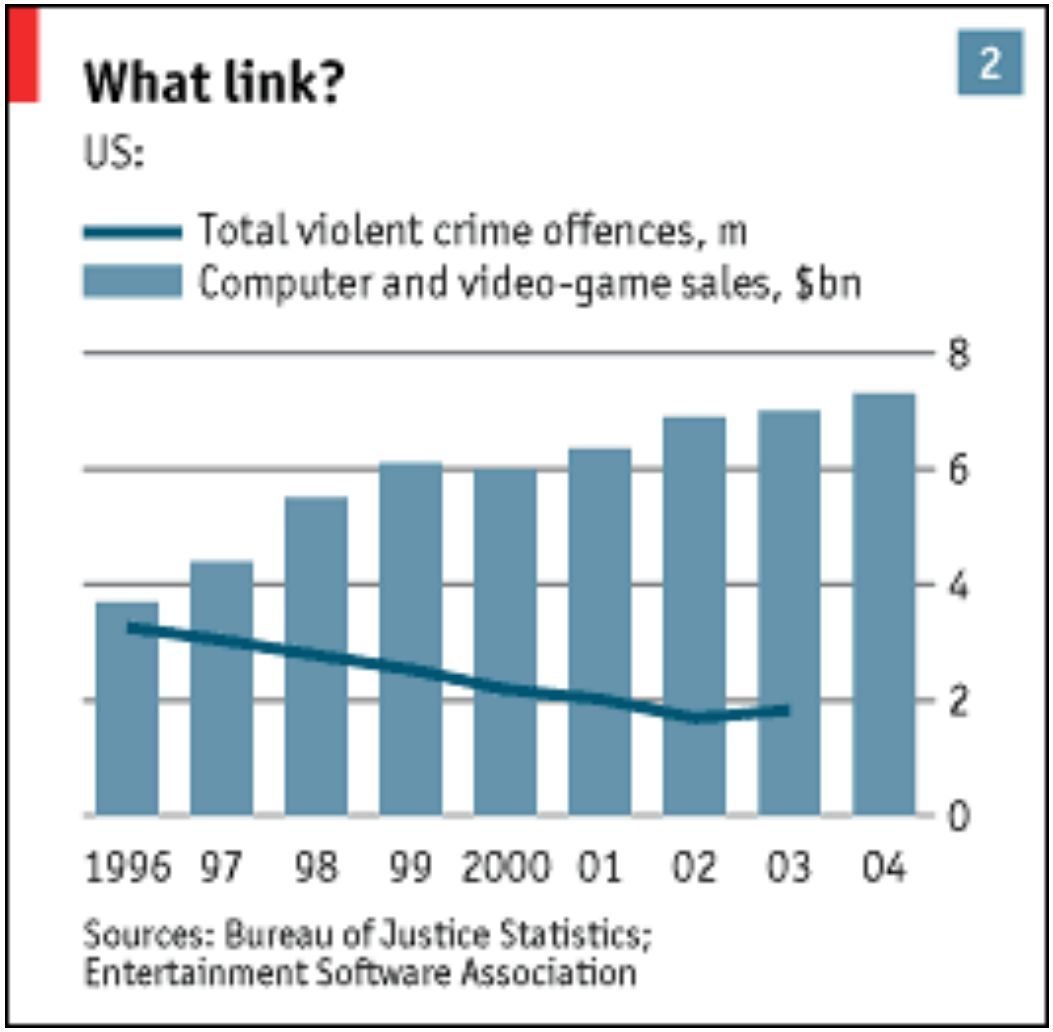
- **Violent video games desensitize players to real-life violence.**

  - Desensitization to violence was defined in a Journal of Experimental Social Psychology peer-reviewed study as "a reduction in emotion-related physiological reactivity to real violence." The study found that just 20 minutes of playing a violent video game "can cause people to become less physiologically aroused by real violence" People desensitized to violence are more likely to commit a violent act.

PROS

- **The American Psychological Association (APA) lists violent video games as a risk factor for aggressive behavior.**
  - In its Aug. 2015 resolution on violent video games, the APA wrote: "WHEREAS many factors are known to be risk factors for increased aggressive behavior, aggressive cognition and aggressive affect, and reduced prosocial behavior, empathy and moral engagement, and violent video game use is one such risk factor."

CONS


What link?
2
US:
Total violent crime offences, m
Computer and video-game sales, $bn
8
6
4
2
0
1996 97 98 99 2000 01 02 03 04
Sources: Bureau of Justice Statistics;
Entertainment Software Association

CONS

- **Studies claiming a causal link between video game violence and real life violence are flawed.**

  - Many studies failed to control for factors that contribute to children becoming violent, such as family history and mental health, plus most studies do not follow children over long periods of time. Video game experiments often have people playing a game for as little as ten minutes, which is not representative of how games are played in real life. In many laboratory studies, especially those involving children, researchers must use artificial measures of violence and aggression that do not translate to real-world violence and aggression, such as whether someone would force another person eat hot sauce or listen to unpleasant noises

CONS

- **The US Supreme Court ruled that violent video games do not cause youth to act aggressively.**

  - In Brown v. Entertainment Merchants Association (2011) the US Supreme Court ruled 7-2 that California could not ban the sale of violent video games to minors. Justice Antonin Scalia wrote in the majority opinion that studies purporting to show a connection between violent video games and harmful effects on children "have been rejected by every court to consider them, and with good reason: They do not prove that violent video games cause minors to act aggressively."

CONS

- **Violent video games allow players to release their stress and anger (catharsis) in the game, leading to less real world aggression.**

  - A peer-reviewed study published in the Journal of Adolescent Health found that children, especially boys, play video games as a means of managing their emotions: "61.9% of boys played to 'help me relax,' 47.8% because 'it helps me forget my problems,' and 45.4% because 'it helps me get my anger out." Researchers point to the cathartic effect of video games as a possible reason for why higher game sales have been associated with lower crime rates.

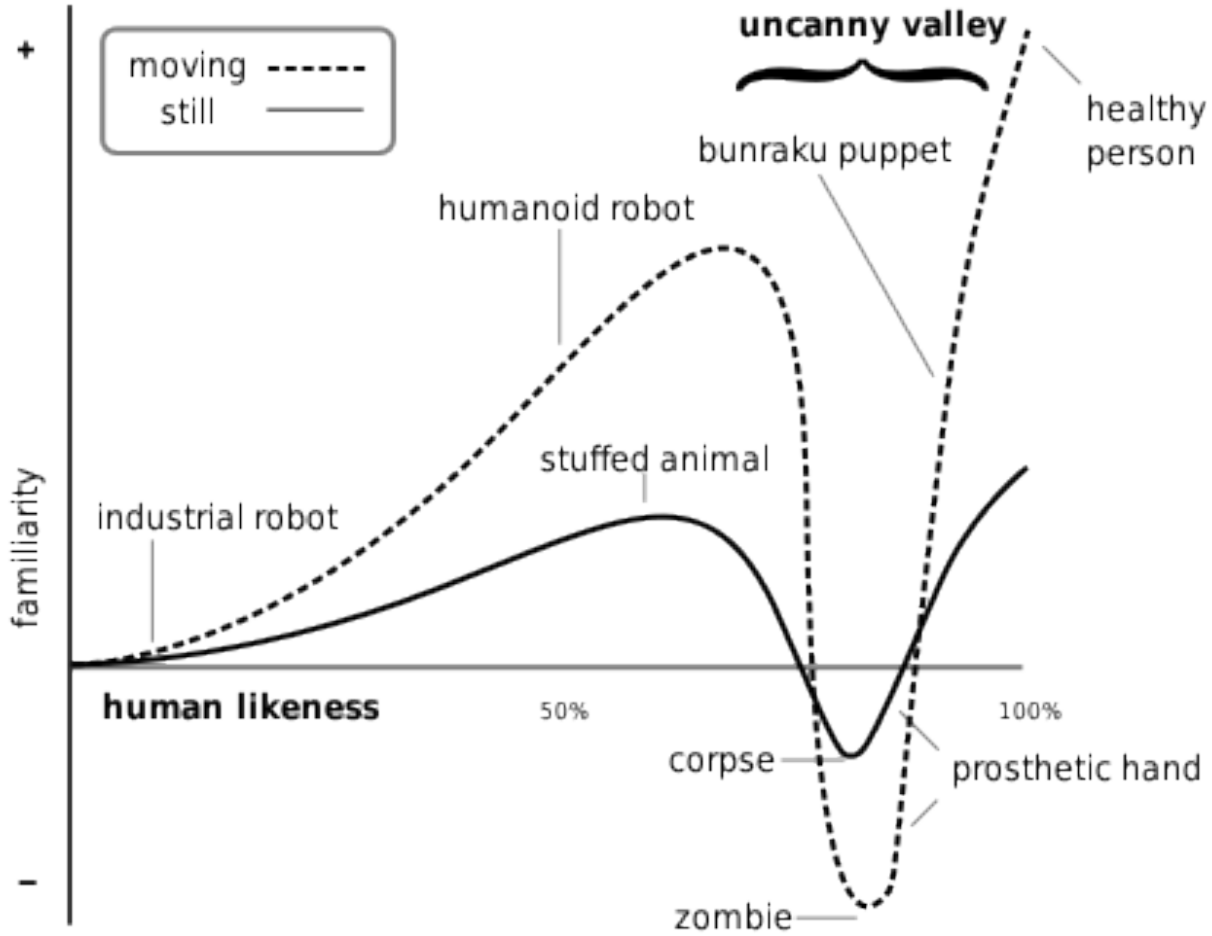
- **Violent video game players know the difference between virtual violence in the context of a game and appropriate behavior in the real world. By age seven, children can distinguish fantasy from reality, and can tell the difference between video game violence and real-world violence.**

Uncanny Valley

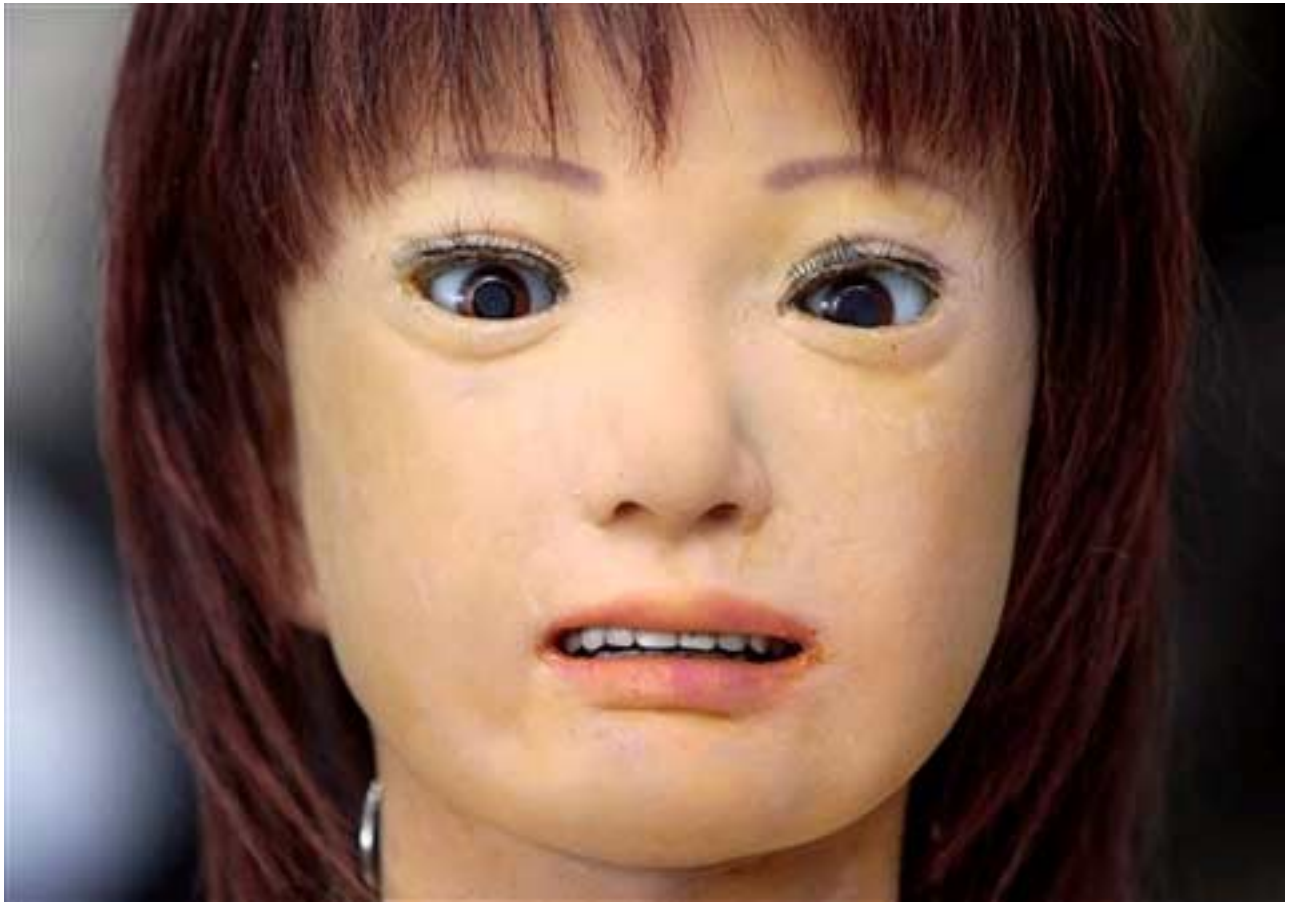
Masahiro Mori
1970s

Uncanny Valley

Masahiro Mori
1970s

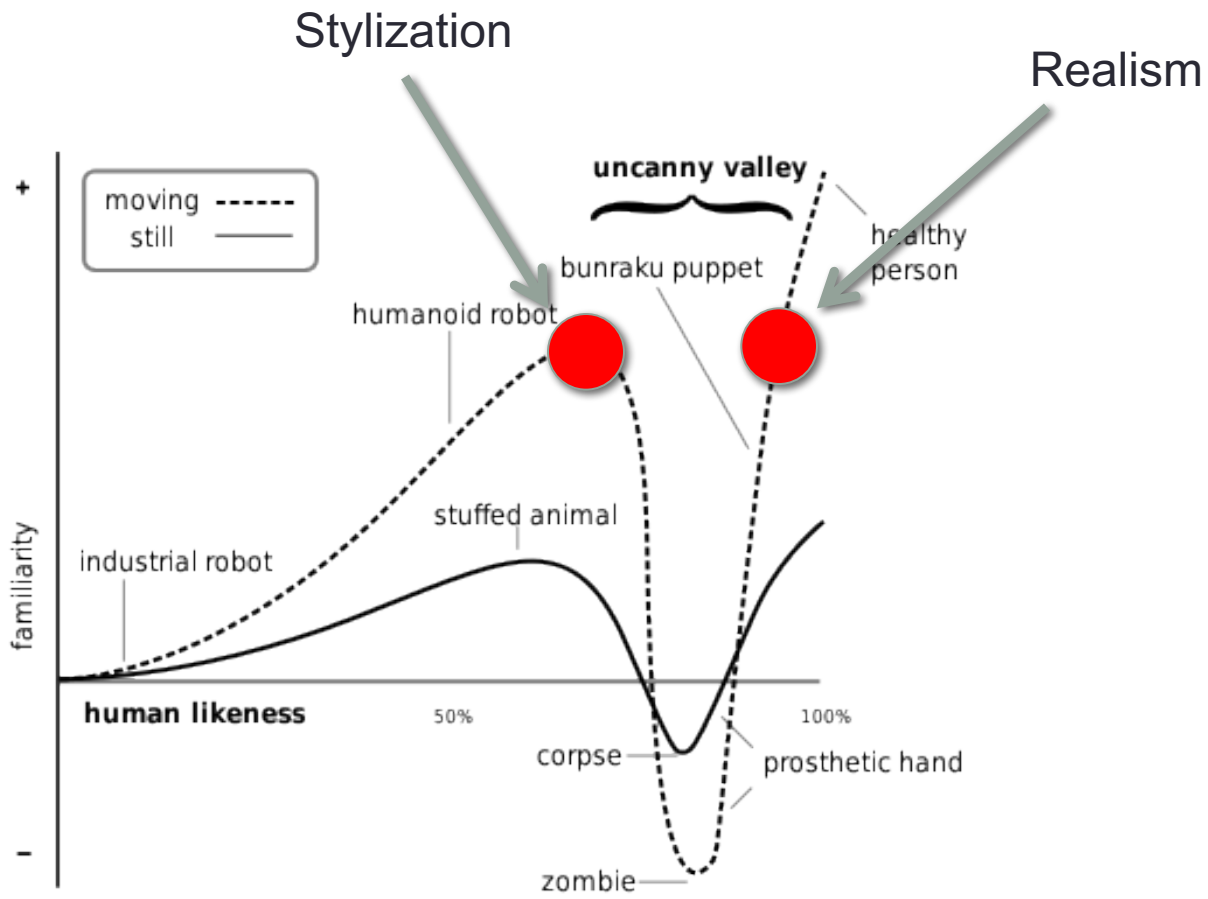


Uncanny Valley



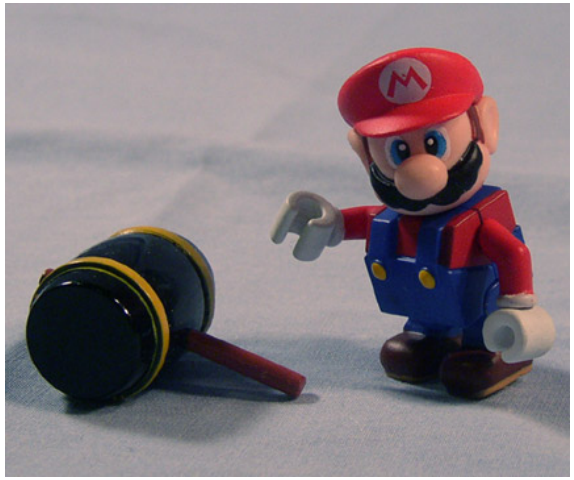
Uncanny Valley

What should we do…



Stylization

- Stay away from humans…
  - Create characters with human characteristics



- Create characters that aren't aiming for realism

- Movement matters!
  - Motion capture…