Affect, emotion, and addiction

- What do we mean by affect?
  - Very common effect
  - Happens with many things
  - Very powerful
  - Can lead to dependence, identity, direction
  - Can be heavily gendered

Affect, emotion, and addiction

- What do we mean by affect?
  - Emotion
    - Positive or negative experiential quality
    - Positive / negative can vary in magnitude
    - Accompanied by facial expressions and body language
    - Elicit certain types of behavior
    - Follow particular thoughts
    - "Cold" thoughts vs. "Hot" emotions

Affect, emotion, and addiction

- What do we mean by affect?
  - This is a relatively new aspect of computing and technology
  - But not a new aspect of human nature
  - Attachment to nonliving things
  - Addiction, dependency, and withdrawal
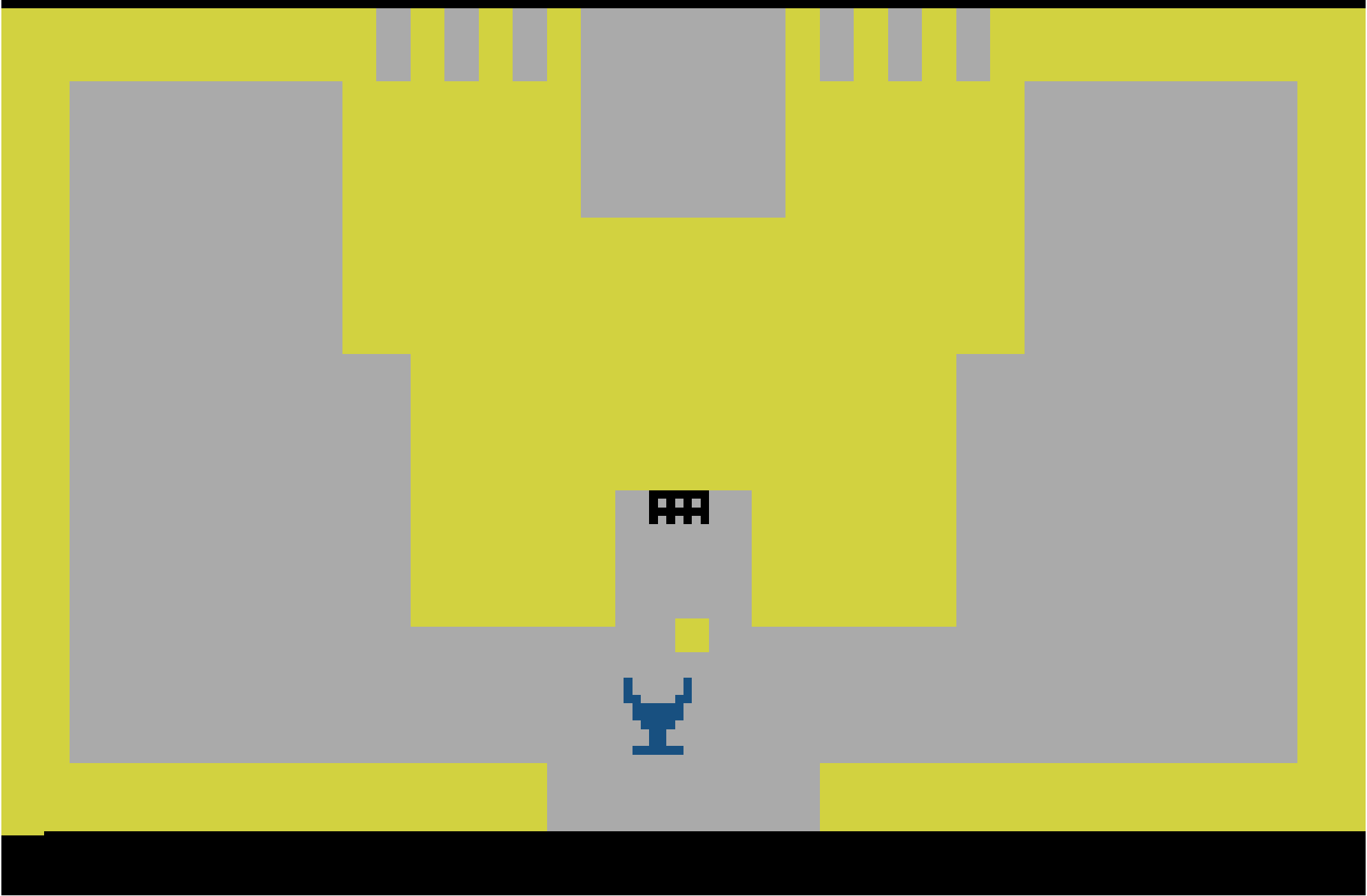 - Causes and treatments

The Oregon Trail

You may:

1. Travel the trail
2. Learn about the trail
3. See the Oregon Top Ten
4. Turn sound off

What is your choice? ⌘

Affect

- Let's talk about your phone
- How do you like it?
- Do you use it a lot?
- Do you talk to it?
- Interact with it?
- Does it sleep in bed next to you?

Affect

- Survey by Nuance (2103)
  - 57% of respondents felt a personal connection with their virtual assistant
  - 50% want a VA with a sense of humor
  - ~33% want a virtual assistant who is 'sassy'
  - Both women (71%) and men (66%) have named their virtual assitants
  - 5% have asked their VA for love advice
  - 20% asked about the meaning of life

Affect

- Attachment is more common with personalization and AI
- A digital device becomes like a friend
- It knows you, knows about you
- Is no longer an impersonal tool
- Familiarity can breed affect
- Very common response for a human

Affect

- This is especially true with cell phones
- Younger people consider their phone (and media) part of their identity and their image
- That leads to emotional attachment, the device becomes more than a communications tool
- Never happened with regular phones or other devices

An important question

- Which would you rather give up for a day?
  - Your phone
  - Your toothbrush

An important question

- Which would you rather give up for a day?
  - Mobile App Behavior survey (Apigee, 2013)
    - 82% claim critical apps they need daily
      - Email – 57%
      - Facebook – 41%
      - Alarm clock apps – 31%
    - Spain was most app dependent, with 93% saying they couldn't get through the day without them
    - 50% of Americans said they couldn't last 4 hours

An important question

- Which would you rather give up for a week?
  - TeleNav survey (2011)
    - 22% would rather give up toothbrush than phone (iPhone users: 40%)
    - 33% would rather give up sex than their phone (70% of these respondents were women)
    - 83% of iPhone users said other iPhone users would make the best romantic partners
    - 50% sleep with their phone next to them

An important question

- Which would you rather give up for a week?
  - TeleNav survey (2011)
    - 55% more willing to give up caffeine
    - 55% more willing to stop dining out
    - 63% more willing to give up chocolate
    - 70% willing to forego alcohol
    - 20% willing to go shoeless
    - 22% willing to give up significant other

An important question

- Is it ok to give an infant or toddler a smartphone or tablet?
  - Why or why not?
  - What are the impacts?
    - Immediate
    - Long-term
  - What about an older child?
  - What about the whole family?

An important question

- When *is* it ok to use your smartphone?
  - Family dinner?
  - In class?
  - Business meeting?
  - Vacation?
  - Wedding?
  - Funeral?
    - This was actually a thing that was happening

An important question

- Let's talk about funerals (Source: Cooperative Funeralcare)
  - Topped public's list of most inappropriate time to use a cellphone
  - Two out of five would not turn off phone while attending one
    - 70% would set it to silent
    - 10% would simply leave it on
  - One in five funerals interrupted by cellphone
  - One mourner's phone rang, to the tune of "If you are happy and you know it, clap your hands"
  - Cultural shift / Double standard

Affect

- Nomophobia
  - 2015
  - Iowa State University
  - Where did the word come from?
  - Measured through a questionnaire

Affect

- So:
  - Technology has symbolic importance
  - Technology shapes our use and interpretation of information
  - Technology dictates how we communicate information
  - The more information we have/need/want, the more technology arises to shape that need

Affect

- Consider:
  - Blackberry

  - Myspace

  - Bing

  - Linux, but for different reasons

Affect

- When it comes to robots, their design can have an impact on affect
- With sufficient cognitive distance between robot and reality, affect can (and does) occur.
- Without that distance, we experience repulsion
- That repulsion is the Uncanny Valley
- Very important in design

Affect

- Speaking of AI, what does it mean?
- Can a digital device actually be intelligent?
- Is that something we would want?
- When a machine knows you better than you
- Many in the industry are becoming concerned
- Difference between sentience and intelligence
- Examples and critique of AI

Mood

- We'll discuss this more in a later class, however Facebook and other social media sites can have a profound impact on mood, affect, self-esteem, and other measures of the person.

Addiction and dependence

- What is addiction?
  - Two types:
    - Substance
    - Behavioral
  - The physiological results are the same for both
  - The personal, interpersonal, and social results are often the same for both as well

Addiction and dependence

- What is addiction?
  - For something to be considered a dependence, it must meet three of the following criteria:
    - Tolerance
    - Salience
    - Withdrawal symptoms
    - Difficulty controlling use
    - Continued use despite negative consequences
    - Neglecting other activities
    - Desire to cut down

Addiction and dependence

- Young's (2009) criteria for Internet Addiction is based on the DSM IV criteria for gambling
  - Preoccupation with use of the computer, think about previous online activity/anticipation of next online session
  - Craving more and more time at the computer
  - Making efforts to cut back on computer use or stop, and failing repeatedly
  - Feelings of emptiness, depression and irritation when not at the computer or when attempting to cut down
  - Staying online longer than originally intended
  - Jeopardizing or risk losing significant relationships, job, career or education because of the Internet
  - Hiding the extent of computer/Internet use to family and friends
  - Use of the Internet as a way of escaping from problems or
  - of relieving a dysphoric mood (e.g. feelings of helplessness, guilt, anxiety, depression

Addiction and dependence

- Digital dementia (Spitzer, 2012)
    - Dependence on technology makes us…less smart
    - We don't use our minds as much as we used to
    - GPS, autodial, autocorrect, and others
    - That leads to deterioration of short-term memory
    - Also leads to a casual approach to things such as relationships and proper writing; the response is what's important

Addiction and dependence

- People can't multitask, so prioritization is a must, but that can be difficult
- If you don't, you end up not doing anything completely
- The best approach is to take a day off from technology every once in a while
- Which you will!

Addiction and dependence

- Detoxing
- Is it possible?
- More importantly, is it necessary?
- Students especially have incredible difficulty detaching even for 24 hours
- They suffer the same physiological responses as if they were experiencing withdrawal

Health risks

- Carpal tunnel
- Repetitive stress injuries
- Vision trouble
- "Technostress"
- The above can be signs of addiction

Virtual worlds

- What are they?
- Addictive qualities
- Why do people become addicted?
- Can it be considered an actual addiction?
- Legislative responses
- How to address the issue

Treatment

- Does it need to be treated? Medicated?
  - That depends on the symptoms
- Therapy, wind-down, retreat
- Valid alternatives

Health benefits

- Health informatics and IT
- Wearables and the Internet of Things
- Phobia and addiction treatment
- Coping mechanism
- Support communities
- ICBT