The Beauty and Joy of Computing

Lecture #26
Summary & Farewell

2011-04-27

FUTURE OF VIDEO GAMES?

Analysts close to both Microsoft and Sony are predicting no new home console until 2014. “Will anyone care? How do you make a $60 game look like a good value when everyone is used to buying $1 games on their phones and tablets?”

With $1 casual games abounding, how has your likelihood to buy $60 video games changed?

a) Way less likely
b) Less likely
c) Neutral
d) More likely
e) Way more likely
# Upcoming Calendar

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<th>Sun</th>
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|     |     |     | Lec: Farewell + Surveys  
(Lab: Feedback + Online Final) |     |     |     |
| 5/1 | 5/2 | 5/3 | 5/4 | 5/5 | 5/6 | 5/7 |
|     |     |     |     |     |     |     |
| 5/8 | 5/9 | 5/10 | 5/11 |     |     |     |
| Review Session  
Wozniak Lounge  
(430-438 Soda)  
3-6pm |     |     | Paper Final Exam  
277 Cory Hall  
7-10pm |     |     |     |
| 5/8 | 5/9 | 5/10 | 5/11 |     |     |     |
|     |     |     |     | Comments due @ 10:59am  
Project due @ 10:59am  
Final Project Demos  
306 Soda Hall  
11am-2pm |     |     |     |

**RRR Week**  

- 5/8 Review Session  
  Wozniak Lounge  
  (430-438 Soda)  
  3-6pm

**Finals Week**  

- 5/11 Paper Final Exam  
  277 Cory Hall  
  7-10pm
Administrivia: Become active!

- **Online Exam details**
  - No exam handed out unless you’ve filled in both HKN + AP survey
  - No “study sheets” needed / allowed since you have access to BYOB

- **Final Exam details**
  - Only bring pen(s), three 8.5”x11” handwritten sheets (writing on both sides).
  - Leave backpacks, books, calculators, cells & pagers home!
  - Everyone must take ALL of the final!

- **If you did well in CS10 and want to be on staff?**
  - Usual path: Lab Assistant ⇒ Reader ⇒ TA
  - LA: sign up w/Jenny Jones in 395 Soda before 1st week of semester
  - Reader/TA forms: www.cs/~juliea/
  - I strongly encourage anyone who gets an A- or above in the class to follow this path…
Clickers were worth the time spent

a) Strongly Agree
b) Moderately agree
c) Neutral
d) Moderately disagree
e) Strongly disagree
Exciting Future Implications

- Need to revisit chronic unsolved problem
  - Parallel programming!!
- Implications for applications:
  - Computing power available >>> (choose your favorite supercomputer from a decade ago) on an economical die inside your watch, cell phone or PDA
    - On your body health monitoring
    - Google + library of congress on your PDA
- As devices continue to shrink…
  - The need for great HCI (human-computer interfaces) is as critical as ever!
Taking advantage of Cal Opportunities

“The Godfather answers all of life’s questions”
- Heard in “You’ve got Mail”

- Why were we the #2 Univ in the WORLD?
  - So says the 2004 ranking from the “Times Higher Education Supplement”
  - Research, reseach, research!
  - Whether you want to go to grad school or industry, you need someone to vouch for you!
    - …as is the case with the Mob

- Techniques
  - Find out what you like, do lots of web research (read published papers), hit OH of Prof, show enthusiasm & initiative

http://research.berkeley.edu/
Opportunities Fall 2011

- **CS61A (1st course in CS major)**
  - Structure and Interpretation of Computer Programs

- **CS9 series (learn a second language)**
  - I would recommend Python next, CS9H

- **GamesCrafters (Game Theory R & D)**
  - Develop SW, analysis on 2-person games of no chance. (e.g., go, chess, connect-4, nim, etc.)
  - Req: Game Theory / SW Interest

- **MS-DOS X (Mac Student Developers)**
  - Learn to program Macintoshes.
  - Req: Interest. Owning a mac helps, not required.
  - Taught as a DeCal by MS-DOS X veterans

- **UCBUGG (Recreational Graphics)**
  - Develop computer-generated images, animations.
  - Req: 3D interest
  - Taught as a DeCal by UCBUGG veterans
Review: 5 components of any Computer

In the future, what’ll be the most important computer component?

- a) Control
- b) Datapath
- c) Memory
- d) Input
- e) Output
Peer Instruction Opinion

- “Forget cloning. Forget TVs on your wrist watch. The biggest invention of the next 100 years will be the ability to directly connect your brain to a machine, aka wet computing.” – Dan Garcia
  - A macaque monkey at Duke University can already control a robotic arm with thought.
  - DARPA interested for mind-control robots & flying
  - Virtual Reality achieved with proper I/O interfacing…

Jose Carmena, UCB EECS Prof
Research: Brain-Machine Interface
www.eecs.berkeley.edu/~carmena/
Penultimate slide: Thanks to the staff!

- TAs
  - Luke Segars
  - Glenn Sugden
  - Navin Eluthesen

- Readers
  - Courtney Wang
  - Pierce Vollucci

- Lab Assistants
  - Victor Muratalla
  - Pierce Vollucci
  - Aatash Parikh
  - Jessica Hudiono
  - Sameer Makhani
  - Shreya Lakhan-Pal
  - Guillaume Bellagarda
  - Victor Lymar
  - Max Dougherty
  - Kelsey Theriault
  - Yaniv Assaf
  - Katrina Chang
  - Kendall Agbulos
  - Ivan Rodriguez
The Future for Future Cal Alumni

- What’s The Future?
- New Millennium
  - Ubiquitous & Quantum Computing, Nanotechnology, 10 M “volunteer” CPUs, the Parallel revolution...
  - Rapid Changes in Technology
  - World’s 2nd Best Education
  - Never Give Up!

“The best way to predict the future is to invent it”

– Alan Kay

The Future is up to you!