



UC Berkeley EECS  
Lecturer SOE  
Dan Garcia

## CS10 The Beauty and Joy of Computing

### Lecture #26 Summary & Farewell

2011-04-27

#### FUTURE OF VIDEO GAMES?

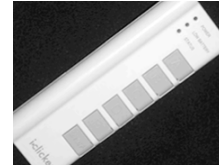
Analysts close to both Microsoft and Sony are predicting no new home console until 2014. "Will anyone care? How do you make a \$60 game look like a good value when everyone is used to buying \$1 games on their phones and tablets?"



[www.itworld.com/personal-tech/158019/video-game-consoles-1-shoot-closes-2-more-might-open-sometime-2014](http://www.itworld.com/personal-tech/158019/video-game-consoles-1-shoot-closes-2-more-might-open-sometime-2014)

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



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## Upcoming Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
4/24	4/25	4/26	4/27 Lec: Farewell + Surveys (Lab: Feedback + Online Final)	4/28	4/29 Discussion (Final Thoughts)	4/30
5/1	5/2	5/3	5/4	5/5	5/6 Comments due @ 10:59am Project due @ 10:59am Final Project Demos 306 Soda Hall 11am-2pm	5/7
5/8 Review Session Wozniak Lounge (430-435 Soda) 3-6pm	5/9	5/10	5/11 Paper Final Exam 277 Cory Hall 7-10pm			

**RRR Week**

**FinalsWeek**



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## 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 BYOD
- **Final Exam details**
  - Only bring pen(cils), 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 1<sup>st</sup> week of semester
  - Reader/TA forms: [www.cs/~juliea/](http://www.cs/~juliea/)
  - I strongly encourage anyone who gets an A- or above in the class to follow this path...



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## Clickers were worth the time spent

- a) Strongly Agree
- b) Moderately agree
- c) Neutral
- d) Moderately disagree
- e) Strongly disagree



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## 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!



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## 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, research, 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/>



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## Opportunities Fall 2011

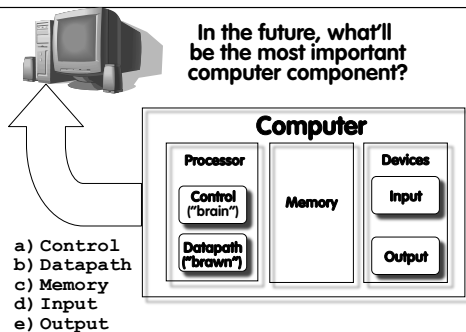
- **CS61A (1st course in CS major)**
  - Structure and Interpretation of Computer Programs
- **CS9 series (learn a second language)**
  - I would recommend Python next, CS9H
- **GamesCrafters (Game Theory R & D)**
  - Develop SW, analysis on 2-person games of no chance. (e.g., go, chess, connect-4, nim, 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



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## Review: 5 components of any Computer



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## 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/](http://www.eecs.berkeley.edu/~carmena/)



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## 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 Lyman
  - Max Dougherty
  - Kelsey Theriault
  - Yaniv Assaf
  - Katrina Chang
  - Kendall Agbulos
  - Ivan Rodriguez



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## 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 .. Best Education
  - Never Give Up!

**"The best way to predict the future is to invent it"**  
– Alan Kay

**The Future is up to you!**



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