



UC Berkeley EECS
Lecturer SOE
Dan Garcia

CS10 The Beauty and Joy of Computing

Lecture #26 Summary & Farewell

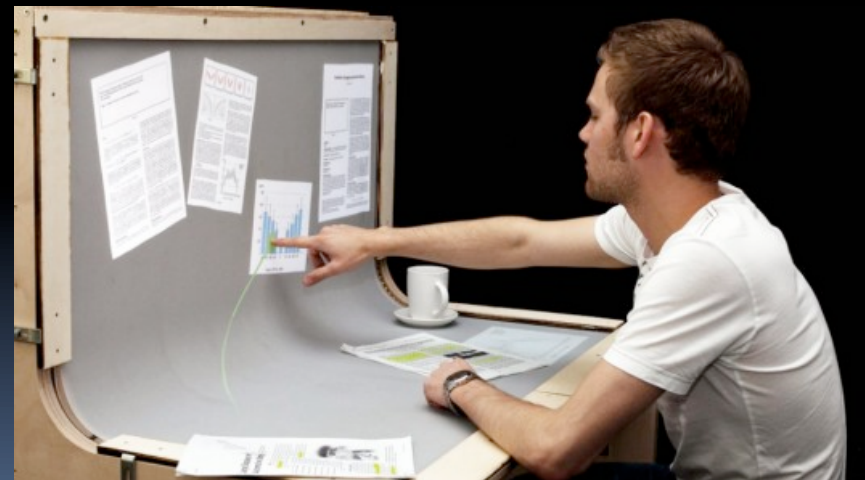
2010-12-01



UC Berkeley EECS
Lecturer SOE
Brian Harvey

BENDDESK WORKSTATION

Researchers from Aachen University have created the "BendDesk", in which the desk and screen are combined into a single multi-touch display.



hci.rwth-aachen.de/benddesk

Upcoming Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
12/28	12/29	12/30	12/1 Lec: Farewell + Feedback (Lab: Online Final) Beyond Blocks Scheme	12/2	12/3 Project due @ 11:59pm	12/4
12/5	12/6 Final Project Demos 306 Soda Hall 10:30am-2pm	12/7 CS Ed Day (best CS10 projects shown in AM)	12/8	12/9	12/10	12/11
12/12	12/13 Final Exam A1 Hearst Annex 11:30am-2:30p m					

RRRR Week

Finals Week

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 pens, pencils, 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 \Rightarrow Reader \Rightarrow 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?**

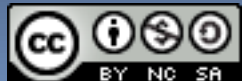
So says the 2004 ranking from the "Times Higher Education Supplement"

- 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/>

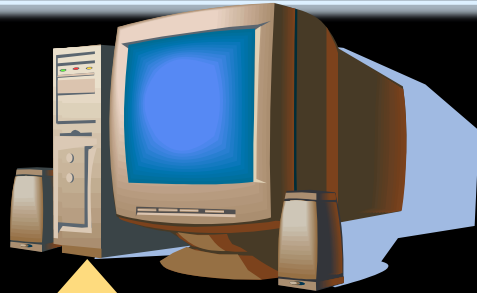


Opportunities Spring 2011

- **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



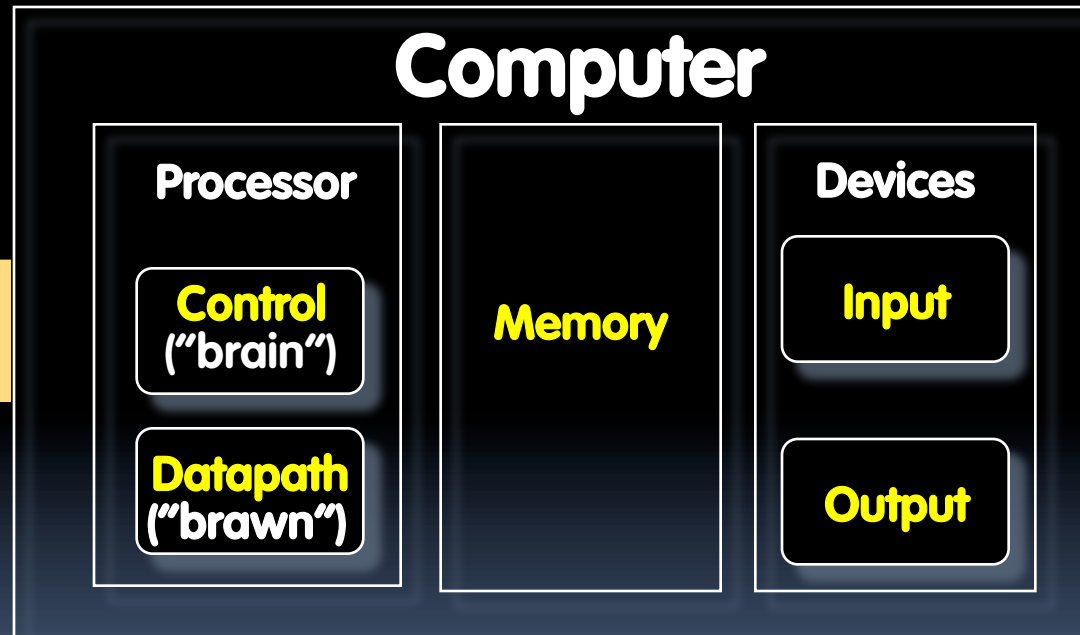
Review: 5 components of any Computer



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
- Jon Kotker

- **Readers**

- Stephanie Chou
- Courtney Wang
- Daisy Zhou

- **Development & LAs**

- Colleen Lewis
- George Wang
- Glenn Sugden
- Brandon Young
- Gideon Chia
- Wayland Siao
- Aloni Cohen
- Pierce Vollucci
- Navin Eluthesen
- Christian Pedersen
- Carrie Cai



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!

