Class Today

• Go over syllabus, web page
• Introduce computer science and Alice
• Demo of Alice
  – Simple world/sample Alice worlds
• Classwork A simple html web page
What is Computer Science?

• Computer science is no more about computers than astronomy is about telescopes. - Edsger Dijkstra

• Computer science is not as old as physics; it lags by a couple hundred years. However this does not mean that there is significantly less on the computer scientist’s plate than on the physicist’s: younger it may be, but it has had a far more intense upbringing! - Richard Feynman
Computer Science is a young discipline

- First computer science department formed in 1962
What is Computer Science?

• Artificial Intelligence

Roomba

Mars Rover

CMU’s Sandstorm
What is Computer Science?

• Animation
What is Computer Science?

• The Organization of Data, and Searching

Did you mean: computer science
What is Computer Science?

- Medicine, Genomics
What is Computer Science?

- Devices
Computer Science and Programming

• Computer Science is more than programming
  – Called *Informatics* in many countries
  – Elements of both science and engineering
  – Elements of math, physics, cognitive science, music, art, and many other fields

• To some programming is an art, to others a science, to others an engineering discipline.
What Will We Do in CompSci 94?

• Web pages/html (one week)
• Learn to program with Alice 2.3
• Try some Alice 3
• Logistics – bring to class
  – laptop
  – textbook.
How CompSci 94 Will Work

• In Class
  – Lecture/demos
  – Tutorials
  – Classwork (in assigned pairs)
  – REQUIRED ATTENDANCE

• Outside of class
  – Complete work not finished in class
  – Reading
  – Assignments
What Is Alice?

• A modern programming tool
  – 3-D graphics
  – 3-D models of objects

• Animation
  – Objects can be made to move around virtual world (a simulation or video game)
What does Alice run on?

- Alice is written in Java – should run on many systems
  - supports Mac and PC
- Which version of Alice are we using?
  - Alice 2.3
  - don’t use the CD with the book, but go to alice.org web page, see the CompSci 94 resources page
  - May also use Alice 3.1 some
Fast Start Up

• Can quickly learn to create
  – A simple animation in a few minutes
  – A non-trivial animation in a few class periods

• Can learn to use the Alice interface after a few more class periods
The Power of Alice

• Automatically keeps track of 3-D objects
  – What objects are in the virtual world
  – Types of objects
  – Positions of objects in the world
Objects Have Multiple Parts that are moveable

- Objects already exist in libraries

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Demo Program an Object

```
world.my first method  No parameters

No variables

chicken.Neck.Head  turn  left  0.25 revolutions  more...
chicken.Neck.Head  turn  right  0.25 revolutions  more...
chicken  move  up  1 meter  more...
chicken  roll  right  2 revolutions  more...
chicken  turn  forward  2 revolutions  more...

- Do together
  chicken  say  CompSci 94 will be fun!  duration = 4 seconds  more...
  chicken  move  down  1 meter  more...
  chicken  move  forward  10 meters  more...

Do in order  Do together  If/Else  Loop  While  For all in order  For all together
```
For Thursday!

• Finish classwork from today
• Download Alice 2.3 from [www.alice.org](http://www.alice.org) – NOT Alice 3.1 – they are different!
• Assignment 1 out
• Read through HTML tutorial on calendar page for Aug 29
• No reading quiz or reading in Alice book yet
• Plan
  – More HTML on Thursday
  – Start Alice next week
Download Alice 2.3 from alice.org, NOT Alice 3.1!