

## Computer Science 1000: Part #9:

### Where We're Going: The Wild Blue Yonder

COMPUTING TODAY AND TOMORROW  
DEALING WITH THE  
COMPUTING WORLD OF TOMORROW

# Computing in 2015: The State of the Art

- Cheap personal computing devices
- Cheap easy-to-use software applications
- Cheap(ish) highspeed wireless
- Massive online media (text / audio / video)
- Massive online personal data
- Massive processing power
- ... All widely available 24/7 ...
- ... And there's more of it all every day ...

# The Computing World of Today

- Computers are *everywhere*.
- Billions of computer users.
- Tens of millions of computing professionals.
- Many computing-based industries, *e.g.*, computer manufacturing, software development / maintenance, computer games.
- Innovative and varied computing research in academia (computer engineering / computer science) and industry.

# The Computing World of Tomorrow

- Technology:
  - More memory and faster processing in smaller, cheaper packages (quantum / optical / spintronic computing)
  - Faster / higher bandwidth network access in more places
  - Innovative interfaces (better NLP, optical interfaces (Google glass), neural interfaces (BCI))
  - Wearable / implantable computing (cyborgs)
  - Maybe: Self-aware and (trans-)human-capable AI
- Society:
  - Ubiquitous computing (The Internet of Things)
  - Increasing commercialization of computing
  - Increasing politicization of computing

## Surviving and Thriving in the Computing World of Tomorrow

- Be a Digital Adult
- Be a Digital Citizen
- Be aware of what's going on technology-wise
- Help make the computing future you want, with your personal, commercial, and political choices

Anyone who fights for the future lives in it today.  
– Ayn Rand