

Science 1000: Part #7 (Wareham):

Where We're Going: The Wild Blue Yonder

COMPUTING TODAY AND TOMORROW
DEALING WITH THE
COMPUTING WORLD OF TOMORROW

Computing in 2014: 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, ae.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 responsible and proactive 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