Chapter 1
Using Technology to Change the World
Topics

- Technology on the World Stage
- Technology and our Society
- Technology at Home
- Technology and your Career
How will You Put Technology in Action?

- Technology on the World Stage
- Technology and Our Society
How Will You Put Technology in Action?

• Technology is not just:
  – A means for career advancement
  – A skill set needed to survive in society

• Technology can be a way to make an impact beyond your own life.
Technology on the World Stage

- Accelerating change around the world
- Galvanizing people in new ways
Technology on the World Stage
Political Issues

• Social networking can fuel social unrest

• Crisis-mapping tools
Technology on the World Stage

Global Issues

• Health care
  – Develop and deliver vaccines
  – Retinal prosthetics

• Environment
  – Data collected could alert scientists to new trends
• The Digital Divide
  – Great gap between levels of Internet access
  – Prevents use of all minds to solve problems
Technology and Society

• Redefining fundamental parts of our social makeup
  – How we **think**
  – How we **connect** with others
  – How we **purchase** and consume products
• Web 2.0
  – International collaboration
  – Shift from consuming to volunteering and collaborating
Modern Motivation Theory

3 factors lead to better performance & personal satisfaction...

Autonomy
Mastery
Purpose
Technology and Society
How We Connect

- Virtual Choir
- Kickstarter
- Crowdfunding
Technology and Society
How We Consume

• Changing how we purchase and consume goods

• Marketing strategies
  – QR (quick response) codes
  – Price comparison
  – Mobile coupons (mobicoupons)
  – Crowdsourcing
Access versus Ownership

- ZipCar
- Call a Bike

Collaborative consumption
How will Technology Improve Your Life?

• Technology at Home
• Technology and Your Career
How Will Technology Improve Your Life?

• Computer literate
  – Understanding capabilities and limitations of computers
  – Knowing how to use computers safely and efficiently

What Does It Mean to Be Computer Literate?

- You can **avoid falling prey to hackers and viruses** because you are aware of how they operate.
- You know how to **protect yourself from identity theft**.
- You can separate the real privacy and security risks from things you don’t have to worry about.
- You know how to find information and use the web effectively.
- You can avoid being overwhelmed by spam, adware, and spyware.
- You know how to diagnose and fix problems with your hardware and software.
Technology at Home

- Avoiding hackers and viruses
- Protecting your privacy
- Understanding the risks
- Using the web wisely
- Avoiding online annoyance
- Maintain, upgrade, and troubleshoot
Technology and Your Career

Computers in careers

- Retail
- Arts
- Education
- Law enforcement
- Medicine
- Science
- Psychology
• Data mining
  – Opens the door to more detail
  – Respond to consumer buying patterns
Technology and Your Career

Arts

- Some artists work exclusively with computers
- Web galleries
- Dance and music programs
- Enhance visitors’ experiences at museums
Technology and Your Career

Education

• Course management
  – Blackboard
  – Moodle

• Research tool
• Simulations and instructional virtual tours
Technology and Your Career

Law Enforcement

• Solve crimes
• Search databases
• Computer forensics
Technology and Your Career

Medicine

• Modern biomedical chip research
  – Provides technological solutions to physical problems
  – Identifying people
  – Personal ID chip (VeriMed)
    • Helps keep Alzheimer’s patients safe
    • Provides tamperproof security measures
Simulations are used in:

- Weather forecasting
- Archeology
Technology and Your Career
Psychology

- MACH—My Automated Conversation Coach
- Affective computing
Check Your Understanding

1. How can becoming proficient with technology help you participate in important issues in the world?

- It’s important that you become proficient with technology to be able to participate in political issues, environmental issues, or questions addressing the global digital divide.

- Technology can be the means by which you find your voice in the world and impact others in meaningful ways.
2. How can knowledge of technology help you influence the direction of society?

- Technology is changing how we think, how we connect with each other, and how we purchase and consume products and services.

- You can become a creator of new pieces of music, connect with people from around the world, and collaborate to create or consume.
3. What does it mean to be computer literate?

- If you’re computer literate, you understand the capabilities and limitations of computers and know how to use them wisely.

- Enables you to make informed purchasing decisions, use computers in your career, and understand the many ethical, legal, and societal implications of technology today.
4. How does being computer literate make you a savvy computer user?

- avoid **hackers**, viruses, and Internet headaches
- protect your **privacy**
- separate the real risks of privacy and security from those you don’t have to worry about.
- to **maintain**, upgrade, and troubleshoot your computer
- make good **purchasing** decisions
- incorporate the **latest** technologies into your existing equipment.
5. How can becoming computer literate help you in a career?

• It will help you be a more **productive** and **valuable** employee, no matter which profession you choose.