

Technology in Action

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Tenth Edition

Technology in Action

Chapter 1

Using Technology to Change the World

Chapter Topics

- How Will You Put Technology in Action?
 - Technology on the world stage
 - Technology and our society
- How Will Technology Improve Your Life?
 - Technology at home
 - Technology and your career

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

- Technology is accelerating change around the world
- It is galvanizing groups of people in new ways

Technology on the World Stage

Political Issues

- Social networking fueled social unrest
- Crisis-mapping tool collects information and makes it instantly available



Technology on the World Stage

Other Global Issues

- Health care
 - Technology could help develop and deliver vaccines in response to a flu pandemic
 - Retinal prosthetics could potentially restore quality vision to the blind
- Environment: data collected with cell phones could alert scientists to new trends in the environment

Technology on the World Stage

The Digital Divide

- Great gap between levels of Internet access in different regions of the world
- Prevents use of all minds on planet to solve problems
- Many projects address the problem of the digital divide

Technology and Our Society

- Technology is allowing us to redefine fundamental parts of our social makeup
 - How we think
 - How we connect with others
 - How we purchase and consume products

Technology and Our Society

Technology Impacts How We Think

- Web 2.0 allows international collaboration
- Civic-minded projects appear online
- Autonomy, mastery, and purpose

Technology and Our Society

Technology Impacts How We Connect

- Connecting through music
 - Virtual Choir
- Connecting through business
 - Kickstarter
 - Crowdfunding



Technology and Society

Technology Impacts How We Consume

- Technology is changing all aspects of how we purchase and consume goods
- Marketing strategies count on many people having cell phones
 - QR (quick response) codes link to online information
 - Price comparison
 - Mobile coupons (mobicoupons)
 - Crowdsourcing

Technology and Society

Technology Impacts How We Consume (cont.)

- Access versus Ownership
 - ZipCar
 - Call a Bike
 - Collaborative consumption

How Will Technology Improve Your Life?

- Being *computer literate* means:
 - Understanding capabilities and limitations of computers
 - Knowing how to use computers safely and efficiently

Technology at Home

- Avoiding hackers and viruses
- Protecting your privacy
- Understanding the real risks
- Using the web wisely
- Avoiding online annoyance
- Being able to maintain, upgrade, and troubleshoot your computer

Technology and Your Career

- Computers are used in wide range of careers including:
 - Retail
 - The arts
 - Education
 - Law enforcement
 - Medicine
 - Science
 - Psychology

Technology and Your Career

Retail: Working in a Data Mine

- Businesses use data mining to search huge amounts of data hoping to find a pattern
- Data mining opens the door to more detail
- Allows retailers to respond to consumer buying patterns

Technology and Your Career

Arts: Ink, Paints, and a Laptop?

- Many artists work exclusively with computers
- Artists display and sell work using web galleries
- Dance and music programs use computers to create new performances
- Museums use technology to enhance visitors' experiences

Technology and Your Career

Education: Teaching and Learning

- Course management such as Blackboard or Moodle
- Research tool for students
- Simulations and instructional software on the web are learning tools
- Virtual tours of many museums on websites
- Computerized education could increase classroom success

Technology and Your Career

Law Enforcement: Put Down That Mouse – You're Under Arrest!

- Computers are used to solve an increasing number of crimes
- Search databases on the Internet
- Computer forensics analyzes computer systems to gather potential legal evidence

Technology and Your Career

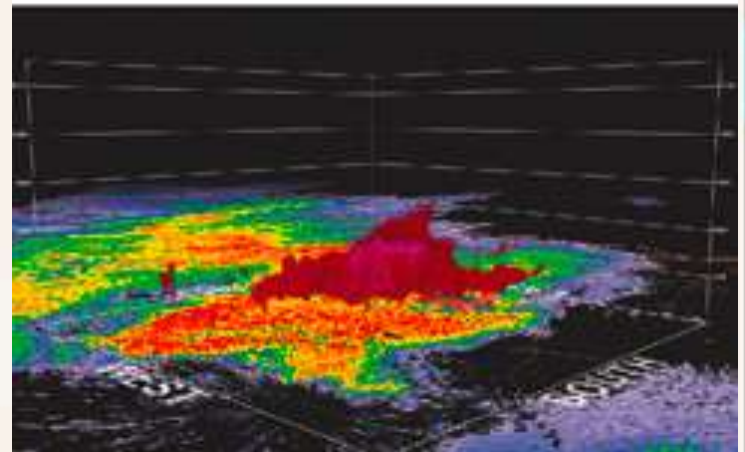
Medicine: The Chip Within

- Goals of modern biomedical chip research
 - Provide technological solutions to physical problems and a means for identifying people
 - Personal ID chip (VeriMed) verifies identity
 - Help keep Alzheimer's patients safe
 - Provide tamperproof security measures

Technology and Your Career

Science: Simulating Reality

- Simulations are used in:
 - Weather forecasting
 - Archeology



Technology and Your Career

Psychology: You Should Smile Now

- Affective computing relates to emotion or trying to influence emotions
- Emotional-social prosthesis (ESP) devices help people who have autism
- Psychologists and computer scientists are working to evolve systems with more human appearance

Chapter 1 Summary Questions

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

Chapter 1 Summary Questions

2. How can knowledge of technology help you influence the direction our society takes?

Chapter 1 Summary Questions

3. What does it mean to be computer literate?

Chapter 1 Summary Questions

4. How does being computer literate make you a savvy computer user and consumer?

Chapter 1 Summary Questions

5. How can becoming computer literate help you in a career?



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