



Technology in Action

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Ninth Edition

Technology in Action

Chapter 1

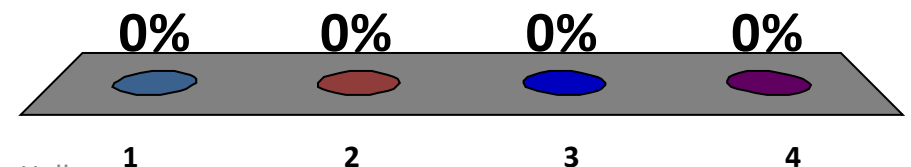
how will you save the world

Chapter Topics

- More than just a job
- Technology on the world stage
- Technology and our society
- Technology and your life

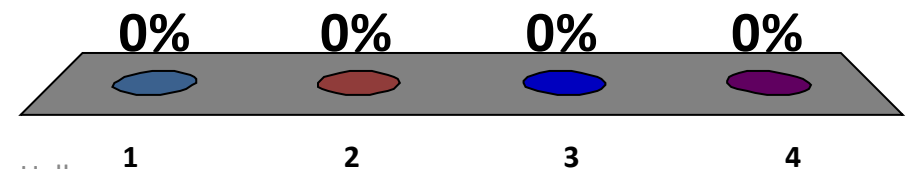
Which technology contributes to the potential end of the digital divide?

1. Netbooks
2. Cell Phones
3. WiFi
4. Google



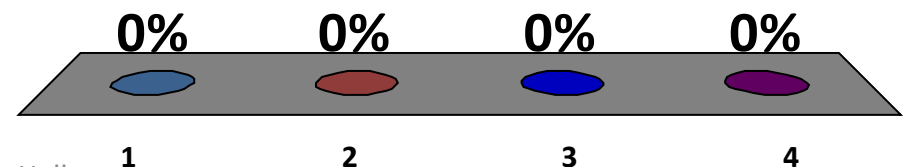
is the process of searching huge amounts of data with the hope of finding a pattern.

1. Data streaming
2. Digital literacy
3. MiFI
4. Data mining



means being familiar enough with computers that you understand their capabilities and limitations.

1. Collaborative consumption
2. Digital literate
3. Computer literate
4. Computer forensics

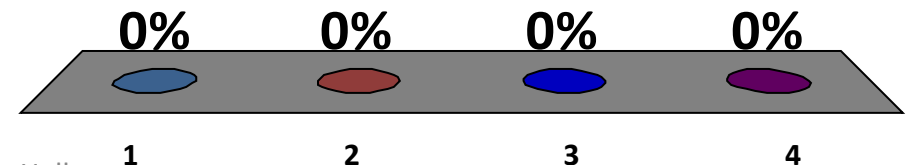


More Than Just a Job

- Technology is a means for career advancement
- Provides necessary skill set for survival in society
- A tool that allows individual to make impact beyond his or her own life

Which is the field of study focused on managing and processing information and the automatic retrieval of information.

1. Information Technology
2. Computer Science
3. Information Systems
4. Computerized Systems



Technology and the World Stage

- Technology empowers us with tools to impact the world
 - Political and global issues
 - Social networking fueled social unrest
 - Human rights
 - Witness Project stops human right abuses
 - The environment
 - Cell phones could report air and water quality

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
- These areas of our society are shifting rapidly because of technology

How We Think

- What we think about
 - Web 2.0 allows international collaboration
 - Civic-minded projects appear online
 - Autonomy, mastery, and purpose
- How we think of each other
 - Marketing has relied on exploiting stereotypes
 - Rise of social media has changed this
 - People form into groups based on interests

How We Connect

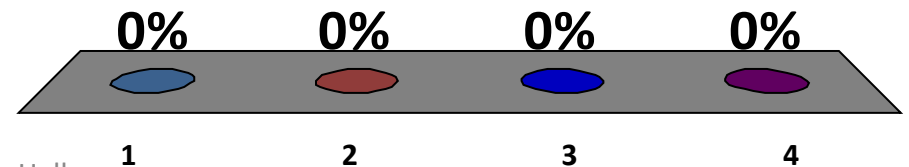
- Connecting through music
 - Virtual Choir
- Connecting in new ways
 - A Childhood Walk
 - Google Street View
 - DYTHR project



The Virtual Choir 2.0 performance of “Sleep” included over 2000 singers from 58 countries.

People gathering together in groups, using online tools to exchange ideas is known as:

1. Societal Networking
2. Group Contacts
3. Social Networking
4. Accessible Technology



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
 - Idea of ownership is evolving and allowing us to change our relationship to objects

Technology and Your Life

- Understanding technology can lead to greater productivity
- Boost your productivity by becoming computer literate
- Being *computer literate* means:
 - Understanding capabilities and limitations of computers
 - Knowing how to use computers efficiently

Be a Savvy Computer User

- Avoid hackers and viruses
- Protect your privacy
- Understand the real risks
- Use the Internet and the Web wisely
- Avoid online annoyance
- Be able to maintain, upgrade, and troubleshoot your computer

Prepare for Your Career

- Computer careers are on the rise
- Computers are used in wide range of careers including:
 - Retail
 - The arts
 - Law enforcement
 - The military
 - Agriculture

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 retailer to respond to consumer buying patterns

Arts: Ink, Paints, and a Laptop?

- Artists display and sell work using Web galleries
- Dance and music programs use computers to create new performances
- Many artists work exclusively with computers

MADELEINEHIGHLAND

"ONLINE PORTFOLIO"

NEW FASHION ILLUSTRATION: LOOKING TO THE PAST

Often when I'm feeling creative block take hold, I'll look at fashion from the early couture masters, such as Paul Poiret, Mariano Fortuny, and Chanel. This particular garment was inspired by a 1930's Chanel evening wear ensemble.



Video Game Design: A Long Way from Pac-Man

- Video game sales are larger than movie industry's box office
- Large-scale games are created by teams
- Rapid growth is projected over next decade

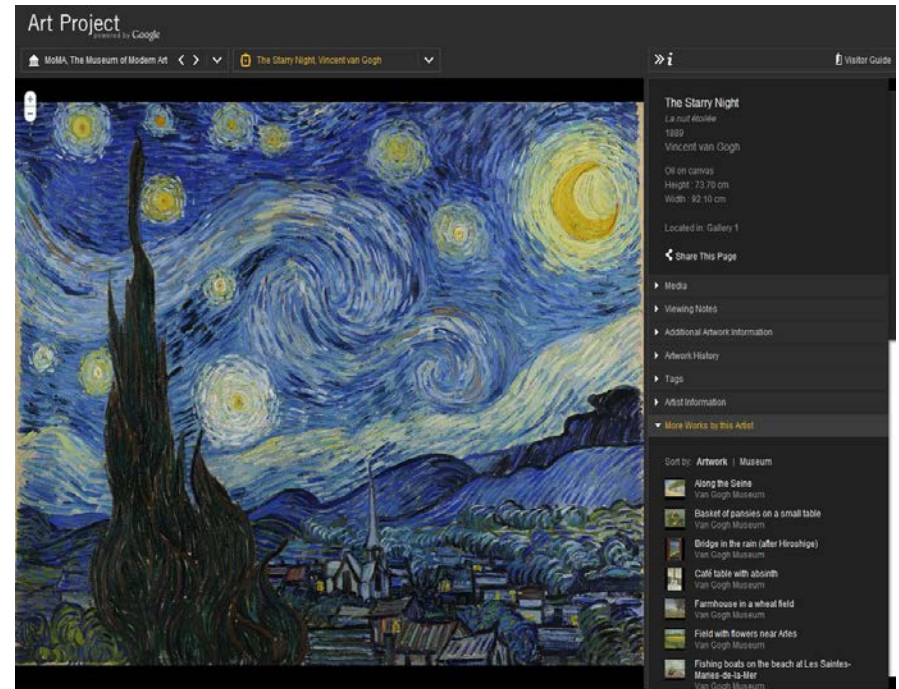


Education: Teaching and Learning

- Computers are part of most schools
- Teachers must have working knowledge of computers to integrate technology into classrooms
- Internet has advantages as research tool
- Effective use of Internet allows teachers to expose students to places students otherwise could not access
- Simulations and instructional software are incredible learning tools

Visiting Museums

- Virtual tours
- Audio guides
- Podcasts
- Multimedia tours
- Listen to music
- Interviews with artists
- Connect to others



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

- Computers are used to solve increasing number of crimes
- Search databases on the Internet
- Computer forensics analyzes computer systems to gather potential legal evidence
- Training law enforcement officers
 - Federal Bureau of Investigation (FBI)
 - Transportation Security Administration (TSA)

Facial Reconstruction Systems

- Can turn skull into digital image of face
 - (a) The FastSCAN wand lets forensics teams quickly grab three-dimensional images of skulls
 - (b) Tissue-rendering programs then add layers of muscles, fat, and skin to create faces that can be used to identify victims



I am comfortable with the idea of a chip being implanted into my body.

1. Yes
2. No



Medicine: The Chip Within

- Biology and technology are fusing
- Implantable chips repair nerve damage
- Person ID chip (VeriMed) verifies identity
 - Help keep Alzheimer's patients safe
 - Provide tamperproof security measures

Biomedical Chip Implants

- Provide sight to the blind
- Microchip would attach to outside of eye
- Take over processing from damaged photoreceptors
- Transmit electrical images to the brain

Science: Simulating Reality

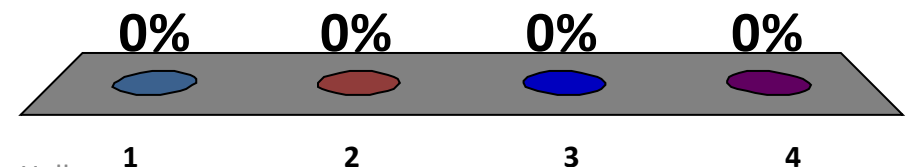
- Simulations are used in:
 - Weather forecasting
 - Archeology

Psychology: You Should Smile...Now

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

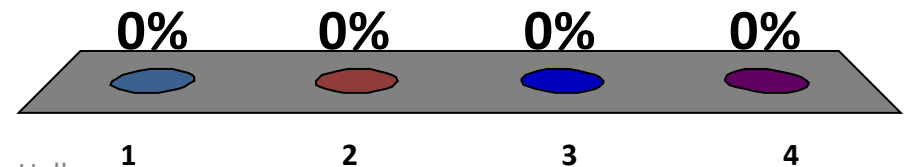
Which technology allows printed material to link to online content?

1. QR Codes
2. Bluetooth
3. USB
4. Data Mining



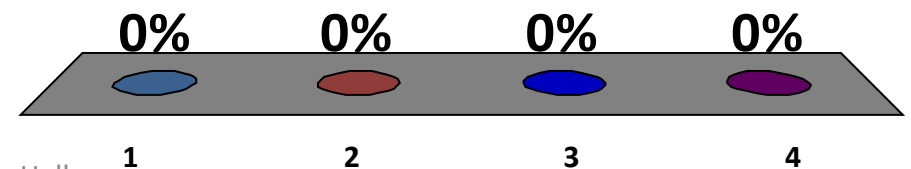
A combination of our normal sense of the objects around us with an overlay of displayed information is known as:

1. Actual reality
2. Augmented reality
3. Combination reality
4. Enhanced reality



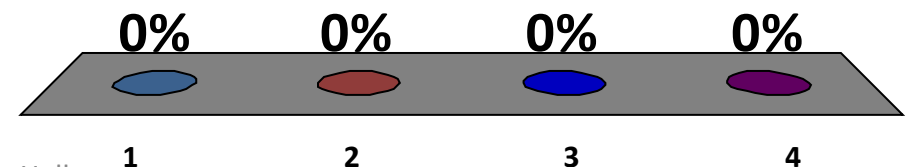
Which type of computing relates to emotion or the attempt to influence emotion?

1. Augmented
2. Integrated
3. Influential
4. Affective



Which of the following describes people joining together as a group to use a specific product more efficiently?

1. Group Purchasing
2. Team Buying
3. Collaborative Shopping
4. Collaborative Consumption



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 impact the direction of our society?

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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