

Chapter 1

POLITICAL ISSUES

- Social Networking is the gathering together of groups of people using online tools to connect and exchange ideas
- Wael Ghonim, a Google marketing manager in Egypt, anonymously launched the Facebook page "We Are All Khaled Said" in June 2010
 - The government responded to the increasing unrest by turning off the Internet for the entire country
- Movement from virtual community to physical community was a turning point and President Mubarak of Egypt had resigned
- Ushahidi
 - A crisis mapping tool that collects information from e-mails, text messages, blog posts, and Twitter tweets and maps them, making the information instantly publicly available
 - Development team created a second generation product called Swift River
 - Uses filters to rate submitters and the quality of the information to generate a measurement of the probability the information is accurate

DIGITAL DIVIDE

- Term coined for the gap, for the difference in ease of access to technology
- The Next Einstein Initiative (NEI) is a strategic plan of focus resources on the young talented mathematical minds of Africa by extending AIMS

TECHNOLOGY IMPACTS HOW WE THINK

- The twenty first century has been a dramatic shift--- the generation of a creative surplus
 - Clay Shirky coined this term to describe the ability of the world's population to volunteer and collaborate on large projects
- Modern theories of motivation show that what pushes people to apply their free time to projects, for no money, is the excitement of autonomy, mastery and purpose
 - Autonomy is the freedom to work without constant direction and control

HOW WE THINK OF EACH OTHER

- People form into groups based not on their age or income, but on their common interests
- Women outnumber men in their use of social networking. They also spend much more time on social sites
- Marketers, on information from social networking, will be increasingly driven by a female perspective

HOW WE CONNECT

- Eric Whitacre's Virtual Choir

CONNECTING IN NEW WAYS

- Ze Frank had a project named *A Childhood Walk* that invites people to go into Google Street View and record a walk that they used to take over and over as a child
- Using DYTHR, people walk around with their mobile devices, they can broadcast a short message
 - Other phones, while scanning for wireless networks, pick up and directly display the messages

MARKETING

- QR (quick response) codes lets any piece of print in the real world host a live link to online information and video content
- Marketers also have to be aware of crowdsourcing
 - That is checking in with the voice of the crowd
- Shopping now begins with price comparison tools
- More and more sites are appearing that offer some type of mobile coupon

ACCESS VERSUS OWNERSHIP

- Rack of Call a Bikes
 - Place a call to the phone number printed on the bike, and it texts you a code you can use to unlock the bike lock
 - The amount you road is automatically billed to your phone
- You can open a zipcar and start the engine only when your specific key is scheduled to open and start it
- Collaborative consumption implies that we are joining together as a group to use a specific product more efficiently
- On average a car is used 1 hour a day--- the other 23 hours a day it is not helping you or any of your neighbors
- The new design is the idea, where access is better than ownership

BOOST YOUR PRODUCTIVITY

- Computer literate means being familiar enough with computers that you understand their capabilities and limitations and you know how to use them efficiently
- More productive as an employee
 - Your understanding of key concepts in technology can future proof you, letting you easily and quickly react to the next round of new technologies

PREPARE FOR YOUR CAREER

- Information technology (IT) is a field of study focused on managing and processing information and the automatic retrieval of information
- By the year 2030, computers will displace humans in 60% of the current occupations

RETAIL: WORKING IN A DATA MINE

- Data mining is the process of searching huge amounts of data with the hope of finding a pattern

LAW ENFORCEMENT: PUT DOWN THAT MOUSE--- YOU'RE UNDER ARREST

- Computer forensics analyzes computer systems with specific techniques to gather potential legal evidence

MEDICINE: THE CHIP WITHIN

- Biomedical chip implants is to provide sight to the blind

PSYCHOLOGY: YOU SHOULD SMILE...NOW

- Affecting computing is computing that relates to emotion or deliberately tries to influence emotion

Chapter 2

- Computer is a data processing device that performs four major functions
 - o Input
 - o Process
 - o Output
 - o Storage
- Data versus Information
 - o Data is representation of a fact, figure or idea
 - o Information is data that has been organized or presented in a meaningful fashion
- Computers are excellent at processing (manipulating, calculating and organizing)
- How do computers process data → Information
 - o Computers work exclusively with numbers
 - o Binary language
 - Consists of two digits: 0 and 1 (binary digits)
 - o Eight binary digits is a byte
- Bits and bytes represent the quantity of data and information that it inputs and outputs
 - o KB (1000 bytes)
 - o MB (1 million)
 - o GB (1 billion)
 - o TB (1 trillion)
 - o Petabyte (1 thousand TB)
- Computer processes bits and bytes by using hardware and software
 - o You can physically touch hardware
 - o Software is set of computer programs that enables the hardware to perform
 - Can't have one without the other
 - Software categories
 - Application
 - System
- Application software- set of programs you use on a computer to help you carry out tasks such as writing a research paper
- System software- set of programs that enables computers hardware devices and application software to work together