Technology in the Workplace
Chapter 18

What You Will Learn…

- Role of information technology in the workplace
- Ways technology has changed the workplace
- Internet basics
- Software and applications

Review…

- What are the 3 main financial statements?
  - Balance sheet, income stmt, stmt. cash flows
- What is the basic accounting equation?
  - A = L + OE
- What does the income statement show?
  - Revenues, expenses, net income/loss
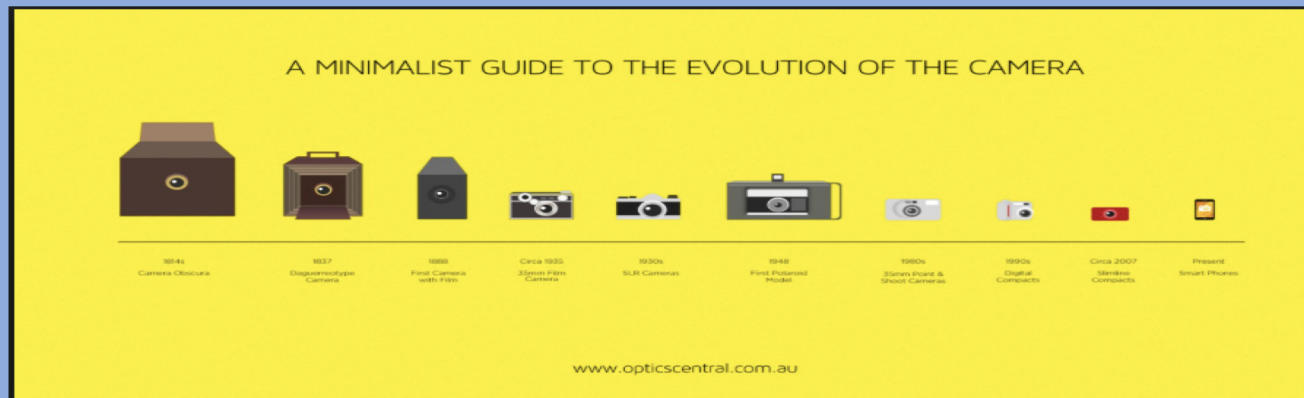 - If Expenses > Revenue, then: Net Loss

Discuss…

- How important is it for you to have instant access to information (scale of 1-10)? Explain.

- Could you survive a week without technology? ◦
  - No iPad, phone, computer, games, etc.?

The World Has Changed!

Think of how computers
have changed

Think of how cameras have changed

Role of Information Technology

- **Information Technology (IT**): Involves computing, electronics, and telecommunications
  - Process and distribute information digitally

- **Telecommunications:** Transmission of information over communication lines
  - Telephones
  - Computer Networks

Information Technology Devices

Any input or output devices

- Computers/tablets/phones
- Fax Machines
- Music Players
- WiFi
- Storage Devices

- Printer
- Scanner
- Light Pen
- Projector
- Headphones/speakers
- Plotters

Technology & The Workplace

How has technology impacted the workplace?

- Faster communication (customers & employees)
- Work is more efficient (email, software, etc.)
- More flexible work environments
- International business
- No need for office space
- Sharing documents (Google Drive) – Collaboration

Figure 1.
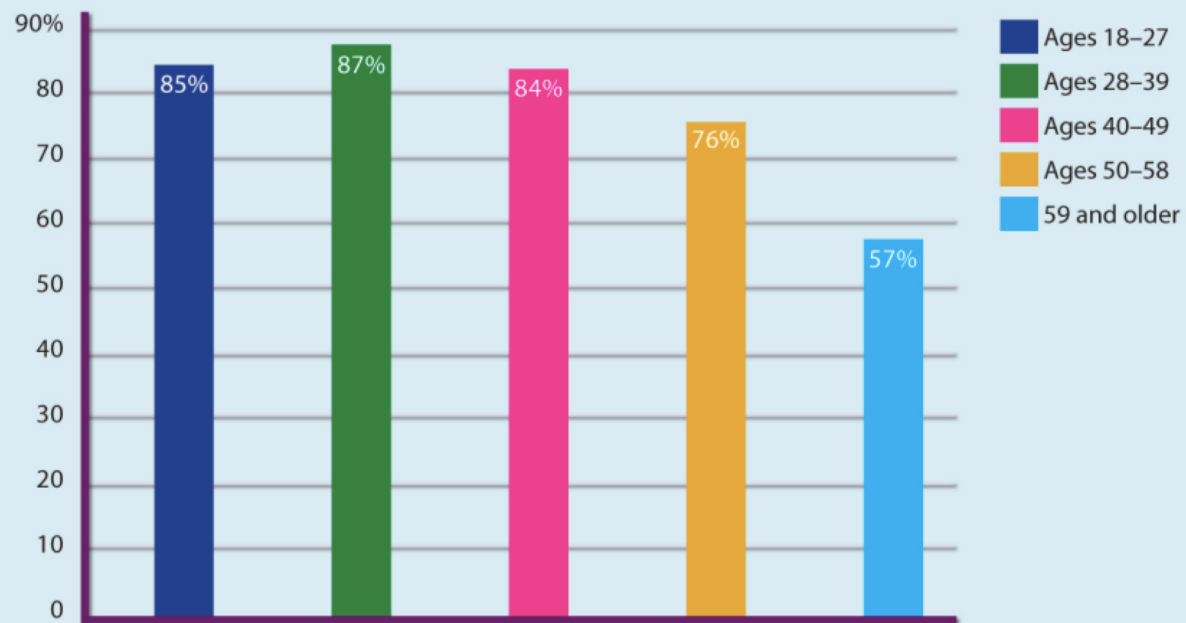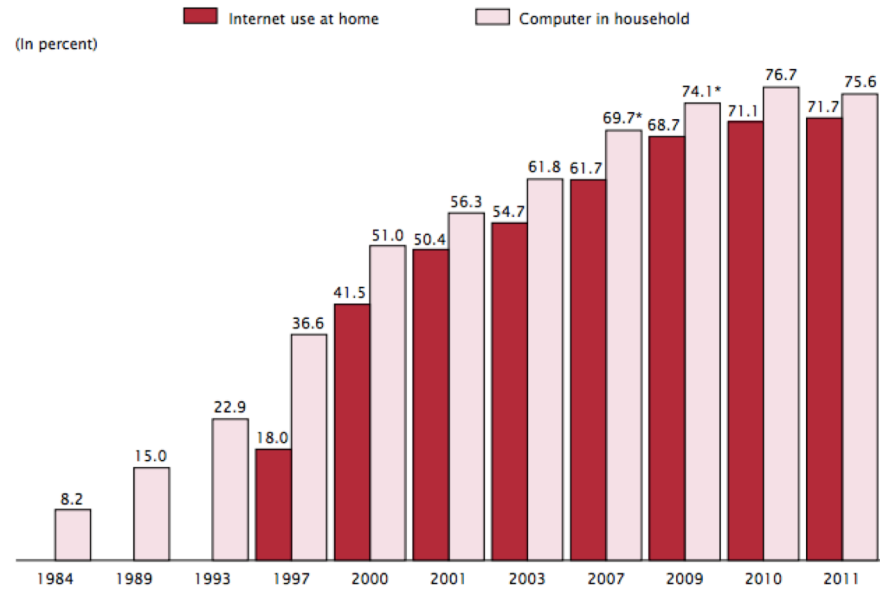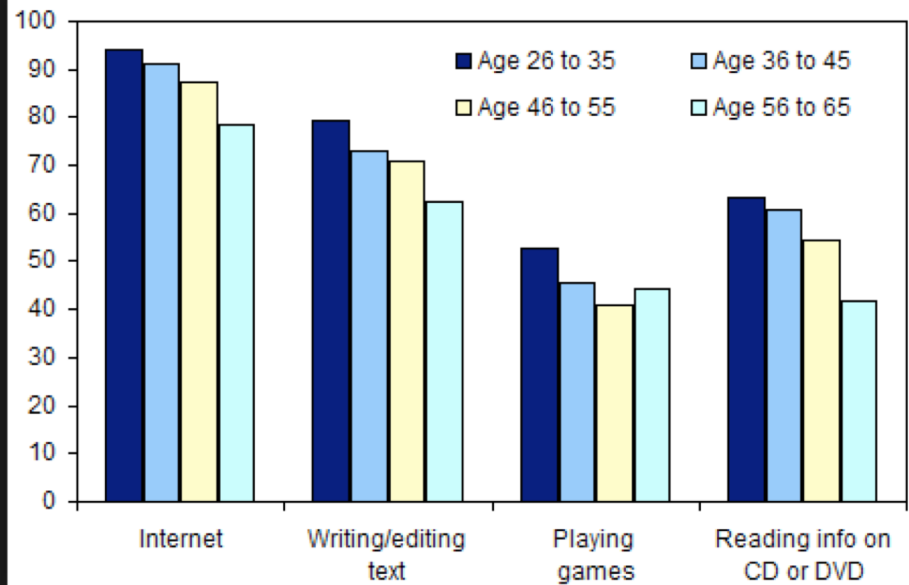**Household Computer and Internet Use: 1984–2011**

■ Internet use at home   □ Computer in household

(In percent)

8.2 15.0 22.9 18.0 36.6 41.5 51.0 50.4 56.3 54.7 61.8 61.7 69.7* 68.7 74.1* 71.1 76.7 71.7 75.6

1984 1989 1993 1997 2000 2001 2003 2007 2009 2010 2011

*Note: In 2007 and 2009 the Census Bureau did not ask about computer ownership. The estimates presented here for 2007 and 2009 reflect estimates made based on the ratio of computer ownership to Internet use in 2003 and 2010, respectively.
Source: U.S. Census Bureau, Current Population Survey, selected years.

percentage of computer users

■ Age 26 to 35   ■ Age 36 to 45
□ Age 46 to 55   ■ Age 56 to 65

Internet   Writing/editing text   Playing games   Reading info on CD or DVD

Telecommuting

- **Telecommuting:** Arrangement to work at home (or other mobile site) while communicating by phone, email, video or modem

- How has this impacted international business?
  - Invaluable tool (saves money/time)
  - Offshore outsourcing

    Hiring external organization to perform business functions in a country other than the one in which they manufacture in

Telecommuting Cont.

- Advantages:
◦ No Traffic
◦ Flexible work hours
◦ Improves quality of work (absent less)
◦ Save money (less equipment, office space)

Disadvantages:
◦ Lack of contact with other workers (social)
◦ Distractions at home
◦ No supervision

Electronic Information Transfer

- **Electronic Information Transfer:** Allows tasks to be done quicker
- Examples:
  - ◦ Transfer paychecks directly to bank accounts (Direct Deposit)
  - ◦ Online Banking (transfer funds)
    - Pay bills, Share payments (Venmo, PayPal)
  - ◦ Email files and other information
    - Google Docs

Virtual Training

- Allows people to <u>simulate a real situation</u> using a computer
- Example:
  - Flight simulations-pilots
  - Room equipped with a cockpit and video screen
  - Entire room is movable
  - Safe way to learn how to fly

Virtual Reality

- **Virtual Reality**: Artificial, <u>three-dimensional</u> visual world created by a <u>computer</u>
  ◦ Re-creates places and actions
  ◦ Goggles and fiber-optic gloves (data gloves)
  ◦ Move and interact with objects
  ◦ Used in medical training (procedures/ surgeries)

Internet Basics

- **Internet**: Global computer network

- **World Wide Web**: System for <u>accessing, changing, and downloading</u> a large set of hypertext-linked documents and other files
  - Hypertext: Computer language; allows Internet users to access images, text, and other files (HTML)

Who is the Internet Controlled By?

- **World Wide Web Consortium**

    (WC3): International association
    - Member organizations, full-time staff, and the public develop <u>web standards</u>
    - Oversees research
    - Sets standards and guidelines
    - More than 500 organizations are members

Accessing Information

- **Web Browser**: Program used for <u>displaying and viewing pages</u> on the Web
  - Makes it more enjoyable (design, graphics, and sound)
  - Chrome, Firefox, Safari, etc.

- **Search Engine**: Computer program that <u>produces a list of sites</u> related to a topic
  - Google, Bing, Yahoo, etc.

Intranets & Extranets

- **Intranet**: Computer network used by an <u>organization</u>
  - Restricted to authorized users
- **Extranet**: Extension of the intranet of a company or organization
  - Semi-private network
  - More than one company can access same information (collaborate)

Software Programs

- **Software**: Computer program that contains a <u>set of instructions </u>that tells a computer what to do

- **Suite**: Collection of <u>software applications </u>that works as a single program
  - Examples: Microsoft Office, Corel, Lotus, Adobe Creative Suite
  - Word-processing, spreadsheet, database management, presentation, creative and communications software
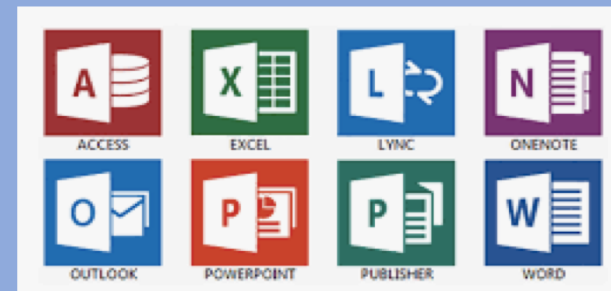
Application Programs

- **Word processing**: writing, editing, and publishing of documents
  - Microsoft Word

- **Spreadsheet**: entering and charting data
  - Microsoft Excel

- **Database management**: store data for rapid search and retrieval
  - Microsoft Access

- **Creative Tools**: used for creating and editing photos, websites, and videos
  - Adobe InDesign, Adobe Photoshop, Adobe Illustrator

Application Programs

- **Presentation program**: creating slide shows
  - Microsoft PowerPoint

- **Desktop publishing**: produce publications (newsletters, magazine ads, etc.)
  - Adobe InDesign, Microsoft Publisher

Other Terms..

- **Virus** - malicious code or program written to alter the way a computer operates and is designed to spread from one computer to another.

- **Cookies** – bits of information which are stored on a user's hard drive that contains information about a computer user

- **Firewall** - a system designed to prevent unauthorized access to or from a private network.

- **Spam** - slang term that refers to unsolicited commercial email or unsolicited bulk email

- **Spyware** – software that tracks what a user does on the internet

- **Hypertext –** computer language (coding)