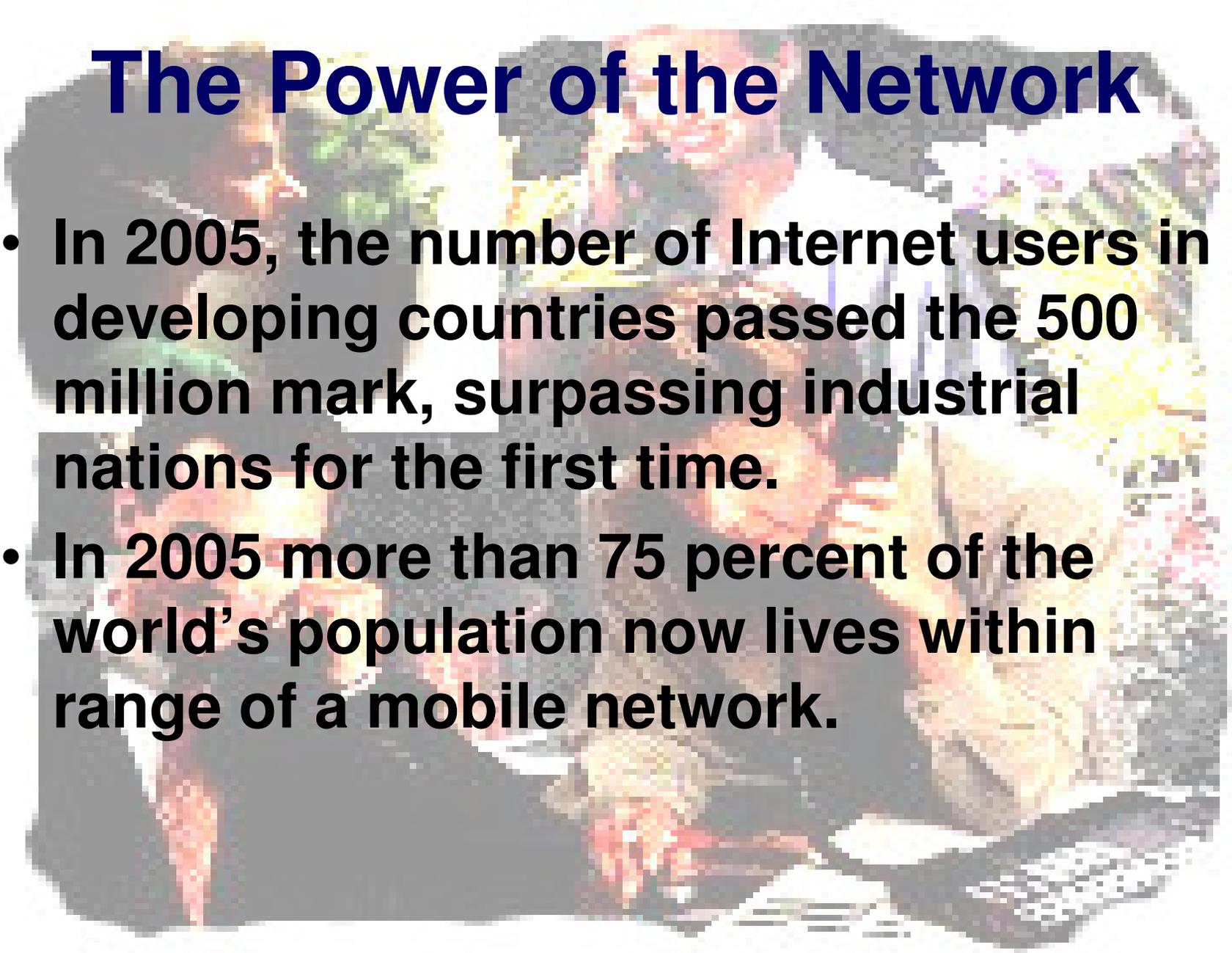# The Rise of the Information Society

Dr. Inon Beydha Lukman

The Computer is at the Heart of the Information Society

- **Increasing in speed**
- **Increasing in memory capacity**
- **Decreasing in size**
- **Becoming more portable**
- **Connected by wireless**
- **Becoming more intuitive to use**
- **Becoming more ubiquitous!**
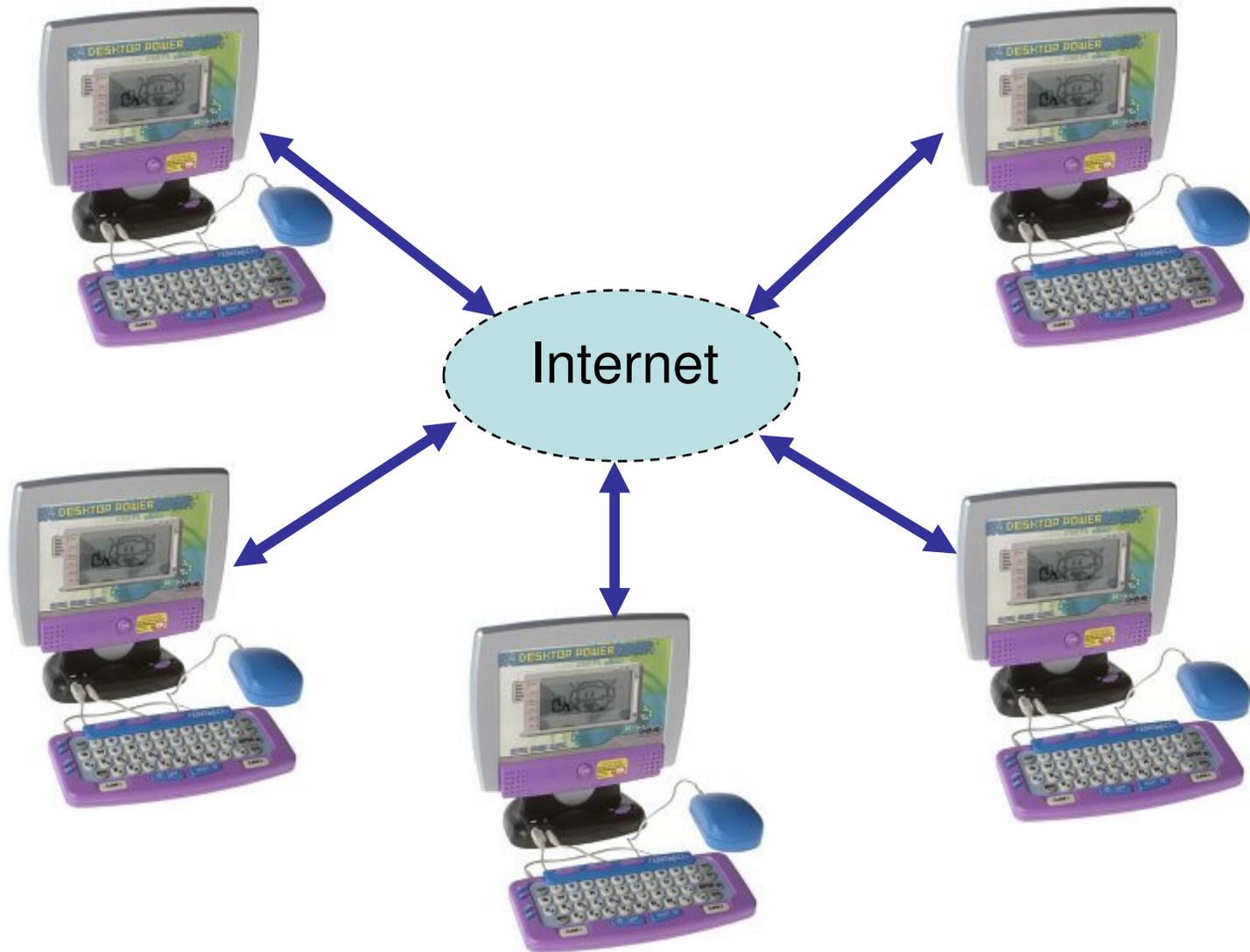
The Power of the Network

- **In 2005, the number of Internet users in developing countries passed the 500 million mark, surpassing industrial nations for the first time.**

- **In 2005 more than 75 percent of the world's population now lives within range of a mobile network.**

Computer Network

Computer 'Internetwork'

Internet

Interactive TV

- **Cable Interaction**
- **Video on Demand**
- **Convergence of Internet and TV**
- **E-Mail**
- **Multiple Screens**

Information Technologies

- **Devices to save time**
- **Devices to communicate**
- **Devices to Inform**
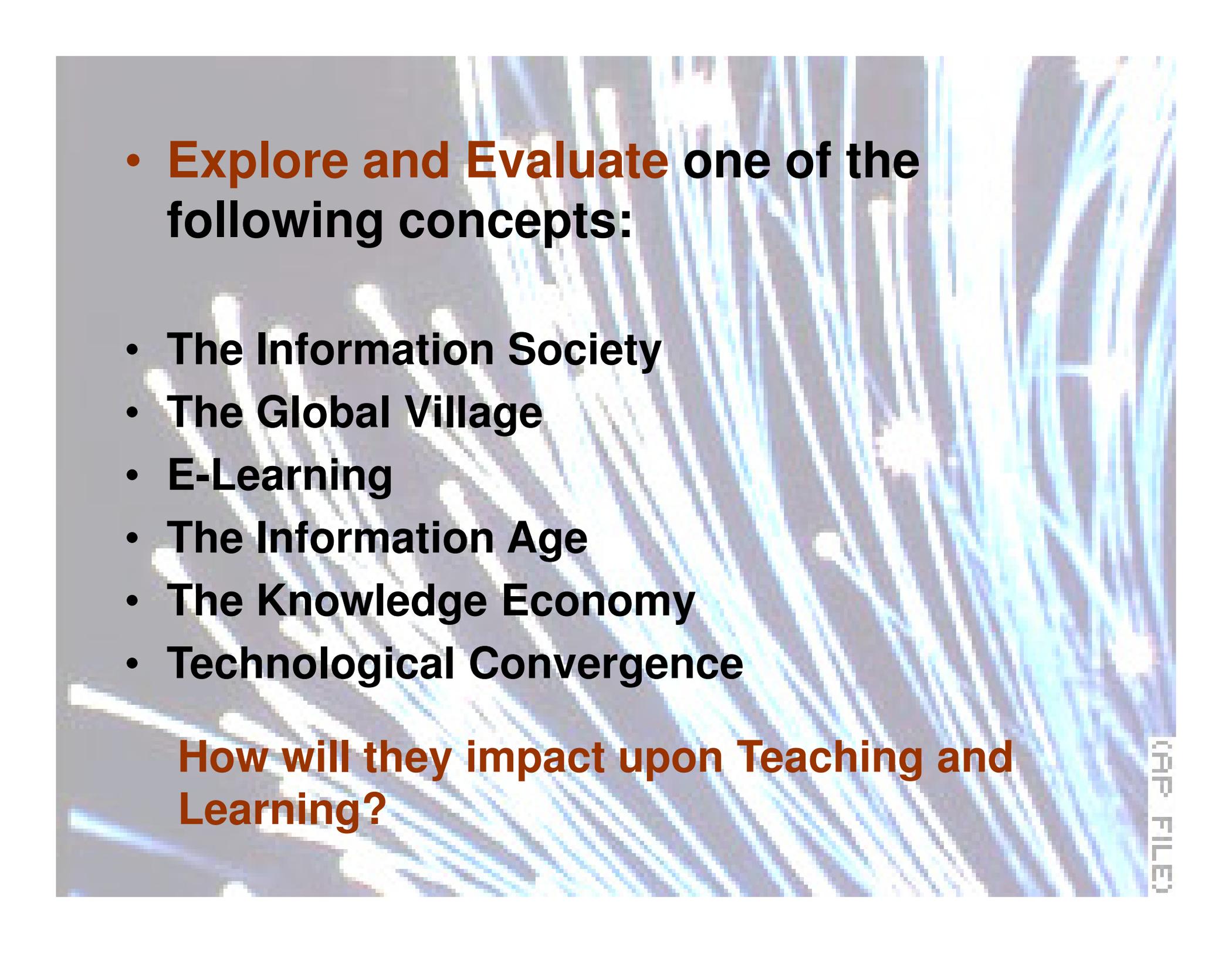- **Devices to transform living**

Information Devices in the Home

- **Your 'fridge knows you are low on milk and orders more from Tesco!**

Information Devices in the Home

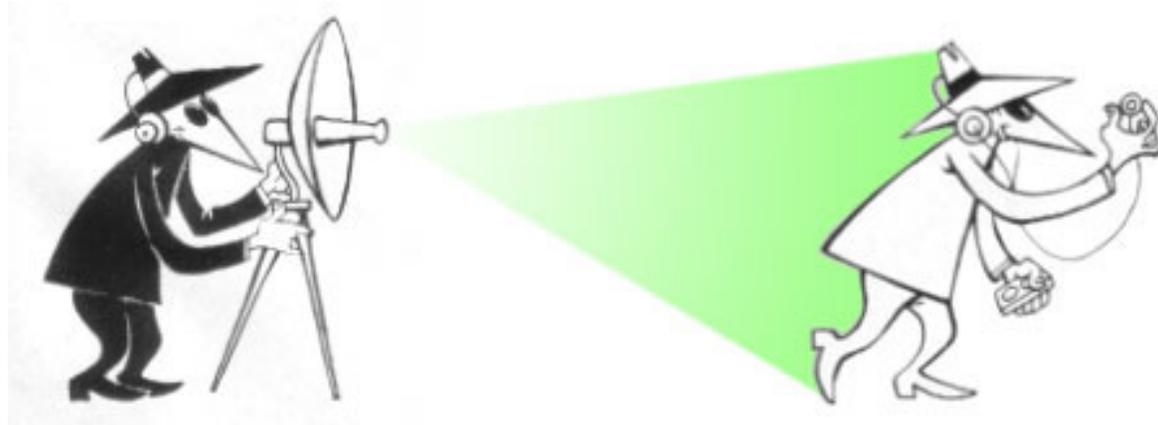- **Your Doctor knows you are ill before you do!**

- **Explore and Evaluate one of the following concepts:**

- **The Information Society**
- **The Global Village**
- **E-Learning**
- **The Information Age**
- **The Knowledge Economy**
- **Technological Convergence**

How will they impact upon Teaching and Learning?

Software Agents

- Spam Filtering
- Search Engines
- Content Filtering
- Buyer Agent (e.g. Amazon.com)

Intelligent Agent Software

Buyer Agents (Shopping Bots)

- These robots help Internet surfers find products and services they are searching for. For example, when a person surfs for an item on eBay, at the bottom of the page there is a list of similar products that other customers who did the same search looked at. This is because it is assumed the user tastes are relatively similar and they will be interested in the same products. This technology is known as collaborative filtering.

User Agents (Personal Agents)

- These agents are meant to carry out tasks automatically for the user. For example, some bots sort emails according to the user's order of preference, assemble customised news reports (e.g. newshub), or fill out webpage forms with the user's stored information.

Intelligent Agent Software

Monitoring-and-surveillance (Predictive) Agents

- These agents are used to observe and report on equipment, usually computer systems. For example, the agents keep track of company inventory levels, observe competitors' prices and relay them back to the company, watch stock manipulation by insider trading and rumours, etc.
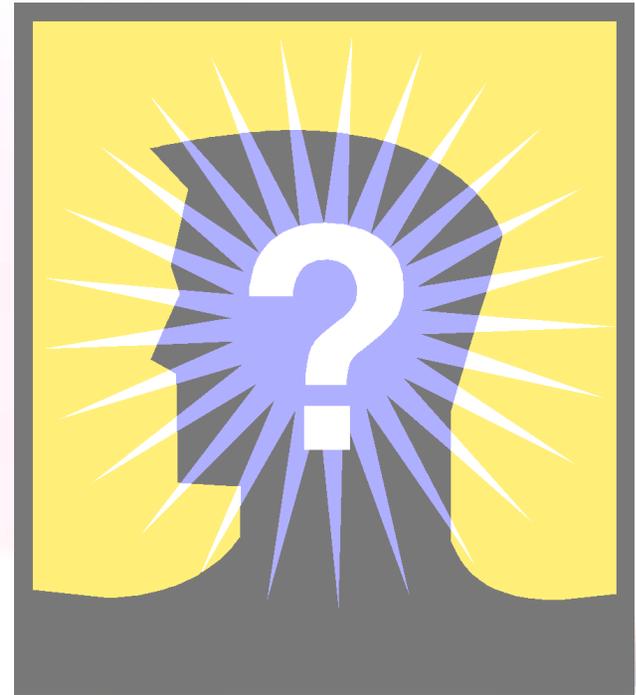
Data Mining Agents

- This agent uses information technology to find trends and patterns in an abundance of information from many different sources. The user can sort through this information in order to find whatever information they are seeking. An example of this class of 'bot would be a data mining agent that detects market conditions and changes and relays them back to a user/company so that the user/company can make decisions accordingly.
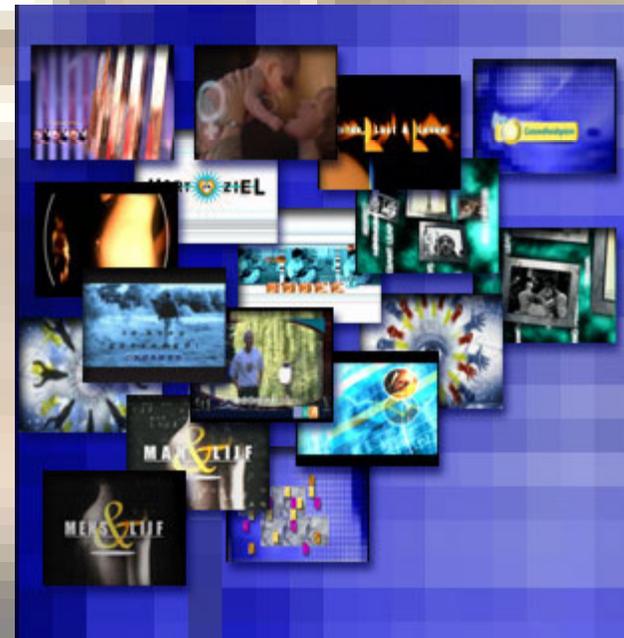
Educational Applications

- **What areas of your curriculum might benefit the most from the use of Intelligent Agents?**

Educational Applications

- **Multimedia Resources**
- **Distance Education**
- **E-Learning**
- **Internet applications**
- **E-mail communication**
- **Video links**
- **Electronic Presentations**

Educational Issues

- **What issues do we need to consider when we use ICT* in education?**

* ICT is Information and Communication Technology

Computer Dependency

Technophobia

Issues for Teachers

- **Cost**
- **Training**
- **Updates of software**
- **Technology Failure**
- **Security (Hacking, Malware, etc.)**
- **Technical Infrastructure**
- **Disability Issues**
- **Age and Gender issues**
- **Teacher competence**
- **Confidence levels**
- **Practical uses**