

Understanding Information and Communication Technologies

Breakfast meeting
of parents, teachers & alumni
at St. Stanislaus High School
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What are ICTs?

- **ICTs stands for Information & Communication Technologies**
 - commonly known as "computers"
 - used extensively in business, manufacturing and government for past two decades
 - earlier seen as intimidating, to be adapted to by humans
 - now, as an extension of the human hand and mind
 - an essential work tool, whatever the field
 - increases human capacity to express
 - builds knowledge through exchange with others

What characterises ICTs?

- **ICTs are interactive and allow direct communication**
 - lead to networking, especially between peers
 - networking makes hierarchies collapse: flat structures replace tiered relations of power
 - intermediaries and monopolists are cut out of the action
 - networking results in the rapid dispersal of knowledge
 - no-one wastes resources re-inventing the wheel
 - all members of a network move ahead together

What else characterises ICTs?

- **The digital nature of ICTs results in convergence**
 - Text, photos, statistical tables, maps, music, moving images are all produced and circulated digitally
 - The tools to produce these have become simplified, so media can be produced by many more people
 - They can be brought into play together on the same platforms, interchanged and transformed
 - The same content can be seen from different angles
 - to give rise to new perceptions
 - a diversity of approaches to problem-solving

Some key concepts in relation to ICTs

- Internet – a global network of computers that communicate with each other
- World Wide Web – the collection of information and tools that use the Internet
- Email (electronic mail) - a means to send letters electronically from one person to one or more individuals. (Hotmail, G-mail and Yahoo mail are examples of email services)
- Instant Messaging – a means to communicate instantly with others who are also logged in. (examples: MSN IM, AOL IM and Yahoo IM)
- Voice over IP– A protocol that allows the Internet to be used as a telephone and videophone (Skype)
- Social networks– services on the Internet where individuals share information with the purpose of building a social network (Orkut, Facebook, Linked-in and mySpace)

What can ICTs do for us?

- **In our personal lives**

- ICTs offer a unique opportunity for increased access to knowledge
- All questions are allowed on the Internet and there is no limit on how much to ask
- When learners pursue their interests, their knowledge becomes personally constructed and relevant to them.
- This process can take place freely, outside boundaries of formal educational structures

What else can ICTs do for us?

- **In public life**

- They offer a powerful means to make governance transparent and answerable to people
- Similarly, more transparency in business practices
- With ICTs working in tandem with other factors that enhance democracy, such as the Right to Information Bill, we can hope to see increased empowerment of ordinary citizens
- This could end the rule of the intermediary or gatekeeper who profited by keeping information secret
- And ultimately, help to blur the sharp socio-economic divides in our society

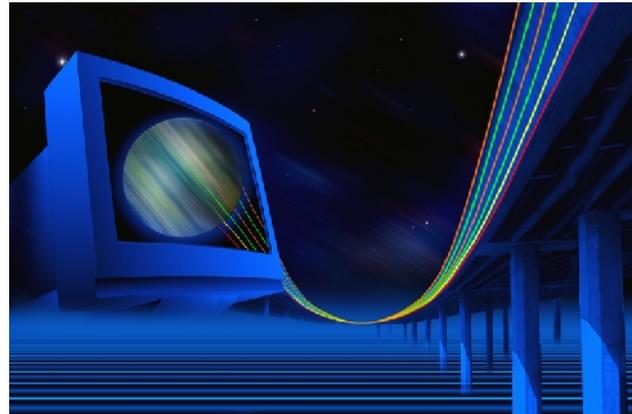
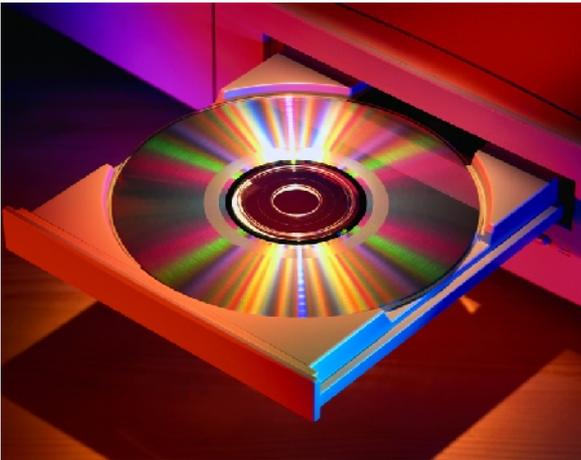
What else can ICTs do for us?

- **In terms of India's economic growth**
 - If people are enabled with ICTs, individuals will be able to turn their knowledge and talents into resources for their livelihoods
 - Many people outside the organised sector at present will be able to enter it after some training
 - This will help to tackle the challenges to sustained economic growth in the years ahead

To backtrack a bit...

Content has always existed and humans have always communicated, so what is new?

The problem is that societies have often practiced forms of exclusion with regard to knowledge, probably to guard the privileges of those who had it and that continues...



What has changed?

- **All around us, a connected society is getting created**
 - Networks and access technologies make it possible
 - These rapid changes affect all aspects of our lives:
 - technological, in terms of knowledge creation
 - societal, in our living, working and growing up

With mobile and internet connectivity we are ever ready to look up information and communicate



Some call this an A3 scenario:

Anyone → **Anywhere** → **Anytime**



What else has changed?

- **Movement towards Information Society**
 - Internet, mobile technologies, Web 2 lead to intimate communication
 - Better dialogue, more working together
 - Convergence of formal, non-formal and informal modes of education
 - Living-working-learning-developing are getting integrated

To sum up: the processes of the information society

- **Technology generated processes:**
 - Digitisation
 - Virtualisation
 - Mass personalisation
- **Processes created by Connected Society:**
 - Wiki processes: mass collaboration
 - Self-organisation: blogs, tagging, social networking
 - Open education resources, global standards, free software movement
- **Processes generated by Open Resources:**
 - Co-creation by producers and clients
 - Knowledge intensive products and services

A three-sided theme for this transition

- Learning through living
- School as a learning community
- Lifelong learning

Let's find the way forward together



Thank you!

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