SUSTAINABLE DEVELOPMENT IN EDUCATION: A CASE FOR ICT

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What is Sustainable Development?

- Best attempt at defining made by the Brundtland Commission in 1987.
- Broad based development, focusing on equity, growth and environment.
- Meets the needs of the present without compromising the potential for the future.

Understanding Information Communication Technologies (ICT)

- Wide range of media, devices and technical services that can facilitate communication and process and transmit information via electronic means.
- Range from commercial radio to the internet.
- E-Choupal and Bhoomi Project- successful examples of implementation.

Free and Open Source Software (FOSS)

- Software distributed under a license either accepted as free or open software by the Free Software Foundation or by the Open Source Initiative.
- 4 fundamental freedoms attached
  - Freedom to use the software;
  - Freedom to study the software;
  - Freedom to copy and share the software; and
  - Freedom to modify and redistribute the software
- Not necessarily free of cost but freedom to exchange.

Sustainable Development in Education

- Empowerment of all to enable people to shoulder responsibility to create a sustainable future
- Challenges
  - Access to education
  - Quality of education
  - Resource Allocation

ICT as a Communicative Tool

- Remove barriers of space and time.
- Virtual classroom
- Greater participation and interaction in education
- Speedy dissemination of knowledge to disadvantaged groups
- Effective group collaboration

ICT as an Informative Tool

- Free flow of information
- Creation of a digital resources
- Anytime, anywhere access for all
- Use for data analysis
- Networking and sharing of resources
- Path to a ‘knowledge society’

ICT as a Situational Tool

- Possibility of simulation and virtual reality
- Creation of situations similar to real life
- Enhances student perception & sustains interest

EDUSAT- Education Satellite

- India’s first satellite exclusively for education
- Beams education programs to educational institution across India
- Attempts to bridge the gap between rural and urban education quality
- Overcomes limitation of adequate trained and skilled teachers.

‘Hole In The Wall Education’

Collateral Benefits of ICTs

- Environmental Benefits
- Economies of Scale

Stakeholder Approach

- Benefits all major stakeholders in Education
- Students
- Educators/Employees
- Government

FOSS in ICTs

- Creation of niche solutions targeted at a particular group or community
- Cheaper than proprietary software
- Easy conversion into local languages & dialects
- Smaller resource footprint.

Need for Governmental Response

- In India National Policy for Education, 1992 encourages ICT
- Most initiatives of ICT in education supported by government
- No concrete policy on FOSS
- Public-private partnership

Challenges

- Development and maintenance of infrastructure
- Seemingly prohibitive initial costs
- Inadequate skills and requirement of training
- Improper implementation leading to digital divide

Simputer

Summing Up

- Potential for innovation creating a paradigm shift.
- Changing character of education for transmissive to transformative
- Main goals achieved
  - Education more accessible
  - Improvement in quality
  - Effective resource allocation

Thank You