



Using ICT to include people with disabilities in Knowledge Societies

iTEC08 - Darmstadt, Germany

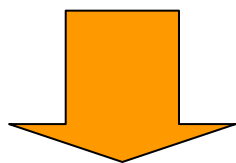
6 November 2008

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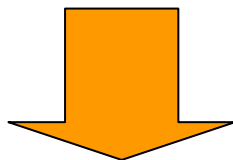


Transformations

Agricultural Society



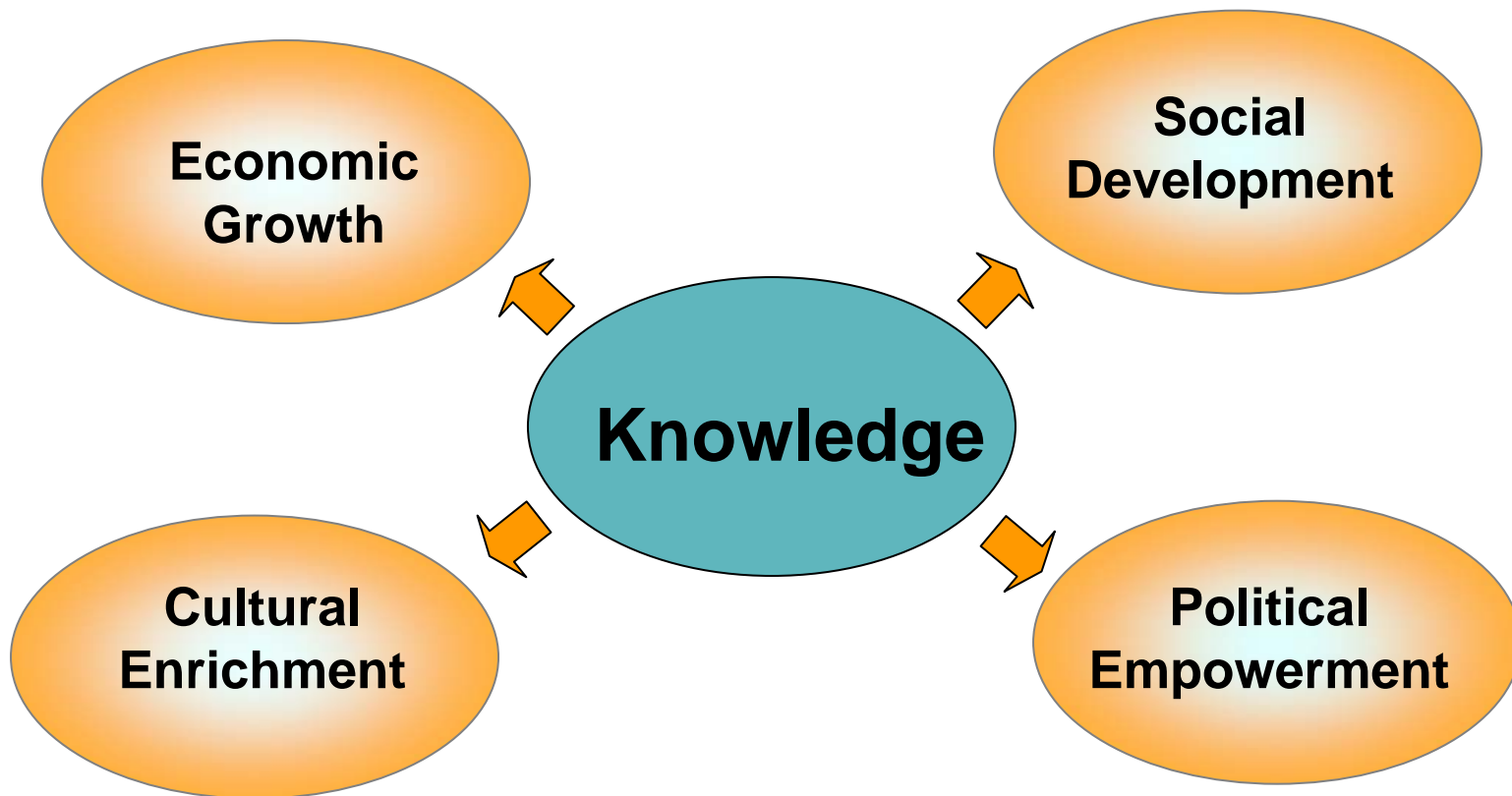
Industrial Society



Knowledge Societies

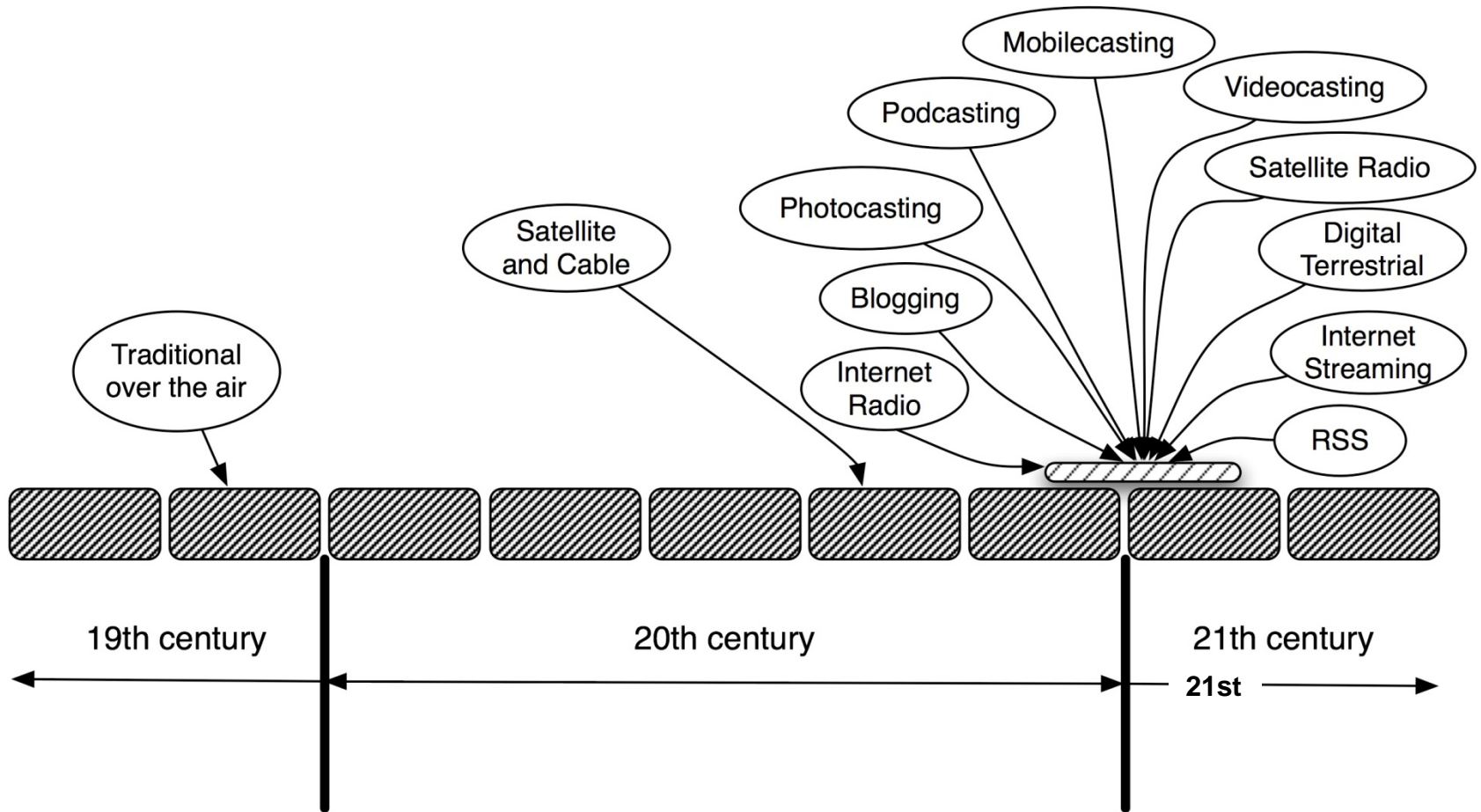


Knowledge and Development



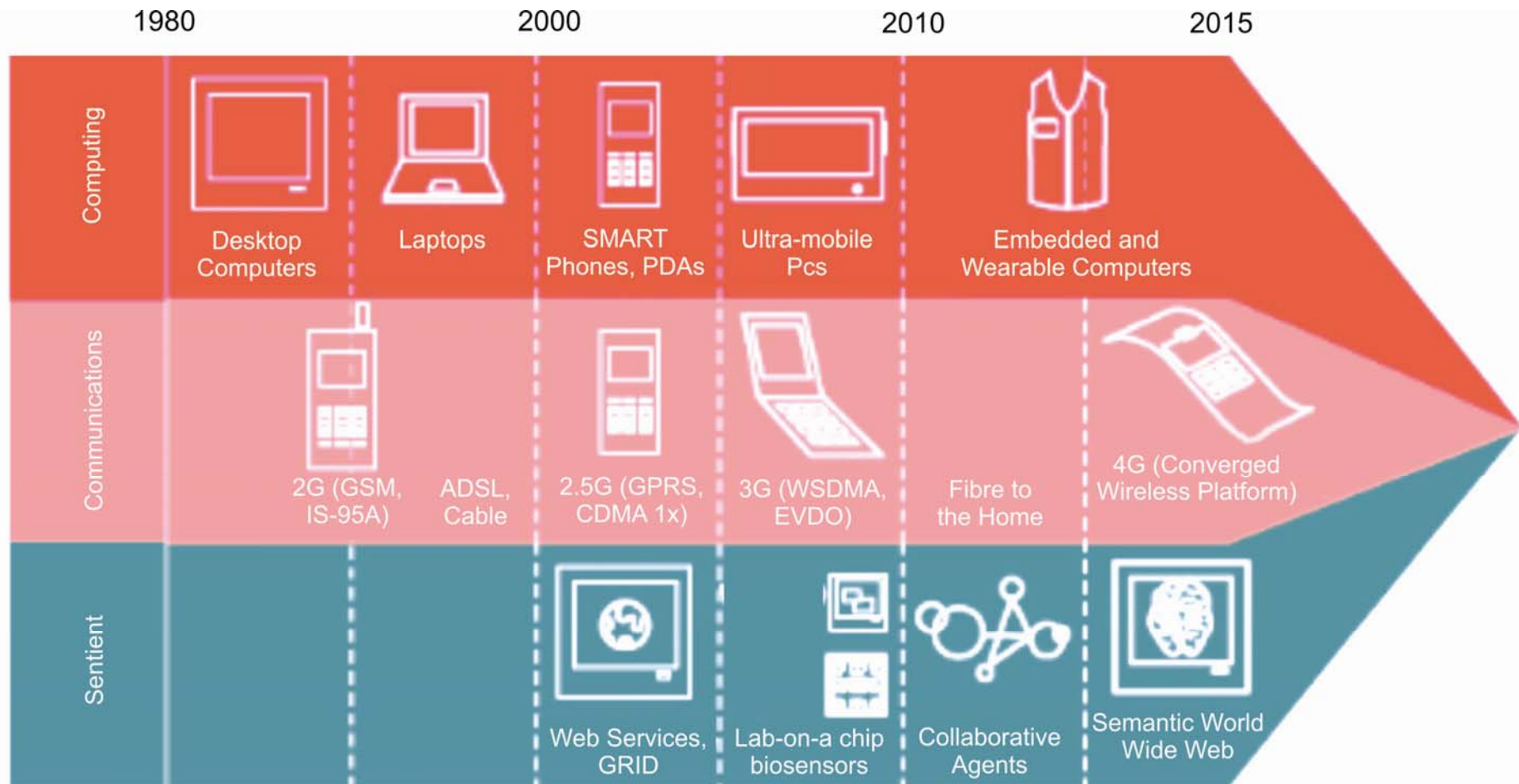


Technology Revolution



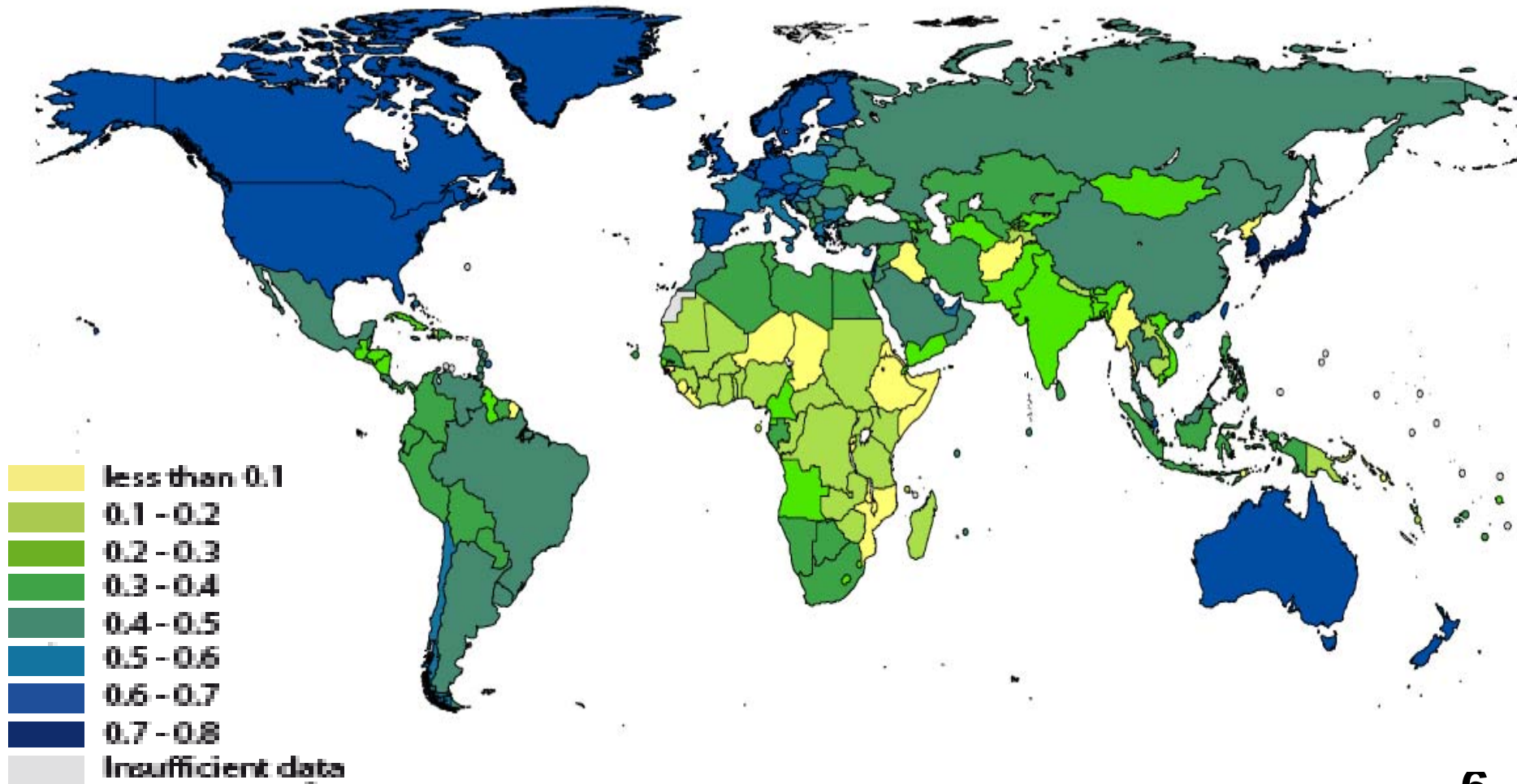


Three Waves of Evolution





Digital Divides





Knowledge Divides

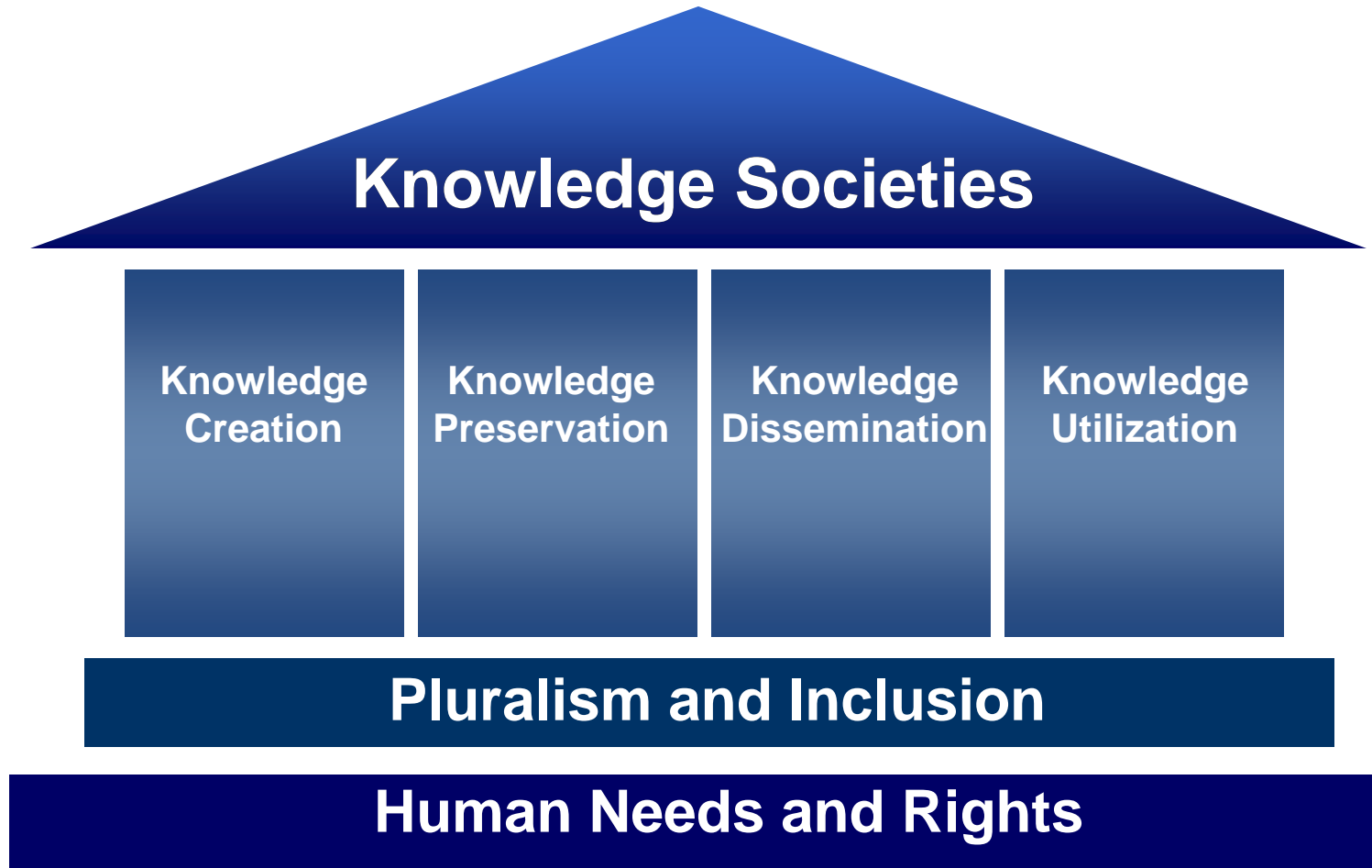
- Access to knowledge
- Prosperity
- Globalization
- Inclusion



- Limited access to knowledge
- Poverty
- Marginalization
- Exclusion



UNESCO's Model of Knowledge Societies

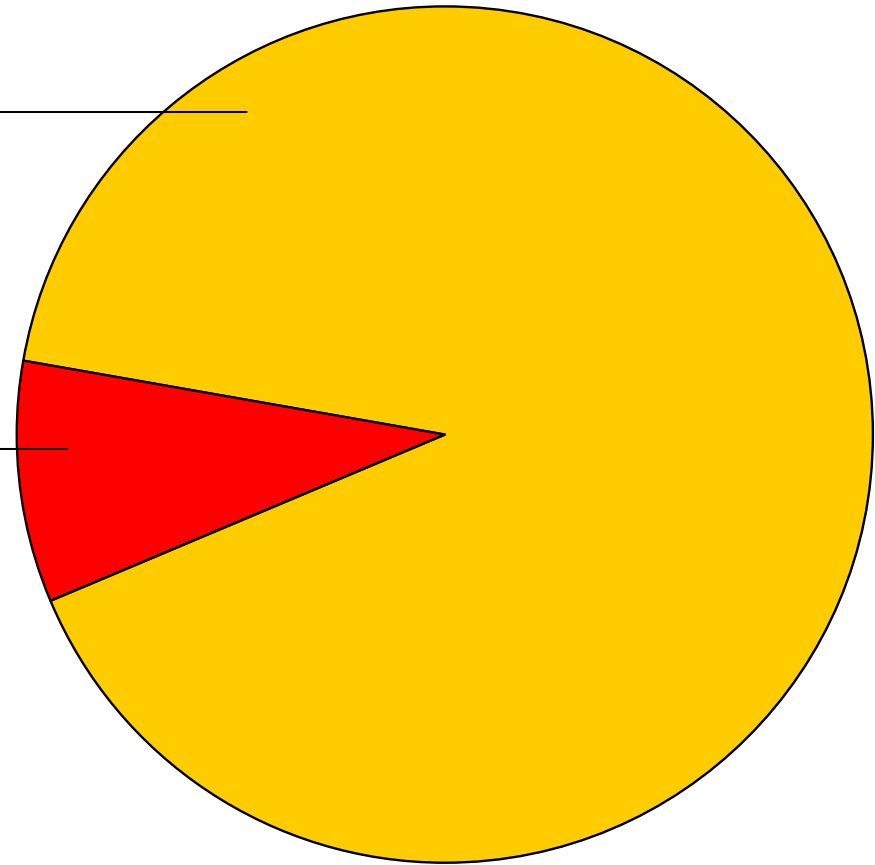




Challenges

**World Population:
6 billion**

**People with disabilities:
600 million (10 %)**





Challenges

- Over 80% of people with disabilities live in isolated rural areas in developing countries
- 62 million children of primary school age cope with disability
- 186 million children with disabilities have not completed primary school
- Fewer than 2% of children with disabilities in developing countries are in school



International Commitments (I)

United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities 1993

“States should recognize the overall importance of accessibility in the process of the equalization of opportunities in all spheres of society.

For persons with disabilities of any kind, States should (a) introduce programmes of action to make the physical environment accessible; and (b) undertake measures to provide access to information and communication.“

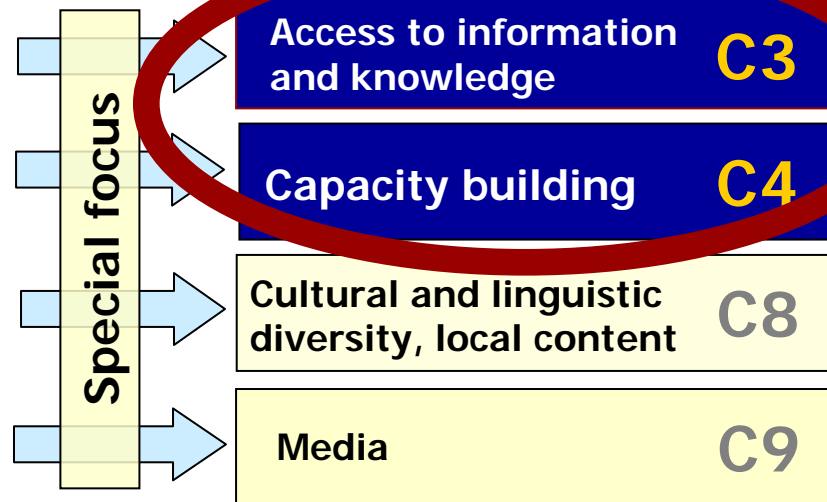


International Commitments (II)

World Summit on the Information Society WSIS Action Plan

Geneva 2003 – Tunis 2005 - and beyond.....

UNESCO's
Programmes





International Commitments (II)

WSIS Action Plan

C2 Infrastructure

“Encourage the design and production of ICT equipment and services so that everyone, has easy and affordable access to them including older people, persons with disabilities, children, especially marginalized children, and other disadvantaged and vulnerable groups, and promote the development of technologies, applications, and content suited to their needs, guided by the Universal Design Principle and further enhanced by the use of assistive technologies.”



International Commitments (IV)

WSIS Action Plan

C3 Access to Information and Knowledge

“Adaptation of ICT infrastructure, tools and applications that facilitate accessibility of ICTs for all, and disadvantaged groups in particular.”

C4 Capacity Building

“Address the need to ensure the benefits offered by ICTs for all, including disadvantaged, marginalised and vulnerable groups.”



ICT-enhanced opportunities

- Providing access to information and knowledge
- Providing new learning opportunities including opportunities for flexible learning
- Providing opportunities to share own information
- Networking with disability advocates in other countries
- Facilitating employment and self-sufficiency

➔ **Increase independence**



Range of technology options

- **Face-to-Face Communication**

Communication displays and voice output aids

- **Written Communication**

Hardware and software required for written/graphic output and educational access (e.g. from pencil grip to alternative keyboard access, talking books)

- **Education Aids**

Hardware and software to access education (e.g. communication aids, big keyboards)

- **Mobility Aids**

Any aid that will augment or replace ambulation (e.g. powered wheelchairs)

- **Environmental Controls**

Functional manipulation tasks that can be aided by assistive technology (e.g. modification of a utensil for easier grasping to modification by adding electronic controls for operation)



Need of National Policies/Legislation

- Enacting legislation to safeguard the rights of people with disabilities
- Defining government's aspirations as to services for people with disabilities
- Developing national standards for services and evolving mechanisms to ensure that these standards are maintained
- Training key professionals (hard and software developers, social workers, etc.) to embrace disability issues
- Collecting statistical data and carrying research on disability issues
- Assigning ministerial responsibility for disability issues



UNESCO's Action: Some Examples

- Flagship project on “Right to Education for Persons with Disabilities towards Inclusion”, in cooperation with University of Jyväskylä and University of Oslo
- Publications programme of UNESCO's International Institute for Information Technologies in Education (Moscow)
- Partnership with SchoolNet and African Virtual University on special educational needs in Africa
- Follow-up work on ICTs for people with disabilities within the World Summit on Information Society



Conclusion

- ICT offers people with disabilities opportunities to:
 - **compensate** for physical/ functional limitations
 - **access** knowledge by adapting media to their impairment
 - **enhance** social and economic integration.

- Decisions on investments/solutions must be based on:
 - **Human rights-based approach**
 - **Commitment** at all levels: international, national and local
 - **Respect** for cultural attitudes
 - **Accessibility parameters** in the early design phases of ICT products, tools and solutions
 - **Multi-stakeholder** approaches



**Establishing
ICT policies and tools
for people with disabilities
based on
human rights,
not charity.**