



Low-cost ICT Initiative for Every Citizen

Learning without Borders

I. General Considerations about ICT

IC-Technology for Social Progress

Learning-Education as a Prerequisite

II. Technical Aspects of ICT

III. LWB Proposal for ICT Implementation



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I. General

ICT FOR LEARNING

REDUCING DIGITAL & KNOWLEDGE DIVIDE =
ERADICATING ILLITERACY =
ERADICATING POVERTY =
STEERING DEMOGRAPHIC TENDENCY



SUSTAINABLE SOCIETIES



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1) LEARNING & EDUCATION :

- ***Formal learning through the school system***
 - Primary schools
 - Secondary schools
 - Vocational & Higher Technical
 - University



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2) LEARNING & EDUCATION :

- Non-formal learning channels via communities

Addressing anyone: adults and illiterates

- training for skills
- literacy with multi-media
- Micro-credit
- Other



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Knowledge Society arrives at great pace

Attracting Investments : FDI & ODA

Attracting Industrial Production Units

- availability of skills
- building up know how in all domains of economy

Extending the socio-economic progress

Extending the Middle Class as the motor of society



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ICT stimulates young people to learn even non-formal

ICT motivates youngsters

ICT leads to build up know how

ICT leads to less drop outs of schools

ICT a window to modern society

ICT is frequently a new start for the life of youngsters



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Major Challenge : **Content & Training**

Didactic Material

- Content is a big challenge everywhere !!
- Other ways of learning to be introduced resp. to be invented : Logos



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II. Technical Aspects

Low-cost : *LAP- or DESKTOP < US\$ 250.-*

- Low-Cost project presented at UNESCO, Paris & WSIS in Tunis, in 2005.
- For children in primary + secondary classes
- Today : Laptop -one per pupil child- in ownership!
- It is Learning tool, for better inclusion in :
Society & for Professional use



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- Maturity of the New technologies :
- Open software, Linux based but lean,
but now also Microsoft XP
 - Middle-ware
 - Open Office
- Commercially Available : in stepwise delivery
Distribution on **non-for-profit** basis



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CONNECTIVITY : NO GRIDS REQUIRED ANY MORE

- 1) Low-cost ground equipment for Satellite Communication – Wireless
triple play

Internet - TV - Phone

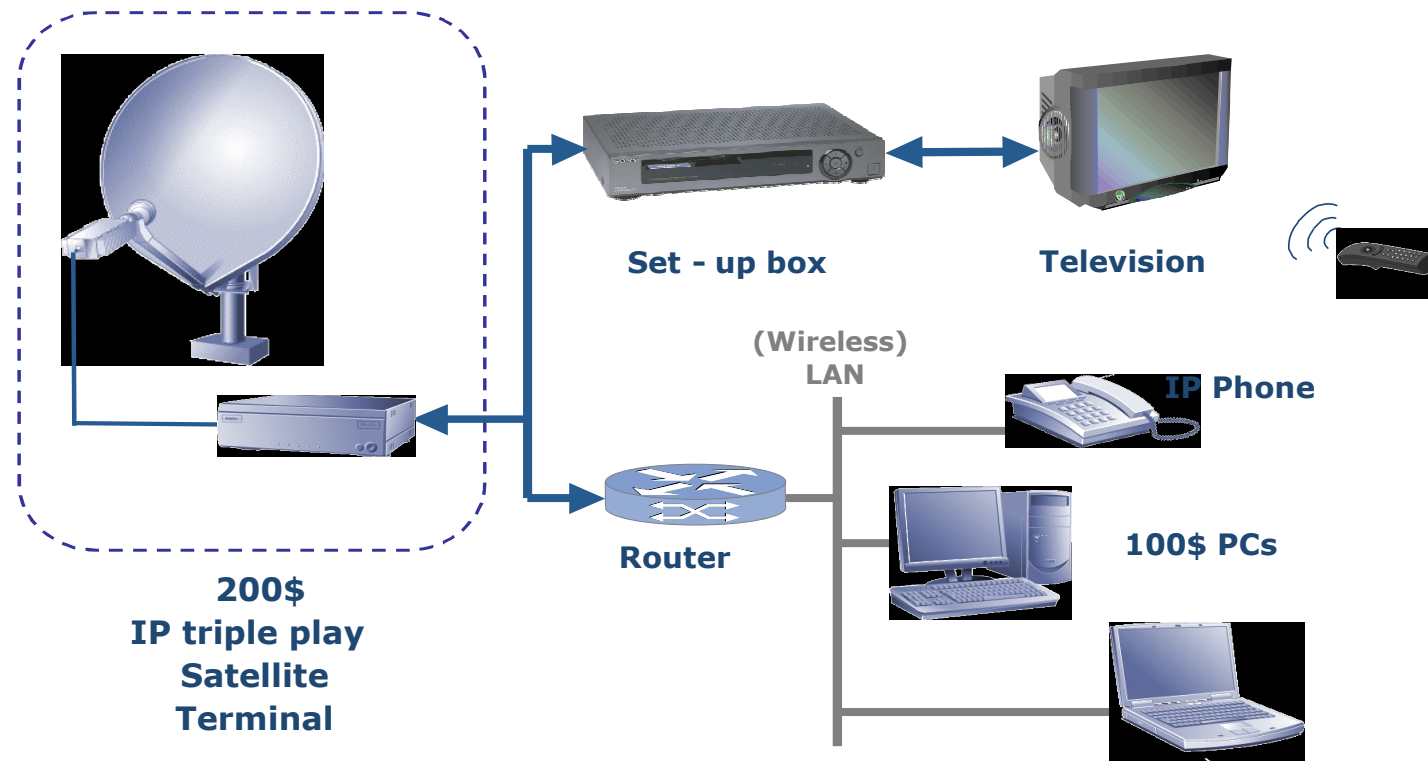
- Low-cost material ready for production



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Remote Telecentre





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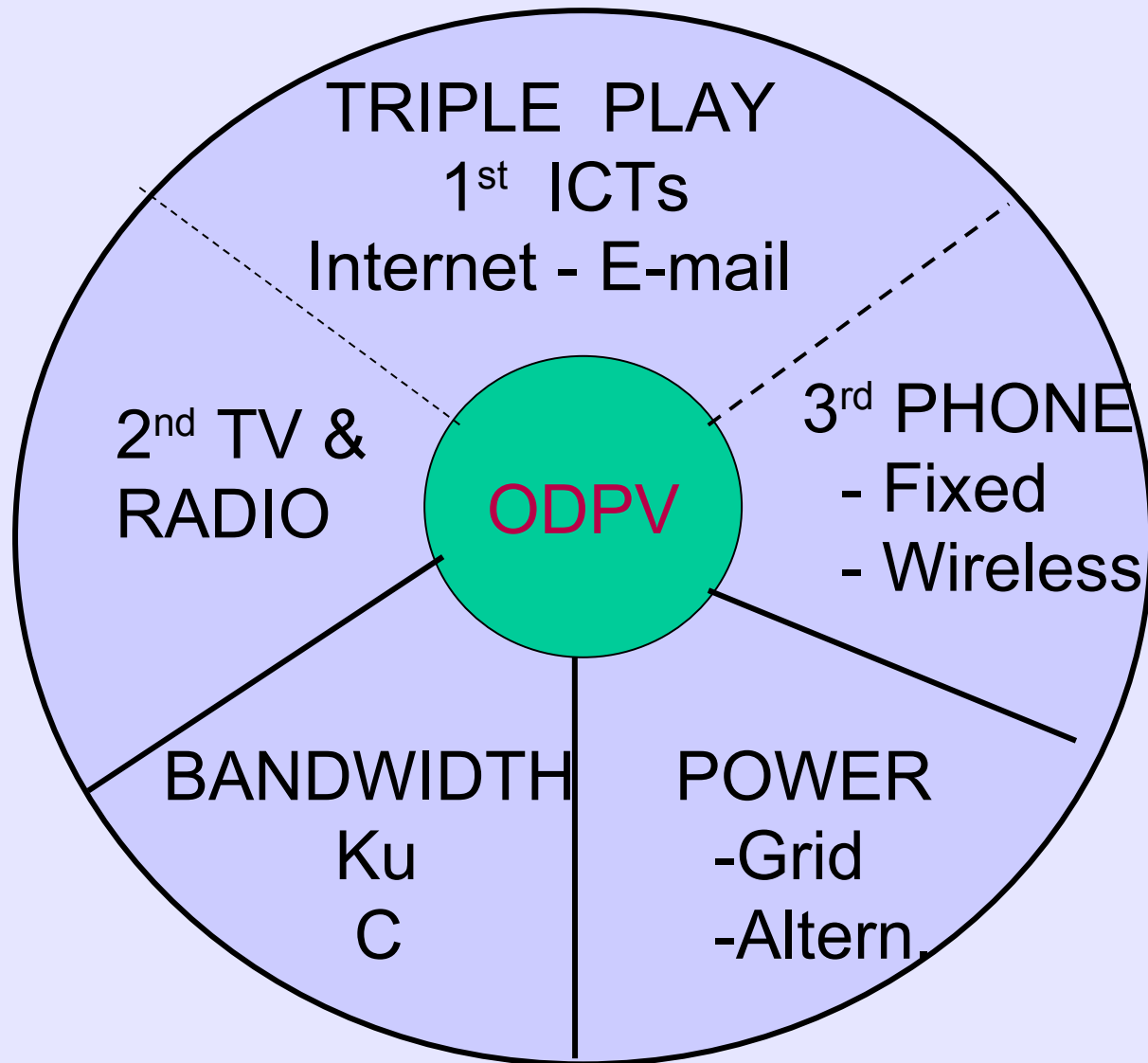
POWER SUPPLY

SOLAR ENERGY in REMOTE PLACES



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OLPC = LC-LAP/DT: 'One Laptop Per Child'

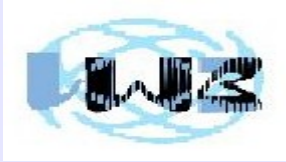
ODPV = One (Satellite) Dish Per Village

Triple Play : Tele-centre

Power without Grid : solar energy

Bandwidth : ?

Low-cost Cell Phone : < \$25



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III. LWB-Proposal : Overall Project Implementation

1. Assistance in Project Management

2. Training

Technicians

Teachers

3. Communication & Reporting

Official Authorities

School directions, Teachers Groups

Local communities and Parents



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1. Assistance to Project Management

1.1 Cost evaluation : amount of devices + training + other

1.2 Description of the objectives and the time frame,
Which classes to address?

Involving School Directions, Teachers, Local authorities
and Parents (?)

1.3 Detailed planning of timing for implementation

Where is What ? Data-base of equipment and
persons responsible in schools (or other
organizations)



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- 1.4 'Roll out' of equipment - a few thousands !! - practical support, logistics
- 1.5 Supervisory of equipment
- 1.6 Installing a 'Help-desk' for immediate questions & problems about :
 - Windows, Office,
 - Network & datacom,
 - Applications installing parameters,
 - Other software : media, web,



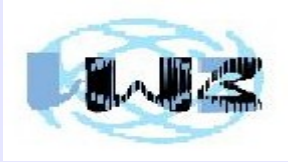
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2. Training

2.1 'Technicians'

- for 'first aid' in schools and classes,
- installing hardware & software,
 - simple diagnosis & debugging,
- virus protection,
- surveying PCs of external software,
 - parameters networking & data-com,
 - saving procedures, etc.
- liaison with manufacturer hard- & software.



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2.2 Teachers I Course material & Learning content

- Learning the new 'tool' and 'environment'
 - Office products,
 - Media products,
 - Web, Wiki,
 - Ownership of equipment by kids,
 - Diagnosis of problems,
 - Bug detection and forwarding to 'technicians'
 -



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2.2 Teachers II Course material & Learning content

- Exact Sciences:

Arithmetic, Mathematics, Geometry,

Elementary Physics,
Chemistry,
Biology,
Ecology

Geography

Technology learning



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- 'Societal' Sciences/Knowledge:

- Graphical aids
- Google Earth
- Wikipedia
- Media skills
- Newsletter of the class/school
- Foreign Language knowledge acquisition



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2.3 Sources for Educational Content

- Arab Open University, Egypt Branch,
- African Virtual University,
- Agence Universitaire de la Francophonie,
RESAFAD (Sénégal),

- MIT Open Course Ware. Highlight for High Schools
- MIT Open Learning
- UCLA
- Open University, UK



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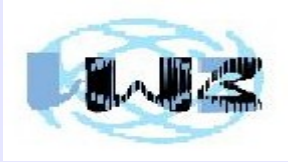
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3. Propagation & Motivation

Involving many people & authorities :

- Officials of all kinds

- Local
 - School directions,
 - Create teachers Groups,
 - Inform Local Communities and Parents.



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