Community Service through ICT

Mmantsae Moche Diale

THIS YEAR'S THEME IS “COMMUNITY SERVICE AND EDUCATION”. INVITED SPEAKERS FROM INDIA, GHANA, SOUTH-AFRICA AND THE NETHERLANDS WILL HIGHLIGHT THE THEME, PRESENTING CASE STUDIES FROM VARIOUS CONTEXTS: RURAL DEVELOPMENT, HEALTH, AND EDUCATION.

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Acknowledgements

BIO-NANO Solar Energy Research
Outline

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Thank you
Introduction

About 20+ years ago, internet became a boom.

These days, it has become an essential part of life: WHATSAPP.

The use of devices has grown exponentially too: in the families, kids of 13 or 14 years old already have smartphones, personal laptops and tablets.
ICT Roadmap

ICT ROADMAP

ICT is widely recognized as a vital tool for socio-economic upliftment.

As an enabler of solutions across almost all other domains and through the extensive use of ICT in society, it creates economic and social impact.

VISION

Advanced human capital and strong and institutional capacity, enabling critical mass for research in prioritized areas

Interdisciplinary Research: Food science and methods of cooking
Community Issue 1: Unemployment

Past inequalities

Unemployed Graduates

click here to register ...

WRONG SKILLS?????

POVERTY
ICT and Poverty

• ICT infiltration of poorest communities - mobile phones
• A basic phone can call and send SMS + internet
• Illiterate persons can use mobile phone through voice
  “Malapa-ga-a-lekane” Different family income - basic phone
• Choose to buy a mobile phone over other luxuries
Electricity access

Infrastructure Problems

Catch the sun rise

Catch the sun goes down

PV + AP = off grid solutions

Community engagement program: NRF
Solar Turtle

James van der Walt: PV - electricity solutions to schools

https://vc4a.com/ventures/solarturtle
Community service
Community Service

Job Adverts

5 April statistics:
Careers 24 advertised 21,652 jobs
5,981 are in Johannesburg
All pay a living wage - lowest R12,000.00 per month -

- 1,600 in IT
- 431 Engineering
- 298 Telecoms
- 148 Technical

Is this information Reaching All unemployed people
Yes

Mobile technologies: Internet - phone, tablet, laptop
Mobile Cinemas to boost entrepreneurship and connect communities

Cinema in a bag - Bus download movies UP and PUTCO
Community Service Education

Saturday classes:
- Computer literacy
- using mobile technologies effectively

Money and Technology:
- Fear
- No internet banking
- No cell-phone banking
Tshwane Free Wifi Project

Some quick facts on the Tshwane Free WiFi project

Where are the WiFi sites

- 29 Sites at Health Facilities
- 39 Sites at Bus Routes
- 41 Sites at Service Delivery Points
- 514 Sites at education facilities
- 10 Tourism and Heritage Venues

Who is using the WiFi sites

- 52% Male
- 49% Female
- 11% Computers
- 8% Tablets
- 81% Mobile

Stats provided by Project Isizwe. Infographic by htxt.africa. www.htxt.co.za
Education

KHANYA COLLEGE
Education for Liberation

Siyakhula Computer School

Huawei
Teachers

TELKOM super centers

Rural Education Development

Computer literacy

Teachers receiving tablets
My Lab at UP

Automate measurements

LabVIEW
My class

Peer instruction

Can you really Lecture Me -

Prepare PowerPoint slides

Send students Class preparation questions and tasks

Check e-learning regularly for students queries

Disadvantages

Students fail to understand teaching style

Advantages

Students understand Physics
Solution?

Solving community problems using technology

Baseline: what are the needs according to community

Post office??

Infrastructure by mobile networks

Cheap data bundles?? Available data bundles

Solve own problems using technology

Money4Jam - solving unemployment with technology

Use own phone and send information to companies - promotion of products
Thank you!