## Community Service through ICT

### **Mmantsae Moche Diale**



# Acknowledgements

















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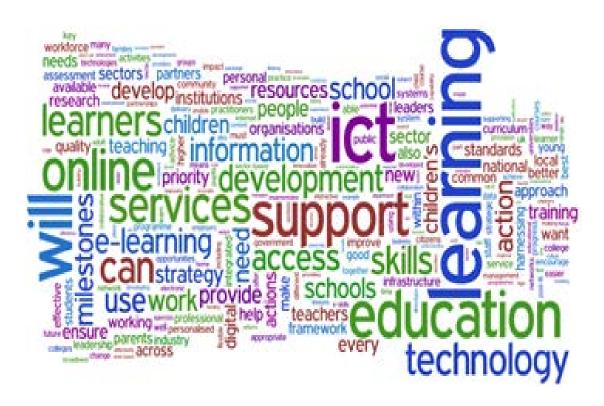
### Outline

Introduction ICT Roadmap Community issue #1 ICT and poverty Community Service Community Service Education Job seekers Tshwane Wifi Education Teachers Paperless schools GED My Lab My Class Conclusions 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 has 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





# 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 5981 are in Johannesburg All pay a living wage - lowest R12000.00 per month -2642

- 1600 in IT
- 431 Engineering
- 298 Telecoms
- 148 Technical

Is this information Reaching All unemployed people Yes

Mobile technologies: Internet - phone, tablet, laptop

### Mosaic 2B



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

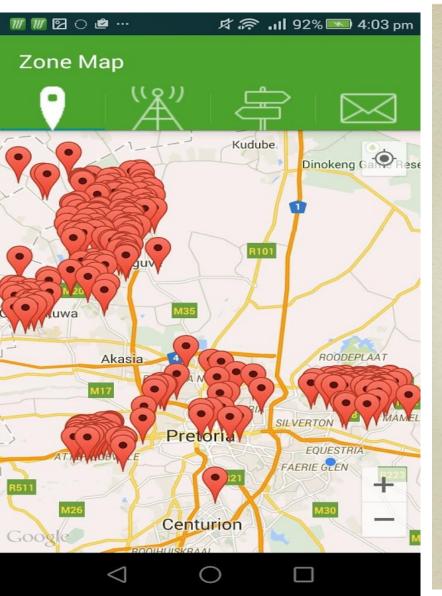


Money and Technology:

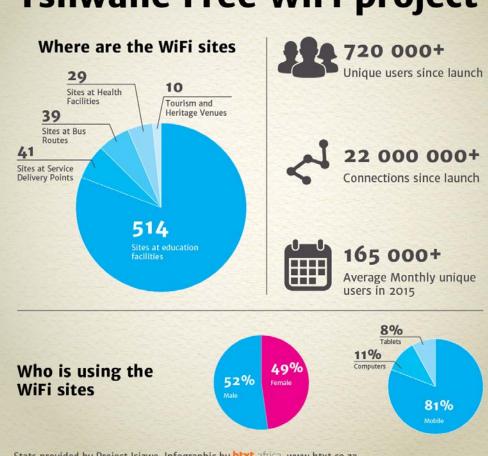


- Fear
- No internet banking
- No cell-phone banking

# Tshwane Free Wifi Project



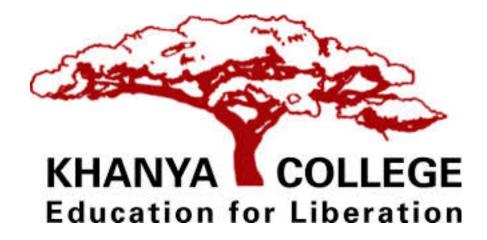
### Some quick facts on the Tshwane Free WiFi project



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

#### Education











# Gauteng Education Department









### Teachers





**TELKOM** super centers

**Rural Education Development** 



Computer literacy

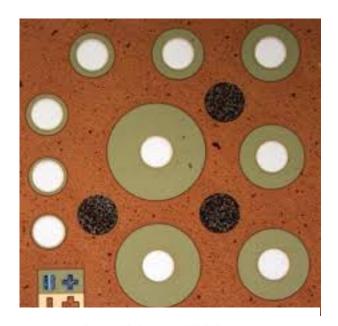




Teachers receiving tablets

# My Lab at UP

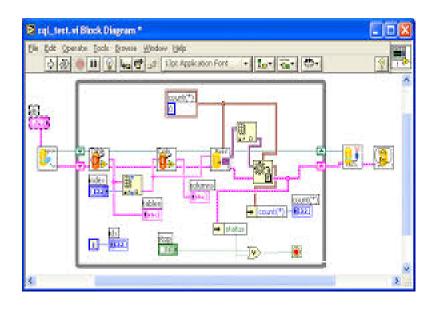
#### Automate measurements





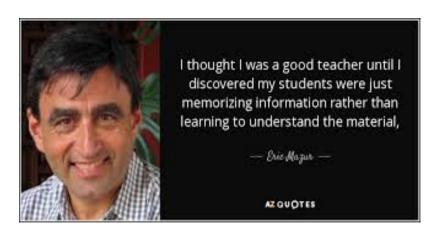






### My class





Disadvantages

Students fail to understand teaching style

Peer instruction

Can you really Lecture Me -

Prepare PowerPoint slides

Advantages

Students understand Physics

Send students Class preparation questions and tasks

Check e-learning regularly for students queries

### 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



