Libre Knowledge

and

Opportunity

Kim Tucker

(managed by the CISR in South Africa)

presented at

42\textsuperscript{nd} Regional Conference
Overview

- Why are we here? - Inspirations
- Making an Impact – why change the world?
  - What are the big issues?
- What kind of world do we want?
  - Who decides?
  - barriers to participation
- What knowledge is needed?
  - Collective knowledge. Libre Knowledge.
Why are we in this field?

A series of inspirations and questions ...
When we were young we wanted to

Make an impact!

Change the world!
through what career?

• arts?
• sciences?
• medicine?
• social sciences?
• education?
For many people in Africa to get any job is a challenge
access to education

Knowledge

choices
(degrees of freedom and quality of life)
Inspirations
This is just one thread during these few days together ask each other about the inspirations which led you to where you are now and your most positive learning experiences
Earth Summit

Rio 1992
One of the choices along the road I travelled:

Conservation Biology

... an environmental mission
Save the planet and the diversity of life upon it
Some of the “take home” messages

- Sustainable Development is
  - "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"
  (Brundtland Commission) [Long Term view]

- Consider simultaneously all three of Economic, Social **and** Environmental (biophysical) aspects
Think Global, Act Local
The importance of Biodiversity
Bluefin Trevally and Coral
http://flickr.com/photos/rling/438035973/
CC BY SA Richard Ling

Welwitschia plant
http://flickr.com/photos/squeakymarmot/134394329/
CC BY - squeakymarmot

Wildebeest
http://flickr.com/photos/angela7/294703313/
CC BY wayfaring stranger (Angela7)

Panda
After:
http://flickr.com/photos/myglesias/418914949/
CC BY SA myglesias
All life is connected
Sustainability only if

all individuals understand
their own impact on the
environment
and
act accordingly

a global collaborative effort is required
Collective knowledge (and action)
after years of campaigning ...

Disillusion

there was a lack of understanding of this connectedness
social and economic issues always dominated

there was no sense of urgency
people only responded to crises :-(

the world was dominated by the profit motive
competition dominated cooperation
at the expense of the environment
Life is too short ... where is the fun?

cool technologies ...
Inspiration

- GNU/Linux
  - and the FLOSS world: Apache, BSD, mySQL, ....

- Wikipedia, Wikispecies, WikiVersity, WikiEducator, ...

- Free Culture

- Conocimiento Libre/
  Free Knowledge Foundation

- Social software
Commons based peer production

Wow !
What collaborating people can do!

Such Good citizens! :-)  
An inspiration to us all!  
Global knowledge networking and collaboration to produce some really impressive work!
There is new hope

Sustaining our world will require global collaboration
Why change the world?
Well, like it or not, we are ...
Pilsen and Pollution
http://flickr.com/photos/senor_codo/352250460/
CC BY SA
Uploaded on January 9, 2007 by Señor Codo
and in more ways than this
Global Picture
We have the opportunity to

learn from the “developed” world

and not

repeat the mistakes
Global Issues – e.g. UNEP

- Biodiversity
- Climate Change
- Business and Industry
- Freshwater
- Land
- Sustainable consumption
- Energy
- Poverty and environment, etc.
MDGs

• Eradicate extreme poverty and hunger
• Achieve universal primary education
• Promote gender equality and empower women
• Reduce child mortality
• Improve maternal health
• Combat HIV/AIDS, malaria, and other diseases
• Ensure environmental sustainability
• Develop a global partnership for development.
Human Development Index

Human Development Index (HDI) is a comparative measure of poverty, literacy, education, life expectancy, childbirth, and other factors for countries worldwide. It is a standard means of measuring well-being, especially child welfare. It is used to distinguish whether the country is a developed, developing, or an underdeveloped country, and also to measure the impact of economic policies on quality of life.

http://en.wikipedia.org/wiki/Human_Development_Index
Human Development Index

- poverty
- literacy
- education
- life expectancy
- childbirth
- and other factors for countries worldwide.

http://en.wikipedia.org/wiki/Human_Development_Index
Poverty % < $1/day

http://en.wikipedia.org/wiki/Poverty
Literacy

http://en.wikipedia.org/wiki/Literacy
Life Expectancy

http://en.wikipedia.org/wiki/Life_expectancy
Births  n/1000 of Population

http://en.wikipedia.org/wiki/Birth_rate
Deaths $n/1000/pa$

The challenges are significant

we live in exciting times
Challenge breeds innovation ...  

... there is incredible potential in Africa 

a prominent member of this community predicted

the next major innovation in learning and education will come from Africa  (Wayne Mackintosh)
Collective knowledge covering a wide range of disciplines is needed

Holistic
Check out ...

An inconvenient truth ...

( see http://www.climatecrisis.net/aboutthefilm/ )
Perhaps the world is ready to consider the third pillar of sustainability: the environment (the planet).

Earth atmosphere:
Wikimedia commons (NASA, PD).
Think global, act local
With global connectivity

we have the opportunity to

think and act global and local

to generate the required knowledge

... there are gaps ...
Access to Knowledge

enable communities to empower themselves with knowledge
towards self-determination with global collaboration
More challenges
closer to home
Access – e.g. via Schools? - e.g. NEPAD e-Schools: 600,000 in Africa.

• to devices – computers - etc.
• to connectivity – and the Internet - bandwidth
• access to learning and knowledge resources
• being able to use the resources
  – literacy, translation, localisation/contextualisation
  – interact, produce, learn, participate.
• quality and relevance.
Reality: many schools are still short of

- Buildings
- Tables/Desks
- Books
- Water
- Food
- Electricity
- Teachers
Acting local

some examples
Singazenzela

“we can do things for ourselves”

a relatively new project

and a general principle

http://wiki.metalab.co.uk/
WirelessAfrica. meraka.org.za
Digital Doorway

http://www.digitaldoorway.org.za/
MobilED.uiah.fi

The MobilED (mobile education) initiative is aimed at designing learning and teaching environments that are meaningfully enhanced with mobile technologies and services.
Technology

• Mobile devices: GSM phones, multimedia/smart phones, Internet tablets

• Wireless networks: GSM, 3G, WLAN

• Voice, speech and language technologies: speech interfaces, audio information systems etc.

• Social software: Mediawiki, blogs, Knowledge Building tools.

• Wikipedia: The Free Encyclopaedia.
Pedagogy

- Student and group-centred learning
- Project-based learning
- Problem solving
- Inquiry learning
Pilot 1
Stage 1

- A mobile audio wikipedia can be accessed by sending an SMS with a key word.

- The service calls back and plays the information, making use of text to speech conversion.
Pilot 1
Stage 2

• Learners could make their own audio castings on related topics.

• This information is added to the audio wikipedia for other people to listen to.
Pilot 2

- Similar lesson about HIV/AIDS, different approach, building in the results of Pilot 1 (also Grade 8)
  - More time for learners to experiment (with the phones and technology)
  - Printouts of a Wikipedia webpage
- Improvement of the technology
  - Improved speakers
  - Different text-speech system
  - Fewer bugs

Note the relevance of the content localisation
Some results from Pilot 2

- Enthusiastic support from learners (once again)
- Issues like language a “non-issue”
- Learners happy to share the cell phones in the group
- Learners comfortable with the technology in a short period of time
- Spontaneous use of audio wikipedia for other learning areas
Next Steps

• Pilot 3
  - “Street Memory”

• Future
  - Multimedia interaction
    • the free software is already designed for this

• Similar pilots in Finland, Brazil, Colombia, India
Some great things are happening ...

• ICT in schools
  - Schoolnet Namibia: http://www.schoolnet.na/
  - tuXlabs: http://www.tuxlabs.org.za/

• efforts towards Open Access in Universities, etc.: http://blogs.uct.ac.za/blog/gray_area

• efforts towards connectivity and access:
  - Wireless Africa http://wirelessafrica.meraka.org.za

• Research
  etc. http://www.meraka.org.za/
etc.

- Educational Wikis:
  - FLOSS4Edu: http://wikieducator.org/FLOSS4Edu
  - FLOSSLit: http://wikieducator.org/FLOSSLit
  - Social Entrepreneurship initiatives, etc.

- ICT4D initiatives
  - OLPC pilots,
  - ..., etc. ... in Africa and other developing countries.
critical success factors:

• Vision
  - Knowledge for all, freedom to learn, towards collective wisdom

• Process
  - Enabling communities to empower themselves with knowledge

[Libre Comunities vision - http://communities.libre.org]
What kind of world do we want?

and who decides?
embrace the present

and

coop-create the future

we all decide, and co-create the future
but there are inequalities
Development as Freedom (Amartya Sen 1999)

- “expanding the real freedoms that people enjoy”
  - assess development in these terms
- “expansion of freedom ... as the primary end and as the principal means of development” p4
- removing sources of unfreedom: poverty, tyranny, systematic social deprivation, neglect of public facilities, intolerance, oppression, ...
- “... of “sustaining economic life and countering poverty and insecurity in the contemporary world”

(Kofi Annan, Secretary-General of the United Nations, back cover)
Changing times

- industrial ... information ... knowledge revolutions
- democratic and participatory governance
- human rights and political liberty, longer life expectancy
- connectedness
  - “... trade, commerce, communication, ... 
    interactive ideas and ideals.
- [but ... we also have] ... deprivation, destitution, oppression.”

beyond measuring development in terms of

- growth of GNP
- individual incomes
- industrialisation
- technological advance
- social modernisation

(Amartya Sen 1999)
Libre Knowledge – is part of the means and the end
if only we knew ...

• what the future will bring ...

• the aspirations of future generations ...

• all we can do is the best we can with the knowledge available to us.
Libre Communities Vision

• Knowledge for all, freedom to learn, towards collective wisdom

we can only be wise together

• Enabling communities to empower themselves with knowledge
Libre Communities Manifesto (values)

- Libre communities value:
  - the members and their diverse perspectives,
  - the libre resources produced and the associated freedoms,
  - the ability of communities to collaborate on managing the quality of shared resources, and
  - the opportunity this freedom offers for networked communities to make a difference collectively, towards a sustainable world.

http://communities.libre.org/about/manifesto
Knowledge

libre knowledge
So, let's (continue to) do it

• ... starting with stories of hope and inspiration :-)  

and continued contribution to the various free knowledge initiatives.
Thank you :-}
Contact

Kim Tucker
Researcher
Libre Knowledge and Learning

ktucker@csir.co.za
Acknowledgements

- MobilED Slides:
  - Merryl Ford: mford@csir.co.za

- Globe icon via:
  - (slide 2)

- Mars in opposition (slide 56)

- and many others referred to on the slides, etc.
the end :-}
Extras
Look at that!

- **FLOSS**
  - GNU/Linux, FreeBSD, distrowatch.com, ...
  - Apache – jakarta, xml, server, cocoon, lenya, etc.
  - OpenOffice, Eclipse, Hibernate, Spring, JUnit, ...

- **Free Knowledge, free culture**
  - Wikipedia, communities.libre.org, plos.org, doaj.org, cnx.org, ocw.mit.edu, sciencecommons.org, dmoz.org, creativecommons.org, ccmixter.org, [http://www.free-culture.cc/](http://www.free-culture.cc/), ...
Links (definitions)

- http://opensource.org
- http://gnu.org
- http://communities.libre.org/
- http://freedomdefined.org/
Links (just a few)

- http://distrowatch.com/
- http://www.ubuntu.com/
- http://www.getopenlab.com/
- http://www.apache.org/
- http://jakarta.apache.org/
- http://xml.apache.org/
- http://www.wikipedia.org/
- http://www.elephantsdream.org/
- http://www.ktdms.com/
FLOSS in Education Links

- http://moodle.org
- http://avoir.uwc.ac.za/
- http://atutor.ca/
- http://fle3.uiah.fi/
- http://oerwiki.iiep-unesco.org/
FLOSS in Education Links

- http://cnx.org/
- http://rhaptos.org/
- http://www.greenstone.org
- http://dspace.org/
- http://www.schoolforge.org.uk/
- http://educommons.org/
- http://eduforge.org
- http://www.edubuntu.org/
Links

• Governments and FLOSS
  - http://europa.eu.int/information_society/activities/opensource/cases/index_en.htm
  - http://www.openia.com/resources/open-source/governments

• MDGs

• Research
  - http://flossworld.org
  - http://flosspols.org
Readings

  - Lessig and Benkler u. proceedings (video & audio)
- [http://www.benkler.org/](http://www.benkler.org/)
  - The Wealth of Networks (PDF available)
- [http://www.free-culture.cc/](http://www.free-culture.cc/)
  - Free Culture – various formats and variations


Nov, O. 2007. What motivates Wikimedians, or how to increase user-generated content contribution. Communications of the ACM, (forthcoming). There is a growing body of research on what motivates free knowledge contributors. In this study, the top three motivators identified were fun, ideology and values.


Licensing

- These slides are released as libre knowledge
- an aggregation containing common knowledge

Where the Libre emblem appears, copies and derived works may be released under a free license such as CC BY SA, CC BY, or the GNU FDL. See http://communities.libre.org/

- Some of the slides have a particular Creative Commons license on account of the components.

- Attribution-ShareAlike: http://creativecommons.org/licenses/by-sa/3.0/
- Attribution: http://creativecommons.org/licenses/by/3.0/