

# Libre Knowledge and Another World is Possible

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(managed by the CISR in South Africa)

presented at



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# Overview

- Inspirations
- Why change the world?
  - What are the big issues?
- What kind of world do we want?
  - Who decides?
    - barriers to participation
- Another world is possible if ...
- Libre Knowledge. ■ LIBRE ■ 自由



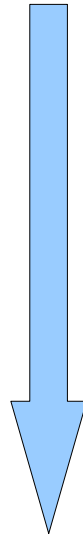
this is just one thread

# What led me to propose this topic?

- A series of inspirations and questions ...
- When I was younger ...
  - Make an impact! ... on people's lives, or save the world, etc.
- and do what? ... education, environment, health, ...
- get a job ... in a promising field that inspires ...



access to education



choices

(degrees of freedom :-)

# Inspirations

# Earth Summit

Rio 1992

# One of the choices along the road:

## Conservation Biology

... an environmental mission

# • Sustainable Development

- "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



Panda  
After:  
<http://flickr.com/photos/myglesias/418914949/>  
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Wildebeest  
<http://flickr.com/photos/angela7/294703313/>  
CC BY wayfaring stranger (Angela7)





Pair of rhinos  
<http://flickr.com/photos/mister-e/393128281/>  
CC BY - mister-e



Dolphin Crest  
<http://flickr.com/photos/jurvetson/336157/>  
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Impala  
<http://flickr.com/photos/zest-pk/924783392/>  
CC BY zest-pk



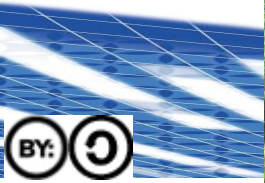
The Kings  
[http://flickr.com/photo\\_zoom.gne?id=435343670&size=l](http://flickr.com/photo_zoom.gne?id=435343670&size=l)  
CC BY - Ben Tubby



Elephant  
<http://flickr.com/photos/mister-e/394312384/>  
CC BY mister-e



Giraffe -  
<http://flickr.com/photos/mister-e/394306482/>  
CC BY mister-e





# Sustainability only if

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

a global collaborative effort is **required**

# Disillusion

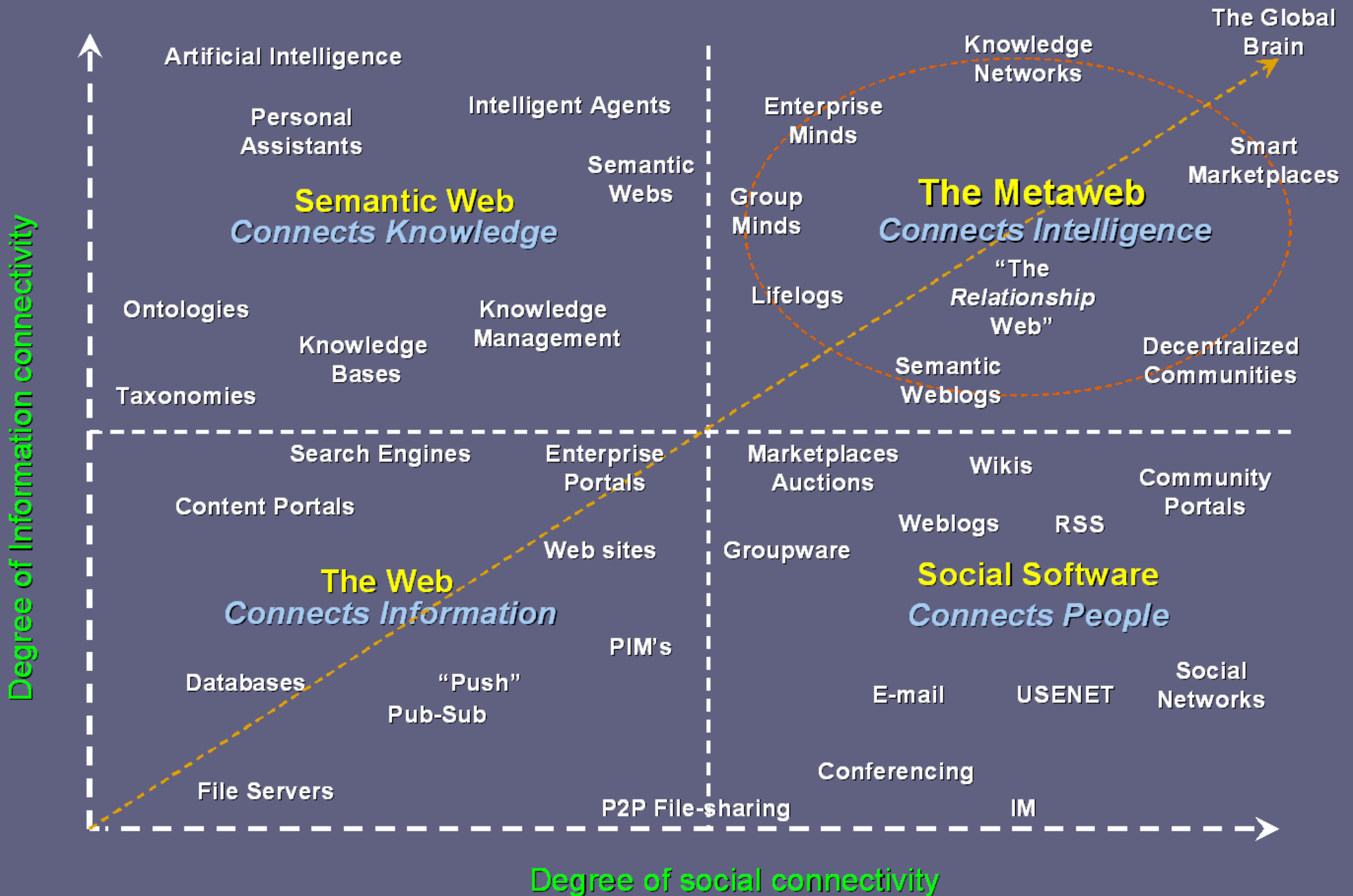
lack of understanding  
social and economic issues always dominate

no sense of urgency  
people only respond to crises :-)

world dominated by the profit motive  
competition dominates 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, Wiki\*
- Free Culture
- Conocimiento Libre/  
Free Knowledge Foundation
- Geek Freedom League ....

cbpp

Wow !



There is much to be proud of

Such Good citizens ! :-)

An inspiration to us all!

Global knowledge networking and  
collaboration to produce some really  
impressive work!

# New hope

Sustaining our world will require global  
collaboration



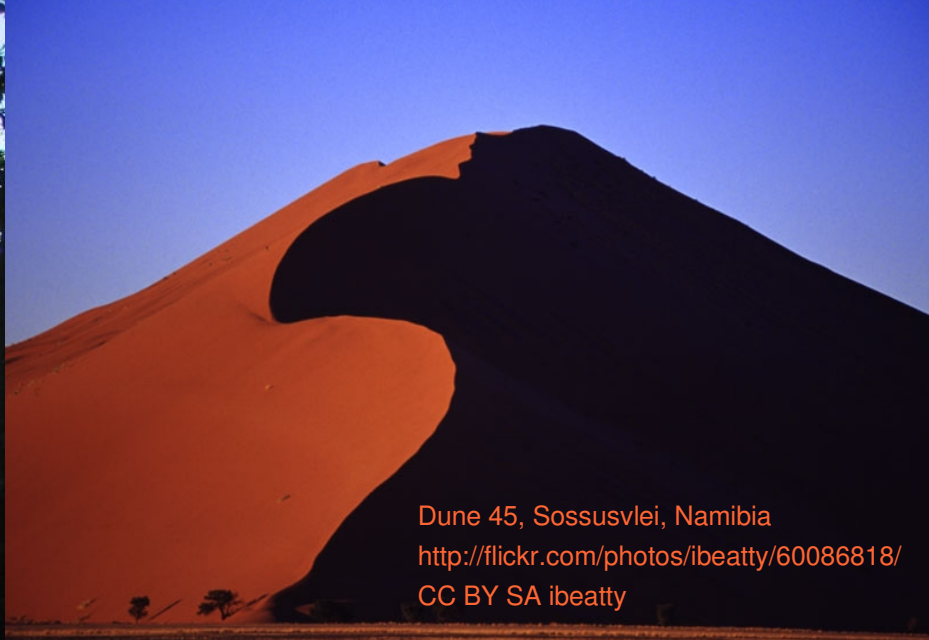


Why change the world?





Around Taplin Wildlife Sanctuary (Massachusetts)  
<http://flickr.com/photos/shimown/21698148/>  
BY SA shimown



Dune 45, Sossusvlei, Namibia  
<http://flickr.com/photos/ibeatty/60086818/>  
CC BY SA ibeatty



Table Mountain  
<http://flickr.com/photos/victorgeere/23717726/>  
Table Mountain  
CC BY  
Victor Geere



# Well, like it or not, we are ...



EPA Documerica:  
U.S. Steel Plants in Birmingham by Leroy Woodson, 1972  
(NARA/EPA)  
<http://flickr.com/photos/pingnews/450243888/>  
CC BY SA, Uploaded on April 7, 2007  
by pingnews.com



industrial waste  
<http://flickr.com/photos/inquirer/351889812/>  
CC BY  
inquirer







Pilsen and Pollution

[http://flickr.com/photos/senor\\_codo/352250460/](http://flickr.com/photos/senor_codo/352250460/)

CC BY SA

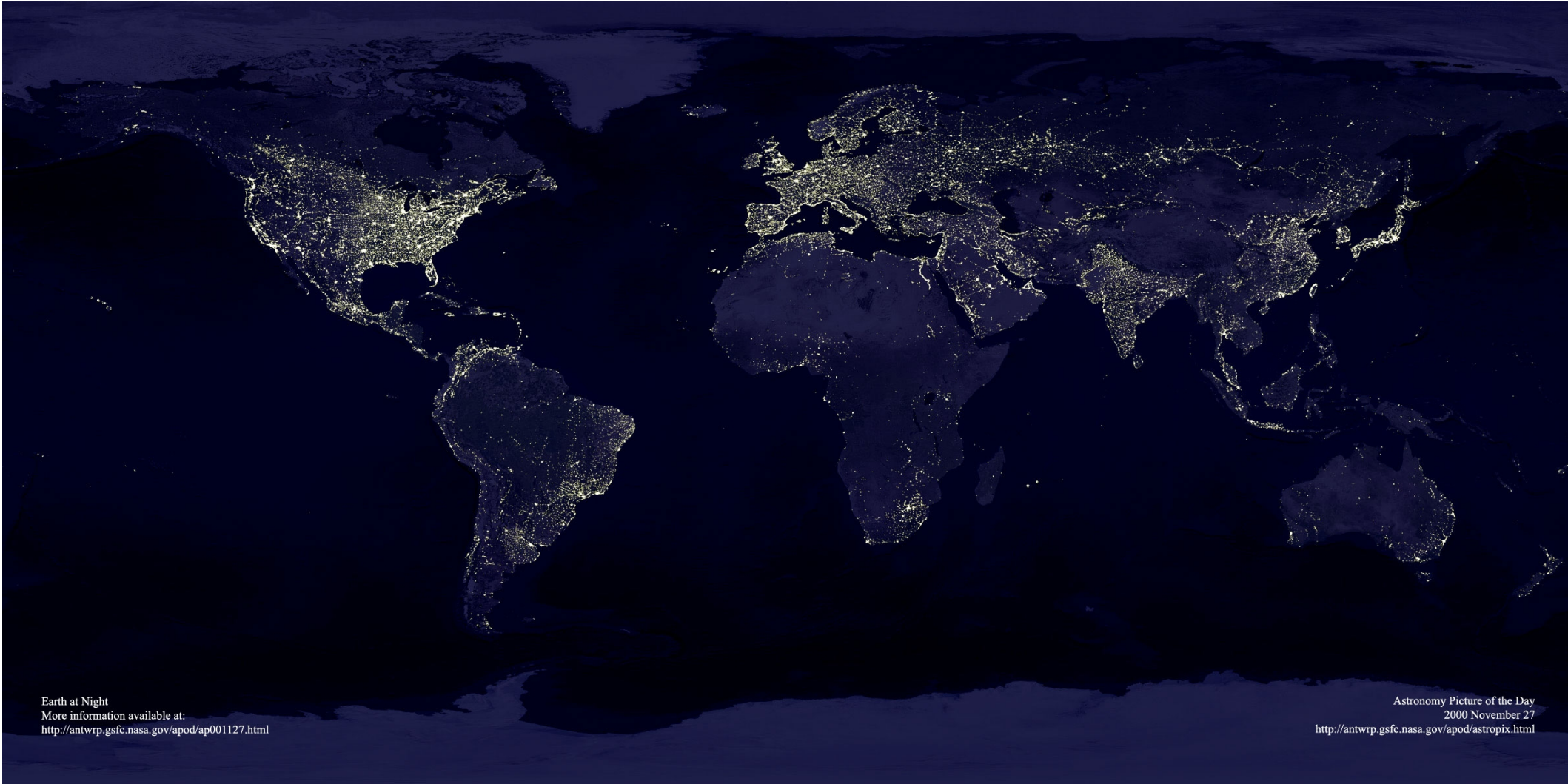
Uploaded on January 9, 2007 by Señor Codo



and in more ways than this

# Global Picture





Earth at Night  
More information available at:  
<http://antwrp.gsfc.nasa.gov/apod/ap001127.html>

Astronomy Picture of the Day  
2000 November 27  
<http://antwrp.gsfc.nasa.gov/apod/astropix.html>



# Global Issues – e.g. UNEP

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



# MDGs

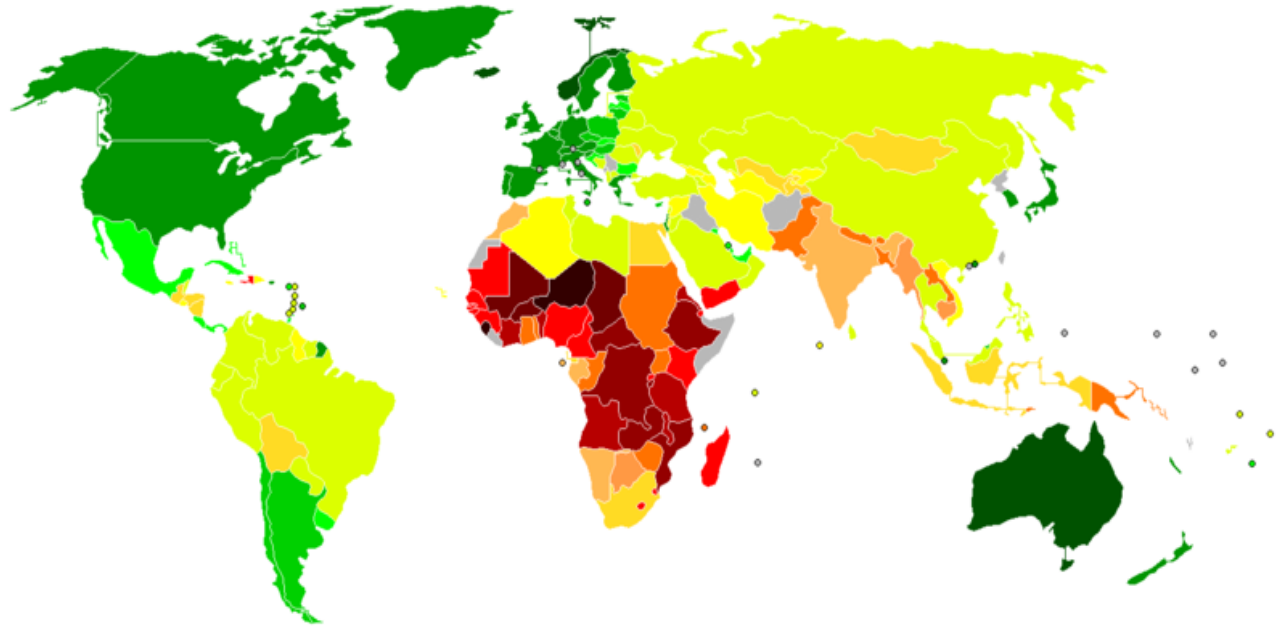
- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria, and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development.

# 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 under developed country, and also to measure the impact of economic policies on quality of life.

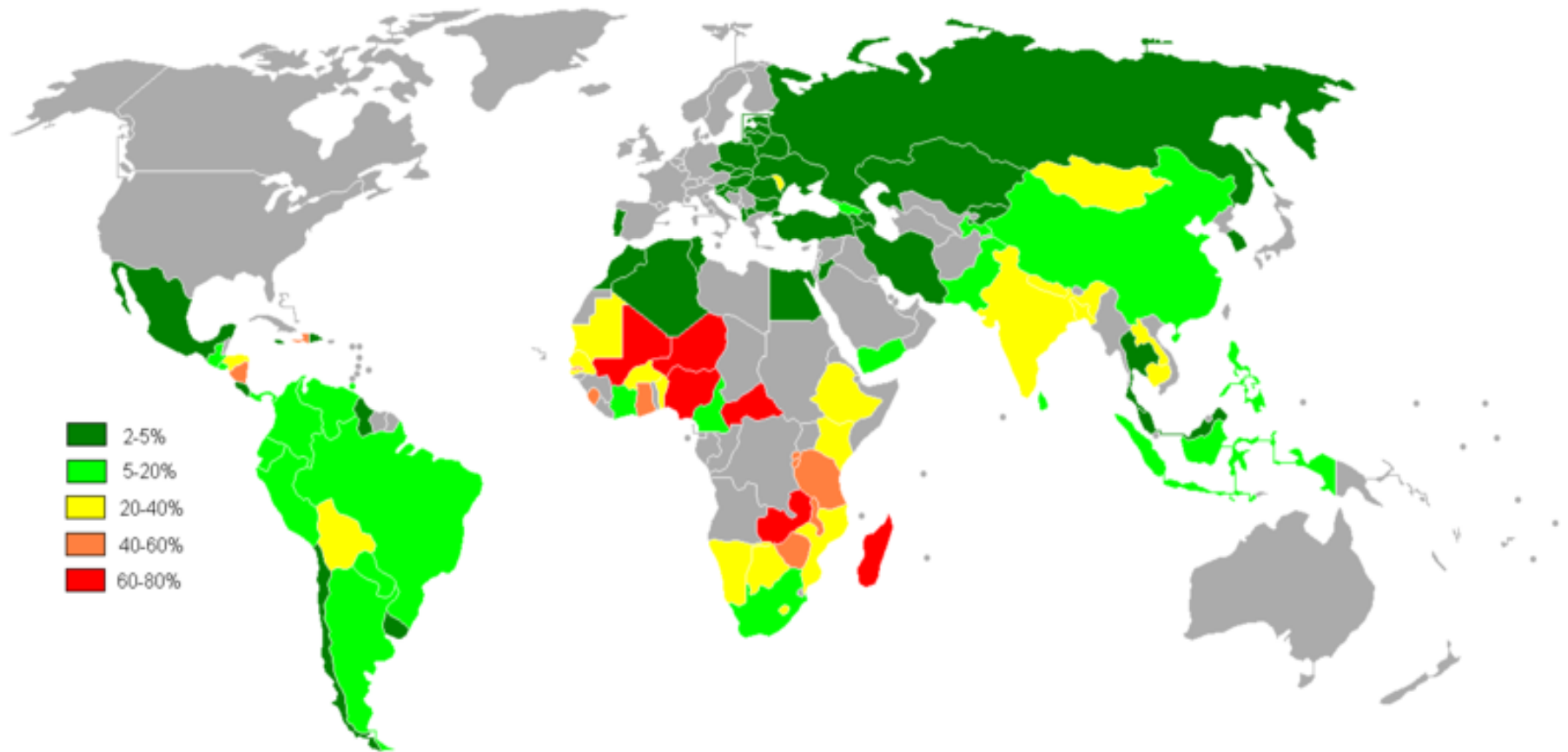
# Human Development Index

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



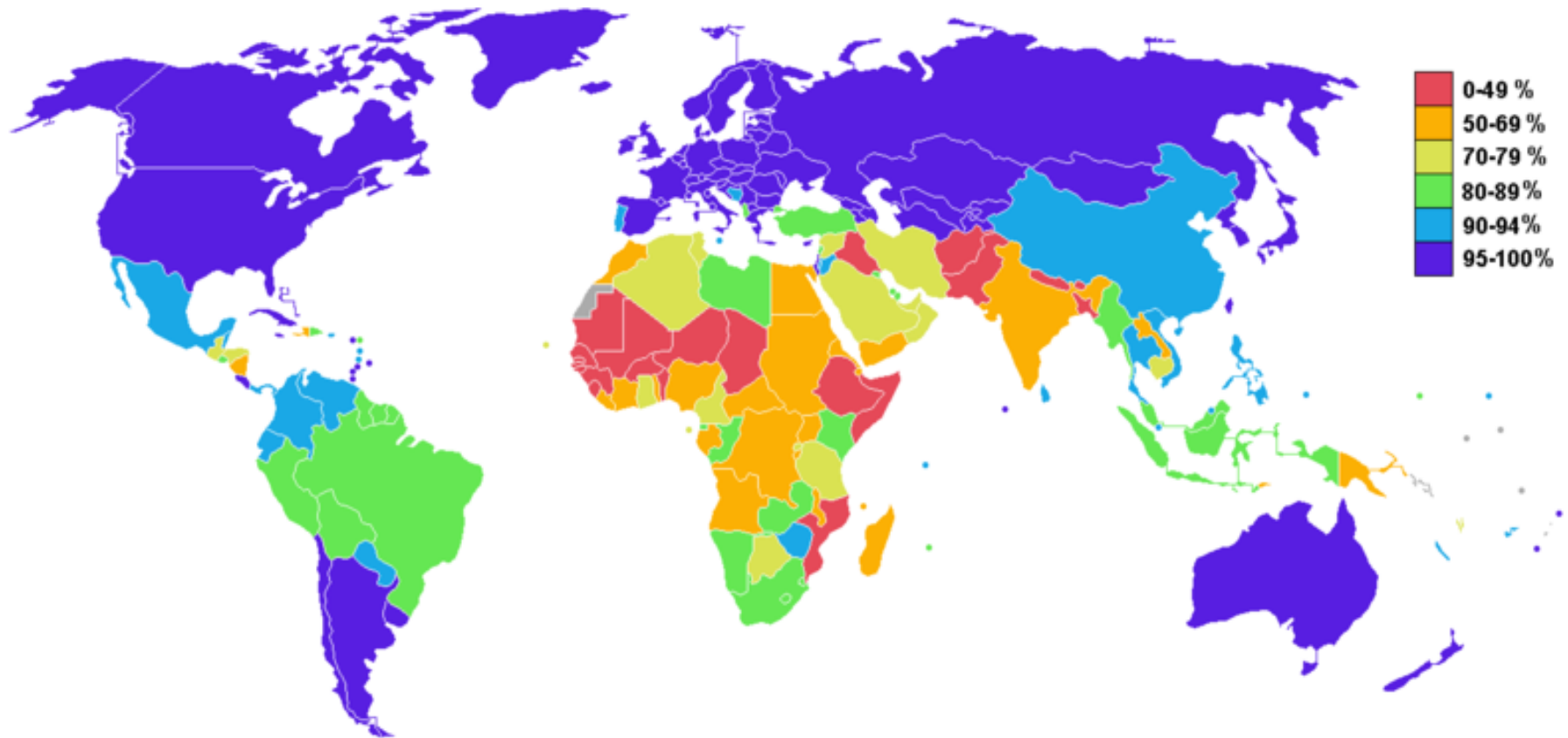
- [http://en.wikipedia.org/wiki/Human\\_Development\\_Index](http://en.wikipedia.org/wiki/Human_Development_Index)

# Poverty % < \$1/day



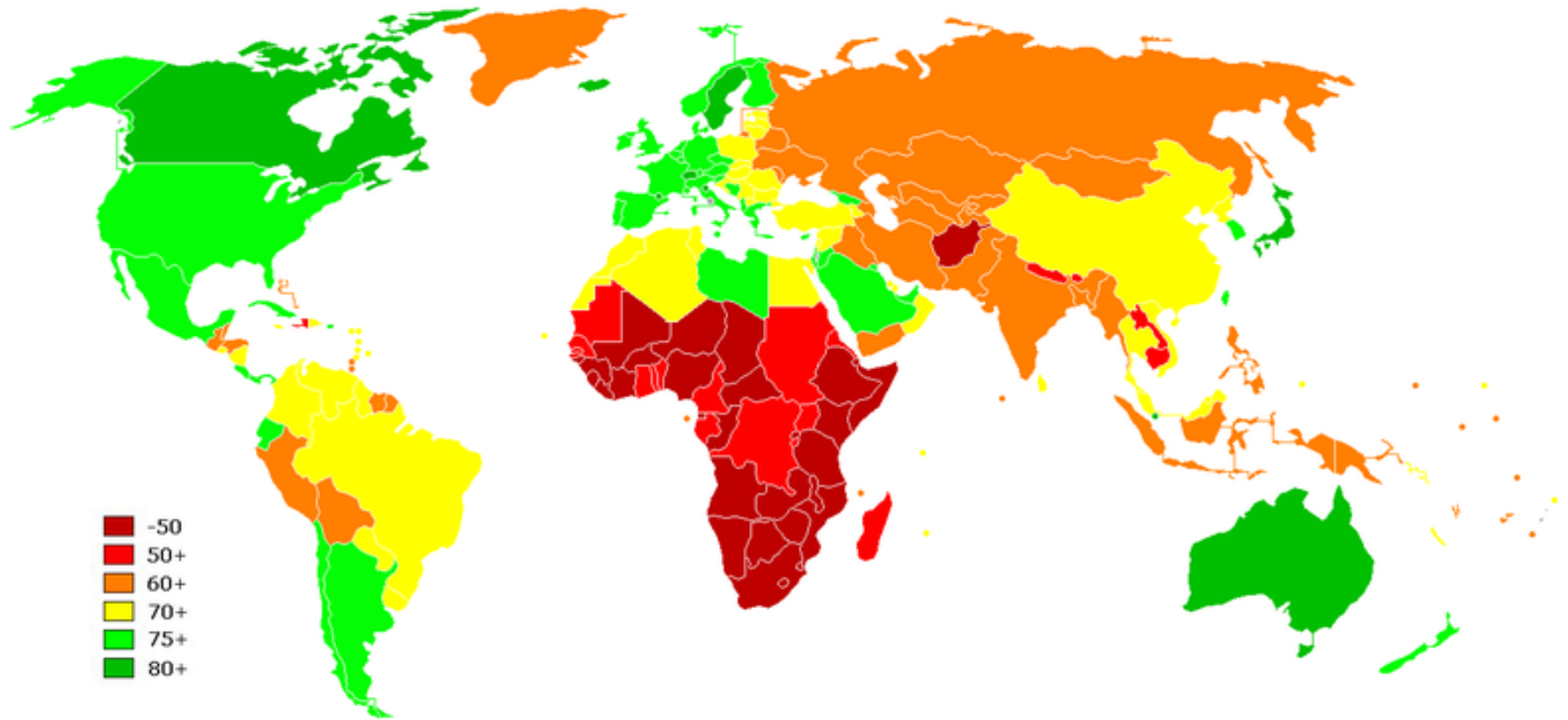
<http://en.wikipedia.org/wiki/Poverty>

# Literacy



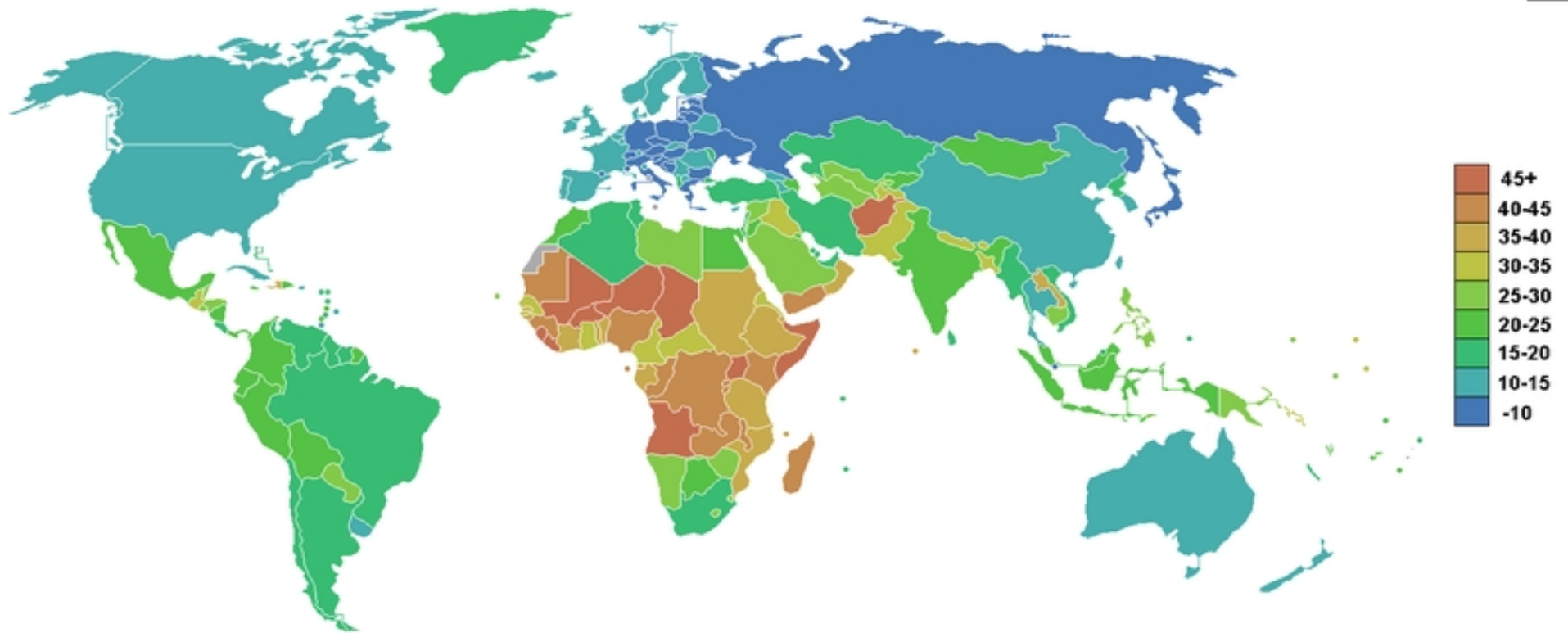
<http://en.wikipedia.org/wiki/Literacy>

# Life Expectancy

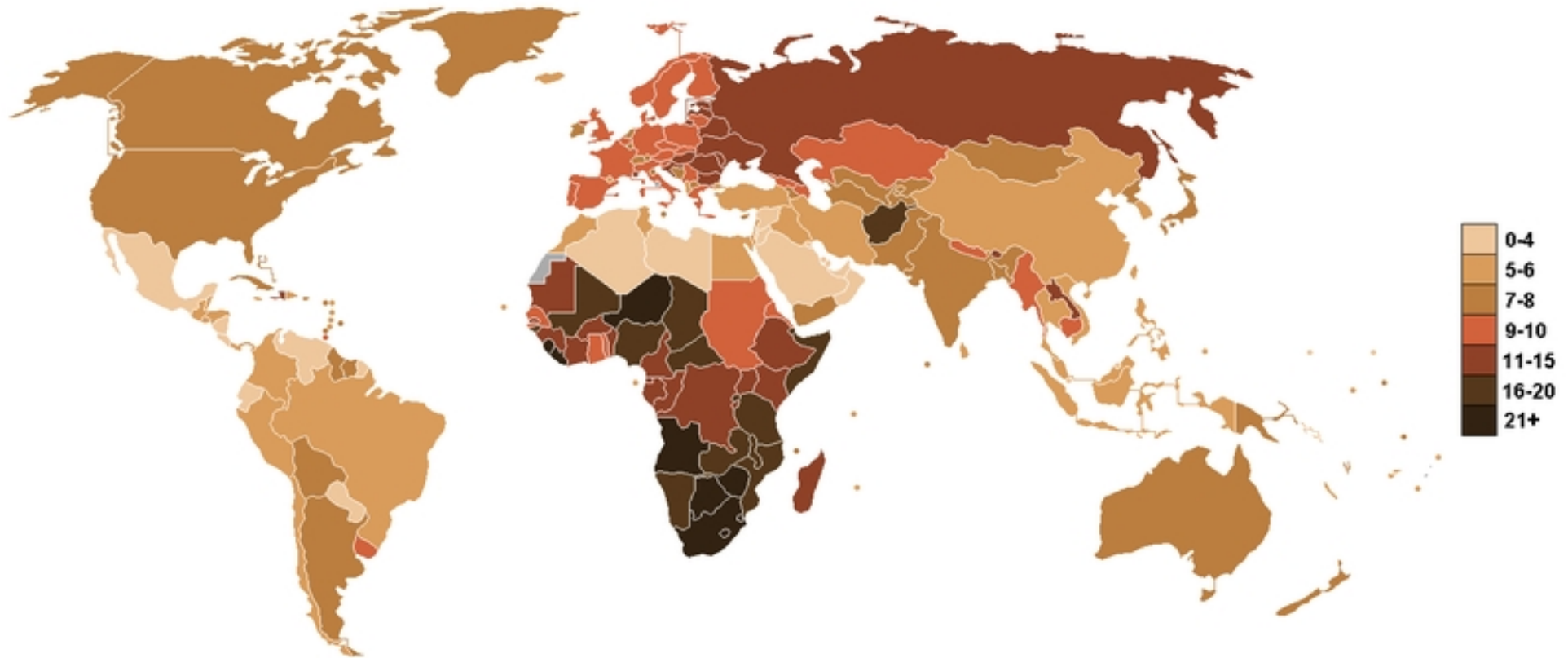




# Births $n/1000$ of Population



# Deaths $n/1000/pa$





# 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)

# 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:

[http://en.wikipedia.org/wiki/Image:Andes\\_et\\_Terminator.jpg](http://en.wikipedia.org/wiki/Image:Andes_et_Terminator.jpg)

Wikimedia commons (NASA, PD).

Think global, act local



# With wiki\* projects

we need 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

# 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

# WirelessAfrica.meraka.org.za





# Digital Doorway



<http://www.digitaldoorway.org.za/>

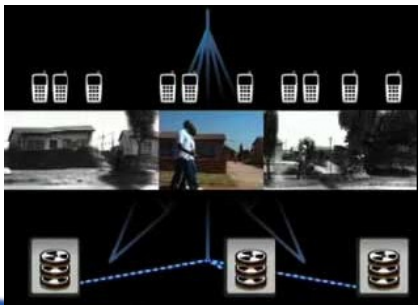




# MobilED.uiah.fi

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

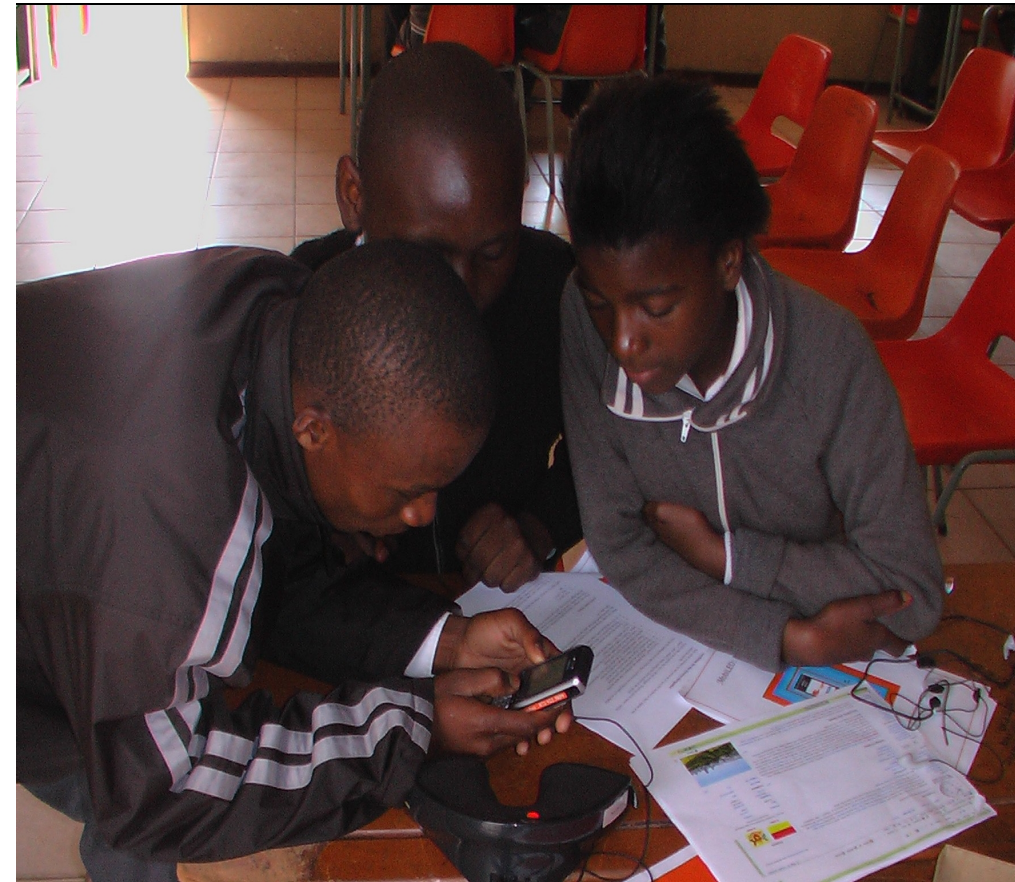
- Similar lesson about HIV/AIDS, different approach, building in the results of Pilot 1 (also Grade 8)
  - More time for learners to experiment (with the phones and technology)
  - Printouts of a Wikipedia webpage
- Improvement of the technology
  - Improved speakers
  - Different text-speech system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



# Some great things are happening ...

- ICT in schools
  - Schoolnet Namibia: <http://www.schoolnet.na/>
  - tuXlabs: <http://www.tuxlabs.org.za/>
  - NetDay: <http://www.netday.org.za/>
- efforts towards Open Access in Universities, etc.: [http://blogs.uct.ac.za/blog/gray\\_area](http://blogs.uct.ac.za/blog/gray_area)
- efforts towards connectivity and access:
  - South African Research Network: <http://www.meraka.org.za/sanren.htm>
  - Wireless Africa <http://wirelessafrica.meraka.org.za>
  - Digital Doorway: <http://www.digitaldoorway.org.za/>
  - National Accessibility Portal: <http://www.meraka.org.za/nap.htm>
- Research
  - Human Language Technologies: <http://www.meraka.org.za/humanLanguage.htm>  
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>]

# Another world is possible if ...

- we know what we are talking about
- we salvage the planet
- we identify the actors
- we target the right adversaries
- Europe wins the war within the West
- we include everyone and forge alliances
- we combine knowledge and politics
- educators educate
- we abandon cherished illusions
- we practise non-violence

From the Table of Contents, Susan George, 2004.  
George, S. (2004). *Another World Is Possible If*. New York: Verso.



# themes

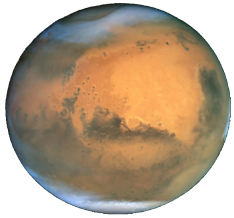
- globalisation, :- (“anti-globalisation”), the “social movement”, the citizens' movement, the “global justice movement”, types of globalisation
- to succeed, we need “particularly well informed citizens”
- bridging the gap between knowledge and politics
- ... empowering people to participate.

# Such knowledge is important

at least until more of the world is properly  
represented  
in the global knowledge society

and we have the tools to share this type of  
knowledge  
while tools for other types are evolving

# What kind of world do we want?



and who decides?



City Lights 3  
[http://flickr.com/photos/wandering\\_angel/775133154/](http://flickr.com/photos/wandering_angel/775133154/)  
CC BY The Wandering Angel



Masiphumelele  
<http://flickr.com/photos/framesofmind/544388629/>  
CC BY Uploaded on June 13, 2007 by Frames-of-Mind



Rain forest  
<http://flickr.com/photos/mscheltgen/63623530/>  
CC BY - Michael Scheltgen

embrace the present

and

co-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.”

Sen, A. (2000). *Development as Freedom*.  
New York: Anchor.

# beyond measuring development in terms of

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

(Amartya Sen 1999)

Wiki\* - free knowledge – are 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.

# Knowledge

libre knowledge



# terms of engagement

- networking
- dialogue
  - e.g. appreciative inquiry
    - positive stories
    - sow the seeds of action
    - massify the experiences

# 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

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Libre Knowledge and Learning



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# Acknowledgements

- MobileD Slides:
  - Meryrl Ford: [mford@csir.co.za](mailto:mford@csir.co.za)
- Globe icon via:  
<http://antwrp.gsfc.nasa.gov/apod/ap960819.html>
  - (slide 2)
- Mars in opposition (slide 56)
  - <http://heritage.stsci.edu/2001/24/index.html>
- 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, Hybernate, Spring, JUnit, ...
  - etc. - <http://sourceforge.net> & <http://freshmeat.net/>
- Free Knowledge, free culture
  - Wikipedia, communities.libre.org, plos.org, doaj.org, cnx.org, ocw.mit.edu, sciencecommons.org, dmoz.org, creativecommons.org, ccmixer.org, <http://www.free-culture.cc/>, ...



# Links (definitions)

- <http://opensource.org>
- <http://gnu.org>
- [http://en.wikipedia.org/wiki/Free\\_software](http://en.wikipedia.org/wiki/Free_software)
- <http://communities.libre.org/>
- <http://freedomdefined.org/>
- <http://blog.jimmywales.com/index.php/archives/2004/10/21/free-knowledge-requires-free-software-and-free-file-formats/>

# 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://wikieducator.org/> <http://exelearning.org>
- <http://fle3.uiah.fi/>
- <http://www.lemill.net/> and <http://www.lemill.org/>
- <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/>
- <http://www.tuxlabs.org/> and <http://www.schoolnet.na/>
- <http://www.netday.org.za/> and <http://www.getopenlab.com/>

# Links

- Governments and FLOSS

- [http://europa.eu.int/information\\_society/activities/opensource/cases/index\\_en.htm](http://europa.eu.int/information_society/activities/opensource/cases/index_en.htm)
- <http://www.openia.com/resources/open-source/governments>

- MDGs

- [http://en.wikipedia.org/wiki/Millennium\\_Development\\_Goals](http://en.wikipedia.org/wiki/Millennium_Development_Goals)

- Research

- <http://flossworld.org>
- <http://flosspols.org>



# Readings

- <http://wikimania2006.wikimedia.org/>
  - Lessig and Benkler u. proceedings (video & audio)
- <http://www.benkler.org/>
  - The Wealth of Networks (PDF available)
- <http://www.free-culture.cc/>
  - Free Culture – various formats and variations
- <http://www.gnu.org/doc/book13.html>
  - Free Software, Free Society: Selected Essays of Richard M. Stallman



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