

Vocational education & training for sustainable growth in a connected world?



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- At a Cross road- What if?

Drivers of change:

The role of VET in technology diffusion and incremental innovation?

The role of VET in clustering of firms?

Great global Challenges-
water, energy, environment, health

Rethinking public works- youth unemployment?

Open learning environments/OER/ICT

Cultural heritage

Mesh business models/ social enterprises



Envisioning-

Aligning

Engaging



Re-envisioning ways forward?



Hocking Community College, Nelsonville, Ohio

- HC Energy Center founded in 2003 for Ass degree in advanced energy and fuel cells.
- 107 credit hours on fuel cells, solar, wind, hydroelectric
- Articulation agreement with U of MN-Crookston for BS Ag systems w/minor in renewable energy
- Regenerative agriculture to be started in 2010
- Region of Anatolia on a similar road driving economic development through solar energy applied to sustainable textile through the whole value chain



Botswana- informal apprenticeship/ adult learning

- Informal apprenticeship + VOC ed modules for girls
- Networking women basket makers
- Applied literacy + math-
- Design for other markets
- E-business , mobile technologies



Blantyre- malawi Mechatronics center

Public- private partnership-
Daimler Benz

Mechatronics-

ICT simulation- OER- core of
problem based simulations,
application of Mechatronics in
other industries-

Resituating the notion of
gendered work

Mores graduates that can be
absorped in the car industry-
therefore also focus on high value
entrepreneurshuip capacity in the
programme



Don Bosco Technical College Malawi Agriculture

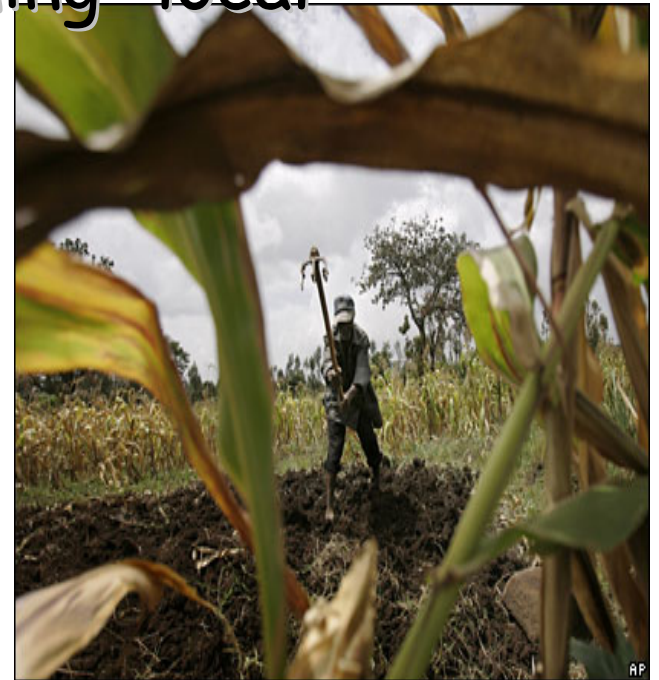
Apprenticeships through collaboration
and on the job training with small
landowners

Applied and problem based learning- local
capacity building-

Sustainable agriculture/
manufacturing...-

international partnering to learn
about sustainable production

Methods- OER



Global Action-CREST Global Challenges- Rethinking Growth

Using Technologies to change the world-
A repository of resources for teachers and
students plus technical briefs-

Students work on- prototype- and can in a VET
context produce and try out real life solutions in
collaboration with local communities

Sustainability

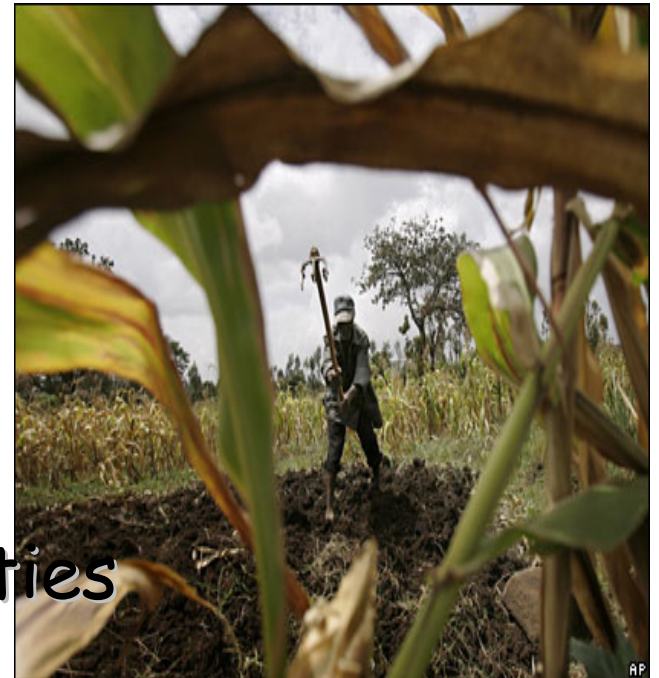
agriculture/food

Water,

Transport

STEM- application to real problems

OER- ICT collaborative communities



Key enabling features

- Students work on authentic problems and challenges strongly linked to social and economic local circumstances
- Growing a business- a critical skills- how to make a business plan- or how to understand real problems/needs - and finding new solutions to these?
- Learning through experimentation, production of "artefacts" and solutions for a better world"
- ICT and OER plays a central role in accessing quality resources (global knowledge base), - critically and creatively navigation in knowledge sources, in addressing complex problems, learning and enterprising as a collaborative effort- possibilities in terms of scaling
- Informal, formal non-formal learning linked
- Public- private - NGO partnerships
- Social- enterprising, MESH models of innovation - rethinking work/ rethinking growth?

21 st Century VET - Reinventing Growth for a connected socially responsible world

Scoping the external environment; Identifying needs/ opportunities- mobilize resources-

Global value chain perspective

Envisionment prioritisation through bottom up approaches- what are the genuine local assets?

Great global challenge

rethinking manufacturing for solutions that matter

Fx. Great Global Action

Consider scale and mainstreaming from the outset

Rethinking local assets

"Tinkering" for the real world- (entrepreneurial skills- technological skills, problem solving, design to cost, collaboration, entrepreneurial capacity- Innovation)

The factory as a learning model - experimentation. Trial and error. Production Methaphor for learning

OER- Source materials:
Ex WWW: Practical action- CREST Global Challenges (energy, food ,water., health.-

Social Enterprise- rethinking public works

Enabling factors

Policy Aligning- economic, labour market, voc ed

Institutional autonomy- multi-dimensional accountability

Strategic alliances and partnerships the local community-

Recognition of prior learning

Food for Thought

When we talk about education, skills and talents
it sounds at times as if we are at war!!!

Getting it right for everyone!
Thanks



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