# Sustainable innovation in the knowledge sector in the 21st century

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#### This matter is urgent!

We are at a **critical point** in the future development of libraries

 If we do not act, the commercial sector will largely dictate our e-mission.



# **Knowledge Sector Examples:**

- 3D printing
  - \* prosthetics for animals
  - \* arm splint
    - > learn modeling language (learn to fish)

#### **Threats:**

- Not meeting their needs ...
- Expanding the sector ...





Knowledge Workers are ... gutsy and confident, and driven.

They are used to ...

- Ubiquitous access (wireless)
- Mobile
- Networking (people & resources)

(have learned to fish)

#### **Construct 1: Infrastructure Layers**

- \* electricity
- \* cyber (digital)
- \* information

#### **Threats:**

- Not meeting their needs ...
- Expanding the sector ...

# Construct 2: The 3 Stages of the Digital Era

Stage 1 (1990-) Digital (Disks and CDs)

- Expand the media collection

Stage 2 (1995-) Internet (Servers)

- Digital Libraries

Stage 3 (2010-) Mobile (Tablets)

- Access anywhere, mobile

(layered)

#### **Examples from the USA.**

- \* electricity
- \* cyber/digital
- \* information

- \* 1--CDs
- \* 2--Networks
- \* 3--Mobile

1st Paperless Libraries

**New Mindsets** 

New Rules (copyright, lending, access ...)

1st Paperless Libraries (think new)

#### 1st Paperless Libraries

#### A Fight for Control:

Delayed Sales
No Sales to Public Libraries
Limited Loans
Limited Simultaneous Users
In Library Downloads
Huge Pricing Differentials for ebooks
Incompatible Platforms (52 and counting)

1st Paperless Libraries (think new)

A Fight for Control: Colorado

-Douglas County PL Sys

**Delayed Sales** 

No Sales to Public Libraries

**Limited Loans** 

**Limited Simultaneous Users** 

In Library Downloads

**Huge Pricing Differentials for ebooks** 

**Incompatible Platforms** 

California

- CALIFA

**ALA: Digital Content Working** 

Group

Library's Mission: Free & Open

**Publisher: Num of Patrons** 

- \* electricity
- \* cyber/digital
- \* information

- \* 1--CDs
- \* 2--Networks
- \* 3--Mobile

Tablets
WiFi & Cell Access

Amazon vs Unified Virtual Patrons
Digital Content: Open Journals,
Open Courseware, Library as Publisher,
Crowdsourced Translations



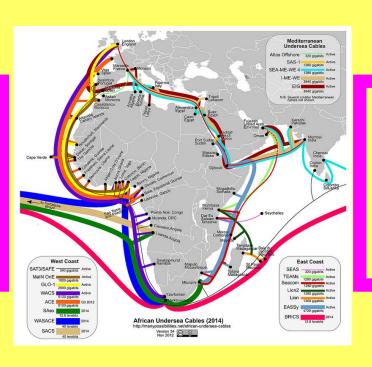
Solar & Lithium-Ion

- \* electricity
- \* cyber/digital
- \* information

- \* 1--CDs
- \* 2--Networks
- \* 3--Mobile

Tablets
WiFi & Cell Access

\* electricity\* cyber/digita\* information

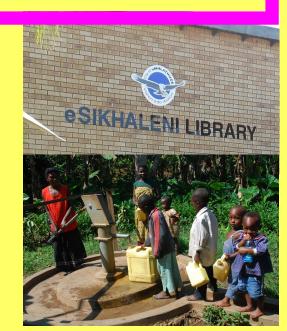


\* 1--CDs

\* 2--Networks

\* 3--Mobile

Fiber to the Library WiFi at the Library





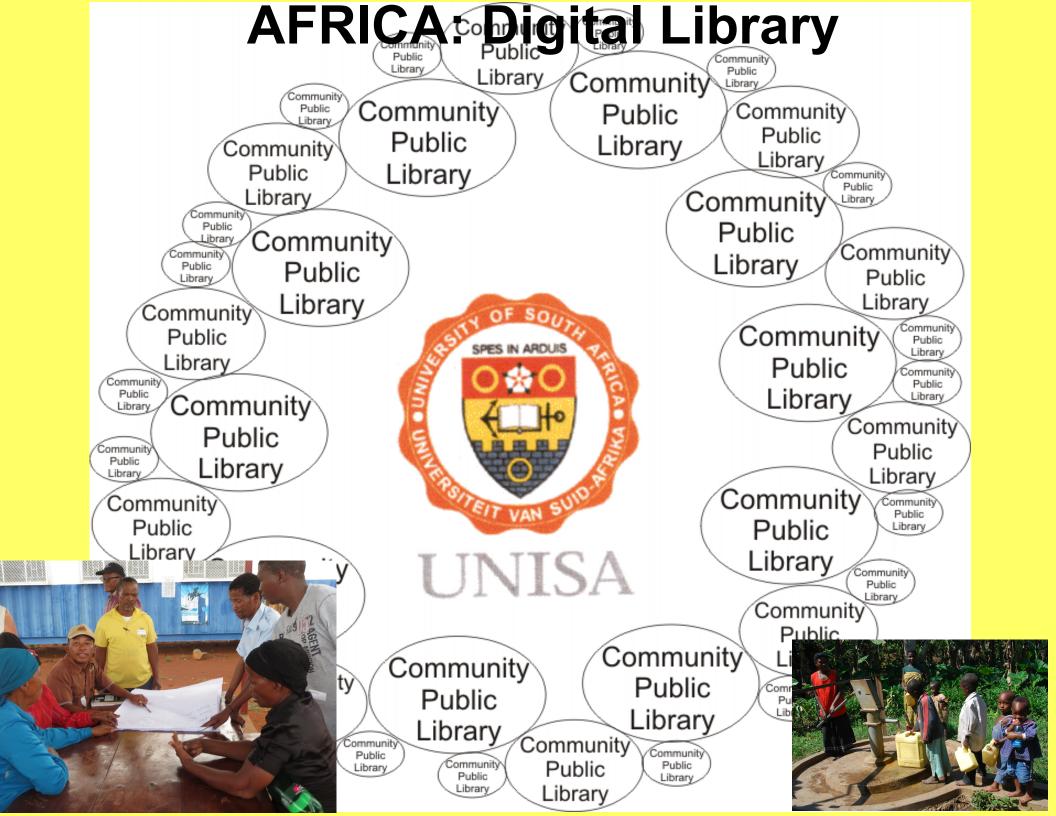
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- \* 1--CDs
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eGranary at the Library WiFi at the Library



#### CONCLUSION

- open standards for ebooks
- team with international efforts for open textbooks, free ebooks
- Authors direct distribution through library systems -- low-cost eBooks (not mothballed like with publishers)
- crowd-source translations
- variety of copyright options