The Role of the Critical Technologist within ICT4D

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How I got here

• 16 years working in high tech
• 5 years as college faculty
• A Natural Critical Pedagogue

• Readiness Indicators \((1,4,5,6,29,42)\)
• Literacy \((2,3,6)\)
• $100 Laptop \((9,34,41)\)
• Clinical Approach \((28)\)

• I have a long way yet to go, and that is why I am here.
Critical Technology
Pedagogy

• Pedagogy is the correct use of teaching strategies \(^{(10)}\)
• Critical Educational Theory \(^{(15,20,26)}\)
• Essential for MDGs \(^{(13)}\)
• Between 14 and 22.5 million NEW teachers are required \(^{(16,17)}\)
• Teacher Education \(^{(15,18,27)}\)
  – Can students become teachers of the earlier grades
  – Do teachers need a four year degree and a teaching certificate?
Technology

• Globalizing forces (Internet)
• Development initiatives ($100 laptop (9), ICT4D, regional radio, cell phones, telecentres (30, 38), OpenSource (32, 43), etc)
  – Being critical of these
• Development of new teaching approaches (14, 27)
  – Cognitive Flexibility (Spiro, 1987)
  – Piaget, Vygotsky and Dewey
Development

• UN Millennium Development Goals
• Microfinance \(^{(45)}\)
• HIV/AIDS, Malaria, TB, Health Issues
• Macro-Policy & Micro-Implementation
• Importance of partnerships \(^{(35)}\)
• Literacy \(^{(12)}\) & Adult Literacy \(^{(2,3)}\)
• Jeffrey Sachs, An end to Poverty \(^{(8)}\)
  – Clinical Economics
• Stephen Lewis, Race Against Time \(^{(21)}\)
• Prahalad – Raising the bottom of the pyramid \(^{(7)}\)
Critical Pedagogy

- The art and science of teaching in the developing world.
- About the individual (22, 39)
- About the community (19, 25)
- About working within the system (affecting policy) (34)
- About being critical (or clinical) (26)
Constructivism

- Constructing new knowledge based upon personal, community and social experiences. (30, 31, 37)
- Indigenous Knowledge (3, 36)
- CPAR (24)
ICT4D

• Readiness indicators
• Policy Influence \(^{(34)}\)
• Telecentres / Community Learning Centres \(^{(20, 30, 41, 44)}\)
• Non-internet based ICT \(^{(39)}\)
  – Radio !
  – Cell Phones !
Critical Technology

• Critical Technology is about being critical of the information and communication technology being applied within education in developing communities.

• Who’s needs are being served? And how should they be served?
Critical Technology
The Role

• Critical Technology provides the theoretical foundation for the role of the critical technologist.

• The critical technologist provides the educational support for all the initiatives, efforts, pilots, programs, developments, etc. within ICT4D.
Critical Technologist

- The Critical Technologist is an educator.
- Understands Critical Pedagogy
- Understands learning and literacy
- Understands readiness at the rural, community and national levels
- Understands the importance of a clinical approach – individualizing (differential diagnosis)
- Is an Expert in ICT
- Aspires to community sustainability
- Can dig a well as easily as teach a grade six class or setup a wireless LAN
- No fixed idea of the solution.
Issues

• Teacher Education (22 million teachers)
• I’m speaking from inexperience
• New Idea / Theory
• Finding others working with the educational issues within ICT4D
• Graduate program specializing in the educational issues around ICT4D, Development and the MDGs
Challenges

• Fieldwork (ethnographic case studies \(^{11}\))
• I need Mentorship (a supervisor)
• I need to build a Network
• Which are the “best” journals for ICT4D?
  – (I would like peer reviews)
• Can I get grants, funding, scholarships at this stage? And for what?
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- http://critical.edublogs.org/
Thank-you
References


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