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How Open Source Learning Could Revolutionize Education Delivery

Agenda

deconstructing

recoding

Dr. Walter Fernando Balser   **Dr. Melanie Hicks**

Presentation to the Society of College and University Planning Annual Conference 2019

UNIVERSITY of DENVER
1864
MORGRIDGE COLLEGE OF EDUCATION

MGT CONSULTING GROUP

Overview

- Introductions

OPEN

Walter Fernando Balser, EdD @wbalser

- 15 years in urban education and web portal development
- Faculty, University of Denver
- Creator of Open Partnership Education Network (OPEN) learning platform
- Explore application of open systems to learning organizations
- Research social innovation entrepreneurs in education space

Melanie Hicks, PhD

- More than 10 years of Higher SOS Public policy experience
- Prior to joining UICT, Dr. Hicks served as Assistant Provost, The University of Tampa
  - Led campus wide faculty initiatives
  - UT-South Center for Entrepreneurship
  - Master planning and budgeting senior staff committee
  - Led strategic assessments and return on investment evaluations on both the operating and capital needs
- Prior to joining UT, she founded InPursuit Consulting and Research Institute
- Dr. Hicks also previously served as the Director of Research for the Independent Colleges and Universities of Florida (ICUF)

DDLO is a decentralized open learning organism, built and run by its members, iterating towards a smarter education system for all.

Notes: We will discuss "open source thinking" and it's relation to schooling as well as current initiatives in this space. This is a primer not an exhaustive dive into a complex and emergent space. The key objectives are:

1. Open Source Thinking" - Philosophical/ adaptive - mindsets in K-20 from an organizational / governance perspective vis-a-vis broader discussions around "open access" in higher education or "openness" movements. These are all related, but we cannot dive into each in great detail. We are discussing "the philosophy and tools to make that happen"--just like OPEN

2. Technical - things you can do today to move your institution, organization toward openness + brief discussion of open source initiatives in P-20 space

Outcomes for Today

- Review current learning /schooling paradigm
- Examine a changing learning /schooling in a new "reality"
- Consider how Open Source can help ed institutions adapt to this new reality
- Begin thinking how your institution can adapt to this reality
- Review ongoing initiatives, resources, tools, networks

Overview

□ - Introductions

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Art of Governance in an Open Source Community
and its Relation to Schooling

A micro.micro ethnography of an Ethereum Hackathon

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Deconstructing

Changing Paradigm

Learning is changing! "Schooling" is not -- Grammar of Schooling - Tyack and Cuban, 1994; Peter Senge, Schools That Learn

School Systems: Birth to Recode			
	Birth 1900s	Reform 1980s-2010s	Recode Open Systems 2020+
Root	Industry	No Roots (only branches)	Technology
Influence	Manufacturing	Business	Software
Control	Centralized	Quasi-Centralized	Decentralized
Governance	Policy Leaders	Sector Leaders	Peers
Scope	Local	State/National	Global
Capital	Public	Private	Blended
Focus	Production	Achievement	Creation
Moral	Access	Equality	Equity
Benchmarks	Job Skills	College Skills	Soft Skills
Measurement	Output	Data Analytics	Artificial Intelligence
Guides	Canon	Standards	Principles
Assessments	Apprenticeships	Tests	Playful Gamification
Endorsements	Diplomas	Certificates	Badges
Communication	Print	Email	Wikis & Teamware

Walter Fernando Balser, Ed.D.

Natural Systems = Open Source

agriculture

nature

This is a Systems Issue
A Perfect system mirrors the natural environment

Is your institution doing this?

"I can teach you my steps, but you will have to hear your own music." - Chief Santiago

BOBBY MCFERRIN
AND THE POWER OF THE PENTATONIC SCALE

Notes: Review of purpose -- the perfect system mirrors the natural environment. How can "schooling" do this? How is schooling in its current paradigm increasingly going against natural systems?

1. Pair share on the image and table*
2. Debrief - observations; where are we headed? How can we adjust to this
3. Our purpose in this short discussion is to see the pieces in this paradigm that we can address from an adaptive and technical perspective (video of rhythm)

Changing Paradigm

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Open Systems
2020+

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Is your institutio

"I can teach you my
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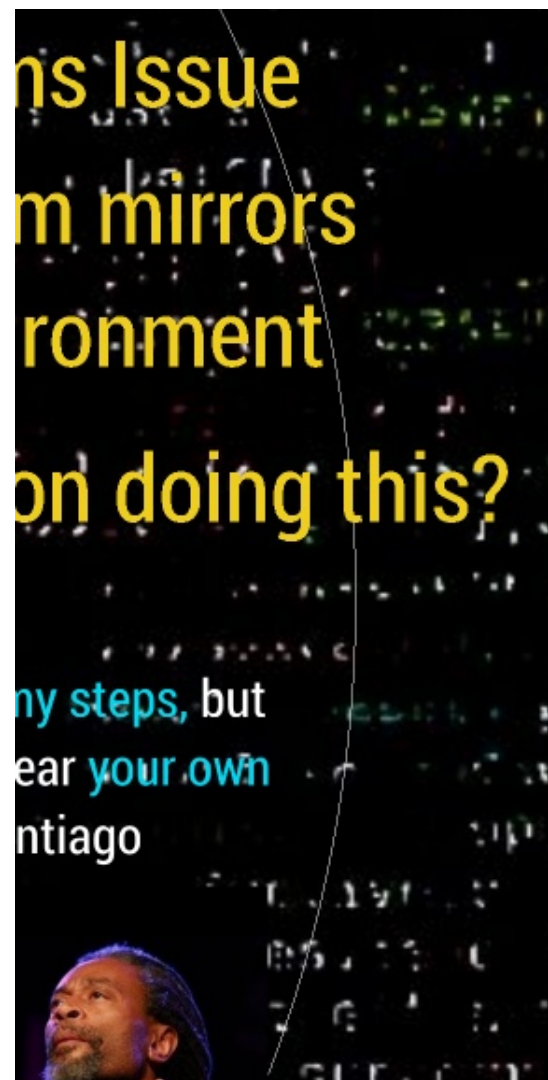music." - Chief San

BOBBY MCFER
AND THE POWER OF THE P

School Systems: Birth to Recode

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Walter Fernando Balser, Ed.D.

BOBBY MCFERRIN

AND THE POWER OF THE PENTATONIC SCALE

What Hackers Can Teach Schools About Decentralized Leadership:
A Brief Lens into Open Source Thinking in K-12 education

It's a cold but sunny afternoon in Denver, Colorado as students, educators, and content experts from across the world gather in a converted century-old department store to share ideas that maybe, just maybe will change the world.

Project leaders present challenges that a community of learners will tackle together in teams. Some challenges are monumental, one might say even existential; others are just for fun, like dressing up a "bot" in any color you want. But even these simple exercises have a deeper meaning behind them. These bots are not just cartoons; they are generated from meticulously crafted algorithms that resemble human DNA-- tracking a user's every contribution through a blockchain. Sound complicated?

Amazingly, in this community forged in technology and art, it's all easy to understand. This is a universe of sharing, co-creation, and teamwork. But most of all, it is a world of intense learning. We are at ETHDenver, where teams of hackers have come together to not only envision a new world of open collaboration, but actively shape its future through a shared governance model. This is open source (OS) thinking--and teamwork-- at its best. Imagine what schools could learn from this.

Beyond the Grammar of Schooling in a Decentralized World

As experienced school leaders we wanted to explore the world of open source software development and its relationship to school leadership. More to the point, we wanted to witness for ourselves how teams working on decentralized applications, or Dapps, build breathtaking products at breakneck pace in the age of information. Education---like the rest of the world--- is finding its

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So how can Open Source Help?

"Empowerment of individuals is a key part of what makes open source work, since in the end, **innovations** tend to **come from small groups, not from large, structured efforts**."
Tim O'Reilley, Software Pioneer.

Advantages
Lowering the "Coordination Costs"
Rapid deployment of ...anything
Coproduction with more voices/ capital
Constant iteration on last best idea
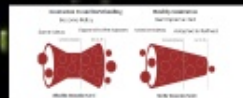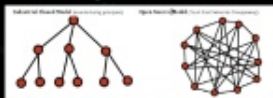
Principles & Characteristics
Trust
Fluid Networks
Transparency
Inductive
Fuzzy Ideas
People not Institutions
Hackers have this figured out!

How do we get there?
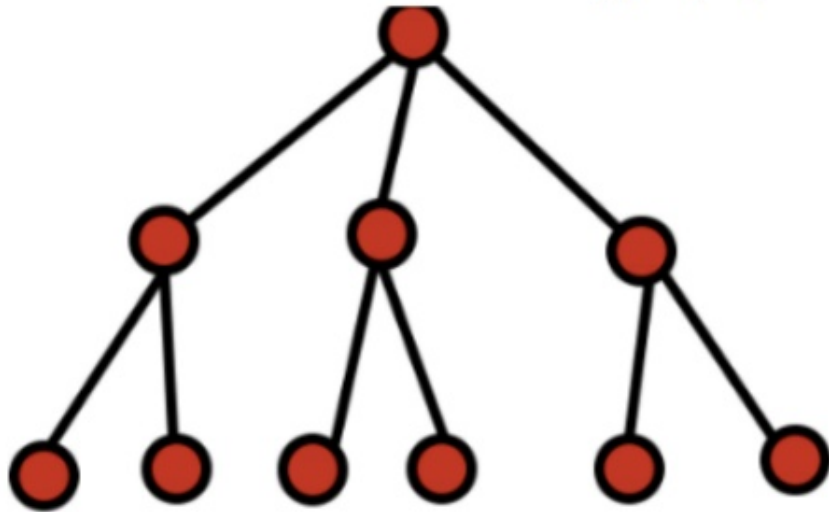**Adaptive Shifts** - Philosophical changes in beliefs, mindsets, values

Technical Shifts - Changes in systems, processes, technologies

Resources
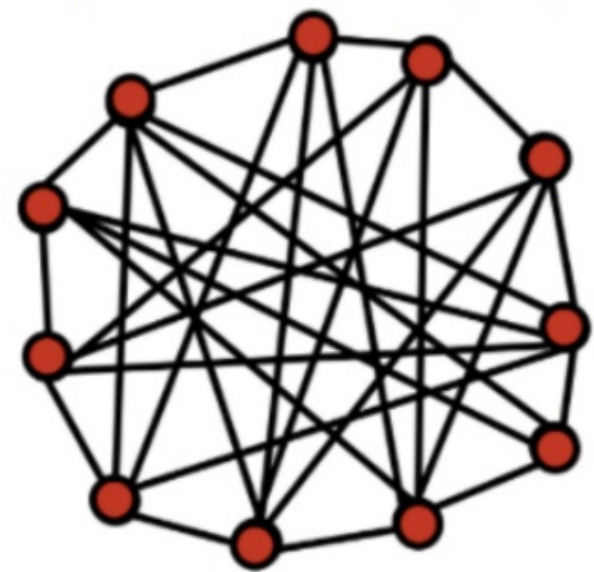
Industrial Closed Model (manufacturing principles)

Open Source Model (Trust, Fluid Networks, Transparency)
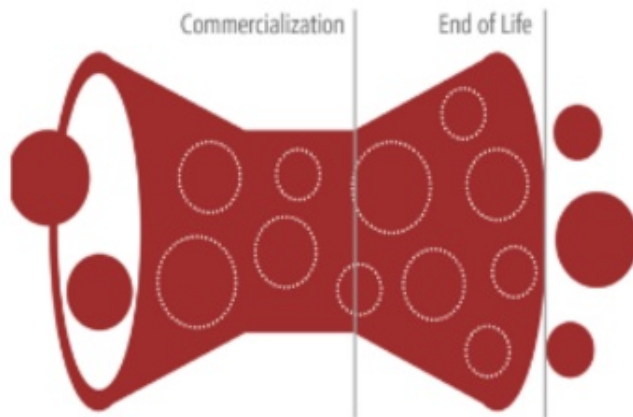
Innovation Funnel in Schooling

Become Policy

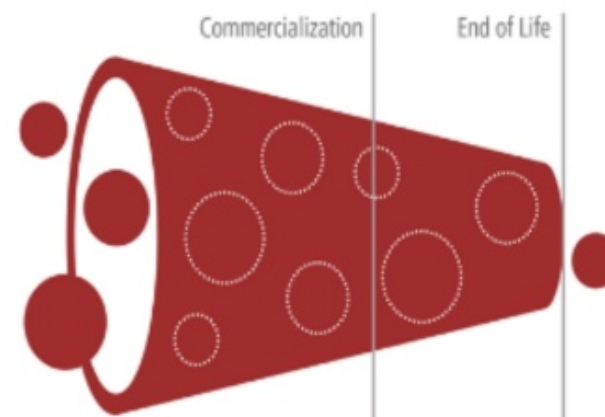Some Ideas — Expand to the Masses
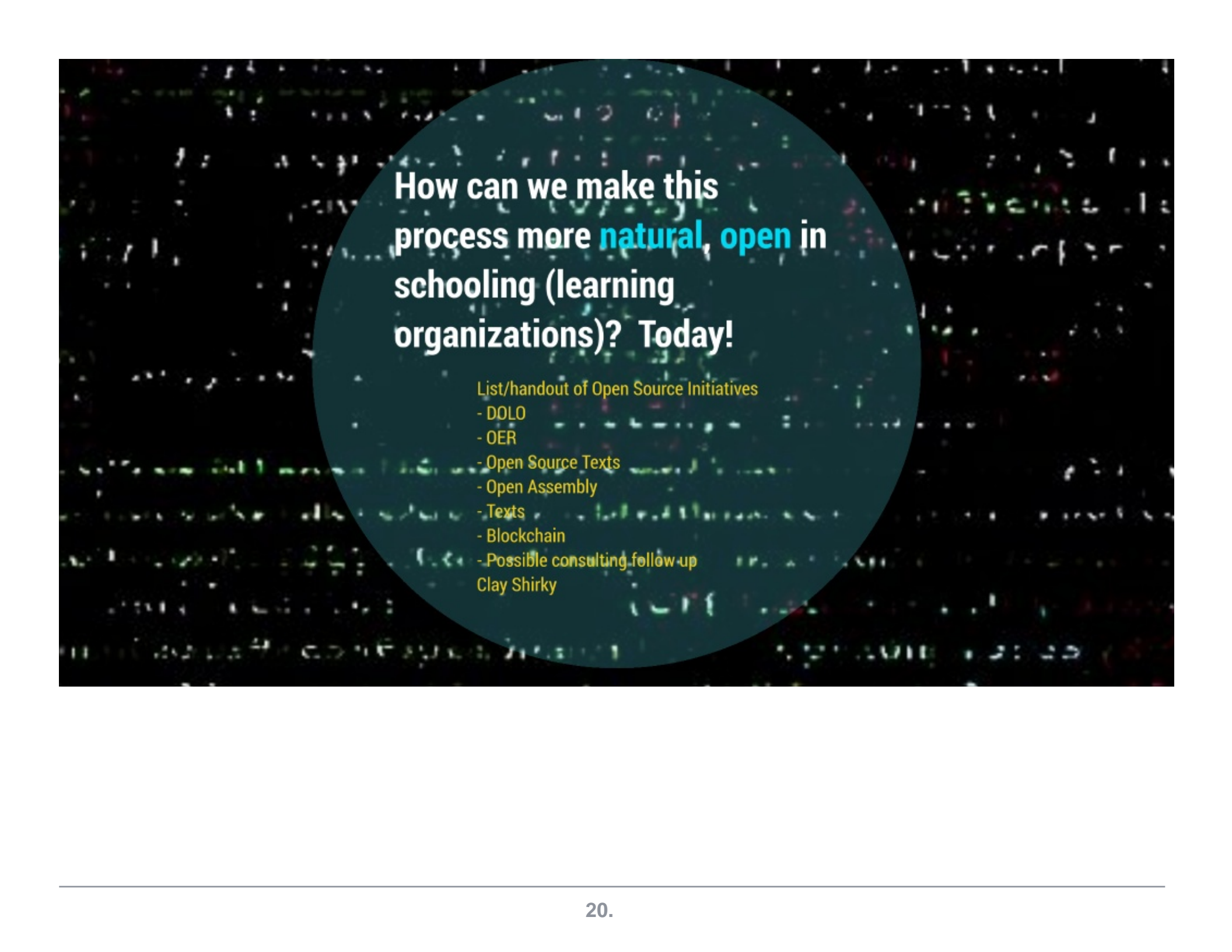
Unhealthy Innovation Tunnel

Healthy Innovation

Get Implemented

Massive Ideas — Adapted & Refined

Healthy Innovation Funnel

How can we make this process more natural, open in schooling (learning organizations)? Today!

List/handout of Open Source Initiatives
- DOLO
- OER
- Open Source Texts
- Open Assembly
- Texts
- Blockchain
- Possible consulting follow up
Clay Shirky

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