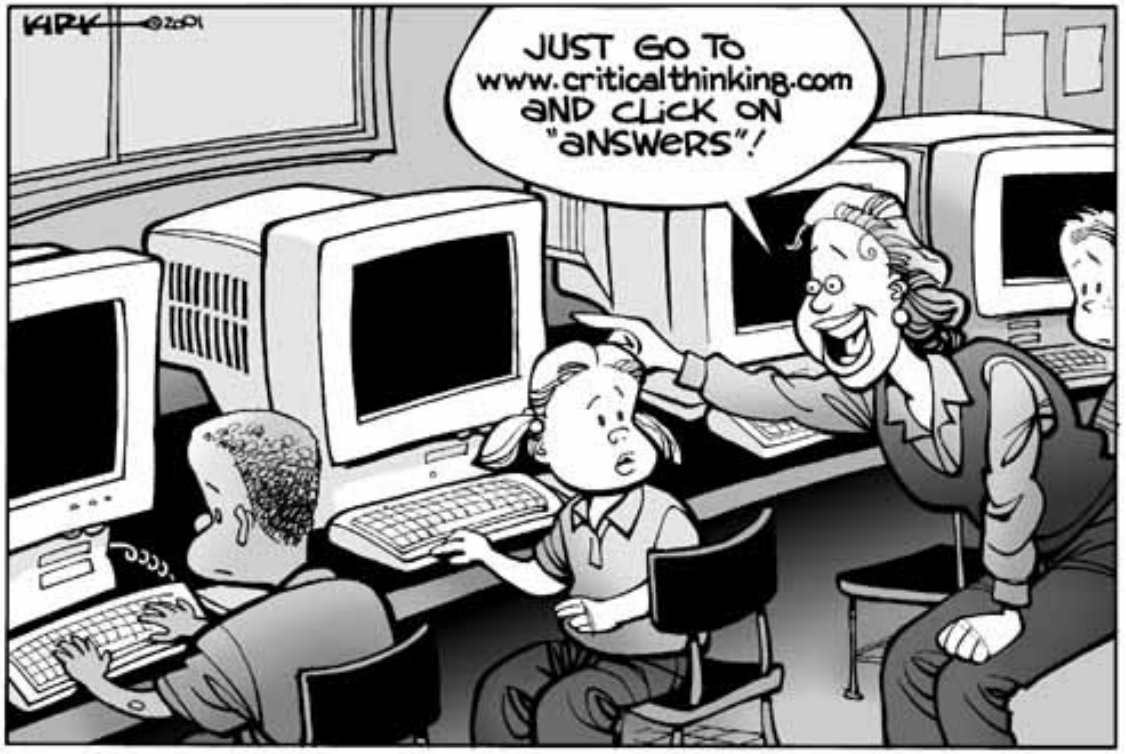


Teknologi & Uddannelse

~Access determinisme?

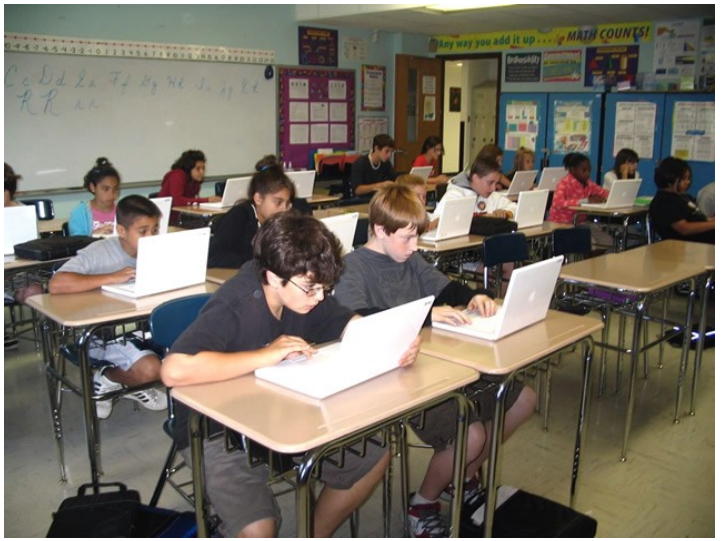
Samspillet mellem teknologi og samfund

Lars Bo Andersen

We don't need no school

...experience strongly suggests that an incremental increase of “more of the same”—building schools, hiring teachers, buying books and equipment—is a laudable but insufficient response to the problem of bringing **true learning possibilities** to the vast numbers of children in the developing world.

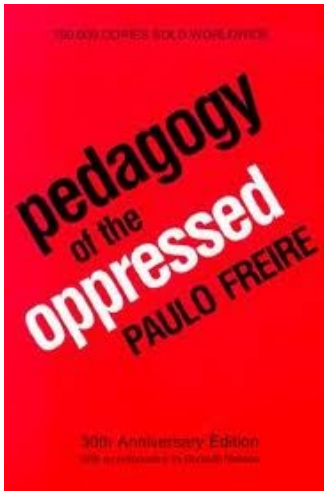
(OLPC Website)



Paulo Freire

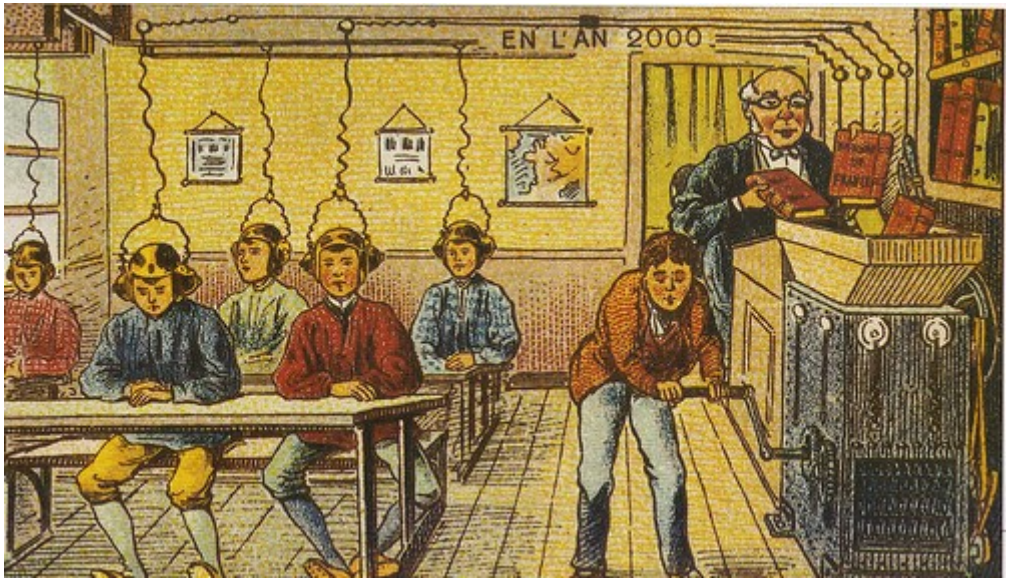
De undertryktes pædagogik

- De undertrykte er dem, der må leve i andres virkelighed
  - Dvs. dem der ikke kender sig selv, men som kun er kendt af andre
- De må kende sig selv – at stille sig spørgende
  - "Their ideal is to be men; but for them, to be men is to be oppressors" (Freire: 60)
  - It is a rare peasant who, once "promoted" to overseer, does not become more of a tyrant towards his former comrades than the owner himself. (Freire: 46)



Skoler som undertrykkelse

- Banking approach
  - Tokens of knowledge are safely deposited
  - ...students records, memorizes, and repeats these phrases without perceiving what four times four actually means" (Freire: 71)
  - "cognitive death by school" (Papert & Freire)



Man stiller ikke spørgsmål ved det bestående – ved substansen eller ontologien

Seymour Papert

Papert & Læring

- ...when you go to school, the trauma is that you must stop learning and you must now accept being taught (Papert & Freire)
- Med adgang til teknologi vil børn gøre oprør mod skole (Papert & Freire)
- Fra undervisnings pædagogik til lærings mathetics

Papert & Piaget

What makes the wind?

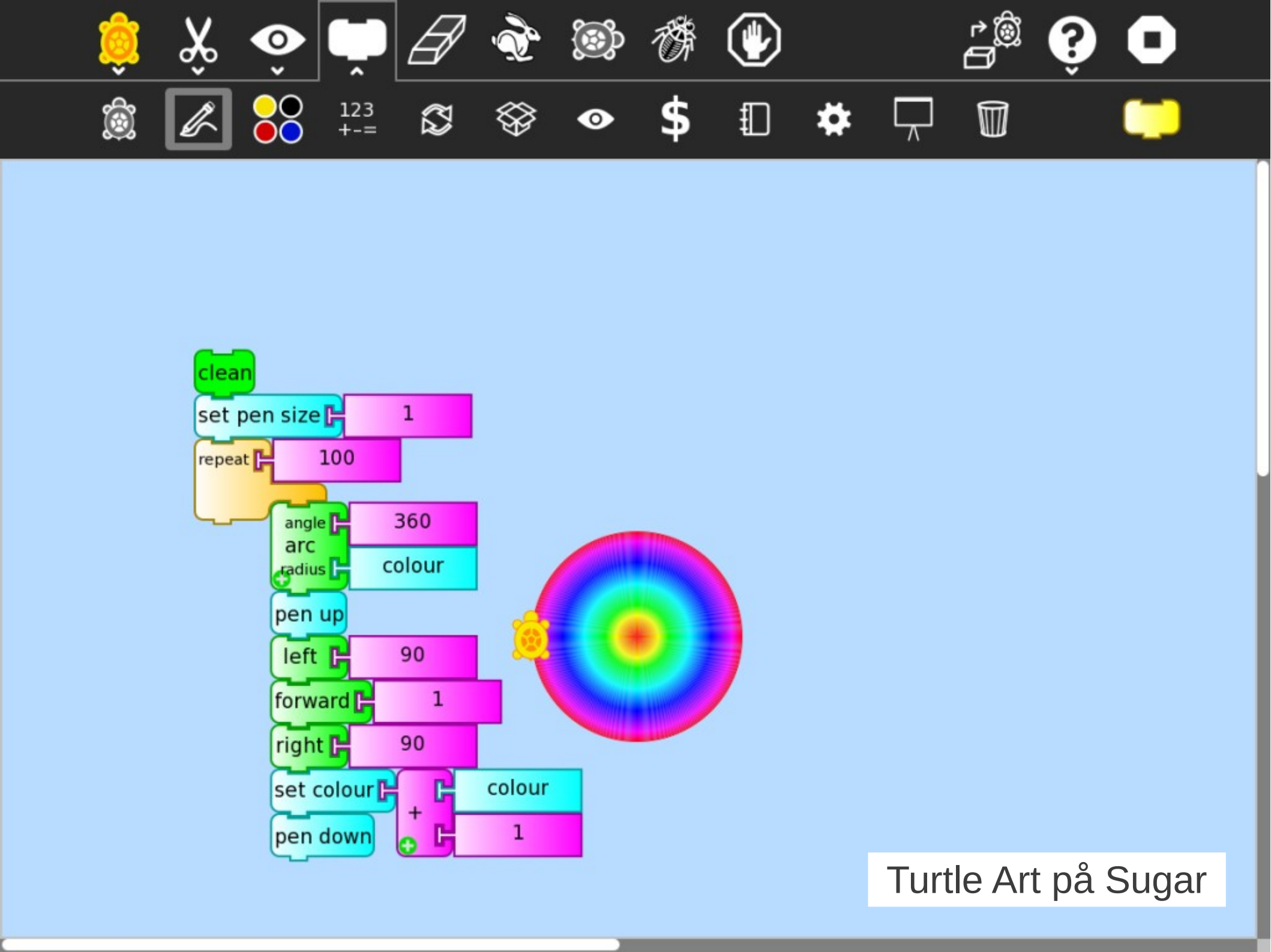
Julia (age 5): The trees.
Piaget: How do you know?
Julia: I saw them waving their arms.
Piaget: How does that make the wind?
Julia: Like this (waving her hand in front of Piaget's face). Only they are bigger. And there are lots of trees.
Piaget: What makes the wind on the ocean?
Julia: It blows there from the land. No, it's the waves.

NICE TRY! THIS IS HOW IT REALLY IS (Papert, 1999)

Pædagogisk

Constructionism/tivism

- Vi kan ikke neutralt set indoptage viden
  - Vi har f.eks. ikke den samme matematiske viden
- Vi konstruerer viden i en læringspraksis
  - Dem er skolen ikke god til at understøtte
- Men det er IT siger Papert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set pen size
1
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100
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arc
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360
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pen up
left
90
forward
1
right
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set colour
+
colour
1
pen down
Turtle Art på Sugar

LEGO mindstorms
NXT 2.0
BUILD AND PROGRAM ROBOTS THAT DO WHAT YOU WANT!
Ages
10+
8547
619 pcs
Construction System
PC/Mac
Bluetooth®
USB
Batteries not included
Create thousands of robotic inventions!
Program robot actions on your computer.
All About LOGO-
How It Was Invented and How It Works
MINDSTORMS
Children, Computers,
and Powerful Ideas
WITH AN INTRODUCTION BY JOHN SCULLEY
AND A NEW PREFACE BY THE AUTHOR
SEYMOUR PAPERT

Sugata Mitra

Minimally Invasive Education

”mass computer literacy in the developing world”

The acquisition of basic computing skills by any set of children can be achieved through incidental learning provided the learners are given access to a suitable computing facility, with entertaining and motivating content and some minimal (human) guidance.

(Mitra)

Digital natives

The adults don't try to use the computer citing reasons such as ”We don't know the language”, ”We don't know how to operate it” etc. One elderly lady asked if ti would provide food for them. Parents in general felt that while they could see no need for the Kiosk, it was very good for the children

(Mitra)

Hvad er på spil?

- Hvad er skolens problem?
  - Papert: Problemerne er didaktiske og metodiske
  - Freire: De er også politiske og ideologiske
- Hvad er vilkårene for barnets empowerment?
  - Individet er frigjort ved at have frihed til handlen
    - The Boy Who Harnessed the Wind (adgang til information)
  - Individet er nød til at kende til skabelsen af sig selv i en større sammenhæng (~link Foucault)
- Går IT også undertrykkelsens ærinde?
  - (media literacy)

Hvad er på spil?

- Freire: skolen har en vigtig funktion som Papert / Mitra overser

What matters to me is the determined space and time where determined tasks are accomplished. Social historical and political tasks, not only individual ones. […] the technological modification definitely accelerates the apprehension of knowledge, but not necessarily **the reason of being of the knowledge**

(Papert & Freire)

The historical atmosphere is filled with the computer. It's filled with these telephones these fools carry everywhere -- cellular phones. **There is a history of the facts that generate the facts.**

(Papert & Freire)