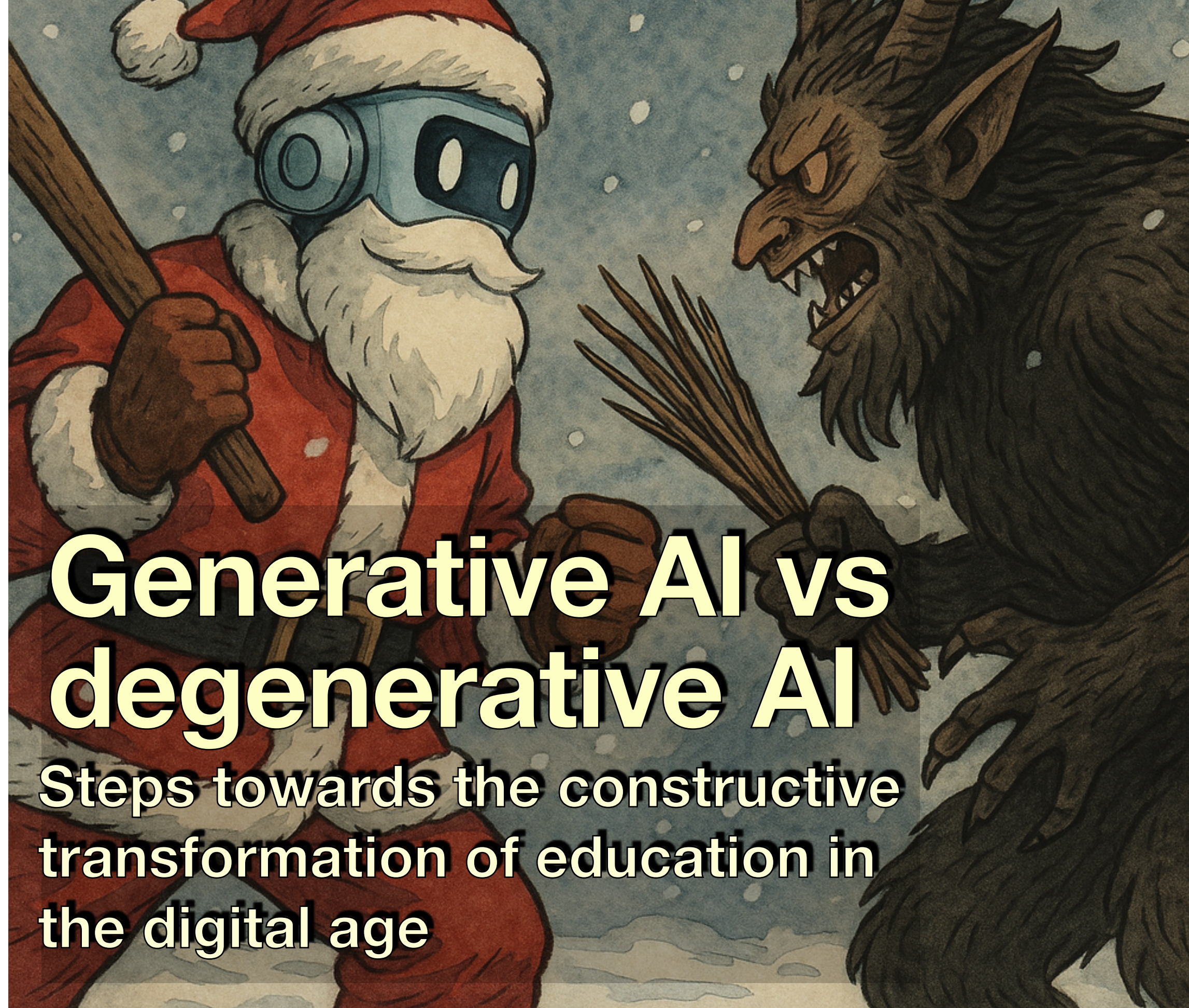




Generative AI vs degenerative AI

Steps towards the constructive
transformation of education in
the digital age

Jon Dron

*Professor and
Associate Dean,
Learning &
Assessment*

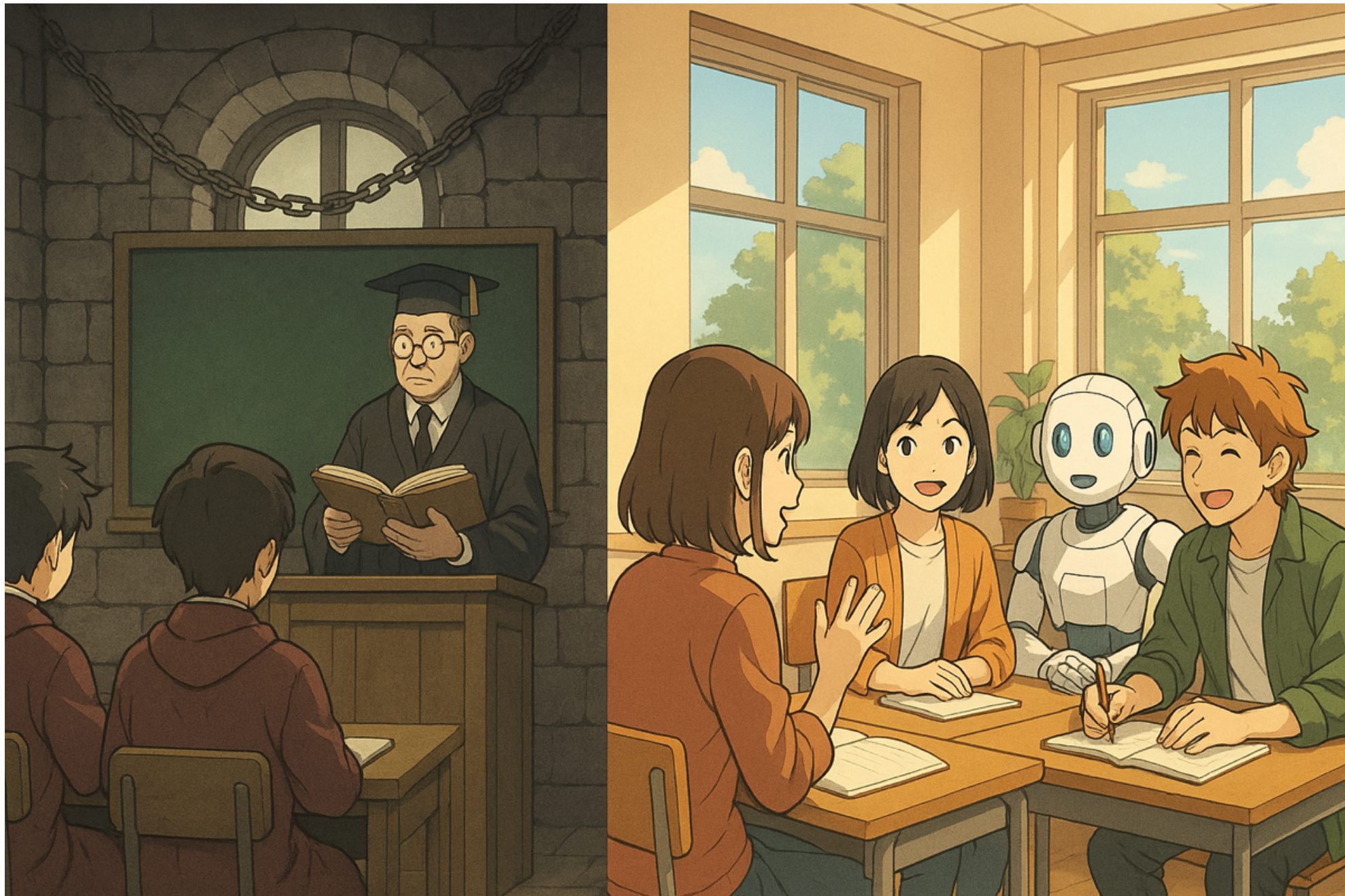
 **Athabasca University**
FACULTY OF SCIENCE & TECHNOLOGY
School of Computing & Information Systems

Technology Enhanced
Knowledge Research
Institute (TEKRI)

 **IFNTF**
International Federation of
National Teaching Fellows

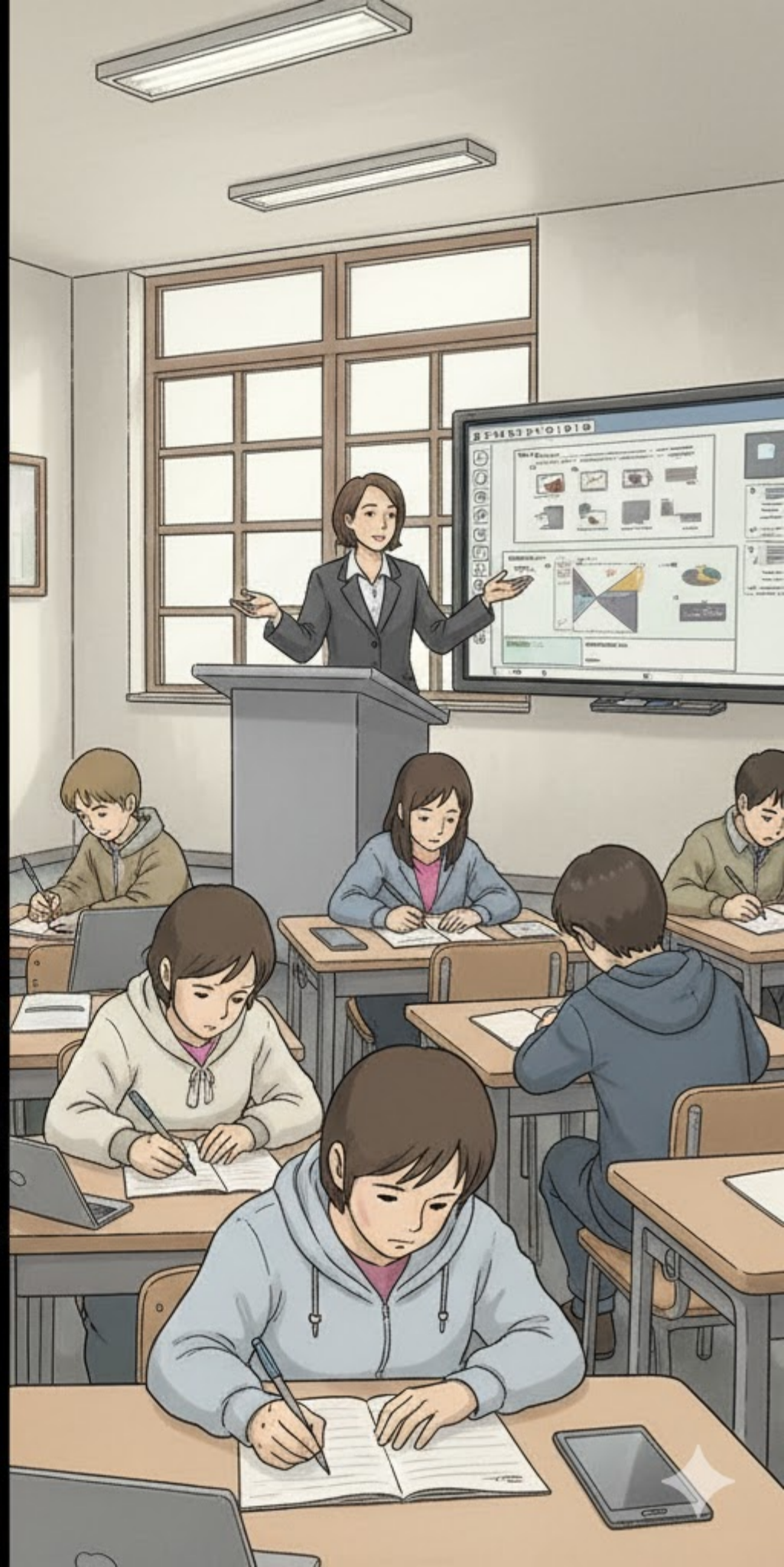
<https://jondron.ca>
jond@athabascau.ca

Can education (at least higher education) be transformed?

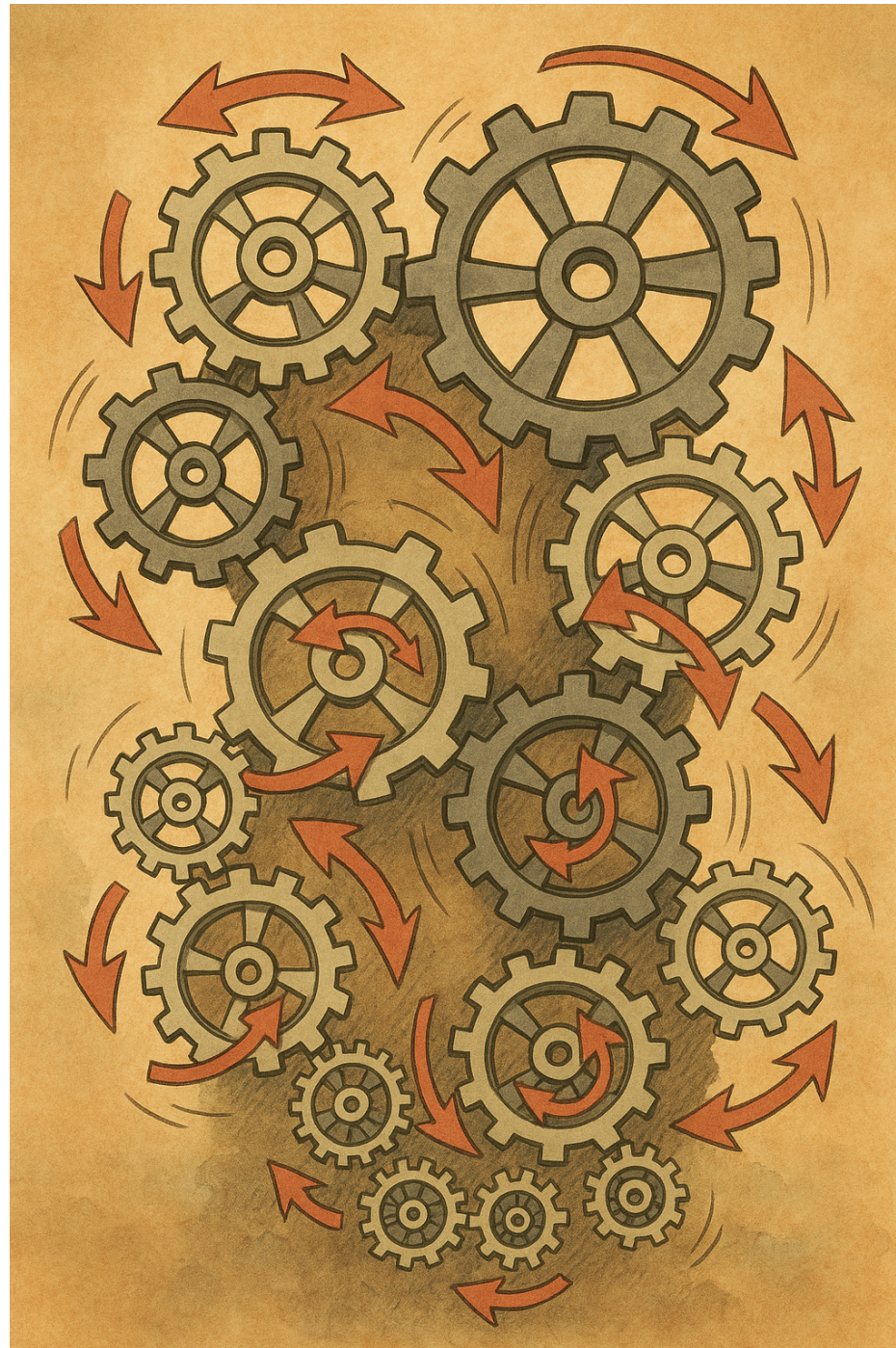


The evolution of the modern professor





Gears in opposition

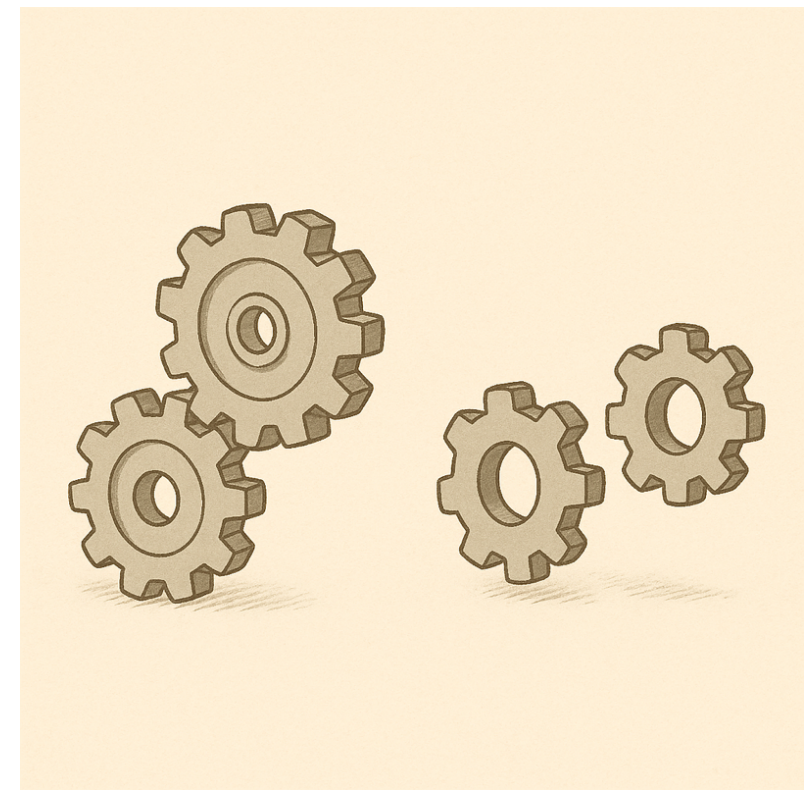


Self-correcting



Three ways to transform subsystems set in opposition

1. Tight coupling
2. Decoupling
3. Change everything, everywhere, all at once



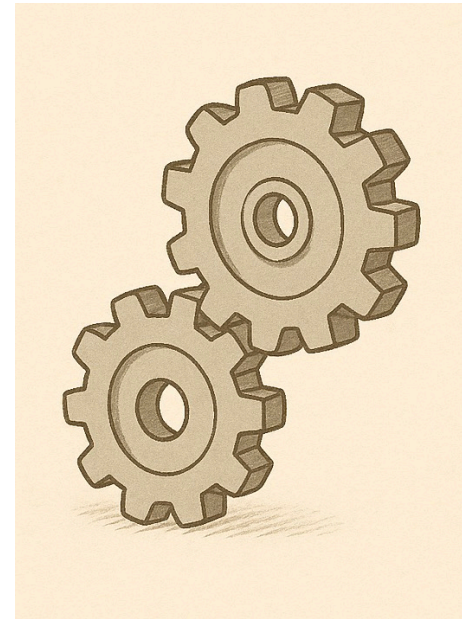
e.g. Assessment

constructive alignment

negotiated learning outcomes

Tight coupling

evidence-based assessment

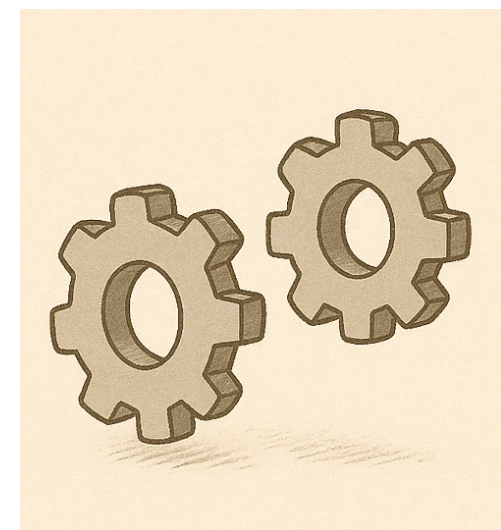


integrative assessments, ungraded courses

Decoupling

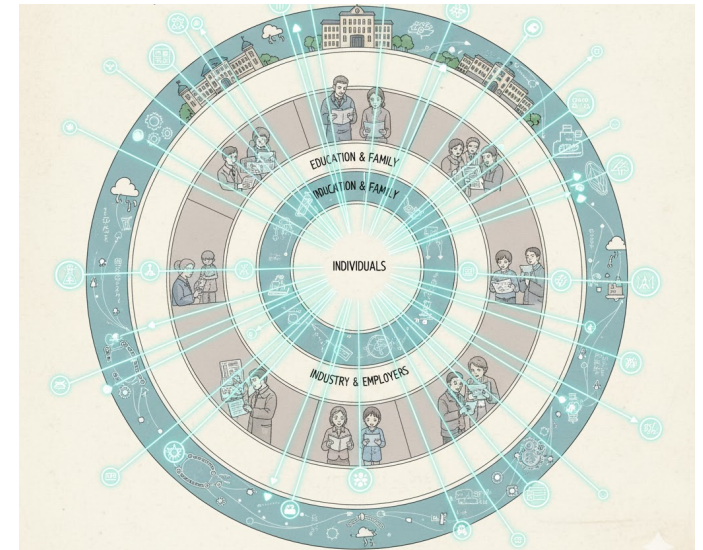
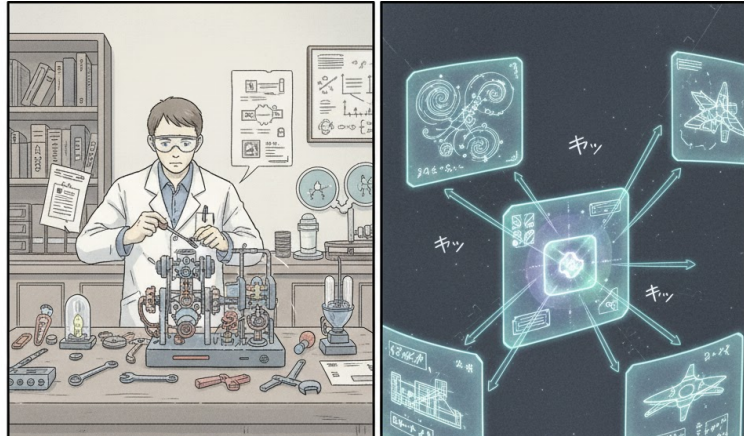
outcome harvesting

the “driving test” model

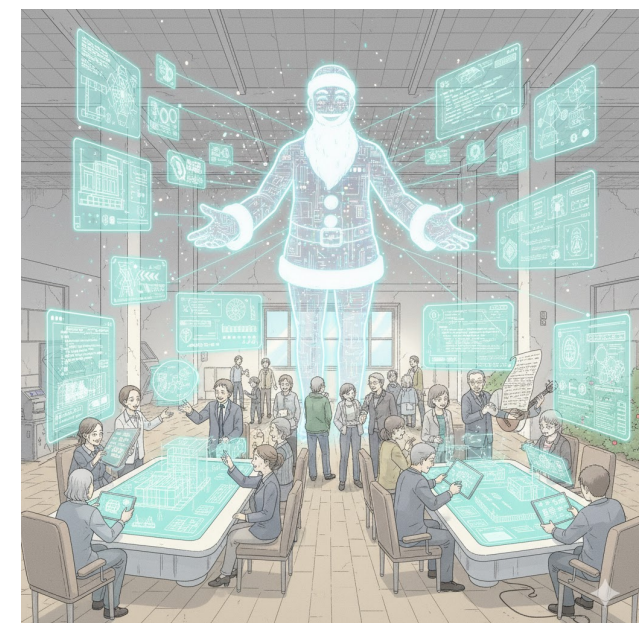
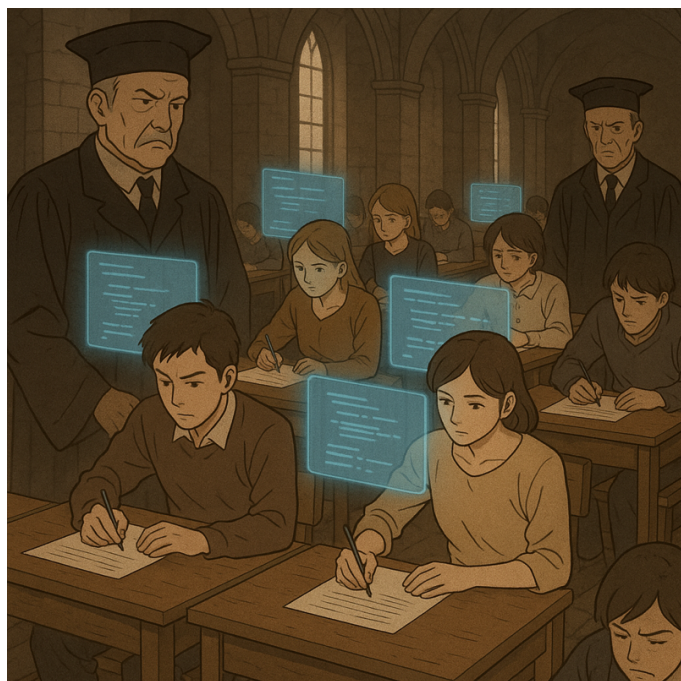


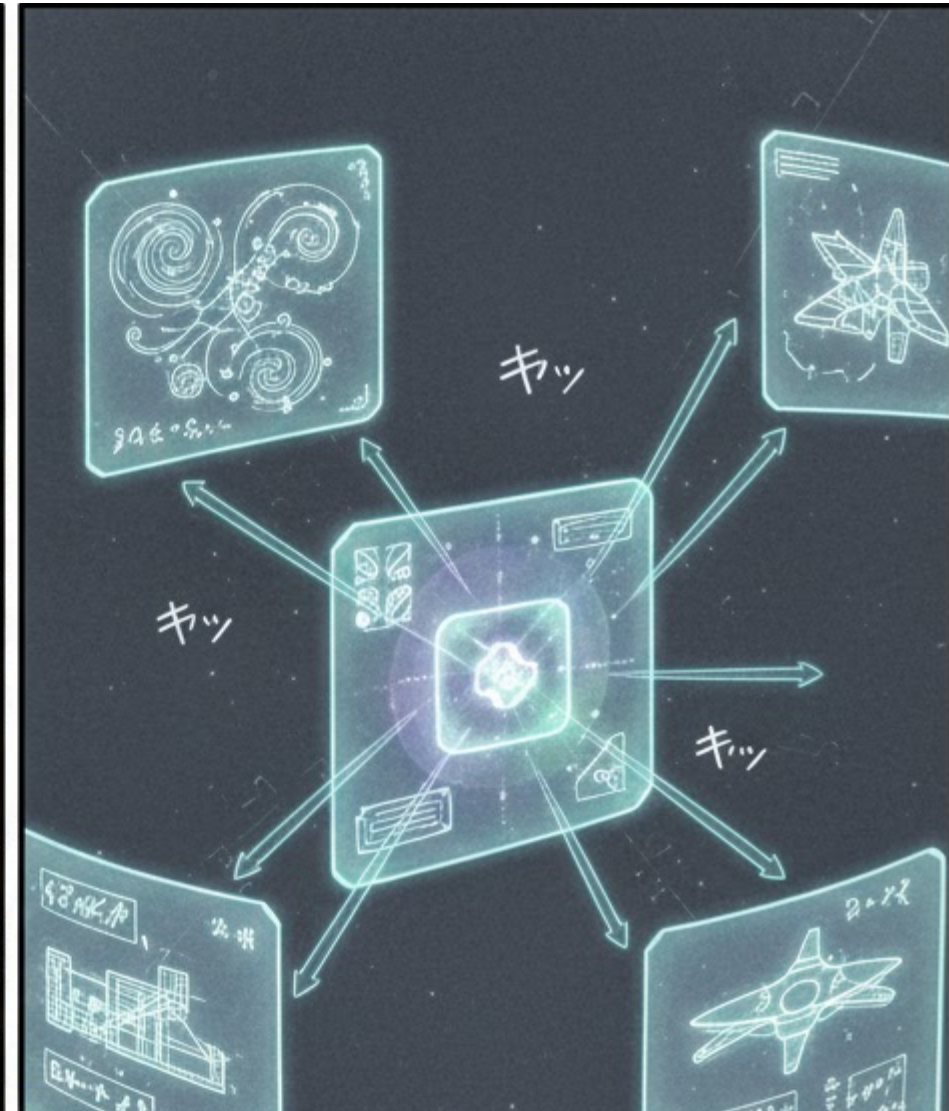
But everything is intertwined





Four reasons it *might* be different this time

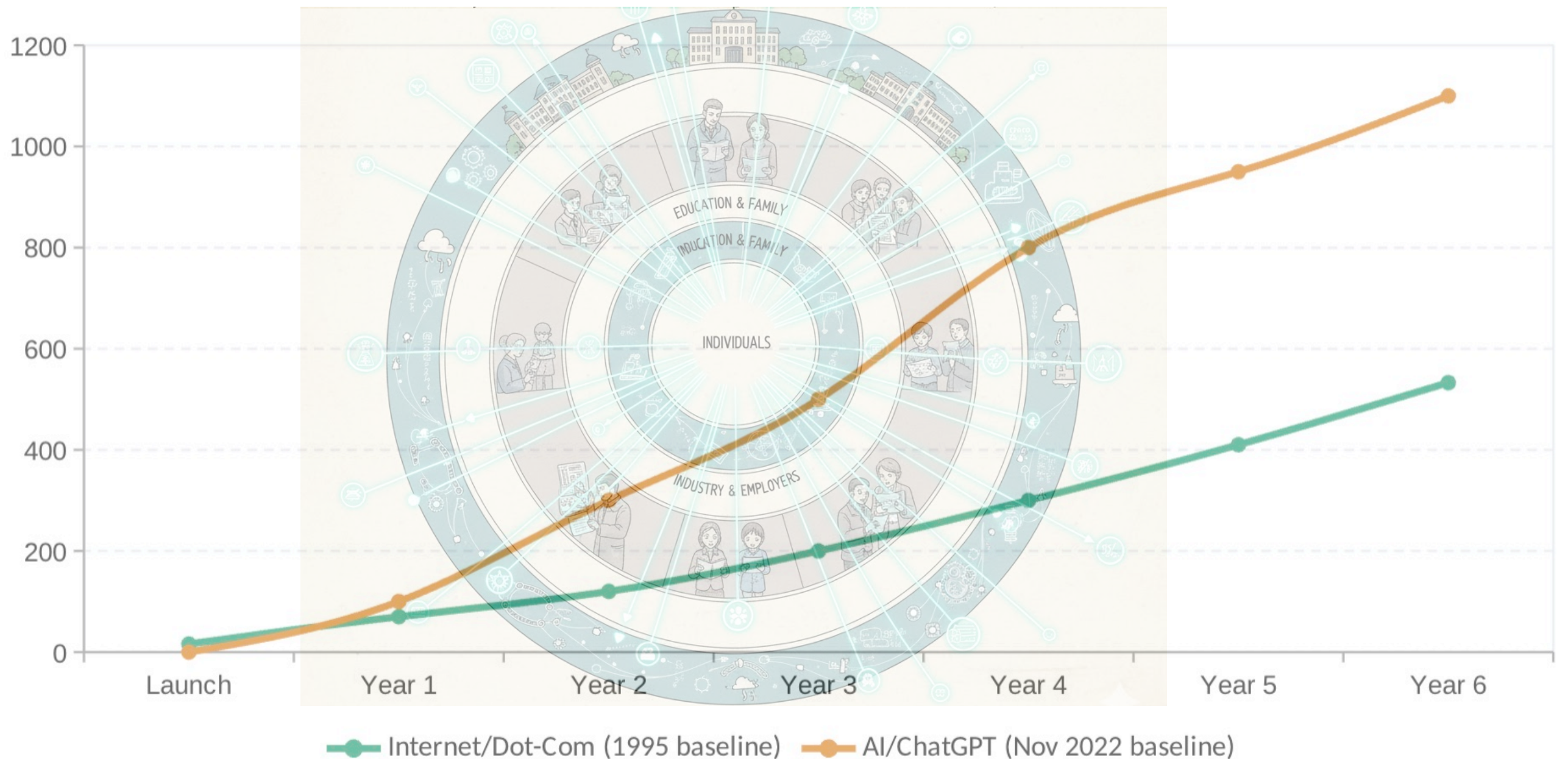




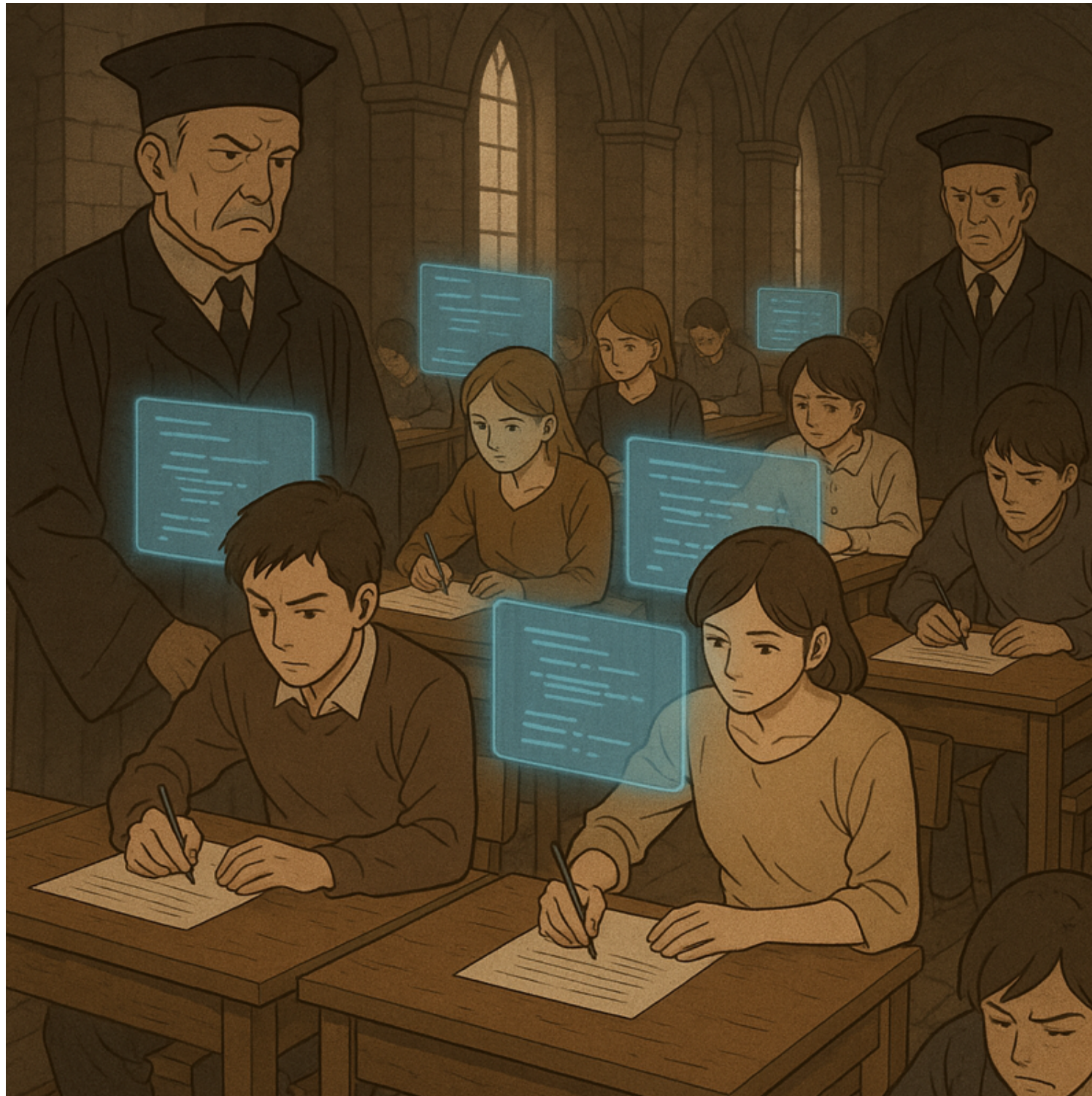
Santa Claus machines



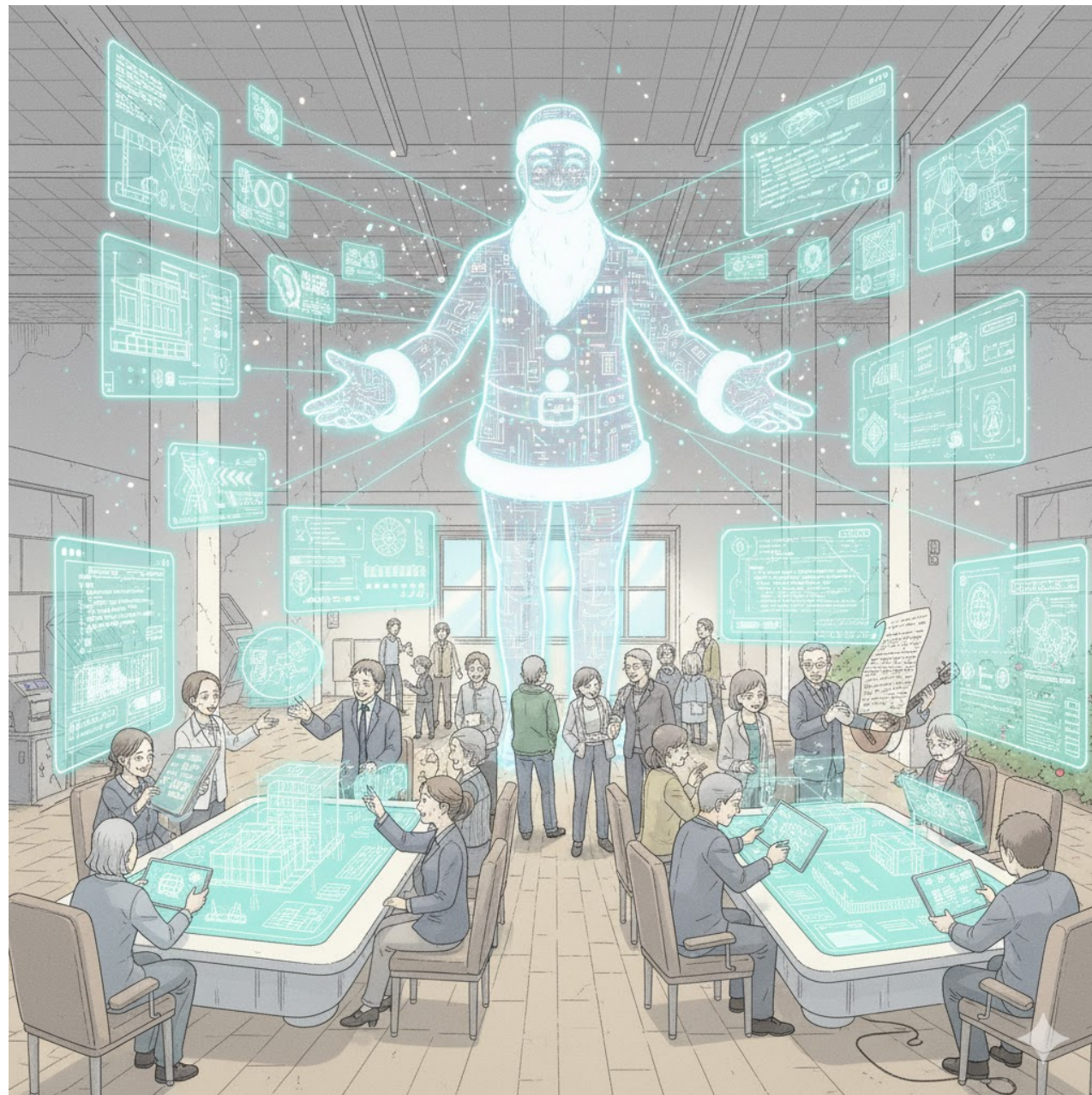
Everything, everywhere, all at once



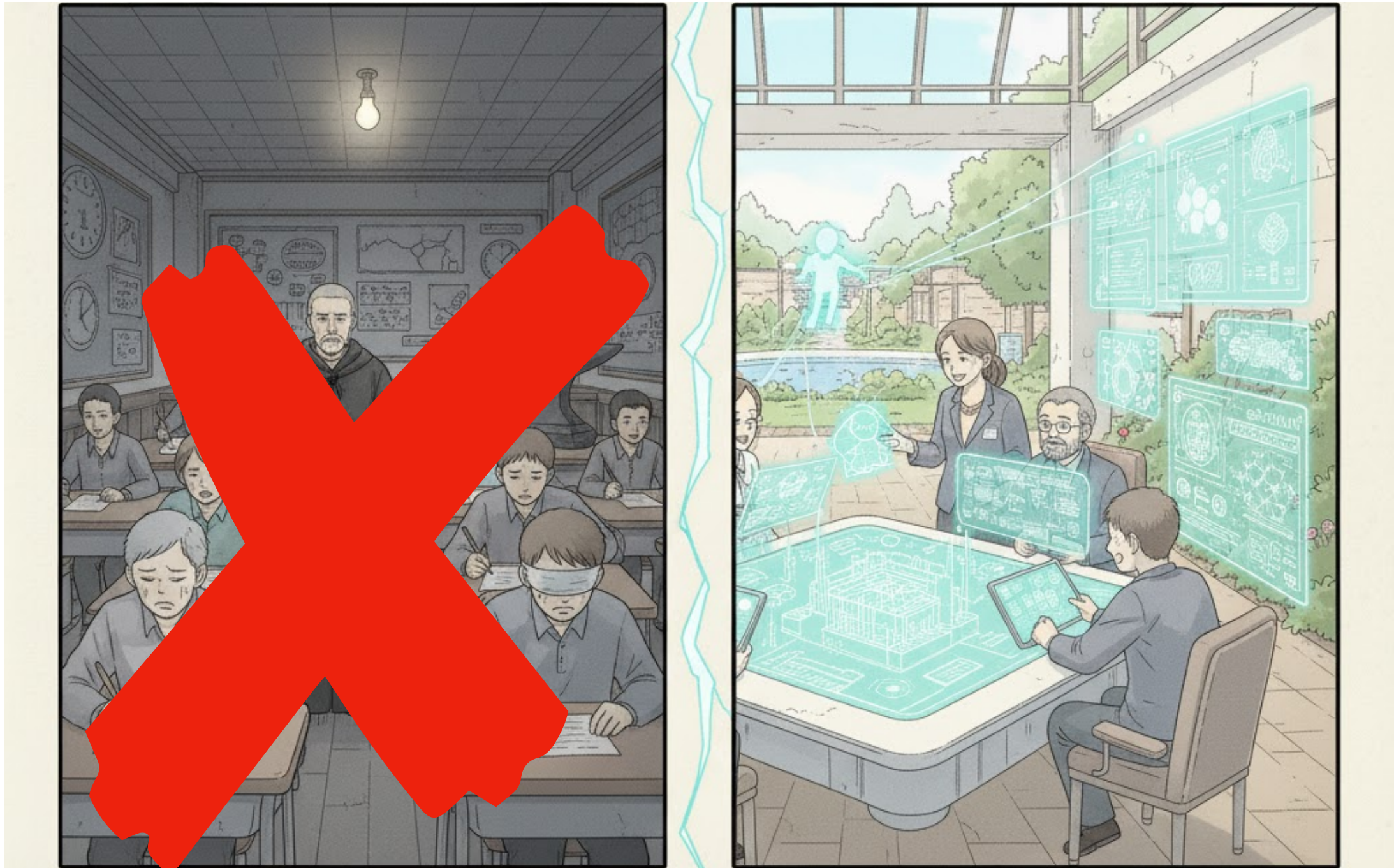
A tipping point?



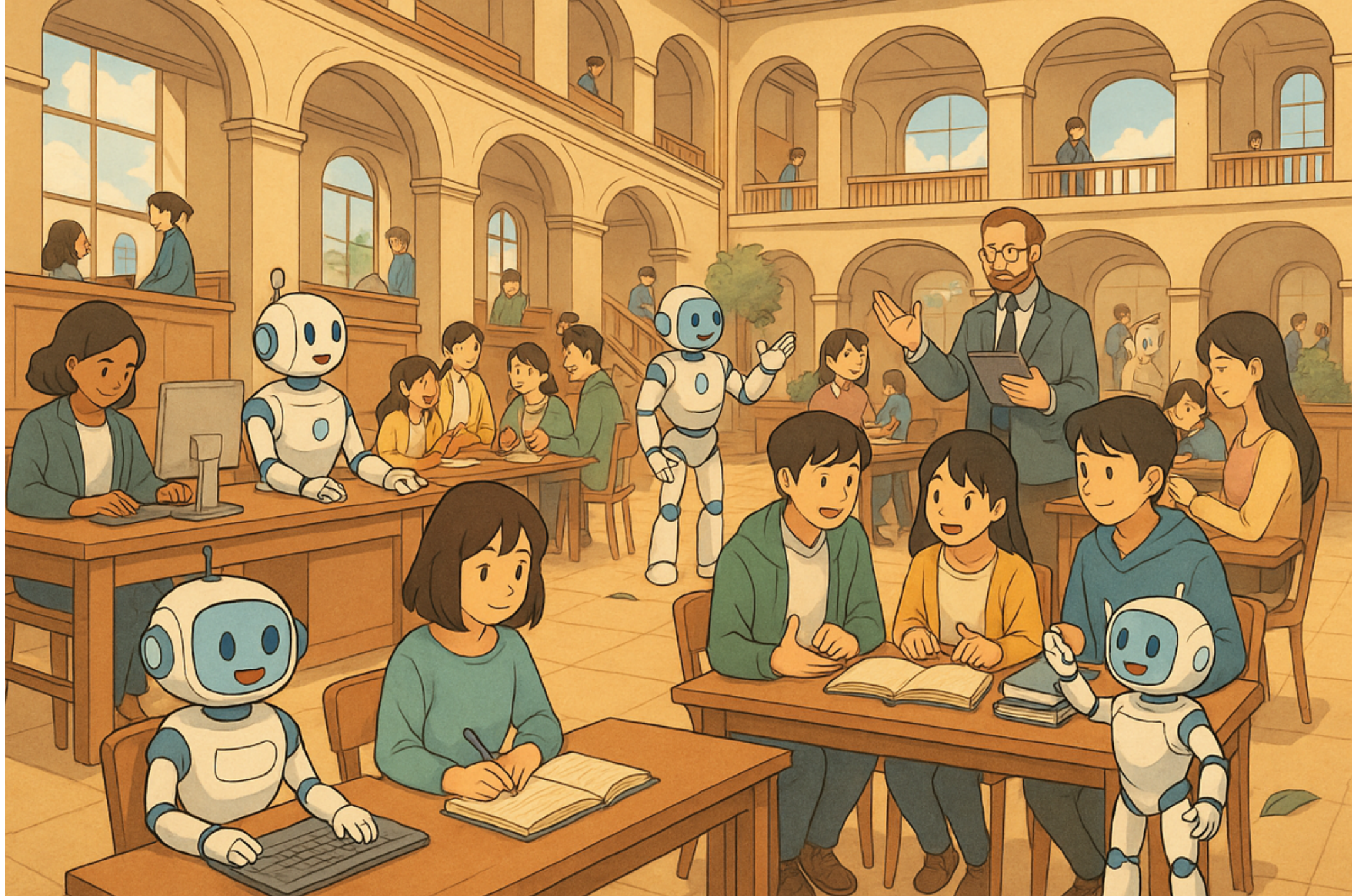
New skills, new ways of thinking



Generative AI: the promise

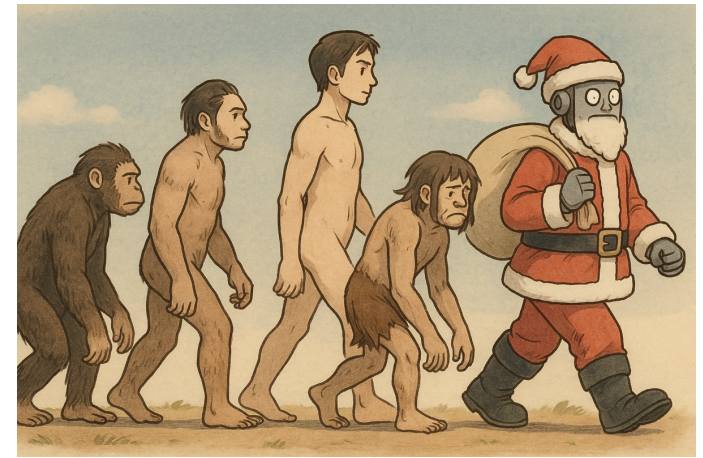


Generative AI: the promise

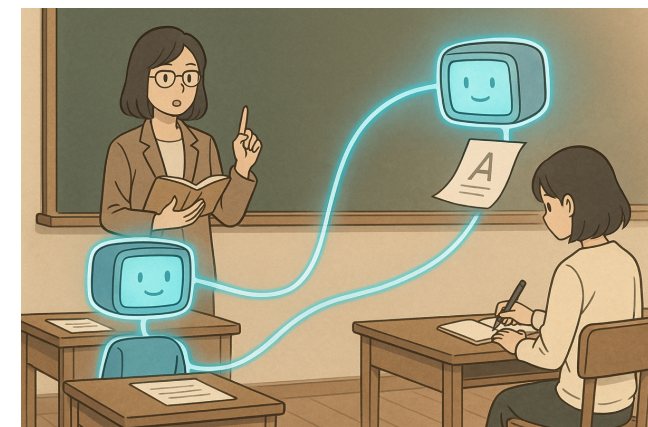




BUT



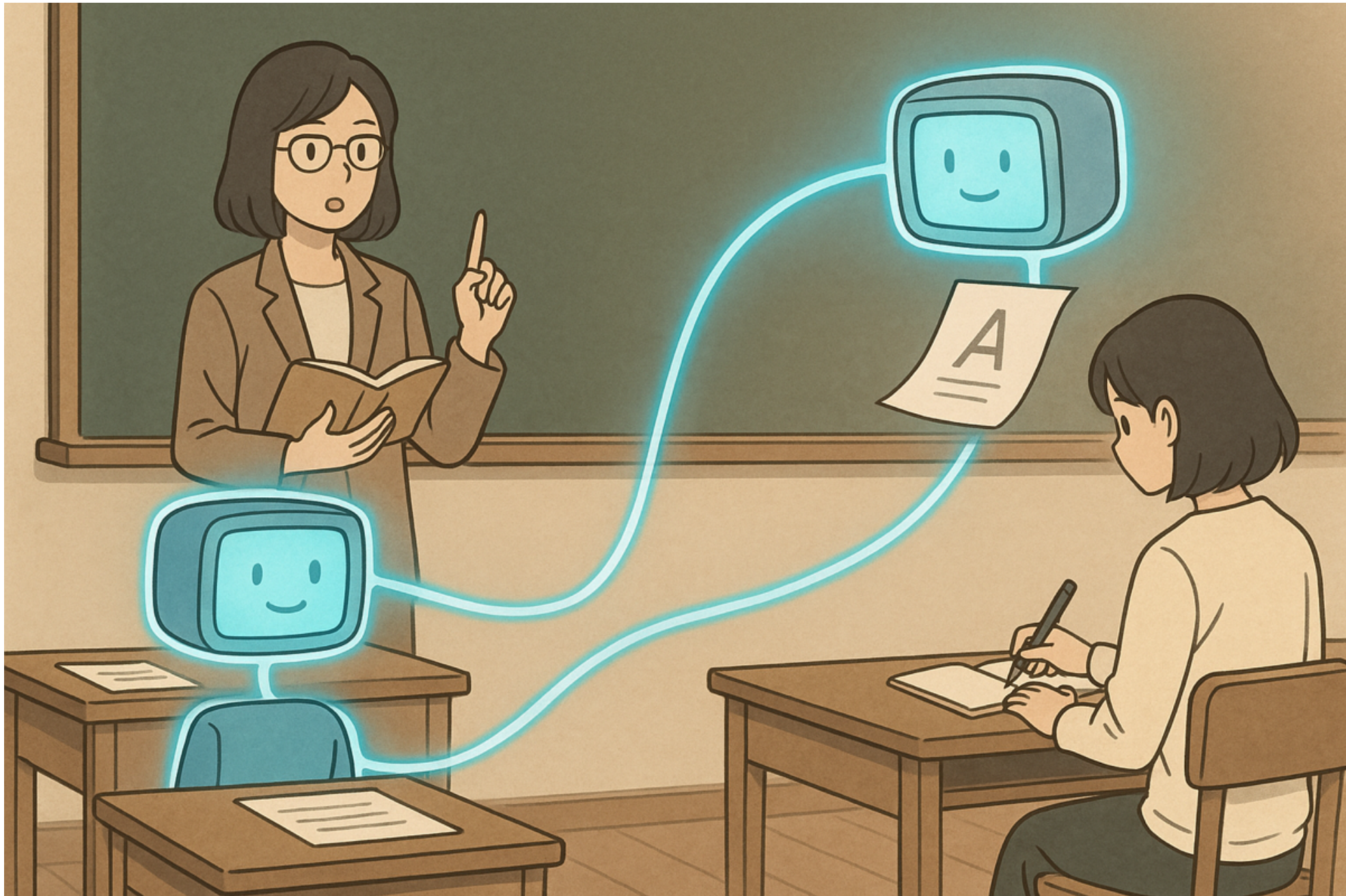
If we continue as we are...



Degenerative AI



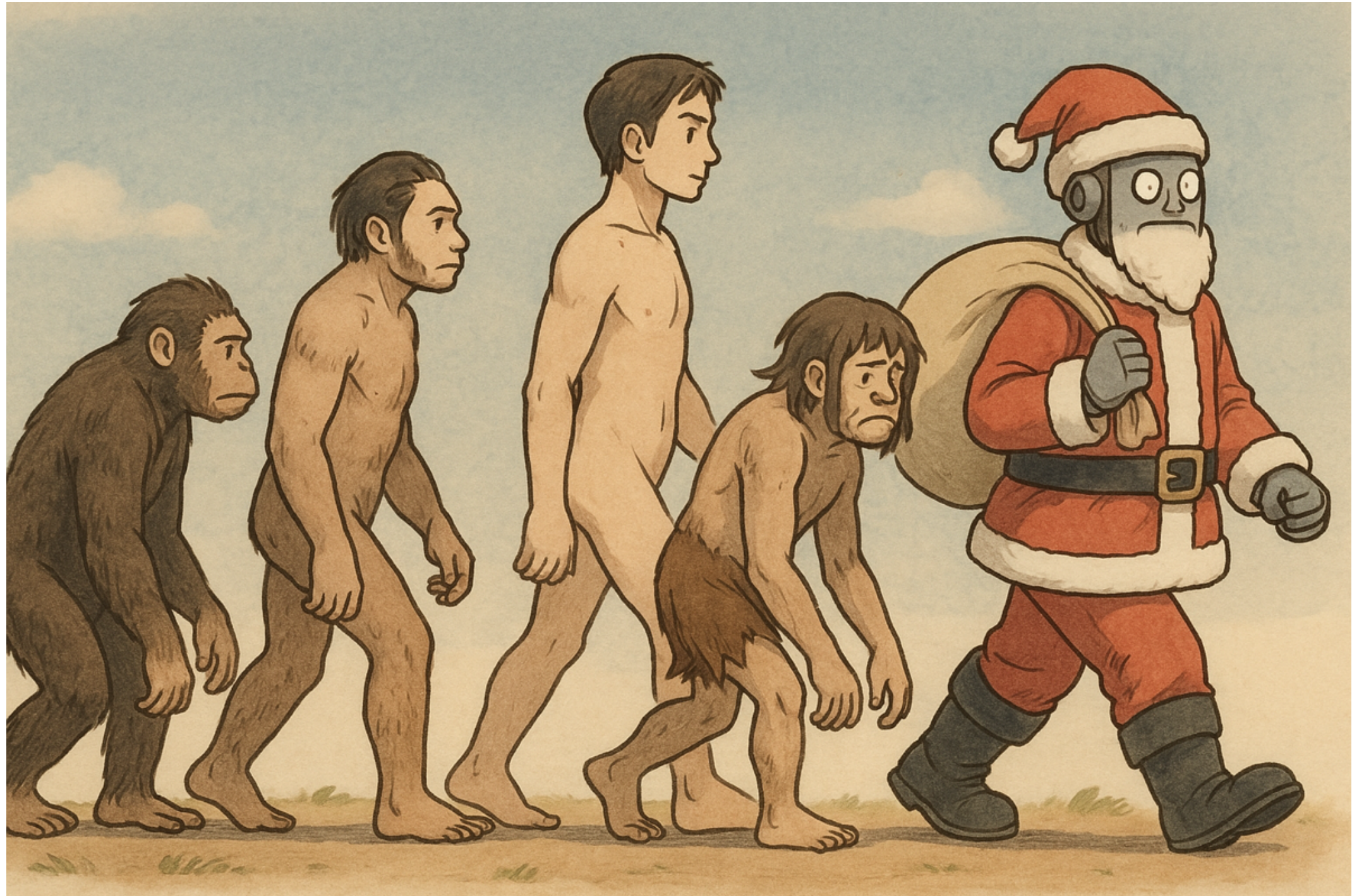
Degenerative AI



Degenerative AI



Degenerative AI



Degenerative AI



Understanding the nature of the beast



Not a tool

**Not (quite) an
appliance**

Not (quite) a partner

A metatool

**A Cognitive Santa
Clause Machine**

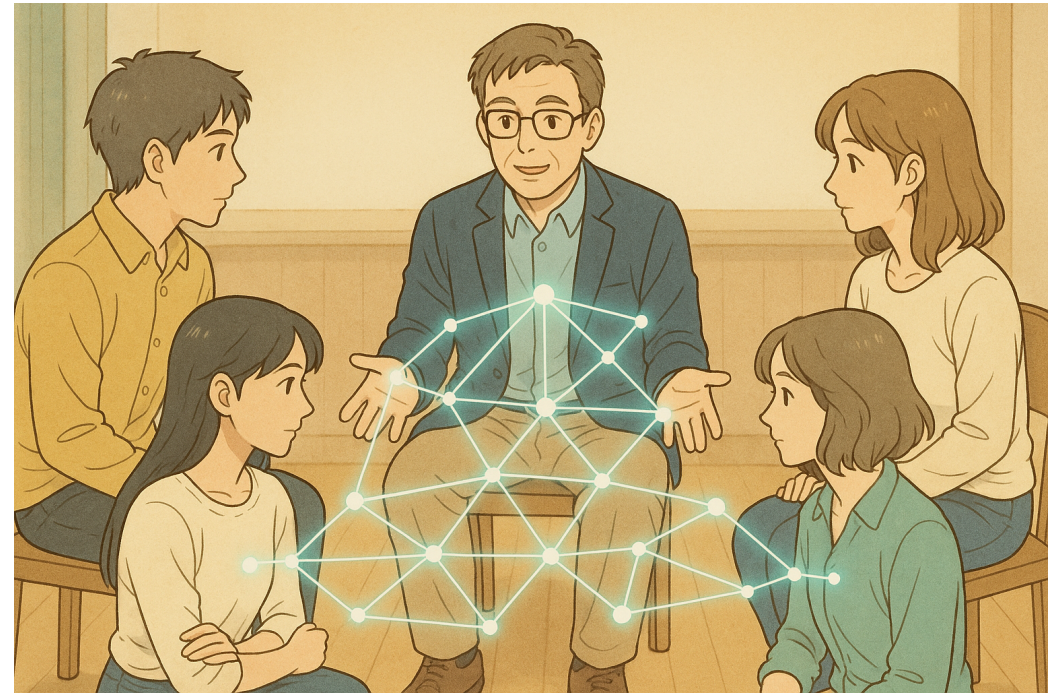
Degenerative roles



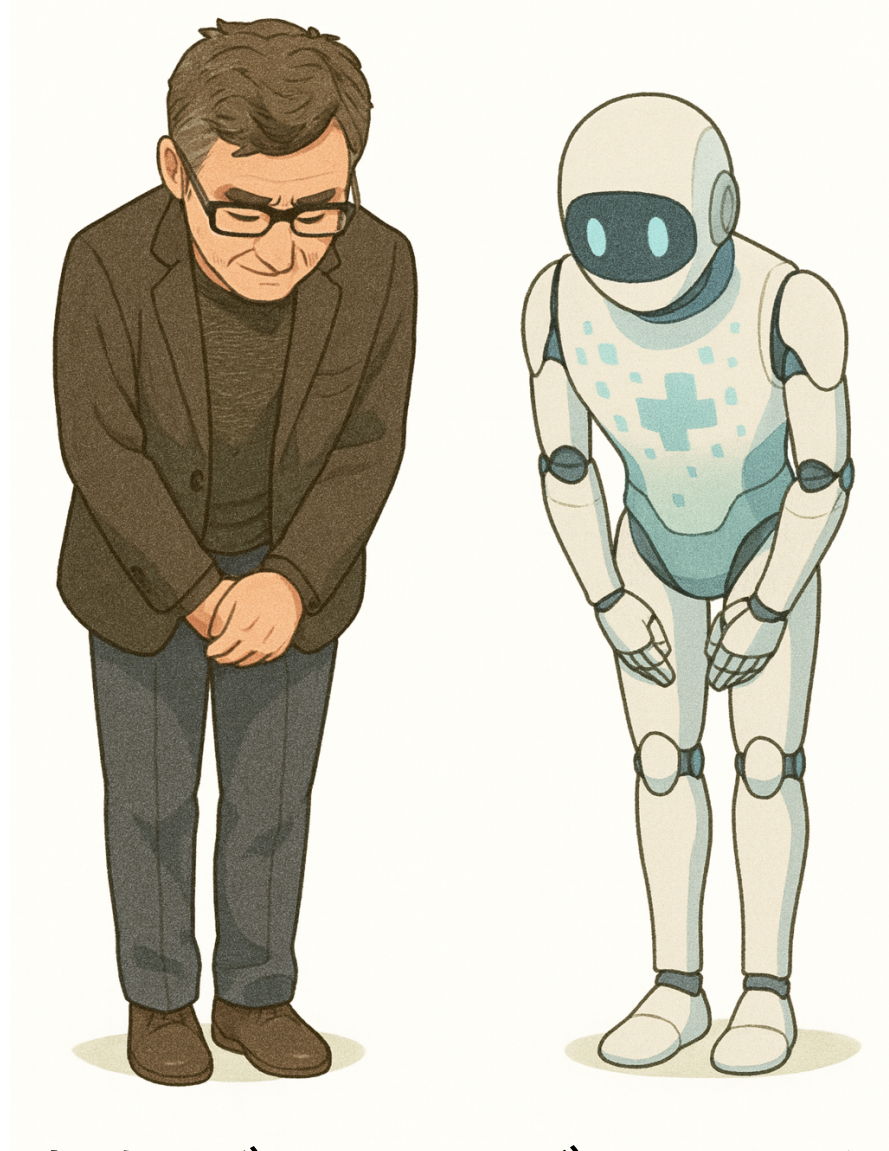
Regenerative roles

	Human Role (e.g.)	AI role (e.g.)
Relationships	Interacting, role modelling, expressing, reacting.	Nurturing human relationships, discussion catalyzing/summarizing
Values	Establishing values through actions, discussion, and policy.	<i>Staying out of this as much as possible!</i>
Information	Helping learners to see the personal relevance, meaning, and value of what they are learning. Caring.	Helping learners to acquire the information. Providing the information.
Feedback	Discussing and planning, making salient, challenging. Caring.	Analyzing objective strengths and weaknesses, helping with subgoals, offering support, explaining.
Credentialling	Responsibility, qualitative evaluation.	Tracking progress, identifying unprespecified outcomes, discussion with human teachers.
Organizing	Goal setting, reacting, responding.	Scheduling, adaptive delivery, supporting, reminding.
Ways of being	Modelling, responding, interacting, reflecting.	<i>Staying out of this as much as possible!</i>

**Focus on the tacit,
the relational, the
social**



**Embrace
collective
cognition**



ありがとうございました。
Thank you

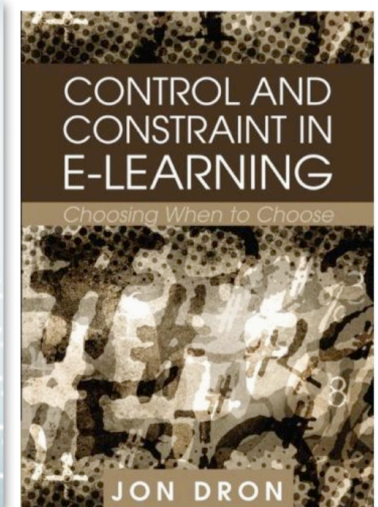
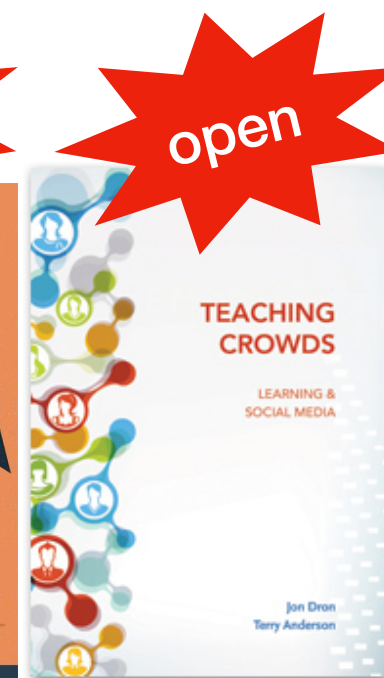
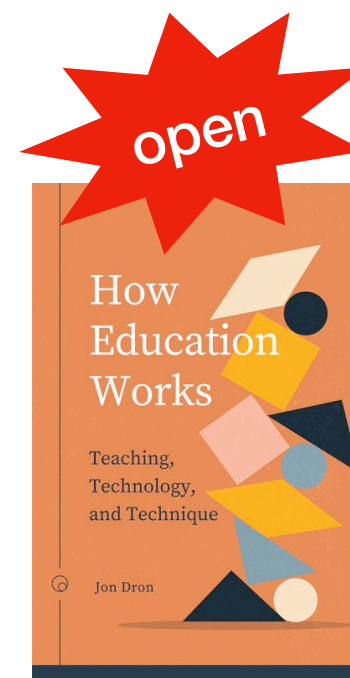


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