

Challenges of the Physical

Jon Dron, September 2021

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

Technology Enhanced Knowledge Research Institute (TEKRI)



XII Conferência Internacional de Tecnologias de Informação e Comunicação na Educação



Imagine that the pandemic had always been with us.

Imagine that formal education had never evolved inperson.

Imagine that we had always been online.



	coursework	textbooks	homework	programs
academic timetables		lectures	faculties	universities
COUIS academic gowns	es	schools	classrooms	essay mills
deddernie gernie	plagi	arism in coursework	faculties	terms

Think of all the things that *might* never have been invented...

degrees			Ca	campuses	
	seminars	classes		lecterns	
semesters			deans		
	gı	raduation ceremonies		proctored exams	
professors	tutorials		lecture theatres		
	cheating in tests			most pedagogies	

Imagine what *might* have been possible

Imagine what is possible

Let's go on a journey into a wondrous land whose boundaries are that of imagination...

Your next stop:





have an idea...

I call it 'in-person learning'

Here is how it works

First, you get a bunch of people together in one place at the same time.

Then you tell them stuff. Sometimes you tell them to do stuff. Sometimes you let them talk.

That's pretty much it

It would need some scheduling



There would have to be a few rules.

So of course the teacher would have to be in control of every second of it.

Every single second



I know what you are thinking...

That's a *ridiculous* idea! Jon, you are absolutely crazy! It would never work!



What kind of idiot would try to teach everyone the same thing at the same time?

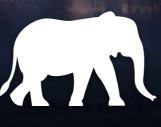


What student in their right mind would give away all their autonomy to sit in a room being told what to think and what to do by a stranger?





What kind of impoverished learning would take place when you make people learn stuff when they don't need to learn it and they can't use it for anything they care about?





Why waste of so much of a learner's day to make them travel to and from this teaching-place?

What about the environmental impact? The traffic? The inevitable accidents?

GJO



How much does it cost to run a place like this? You would need a *huge* building! Think of the staffing just to keep it clean!

Where does the money come from?

Where are you going to get the land?





What else could you do with that land?

What are you going to do with it when you are not using it for teaching?





How are you going to get teachers to come to one place?

Why would they bother?



You could only teach a few hundred people at a time, at most.



There'd be no record. You'd have to keep repeating it over and over!



What about the diseases?





Why would you bother when people can learn everything they need to learn online and in the places that they live, play, and work?



You have a point.

But hear me out...

A lot of learning already happens in-person.

Why not all of it?

People like to do things with other people



We could make campuses fun!

F

We could share expensive things





We could provide libraries*

* places to keep paper books.

Paper books? Huh?

Paper books



They smell great!

Some things would be easier to teach



Everyone would be learning the same things, so we could test whether they have learned what we taught.



It could be done quite efficiently

Pretty soon it would all seem normal

People might even start thinking that it's the only way to learn

People can get used to anything.

You're probably wondering about motivation, though.



have an idea...

Rewards and punishments





They won't *want* to learn, but we can *make* them learn!

And here's the really cool thing...

Credentials work for that too!

I know what you're thinking...

Jon, this is immora, impractical, and inhuman!



Hmmm...

You have a point

But, maybe....

We just need a lot of really caring teachers with a lot of time to give to learners, to distract them from the fundamental ugliness of the system.

People who would devote their lives to making the system work



I know what you're thinking...

Where are we going to find such remarkable people?

How could we afford to pay them what they are worth?



have an idea...

We won't pay them very much!

Maybe it's a bad idea

But we know that online learning could be improved. We know it can be confusing, misleading, inefficient, disempowering and lonely at times (despite the many people physically around us and the thousands we connect with online, including the top experts in the field).

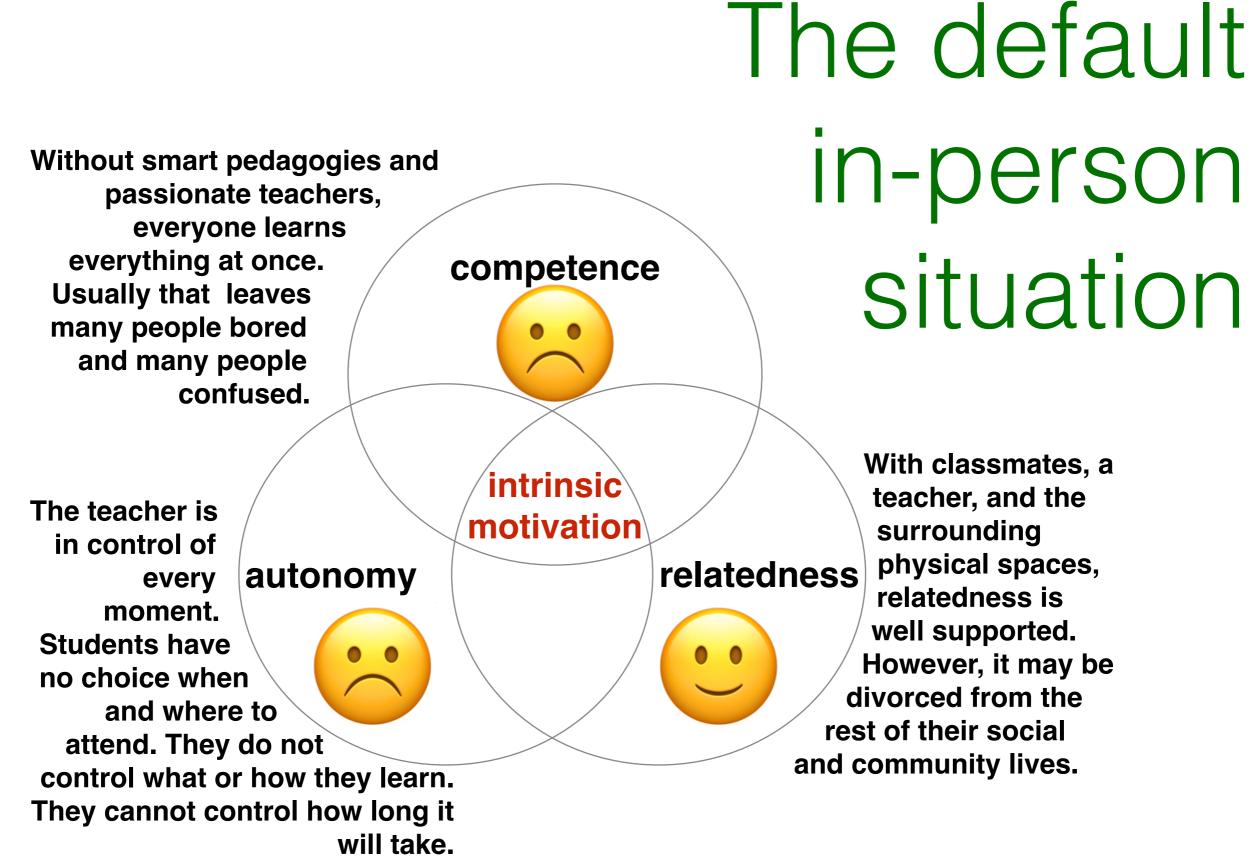
Maybe competition like this could be just what's needed to think more deeply about how we learn online and why it is a good idea.



But back to the real world...

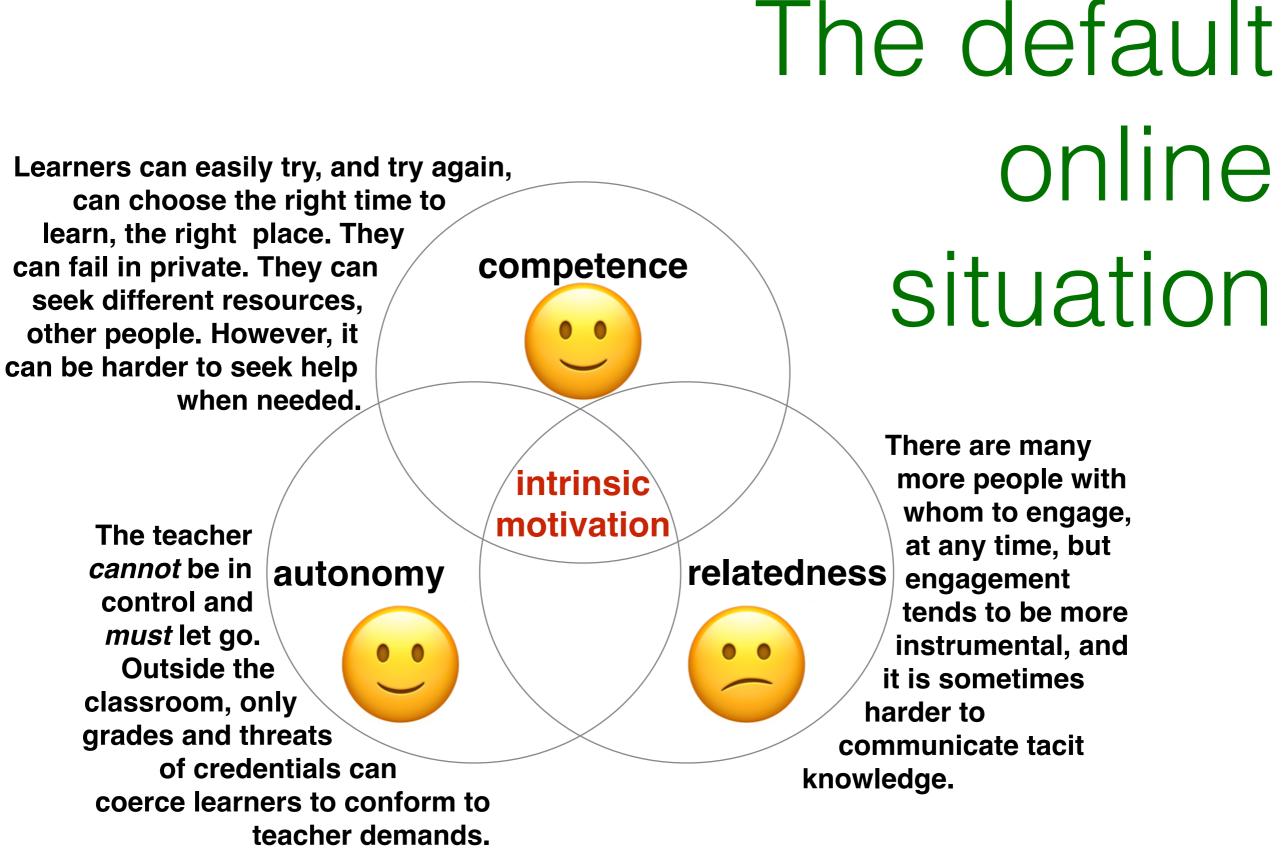


Pedagogical methods are *situated* solutions to problems of learning.



http://selfdeterminationtheory.org

Deci, E.L., & Ryan, R.M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behaviour. Psychological Inquiry, 11, 227-268 Our most cherished pedagogical methods are, primarily, solutions to these central problems



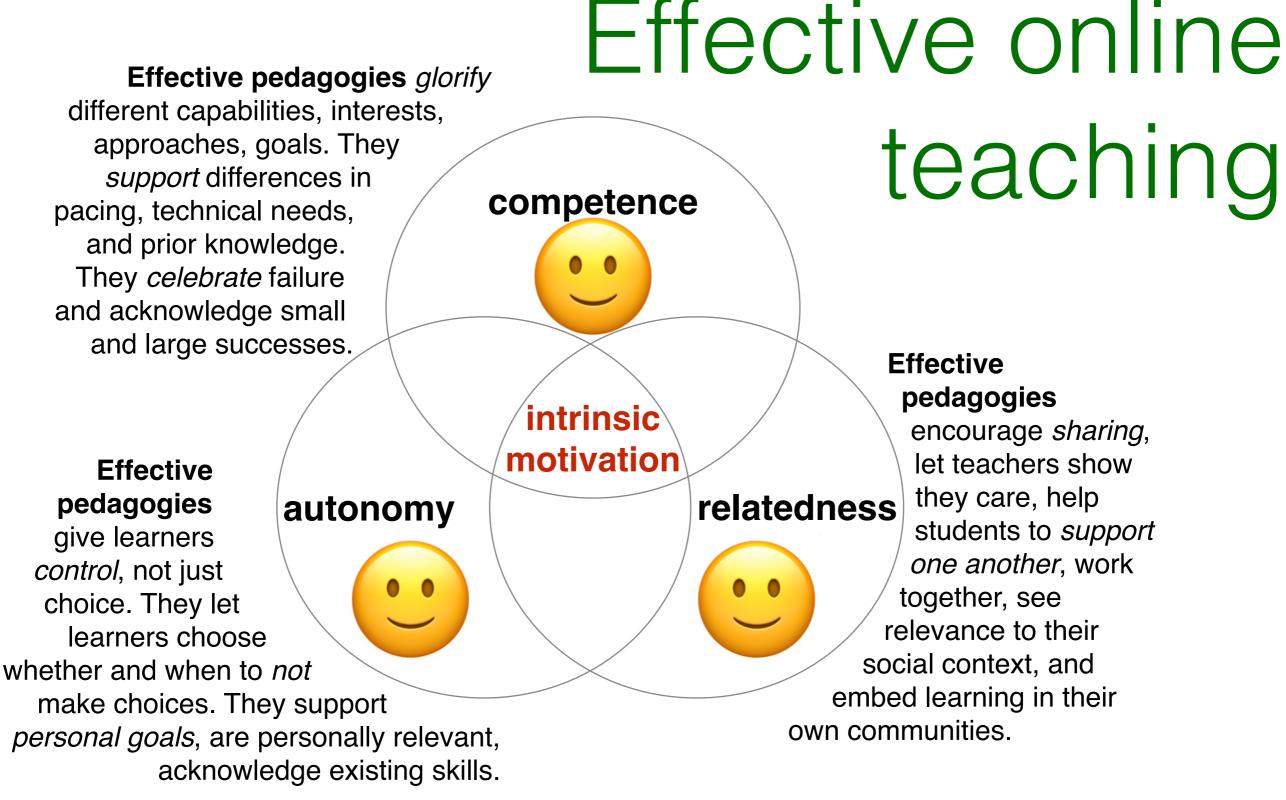
http://selfdeterminationtheory.org

Deci, E.L., & Ryan, R.M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behaviour. Psychological Inquiry, 11, 227-268





"I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail." (Maslow, 1966)



http://selfdeterminationtheory.org

Deci, E.L., & Ryan, R.M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behaviour. Psychological Inquiry, 11, 227-268

In brief:



Let go, but stay close

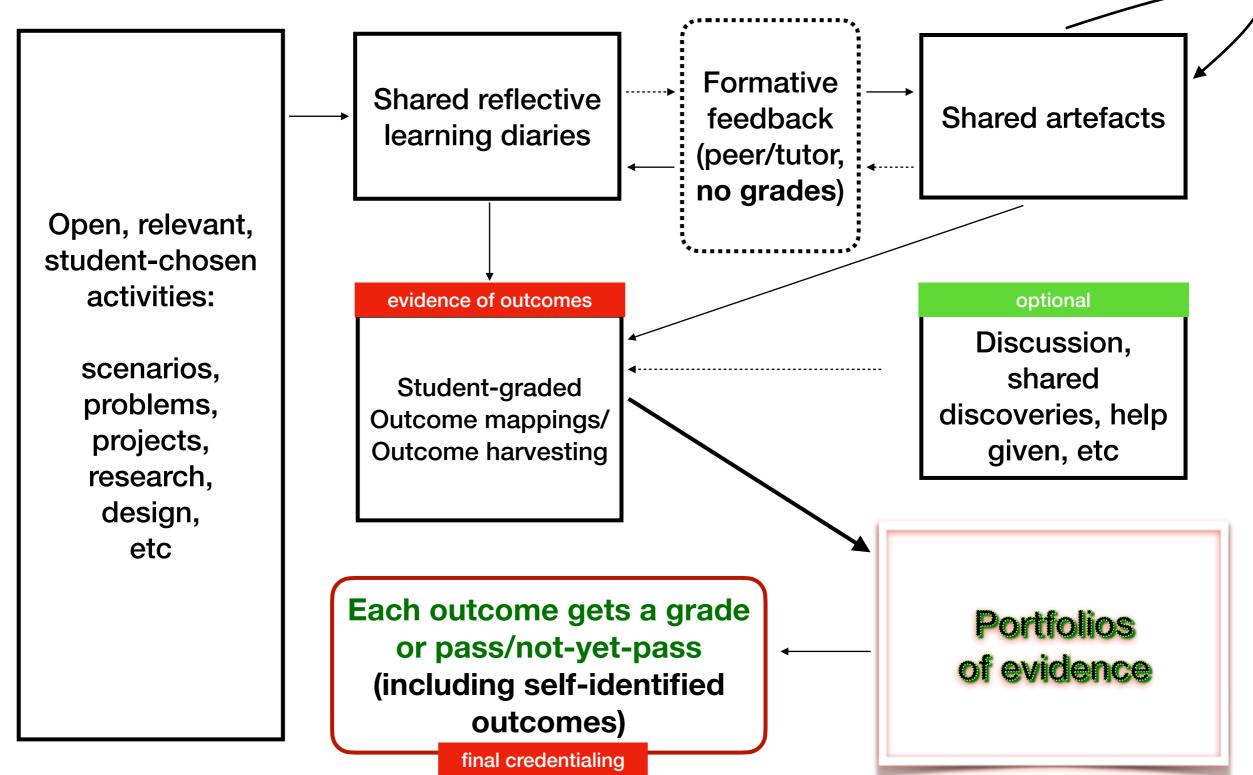


- Make learning shared
- **Don't** ever coerce

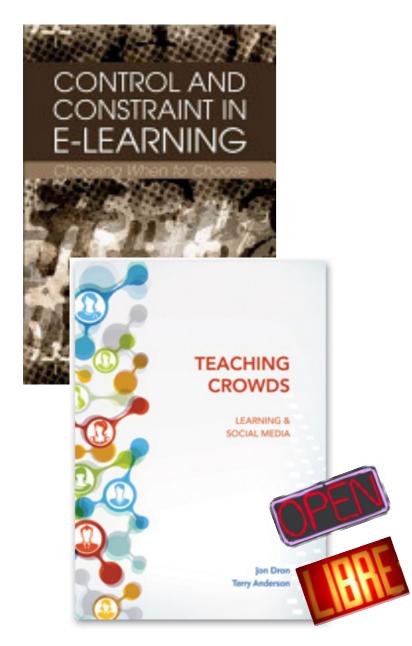




How I do it



How would *you* design online education if in-person education had never been invented?



Thank you, obrigado

Jon Dron https://jondron.ca/ jond@athabascau.ca @jondron

https://teachingcrowds.ca

A few selected readings

- Dewey, J. (1916). Democracy and Education. New York: Macmillan. <u>http://www.ilt.columbia.edu/projects/digitexts/dewey/d_e/contents.html</u>
- Dron, J. (2018). Smart learning environments, and not so smart learning environments: a systems view. Smart Learning Environments, 5(1), 25. <u>https://doi.org/10.1186/s40561-018-0075-9</u>
- Dron, J. (2021). Educational technology: what it is and how it works. AI & Society. <u>https://rdcu.be/ch1tl</u>
- Freire, P. (1970). Pedagogy of the Oppressed (M. B. Ramos, Trans.). Continuum. <u>https://envs.ucsc.edu/</u> internships/internship-readings/freire-pedagogy-of-the-oppressed.pdf
- Hattie, J. (2013). Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement. Taylor & Francis. (Also, see <u>https://visible-learning.org/</u>)
- Illich, I. (1971). Deschooling Society. Harper & Row. <u>https://caringlabor.wordpress.com/2010/11/18/</u> <u>ivan-illich-deschooling-society/</u>
- Kohn, A. (1999). Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes. Mariner Books. (also, see <u>https://www.alfiekohn.org/</u>)
- Longo, G., Montévil, M., & Kauffman, S. (2012). No entailing laws, but enablement in the evolution of the biosphere. In Proceedings of the 14th annual conference companion on Genetic and evolutionary computation (pp. 1379-1392). Philadelphia, Pennsylvania, USA: ACM. <u>https://arxiv.org/pdf/</u> <u>1201.2069.pdf</u>
- Postman, N. (2011). The End of Education: Redefining the Value of School. Knopf Doubleday Publishing Group. (Also, see <u>https://student.cs.uwaterloo.ca/~cs492/papers/neil-postman--five-things.html</u>)
- Ryan, R. M., & Deci, E. L. (2017). Self-determination theory: Basic psychological needs in motivation, development, and wellness. Guilford Publications. (also, see <u>https://selfdeterminationtheory.org/</u>)