

# Learning Technologies and Online pedagogies

## Letting go but staying close

Presentation for the GMR Institute of Technology, Rajam, India. August 2020



**Jon Dron**

Professor,  
School of Computing & Information Systems, Faculty of Science & Technology,  
Athabasca University, Canada



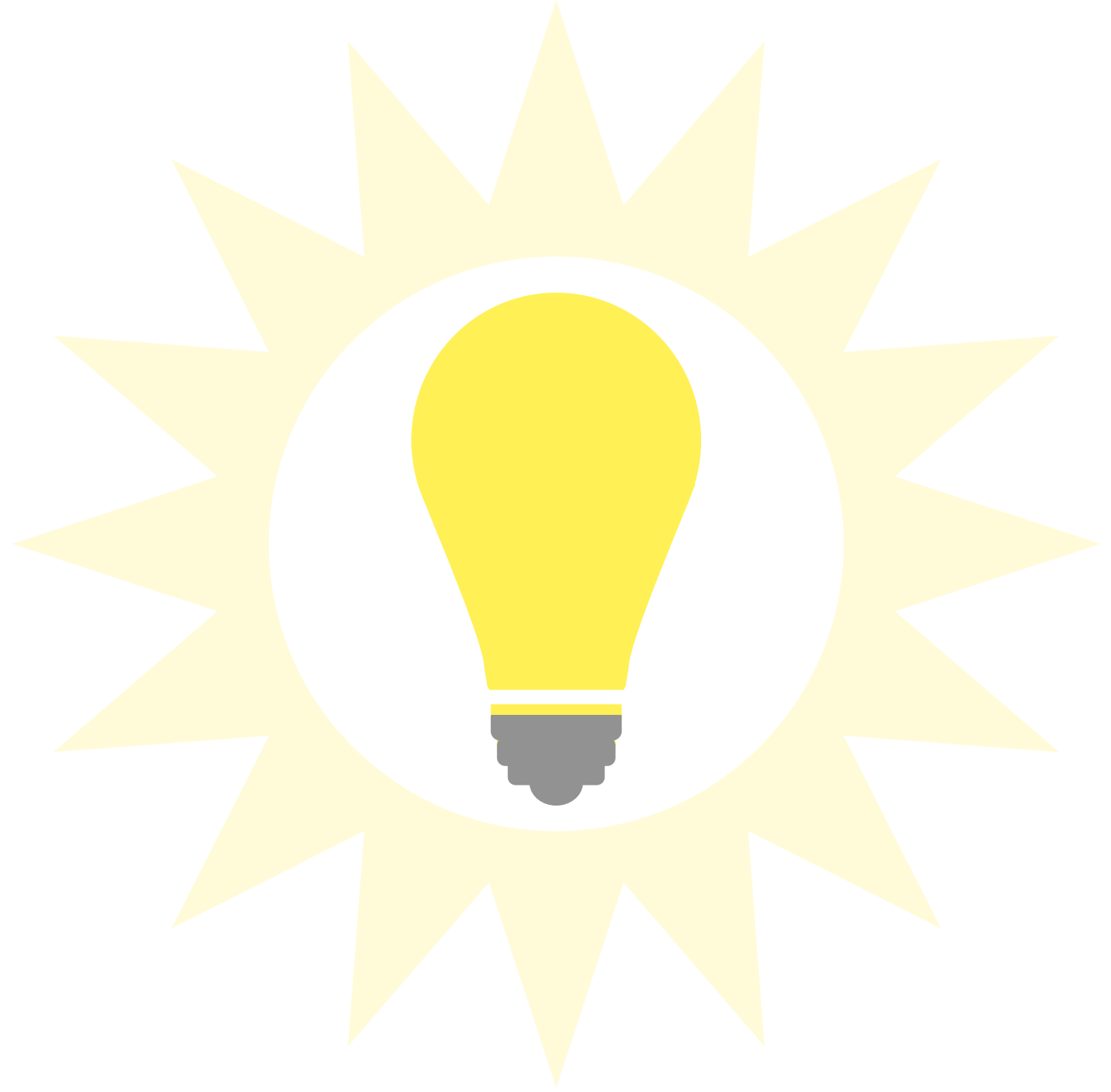
jond@athabascau.ca  
<https://jondron.ca/>  
@jondron

**What does good  
teaching mean to you?**

**What makes a good  
teacher?**

**What does a good  
teacher do?**





**My proudest teaching moment**

# Being a good teacher (online or not)

**knowing about  
learning**

**knowing about  
learners**

**motivating**

Making learning:

**sharing** **passion** **giving feedback**  
**caring** **compassion** **showing**  
modelling good practice **building community**  
**enthusiating** explaining discussing **challenging**  
**respecting** helping **listening** correcting  
**supporting** guiding knowing the subject  
**reflecting** observing designing  
creating curating **following**

- Relevant
- Meaningful
- Active
- Engaging
- Personal
- Visible

**NOT** punishing or  
rewarding!

# Being a good teacher



**Caring about (and knowing about) the learners**



**Caring about (and knowing about) learning & teaching**



**Caring about (and knowing about) the subject you teach**

**Many pedagogical methods are solutions to problems created by the classroom context.**



**How many make sense outside the classroom?**

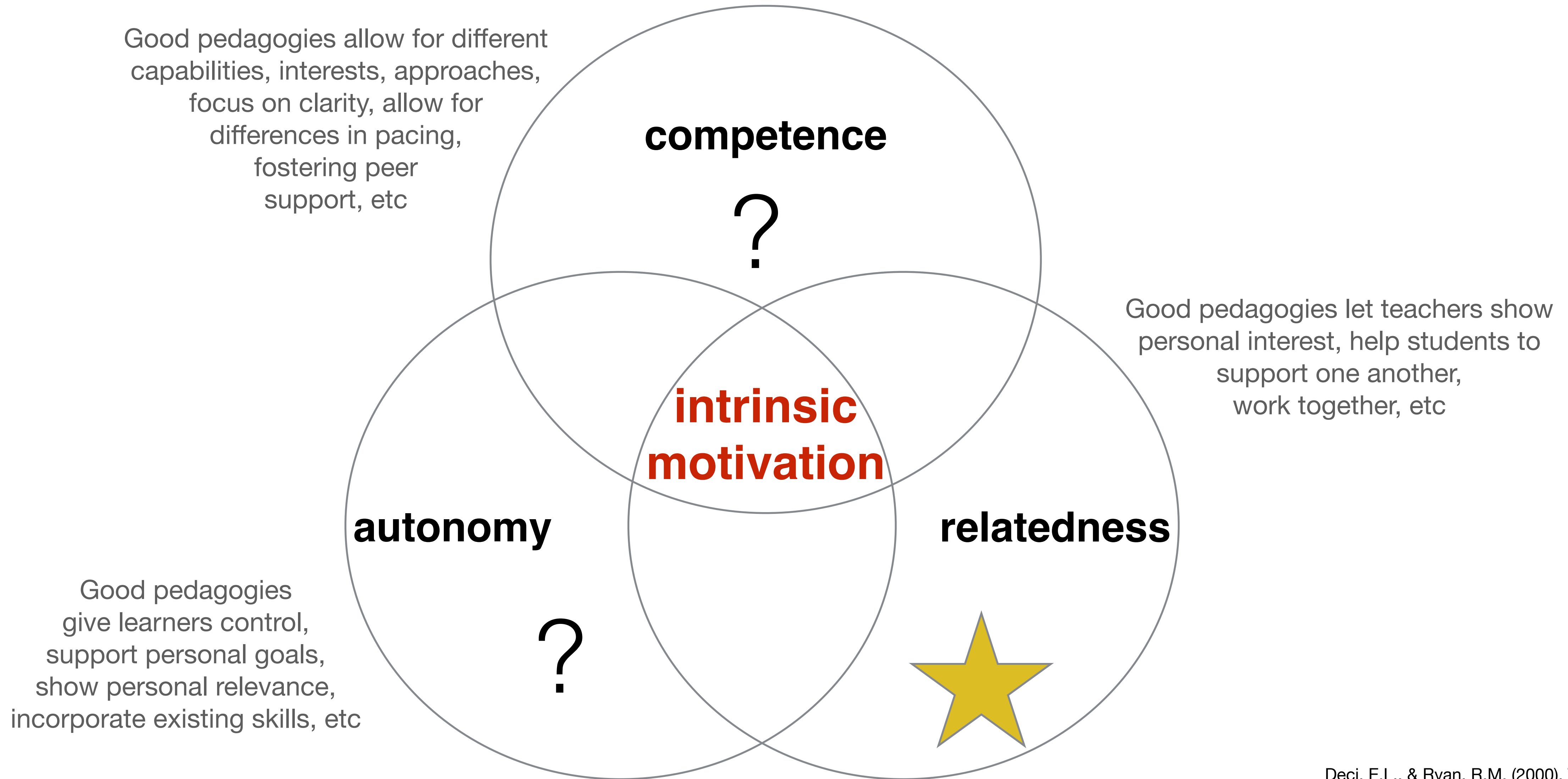


# The big issues with classroom teaching

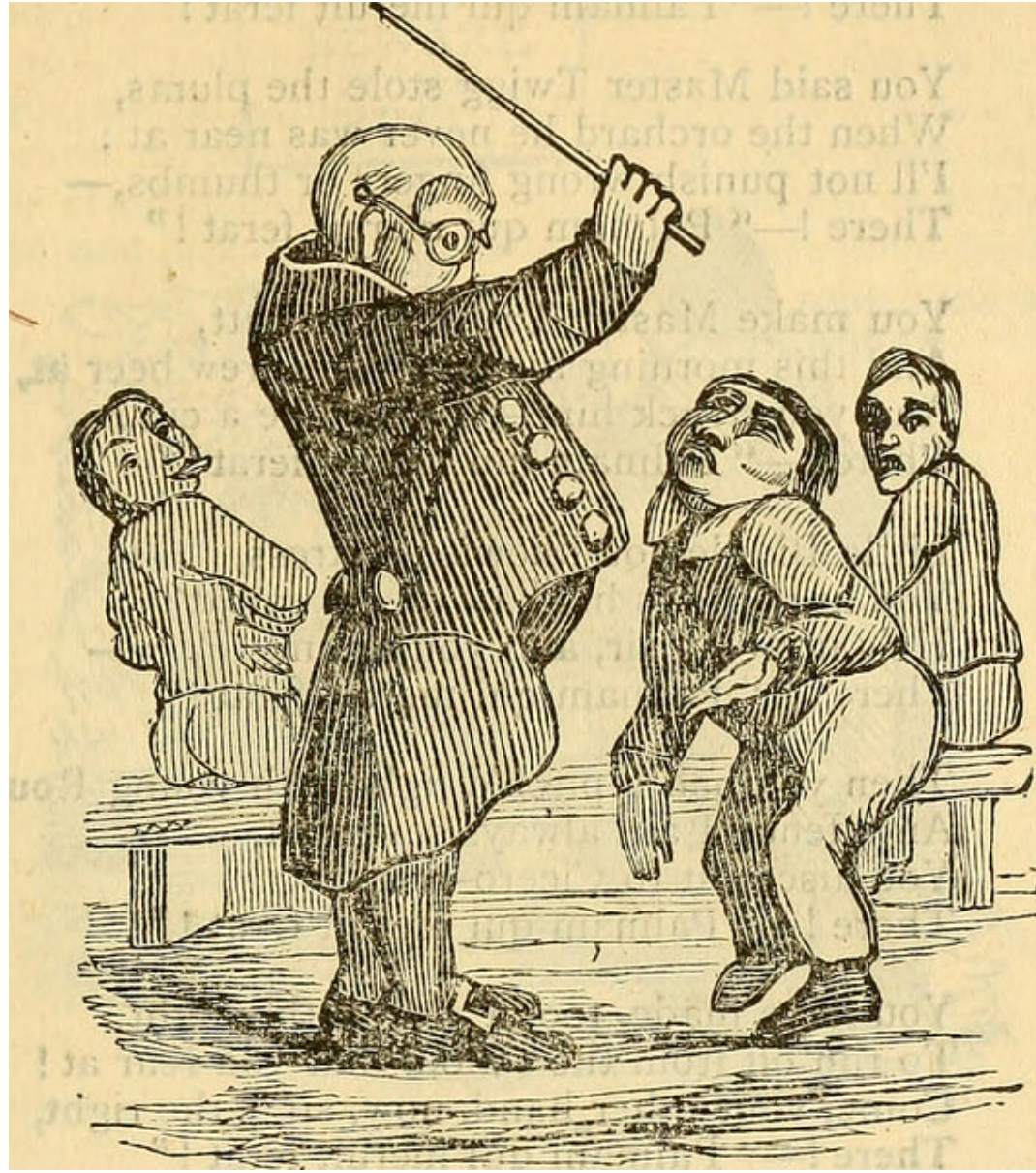


- People who would rather be somewhere else
- People who are not in control
- Confused people
- Bored people

# Classroom motivation







# Bad pedagogies use punishments and rewards



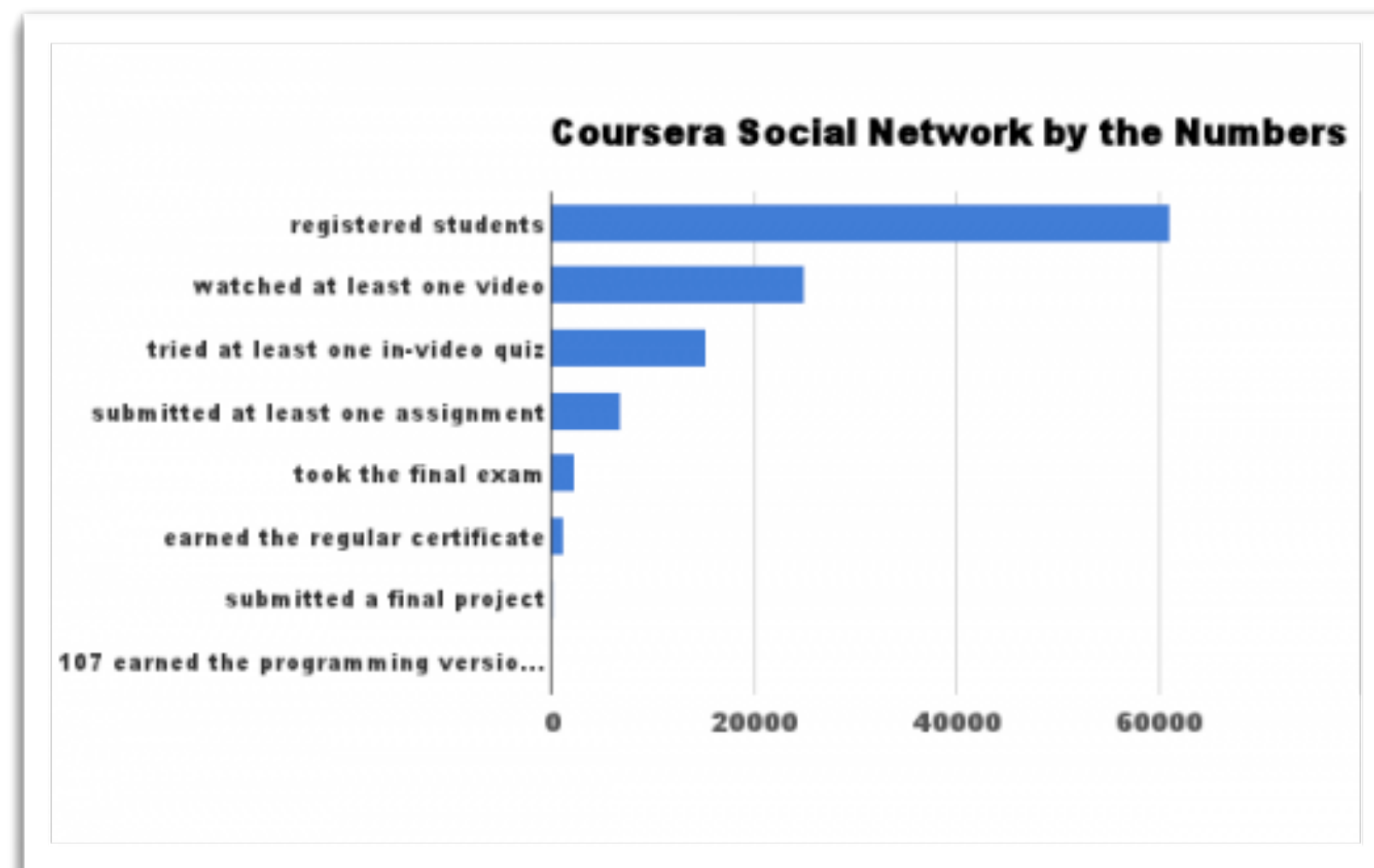
(yes, that includes grades)

# **Extrinsic motivation crowds out Intrinsic motivation**

**The reward, or avoidance of punishment, becomes  
the purpose  
(and *stays* that way)**

<http://selfdeterminationtheory.org/>

# What happens when you take away the power of the teacher (but keep the same pedagogies)?



<http://cogdogblog.com/2012/11/27/owning-massive/>

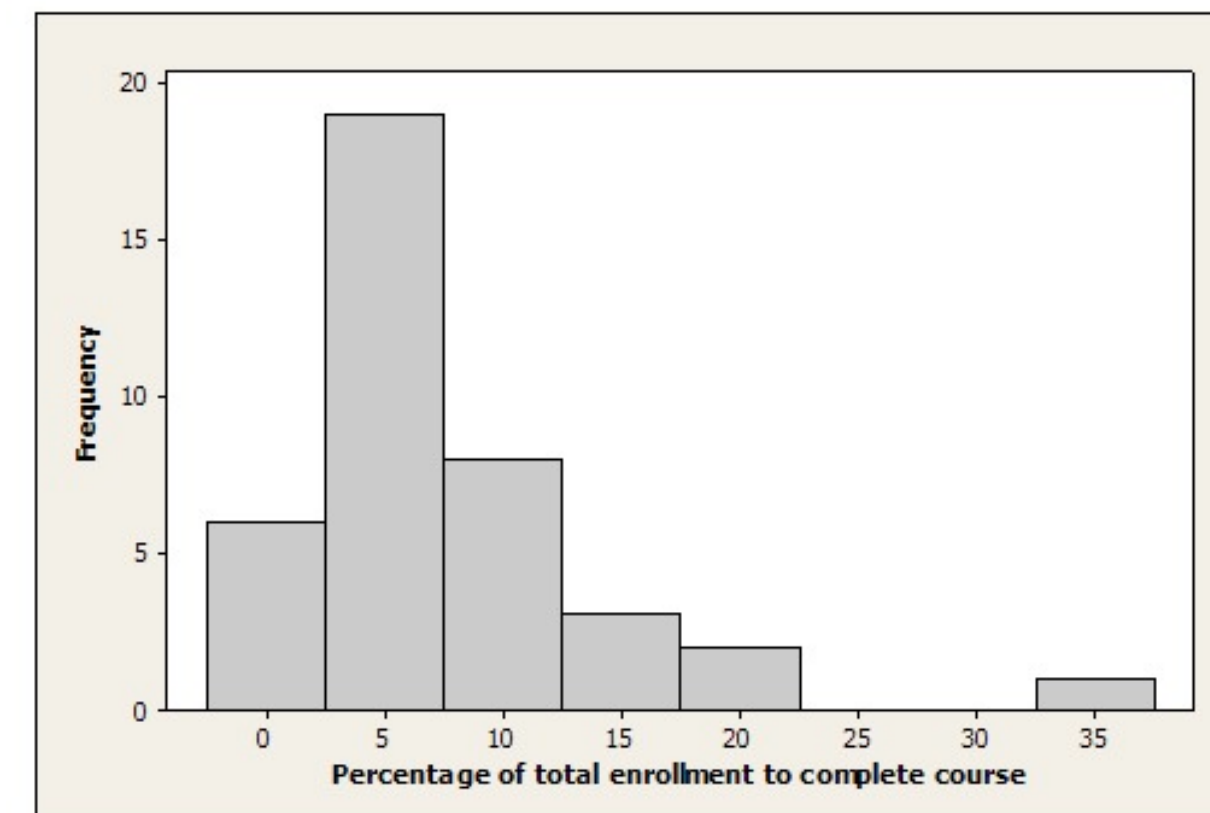
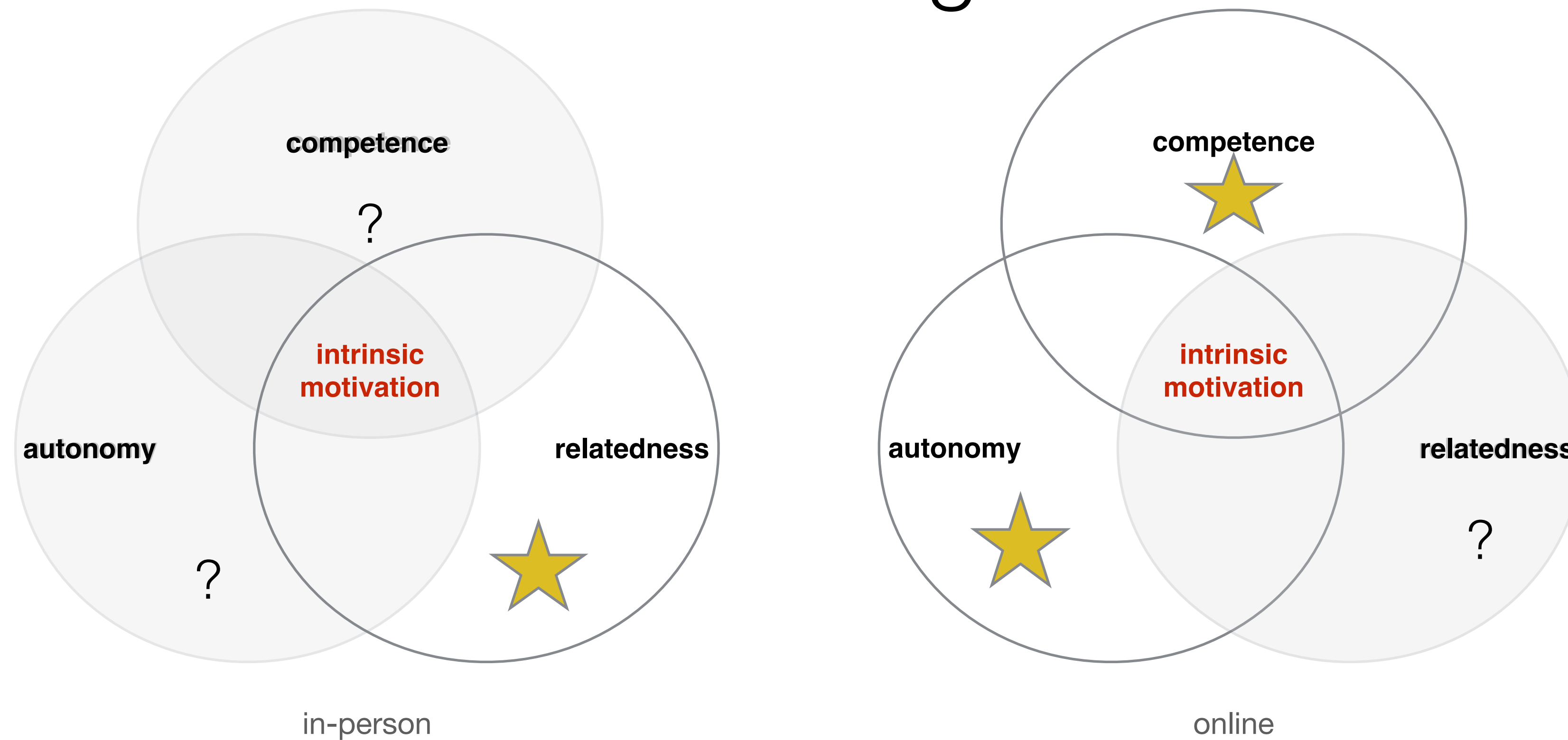


Figure 4. Histogram of completion rates for the sampled courses ( $n = 39$ ).

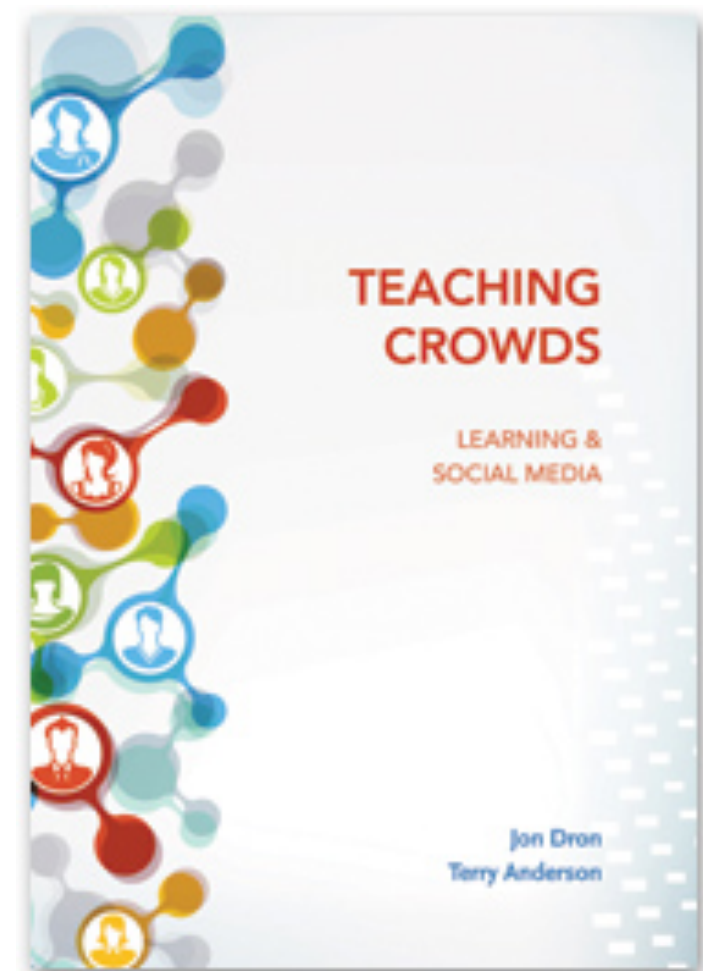
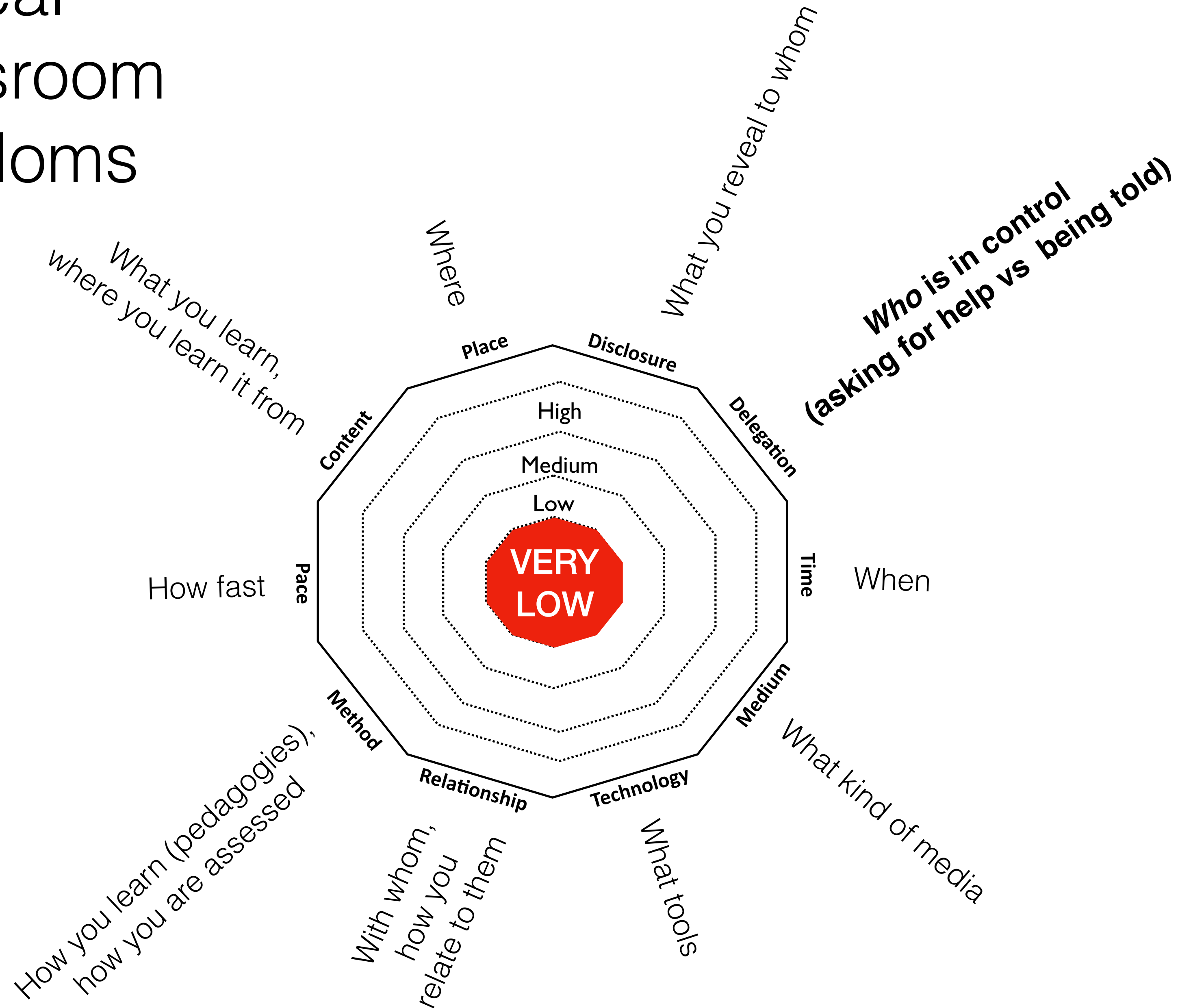
“Completion rates range from 0.9% to 36.1%, with a median value of 6.5%”

# Motivation in in-person learning vs distance learning

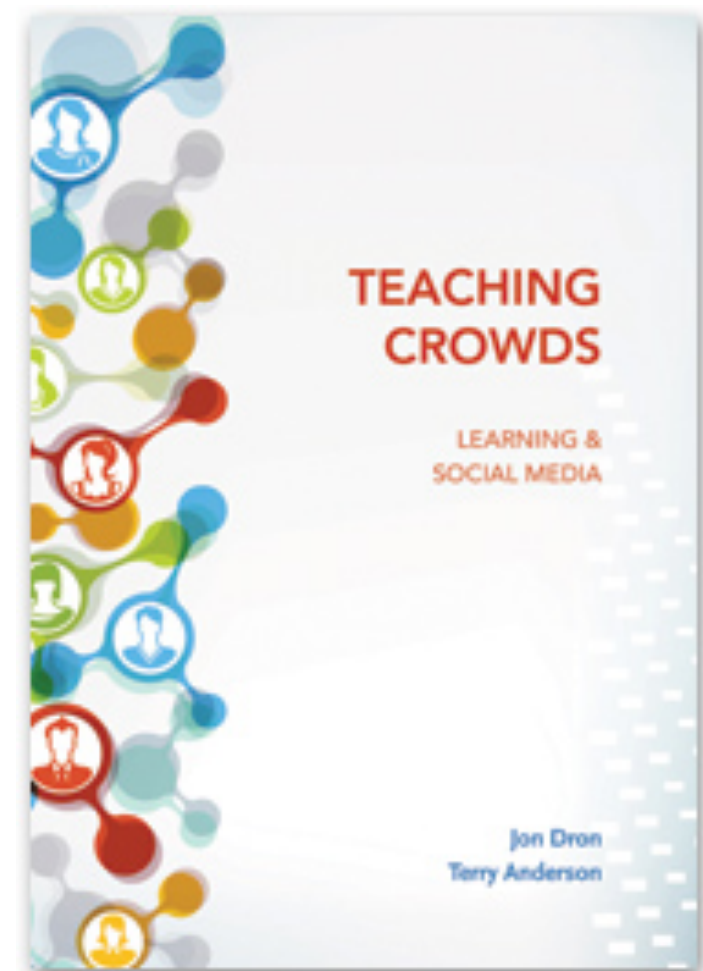
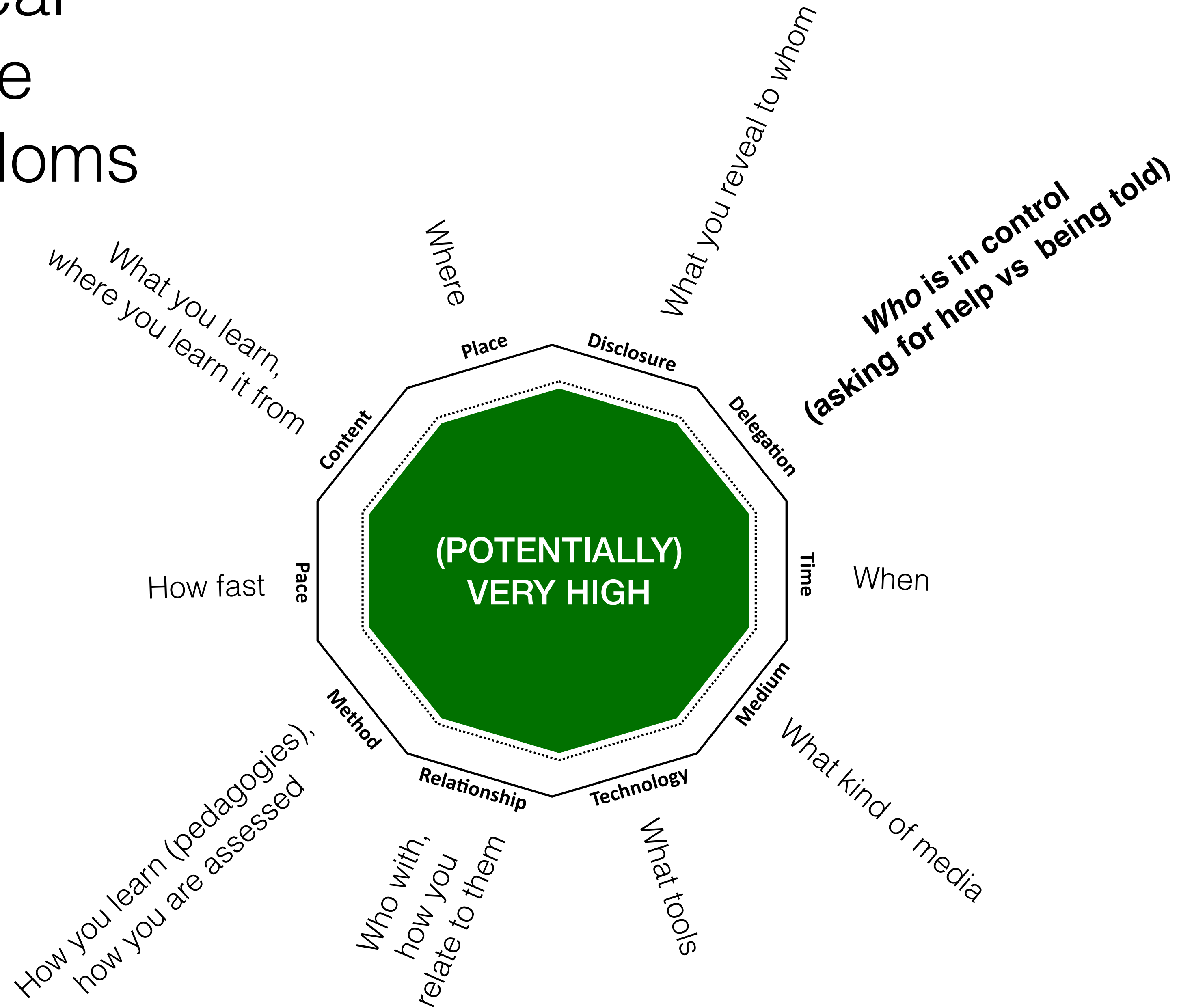




# Typical classroom freedoms



# Typical online freedoms





**But...**

precision

replicability

efficiency

scalability

ease of use

hard is easy  
soft is hard

resilience

flexibility

diversity

creativity

control

The greater the flexibility, the more active the thought, motivation, and intentional action is needed.

Hard technologies limit the number of choices that must be made. Sometimes that is good.

Hard technologies may be softened by assembling them with others. For instance...

# Lectures are terrible

(if you want students to remember what you were lecturing about)

What we *do* learn well from mandatory lectures:

- ✓ Compliance is good
- ✓ Learning is a chore
- ✓ Learning is being taught



Books, online tutorials, videos, etc, are better

# BUT....

**Why lectures work**

Timetables

Libraries

Textbooks

Other learners

Extrinsic motivation

Wikipedia

Etc

(and, very occasionally, charismatic, inspiring lecturers)

# Online motivation

Good pedagogies give choices, support variety, curate resources from different sources

**competence**



**Good pedagogies:**  
Rapid response times (especially the first time)  
Giving (time, attention, praise for work, responsibility)

Designs that mean students must share  
Designs that make monitoring easier

Shared activities  
Online discussions  
Trust building

Personal profiles  
Active online presence  
Proactive engagement

**intrinsic motivation**

**autonomy**



Good pedagogies let learners use their interests and environments, allow students to help define goals, respect diversity, focus on outcomes more than process

**relatedness**



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

**How to let go**

**Choices**

**Empowerment to make choices**

**Freedom to choose not to choose**

# Design patterns

Chunking

Community

Set goals and problems, not assignments

Assess evidence, not compliance

Monitor closely, proactively support



Soft

# Choose

Hard

## Dialogue

## one

## Structure

Quick to develop

Low threshold skills needed

Great for understanding students' needs and abilities

Adaptive

Flexible

Path dependencies and pacing issues

Demands *much* greater skill, time, and effort *during* teaching (but you can 'wing' it)

Very hard to scale



Reusable

Makes good use of skills in teams

Scalable

Less effort in the longer term

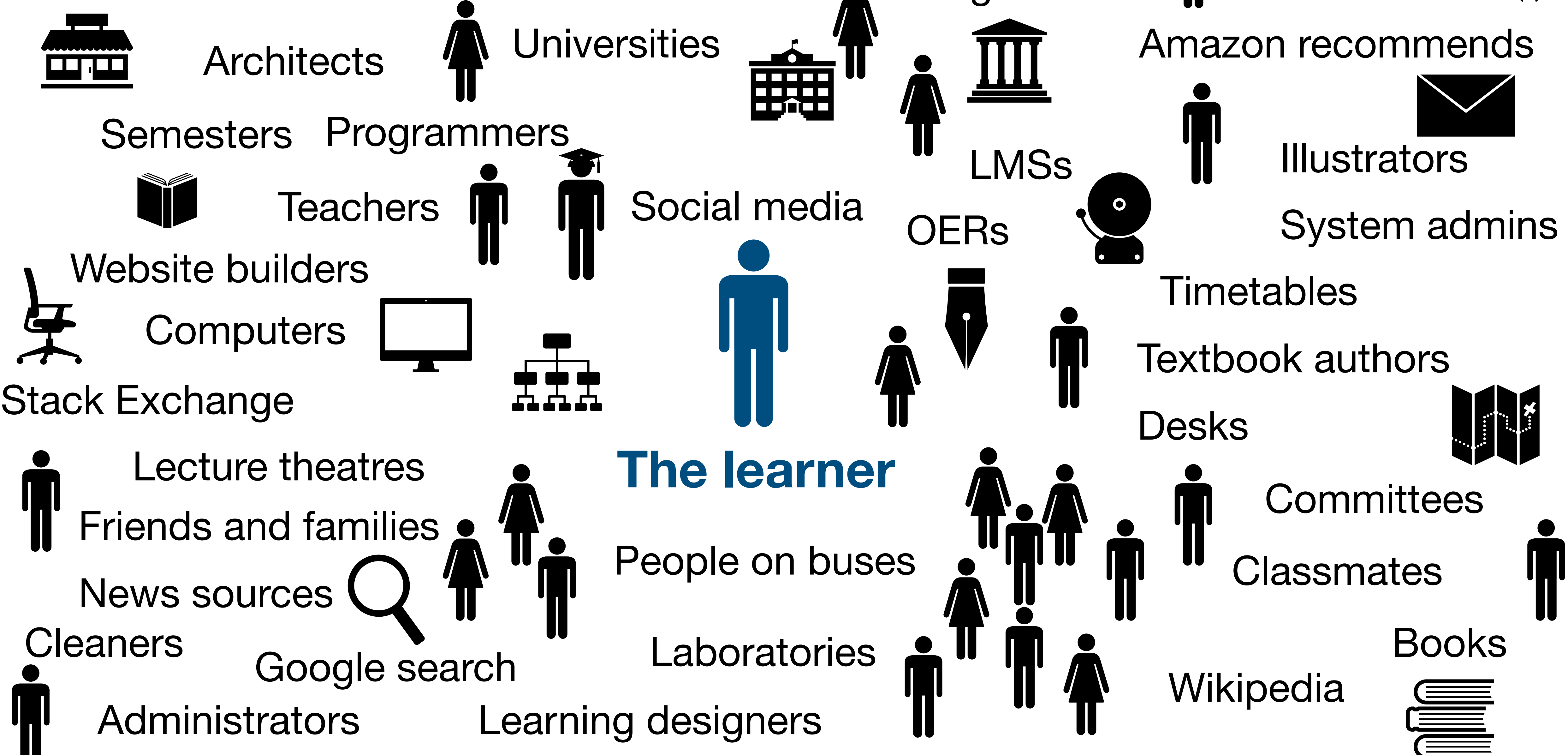
Difficult to suit every learner

Inflexible

*Much* more time and effort needed *before* teaching commences

Demands knowledge of learning science

# Use the distributed teacher



**Important:**

**Find out what that distributed  
teacher is teaching your students!**

# Baby Bear's bed: bricolage

<https://commons.wikimedia.org/>

<https://www.wdl.org/>

<https://wikieducator.org/>

<https://open.bccampus.ca/>

<https://www.oercommons.org/>

<https://oeru.org/>

<https://openstax.org/>

<https://standardebooks.org/>

<https://www.merlot.org>

<https://archive.org/>

<https://www.flickr.com/commons>



Steel, Flora Annie. *English Fairy Tales*. Arthur Rackham, illustrator. New York: Macmillan Company, 1918.

- **Assembling soft learning spaces and designs using small, hard pieces that already work;**
- **Let students find them; let them share what they find;**
- **Reuse and revise open educational resources.**



Traditional

# Engineering

Designing and building  
learning content and systems

# Performing

Presenting content skillfully

Harder  
(more rigid)

# Architecting

Designing, building, and managing the  
learning environment/  
conditions of learning

# Gardening

Planting, nourishing, tending,  
growing, weeding

# Stewarding

Community building, nurturing,  
welcoming

# Guiding

Supporting, helping, nurturing

# Some teaching metaphors

# Tinkering

Curating, assembling and adapting

# Networking

Role-modelling, sharing, creating,  
infecting

Modern

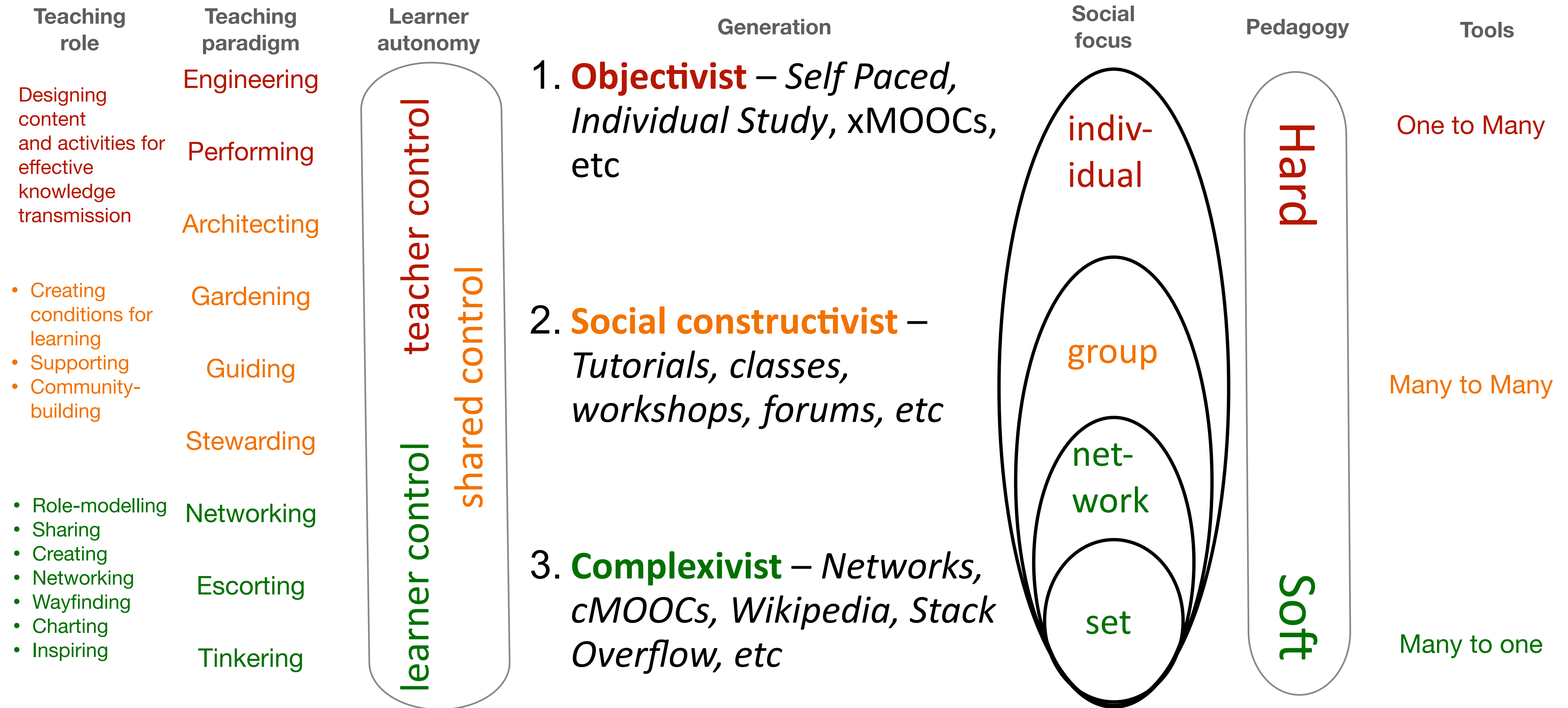
# Escorting

Sharing the journey, sharing discoveries

Softer  
(more flexible)



# Generations of distance learning pedagogies







# Does technology matter?

Yes, **hugely**. But:

1. **Pedagogical methods** are technologies too;
2. The **total assembly** matters more than the parts;
3. *You **do not control** the total assembly, especially online.*

# It ain't what you do, it's the way that you do it.

- Bad tools can be used well by good teachers
- Good tools can be used badly

The assembly and the orchestration matter most.

**Pay attention to the other teachers  
(especially the learners themselves)**



**The assembly matters more than  
the parts**





**Learning is not *entailed* by  
teaching methods**

**Learning can at best be *enabled*  
by teaching methods**

Leveraging the learner's context

**Letting go and staying close**

Monitoring (learning diaries, discussion, analytics, etc)

Being visible

Community building

Design for sharing

Responding fast (at least the first time)

Proactive engagement

# Good online teaching

Valorizing freedom

Chunking

Choices (with defaults)

Adaptable design

Participative/negotiable design

Flexible tasks, assessment, activities, problems

Outcome harvesting,  
not outcome testing

Evidence-based assessment (e.g. portfolios)



# How I do it

No assignments

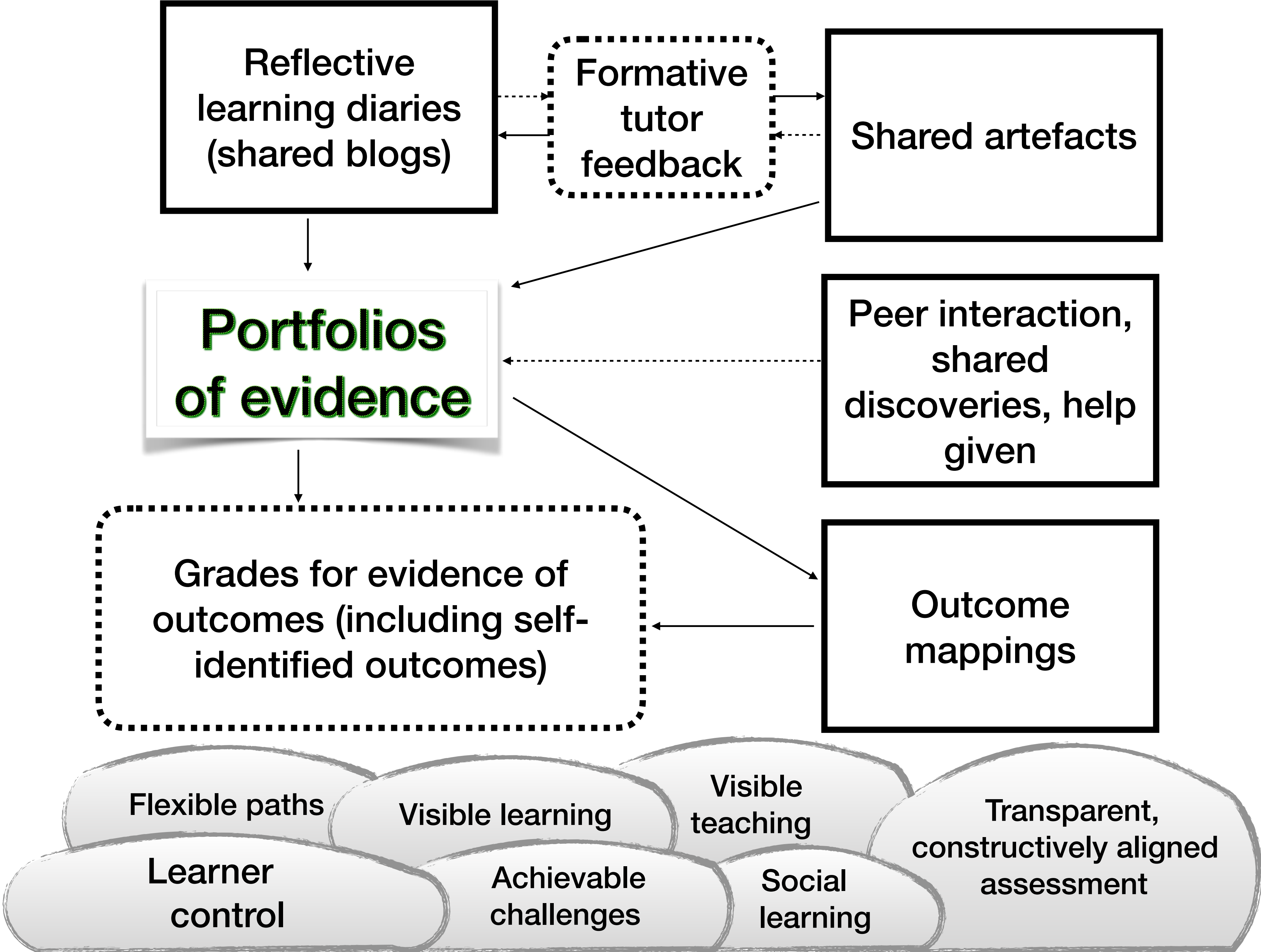
One central problem/project/scenario, chosen by the student

Iterative growth

Structured process, not structured content

Choice of curated OER or Web tutorials using different pedagogies for each stage (or they find their own)

Ongoing interaction and support as needed



# tl;dr

**Let go but  
stay close**



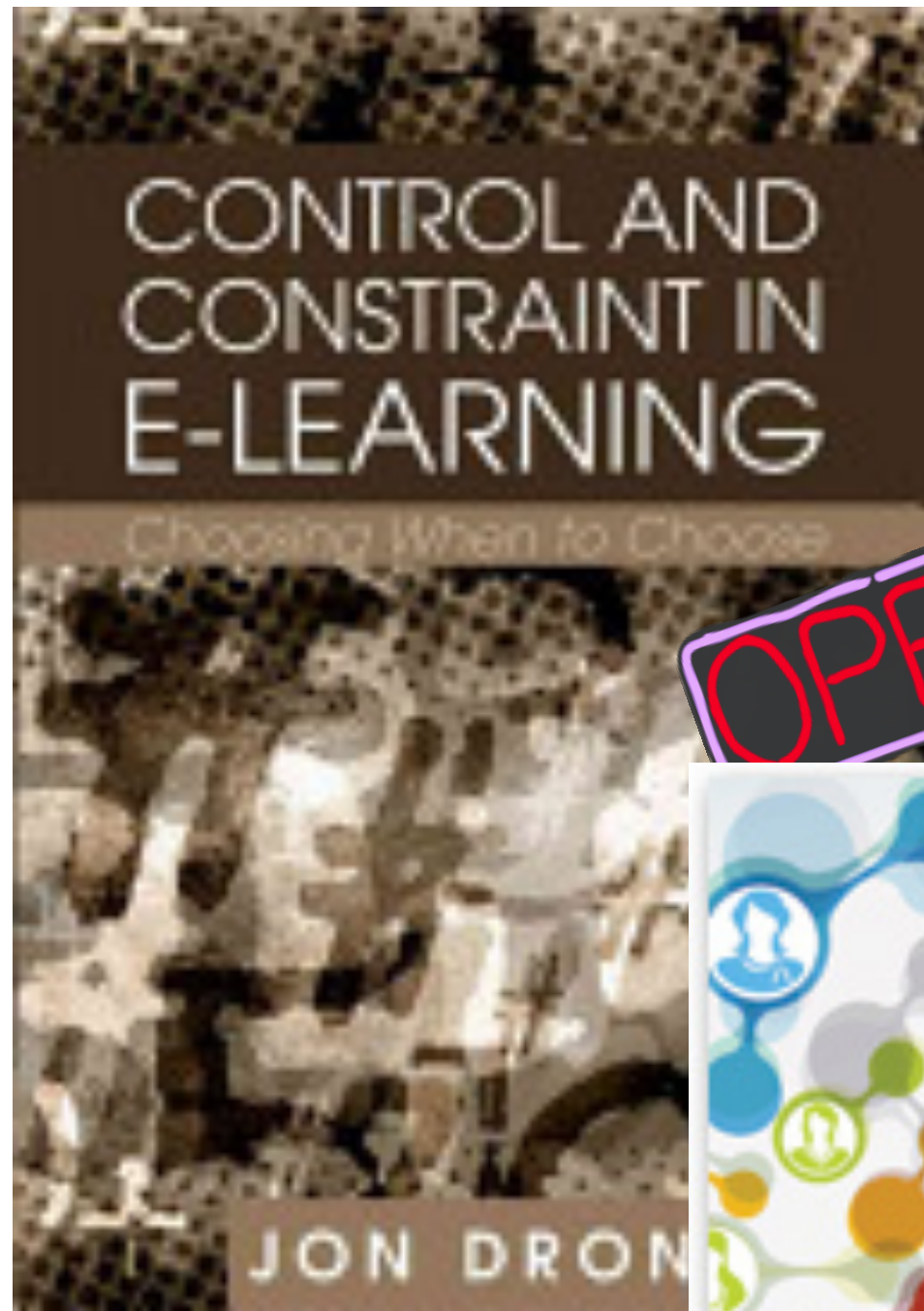
- You *cannot* have the same control online as in the classroom. You *must* **learn to let go**.
- **Relatedness** matters: community, support, sharing, caring.
- Technologies matter, but **assembly** and **orchestration** matter more.
- Designated teachers are not even the most important teachers.
- Build from small pieces. Support learners' choices. **Let them choose**. Let them choose when **not** to choose.
- **Motivation** is critical. *Avoid rewards and punishments*. Focus on relationships, achievable challenge, and control.
- **It ain't what you do, it's the way that you do it.**

**What did you learn?**

**Why does it matter?**

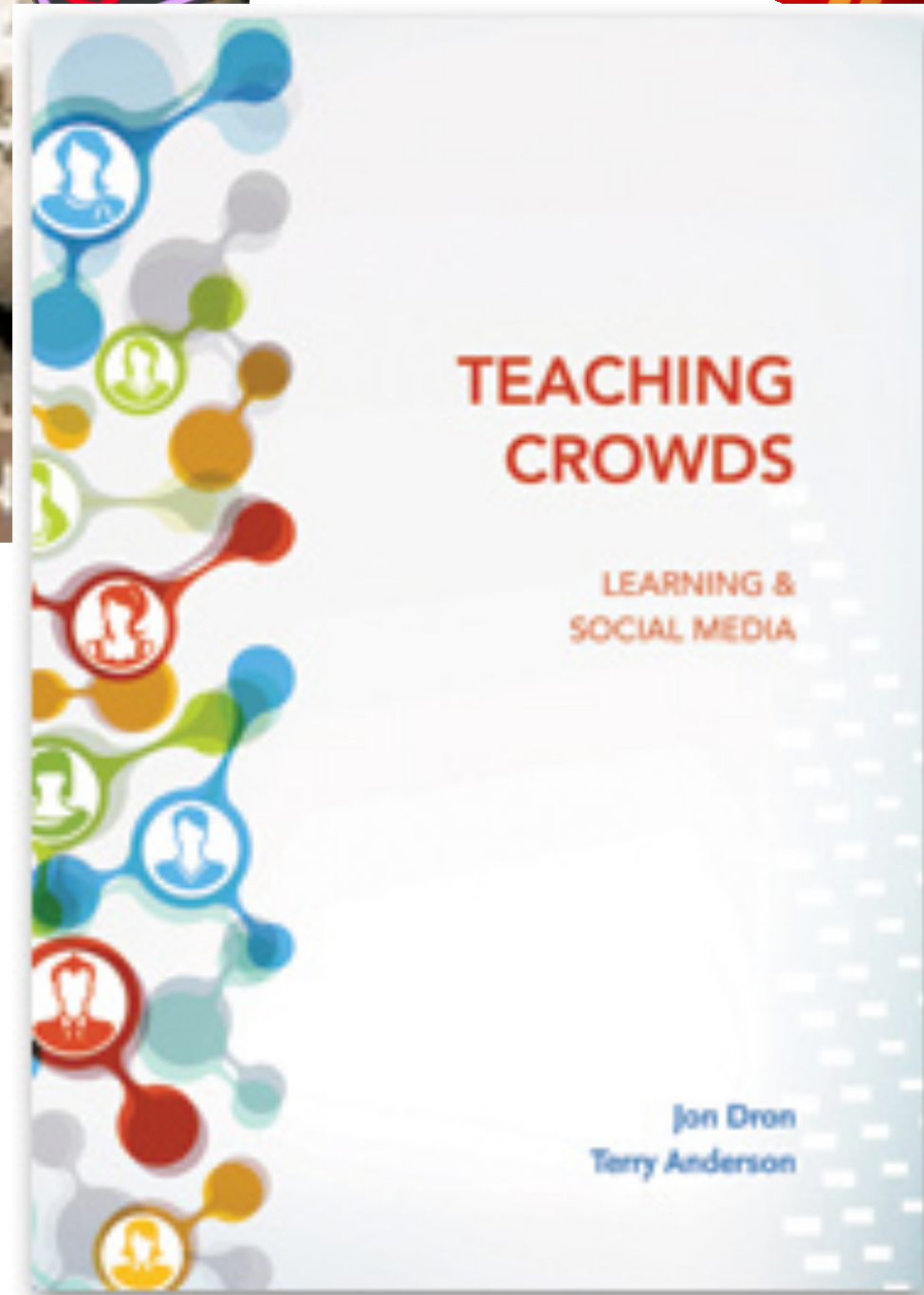
**What will you do differently now?**





OPEN

LIBRARY



<http://teachingcrowds.ca>

✉ [jond@athabascau.ca](mailto:jond@athabascau.ca)

🐦 @jondron

🌐 <https://landing.athabascau.ca/profile/jond>

<https://jondron.ca>



# Thank you