A woman wearing a short-sleeved, patterned dress with a repeating motif of leaves and circles in shades of brown, orange, and white. She is standing behind a wooden desk. Her right hand is resting on an open book with a red cover, holding a red pen. Her left hand is resting on a stack of three books: a red one on top, a white one in the middle, and a black one at the bottom. A red apple sits on the black book. The background is a plain, light-colored wall.

Technology will  
not replace  
teachers, but  
teachers who use  
technology will  
replace those who  
do not.

-Author Unknown

# Context

- The narrative about education technology comes into being alongside industrial capitalism and comparative advantage in the 'flat' world of globalization. That's the context in which we are told that teachers are too afraid to teach kids the tech skills required for the future. However.....

OCCUPATION	NUMBER OF NEW JOBS (PROJECTED), 2014-24	2015 MEDIAN PAY
Personal care aides	458,100	\$20,980 per year
Registered nurses	439,300	\$67,490 per year
Home health aides	348,400	\$21,920 per year
Combined food preparation and serving workers, including fast food	343,500	\$18,910 per year
Retail salespersons	314,200	\$21,780 per year
Nursing assistants	262,000	\$25,710 per year
Customer service representatives	252,900	\$31,720 per year
Cooks, restaurant	158,900	\$23,100 per year
General and operations managers	151,100	\$97,730 per year
Construction laborers	147,400	\$31,910 per year
Accountants and auditors	142,400	\$67,190 per year
Medical assistants	138,900	\$30,590 per year
Janitors and cleaners, except maids and housekeeping cleaners	136,300	\$23,440 per year
Software developers, applications	135,300	\$98,260 per year
Laborers and freight, stock, and material movers, hand	125,100	\$25,010 per year
First-line supervisors of office and administrative support workers	121,200	\$52,630 per year
Computer systems analysts	118,600	\$85,800 per year
Licensed practical and licensed vocational nurses	117,300	\$43,170 per year
Maids and housekeeping cleaners	111,700	\$20,740 per year
Medical secretaries	108,200	\$33,040 per year

- Many of the top Ed-tech bloggers and tweeters focus on products and branding rather than pedagogy and power.



this is not a self-driving car





learning as an engineering problem



Engineered, not autonomous



The car as “personalization”



# What Should be the focus of Ed-tech?

- digital redlining
- the extent to which our 'open' society is really black boxed
- online harassment, especially as this relates to race and gender
- privacy in a world of Big Data
- digital labor
- media and propaganda
- profits and corporate agendas
- the supply chains that lie underneath 'knowledge work'
- the increasing precarity of workers
- climate justice
- the ways that technology embodies ideologies
- critical pedagogy

# PUTTING YOUR HORSE BEFORE THE CART

WHAT TYPE OF PERSON DOES YOUR CLASSROOM DEVELOP?

@EduWells



## CLASSROOM A

A focus on the content (cart) means the teacher often retains the key competencies and self-esteem whilst remaining responsible for 50% of the learning progress all the way through education.



### Result: Dependent Students

Many teachers of school leavers identify with this image as reflecting their classroom

## CLASSROOM B

A focus on developing the student (horse) through independent learning experiences means the teacher becomes a guide whilst the student develops the needed self-esteem and competencies to tackle the content themselves.



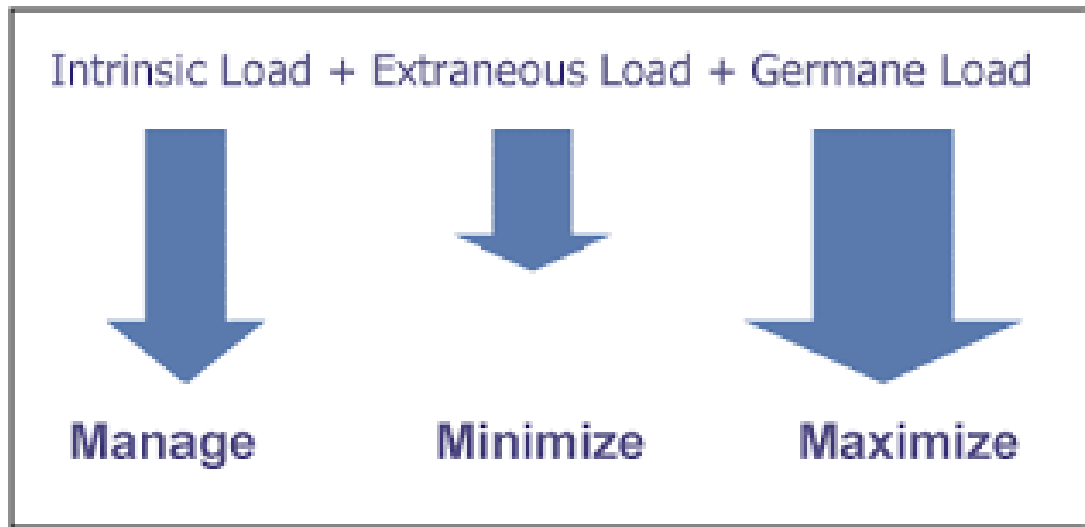
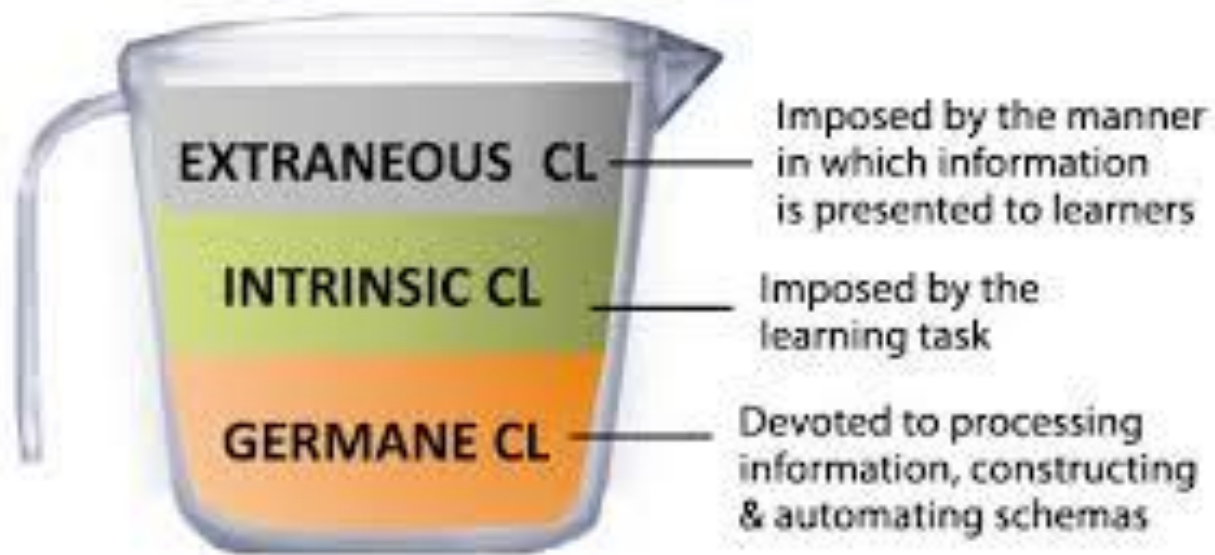
### Result: Developing Students

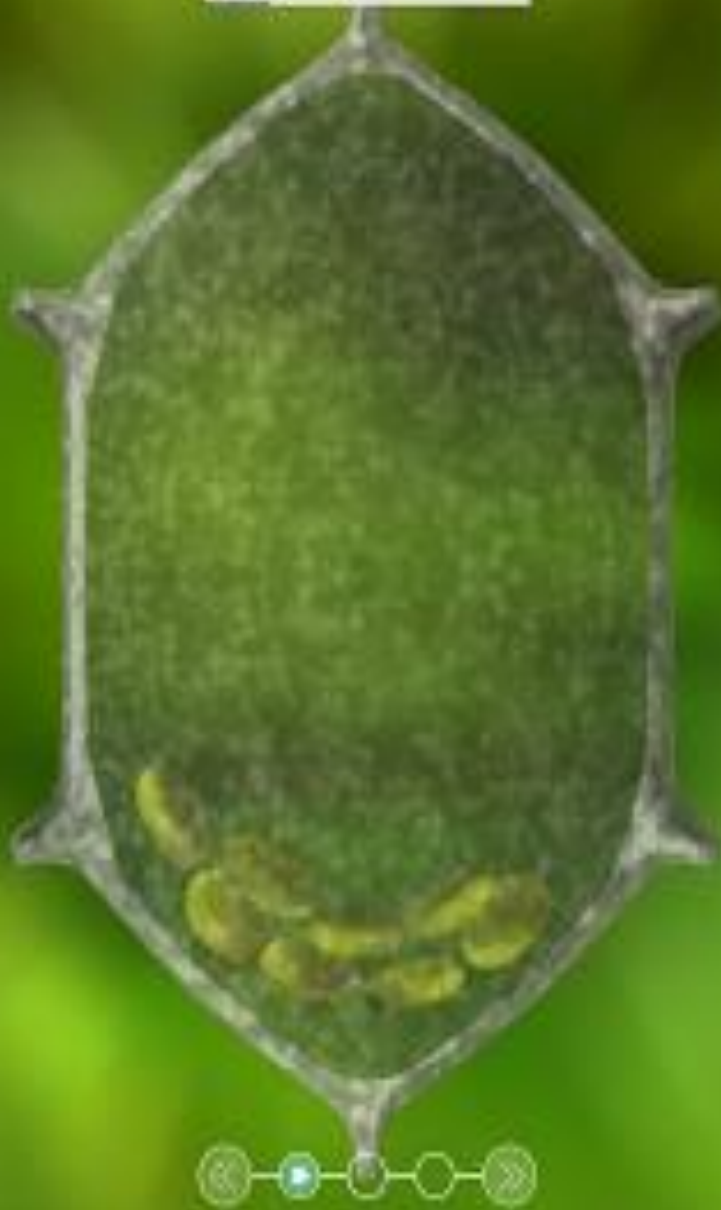
## CLASSROOM C

Like anything in life: Independent, confident and competent learners only eventuate from experience in being so. Only the one doing the work is learning. Let your students try & fail to truly succeed



### Result: Independent, confident citizens





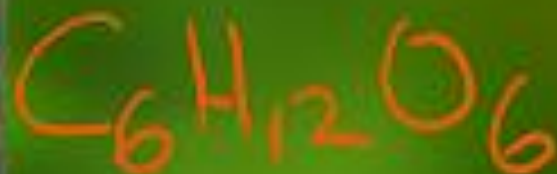
Intro

Whiteboard

Light cell

Tomato





Play

Whiteboard

Light off

Formula





# Photosynthesis in Chloroplasts



Stomata

Iodine  $\longrightarrow$  Starch



Stomata