## T ACE G DISTRACTE G NUDS

James M. Lang @LangOnCourse

# Teaching as the Art of Directing Attention

"Teaching's essential task consists in heightening the ability to notice what is remarkable and important in what we are looking at."

Yves Citton

The Ecology of Attention

## Stewards of Attention

"Attention is the foundation for all of the cognitive processes we want to promote as instructors, especially memory. And within the human cognitive system, attention is a precious, limited resource . . . So as designers of learning experiences, we should also think of ourselves as stewards of students' limited stores of attention."

Michelle Miller, Minds Online



Minds Online Teaching Effectively with Technology

## ARE WE MORE DISTRACTED?

## **Ancient Distractions**

"People who are passionately devoted to the flute are unable to pay attention to arguments if they hear someone playing a flute, since they enjoy the fluteplaying more than the activity that presently occupies them."

Ethics



### **Distracted from Prayer**

"How is it that when I am sitting at home a lizard catching flies, or a spider entangling them as they fly into her webs, oftentimes arrests me? . . . when this heart of ours is made the depot of such things and is overrun by the throng of these abounding vanities, then our prayers are often interrupted and disturbed by them. Even while we are in thy presence and direct the voice of our hearts to thy ears, such a great business as this is broken off by the inroads of I know not what idle thoughts."

Augustine's Confessions



## Habits of Distraction

"Don't chuse your constant Place of Study by . . . the most various and entertaining Scenes . . . [A] variety of Objects which strike the Eye or the Ear, especially while they are every in motion or often changing, have a natural and powerful tendency to steal away the Mind too often from its steady Pursuit of any Subject which we contemplate; and thereby the Soul gets a Habit . . . of trifling and wandering."

Isaac Watts

The Improvement of the Mind (1741)



## 18<sup>th</sup>-Century Distractions

"It is certain that, with or without our consent . . . the mind will break, from confinement to its stated task, into sudden excursions."

Samuel Johnson

The Rambler (1750)



Early 20<sup>th</sup> Century Distractions

"These two figures are not communicating with one another. The lady is receiving an amatory message, and the gentleman some racing results."

Punch

### Have We Been Re-Wired?

"Although mental tasks can change our brains, the impact is usually modest . . . Attention is so central to our ability to think that a significant deterioration would require a retrofitting of other cognitive functions. Mental reorganization at that scale happens over evolutionary time, not because you got a smartphone."

Daniel Willingham

## WHY ARE WE DISTRACTED?

### Focused vs. Divided Attention

It's got to focus very narrowly and clearly on that little seed and be able to pick it out against that background. But it's also, if it's going to stay alive, it's got to actually keep a quite different kind of attention open. It's got to be on the lookout for predators, or friends . . . whatever else is going on.

> Ian McGilchrist Author of *The Divided Brain*



### The Pull of Novelty

"At our core we are *information-seeking creatures* . . . This notion is supported by findings that molecular and physiological mechanisms that originally developed in our brain to support food foraging for survival have now evolved in primates to include information foraging."

The Distracted Mind



### Novelty Machines

"As infinite distractions compete for our attention, companies are learning to master novel tactics to stay relevant in users' minds."

> Nir Eyal *Hooked*



Information Dispensers at Our Fingertips

Driving	55%
Dinner Date	33%
School Function	32%
Church	19%
Shower	12%
■Sex	9%

The Achievement of Attention

"We need to think of paying attention as an *achievement*, something that you're able to do [i.e., and not that you do effortlessly . . . multiple steps are needed to ensure that you end up aware of the stimuli you're interested in, and not pulled off track by irrelevant inputs."

Daniel Reisberg, Cognition

### First Principles

- A human mind is an easily distractible mind.
- Our current technologies intensify a pre-existing condition.
- Attention is a hard-won and fragile achievement.
- If attention matters, we have to cultivate it deliberately.

## FROM DISTRACTION TO ATTENTION

Which of these st	rategies for boosting cognitive control reached the level of prescriptive?	ľ
Meditation		
Brain Games		
Nature		
Physical Exercise		
Traditional Education		
Drugs Foll Everywhere	Start the presentation to see live content. Still no live content? Install the app or get help at <b>PollEv.com/app</b>	e,

- Reasonable Hypothesis: Nature Exposure and Traditional Education
- Signal: Brain Games, Meditation, Drugs
- Prescriptive: Physical Exercise

## CURIOSITY

### The Power of Questions

"The material I want students to learn is actually the answer to a question. On its own, the answer is almost never interesting. But if you know the question, the answer may be quite interesting . . . we, as teachers, are so focused on getting to the answer, we spend insufficient time making sure that students understand the question and appreciate its significance."

Daniel Willingham

Why Don't Students Like School?

### Peer Instruction as Curiosity Intensifier

- Instructor Question
- Individual Student Response
- Turn to Your Neighbor
- Re-Submit Individual Response
- Class Discussion
- Instructor Explanation



### Distraction Re-Framed as Curiosity

"There is always something to be seen or heard next to what we are looking at or listening to. The laments of discourse on information overload could turn easily into astonishment when confronted by the *excedence of curiosity* that occupies the human mind."

Yves Citton

The Ecology of Attention

## STRUCTURE

## Attention Fatigue

"Directed attention "requires effort, plays a central role in achieving focus, is under voluntary control (at least some of the time), is **susceptible to fatigue**, and controls distraction through the use of inhibition . . . any prolonged mental effort leads to directed attention fatigue."

Stephen Kaplan



### The Art of Supporting Attention

- Program
- Scene Changes
- Acts
- Intermissions



Mini-Lecture (15 mins. Vitin Exercise Grag Worksheet Videor Clip

# Inspired by Index Cards

A modular approach to course planning.

## SIGNATURE ATTENTION ACTIVITIES

### Defamiliarization

"Take turns reading the selected text aloud with your partner(s). The Bible is meant to be read out loud. *Go slowly!* I mean REALLY slowly!! Don't worry about getting through the whole text. It's better to ask many questions about one verse than to read fifty with little thought."

"I've read this a million times—and it never occurred to me what it means for the earth to be formless."





## Teaching as the Art of Directing Attention

If we want the attention of our students, we have to cultivate it deliberately.