

# Playful Learning Part 1

The Unrealized Superpower Of Games

Or

**What is our vision of education's  
future?**

# Do you need convincing?



# Do you need research?

Wisconsin  
Institute for  
Discovery

LEARNING  
**games**  
NETWORK



School of Education  
UNIVERSITY OF WISCONSIN-MADISON

**ASU** Mary Lou Fulton  
Teachers College



CENTER FOR  
**GAMES & IMPACT**  
*game-infused solutions to society's biggest challenges*

**BILL & MELINDA**  
GATES *foundation*

**Bill & Melinda Gates Foundation**

The innovative ARX middle school curriculum games, Doctors Cure and Mystery of Taiga River, were produced with generous support from the Gates Foundation



**Cooney Center at Sesame Workshop**

Together we investigate how families and educators can leverage digital media technologies to help children develop 21st century skills.



**E-Line Media**

Our E-Line partnership is founded on the premise that unlocking the power of games to genuinely engage, educate and empower youth is a challenging, but solvable problem.



**Intel**

We collaborate on game-infused solutions for teacher digital professional development and creating tech solutions for digital literacy for women and girls in Africa.

**MacArthur**  
Foundation

**MacArthur Foundation**

Funds and resources from the MacArthur Foundation help advance many impact-based research projects and game-infused solutions for learning and civic engagement.



**National Science Foundation**

NSF funds support our impact-based research, whitepaper, and roundtable initiatives, as well as the Boone's Meadow math game (in partnership with Vanderbilt).



**New Media Innovation Lab**

An interdisciplinary innovation collaboration to teach journalism students newsgame design and investigate game-infused solutions for impact in journalism.



**PBS**

We are working to bring game-infused virtual worlds and systems thinking projects for kids to life in collaboration with the Public Broadcasting Service.



**USAID**  
FROM THE AMERICAN PEOPLE

**USAID**

Working with E-Line, NetHope, and USAID, we explore innovative tools that use the power of technology to engage young people in the digital and real world.

# Who?

Universities

Companies....Serious Games.

5 Companies Using Gamification to Boost  
Business Results

# What questions need to be asked?

1. What future dream do you have for education?
2. What are the obstacles?
3. How do we achieve this dream?



What future dream do you have for education?



**READY  
PLAYER  
ONE**  
**ERNEST  
CLINE**

**A NOVEL**

HUGO  
WINNER

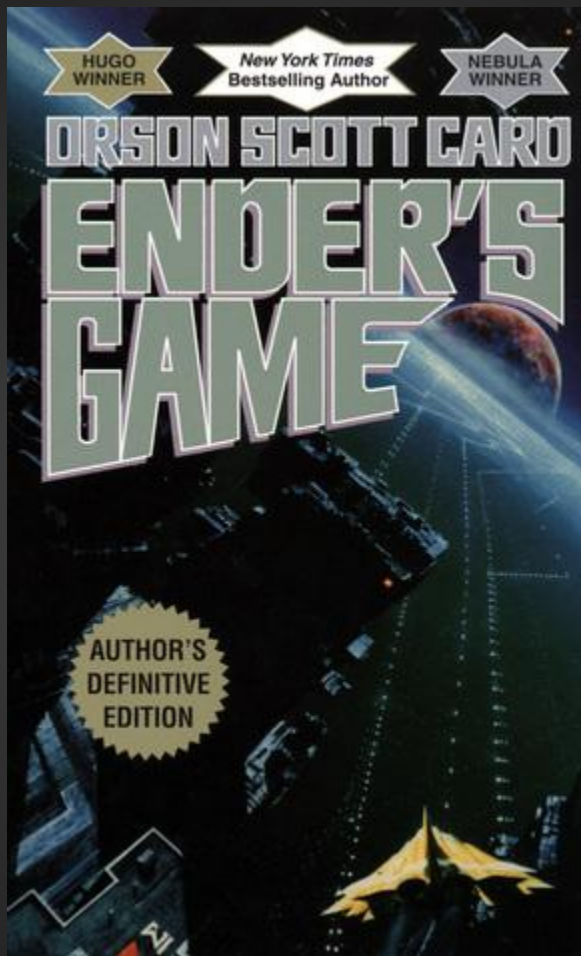
New York Times  
Bestselling Author

NEBULA  
WINNER

ORSON SCOTT CARD

# ENDER'S GAME

AUTHOR'S  
DEFINITIVE  
EDITION









These visions of our future vary as much as the learning styles of each of our students.

Learning needs to be individualized.

-Sir Ken Robinson

But how?



# Classroom Environment

Project-based

Problem-based

Query-based

Open-ended (sandbox)

-and closed (memorization of facts?)

# Students

- A system is needed to guide the student.
  - Use strengths to understand
  - Know weaknesses to improve
- Real-time feedback
- Track progress
- Self-assessment

# Students Goals

- Learn and remember through discovery and creation.
- Divergent, creative, and outside the box thinking









# Teacher

Teacher is not a sage on the stage, but a guide on the side.



# Teacher

- A teacher can calculate levels of each student.
  - Trusted?
  - Qualitative and not quantitative
  - Quantitative Narrative?

# Obstacles

We need to empower teachers!





# Obstacles

Pedagogy- the art and science of learning

Articulation and increase knowledge.

# Obstacles (Articulation)

- We simplify
- We need a Ring of Clear Thought
  - Intelligence is our power and we need to “take charge of our profession.” K. Glazer

# Obstacles (Articulation)

- Change is needed
- We need to be lead by those in the business....teachers!

# Obstacles (Articulation)

- “Teachers are in the business of learning. It’s our job and not someone else’s to lead. But we cannot do it alone. We need each other.”  
-K. Glazer

# Obstacles

- If we empower teachers then the following will be smaller obstacles:
  - Standardized testing (one size does not fit all)
  - Data collection...although this can be good if streamlined.
  - Student engagement
  - Time to plan and create learning environments
  - Flexibility to change when needed

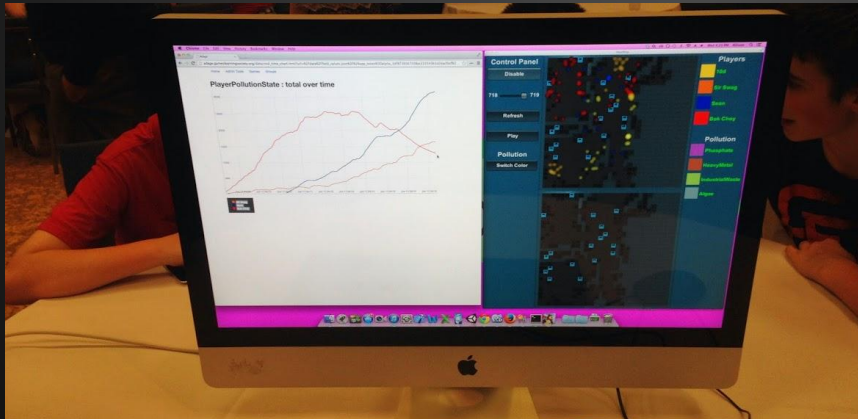
# Obstacles (Technology)

- Hinders
- Needs to be seamlessly integrated



# Obstacles (Technology)

- Instant feedback
- Can help guide decisions
  - Econauts



# Obstacles (Low Tech)

- Seamless data collection (futuristic)
- Hands on
- Student creation, input, and assessment



# How do we achieve this dream?

- Empower Teachers...overcoming the obstacles.

and

- Games and Simulations
  - Not the only tool and not always the best tool, but it's good.



How do I use Civilization in the classroom?  
That is part of my second session.



# What teachers need to know.

- 7 Essential Principles of Innovative Learning
- What Video Games Have to Teach Us about Learning and Literacy, James Paul Gee
- There are many more, but these are essential for Games and Learning

# 7 Essential Principles of Innovative Learning

1 Learners at the center

The social nature of learning 2

3 Emotions are integral to learning

Recognize individual differences 4

5 Stretching all students

Assessment *for* learning 6

7 Building horizontal connections



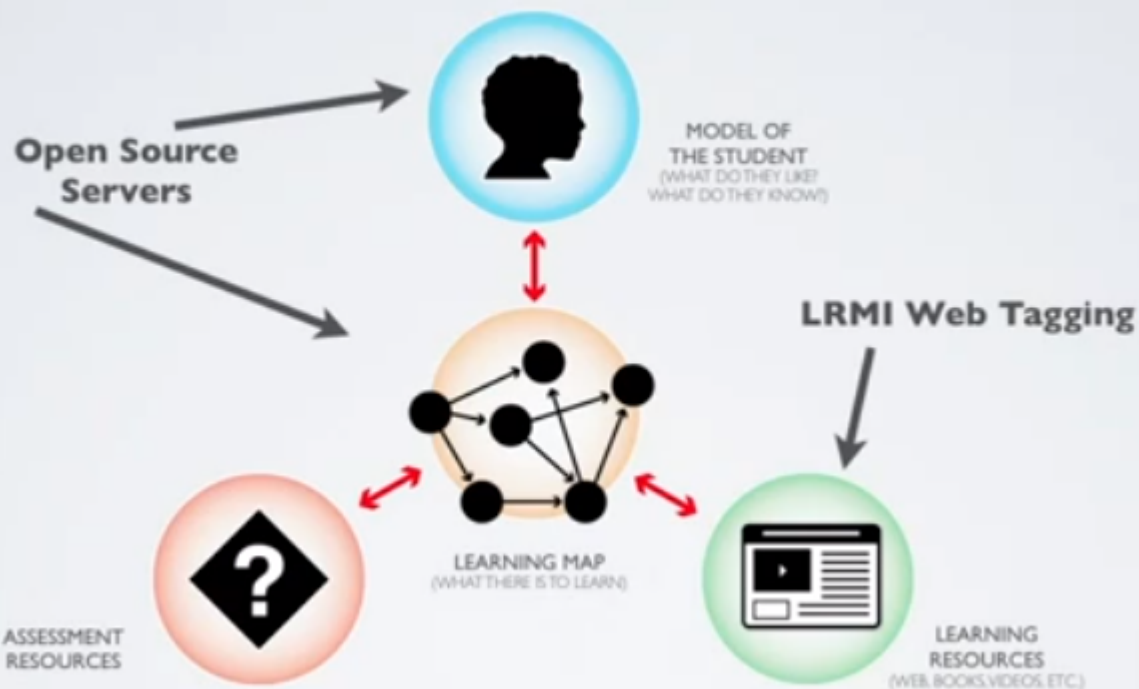
# Back to our dream....

Look back to our principles of innovative learning. Do the following fit within the principles?

- Ready Player One
- Ender's Game and Armada
- Holodeck
- Divergent

# OPEN SOURCE IMPLEMENTATION

ALL THE COMPONENTS ARE TIED TOGETHER BY THE LEARNING MAP







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