

# Supporting Learning & Collaboration with Gamification

ENSE 805 with Tim Maciag



University  
of Regina



**FACULTY OF ENGINEERING  
& APPLIED SCIENCE**  
Software Systems Engineering



# Outline

- Education & learning, shift and sways
- Online learning & creativity
- Games, game-based learning, & gamification

# Learning shifts & sways

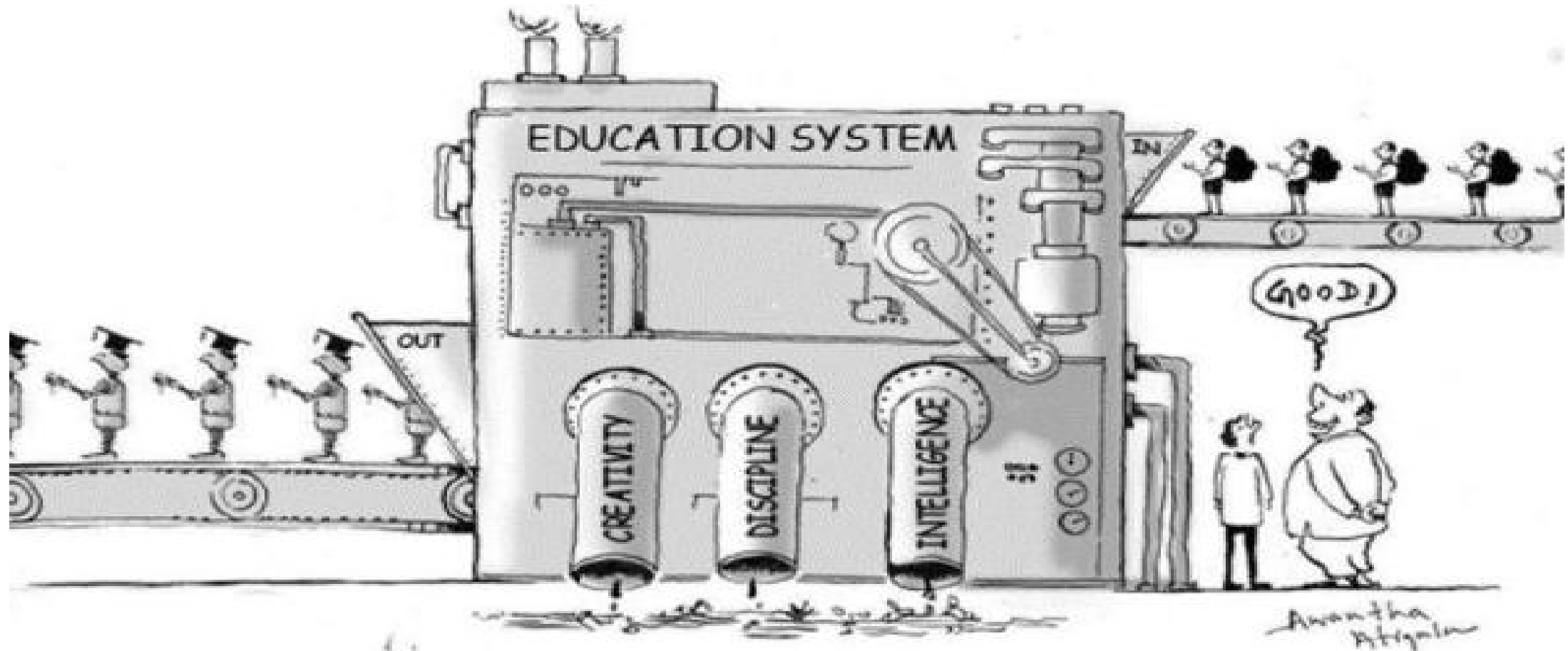
- Traditional education



- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/1999/04/21/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)

# Learning shifts & sways

- Traditional education



# Learning shifts & sways

- Traditional education
- Progressive



- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/1999/04/21/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)



# Learning shifts & sways

- Traditional education
- Progressive



- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/1999/04/21/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)

# Learning shifts & sways

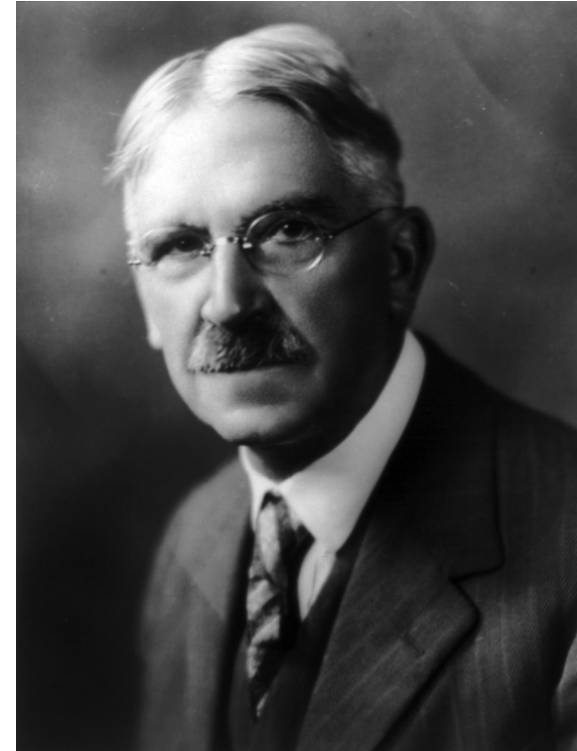
- Traditional education
- Progressive
  - William Kilpatrick



- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/1999/04/21/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)

# Learning shifts & sways

- Traditional education
- Progressive
  - William Kilpatrick
- Experience (Theory of)
  - John Dewey

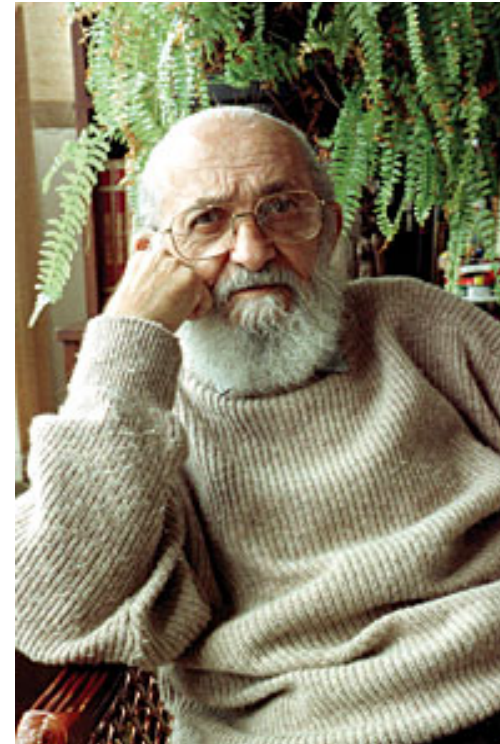


- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/1999/04/21/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)



# Learning shifts & sways

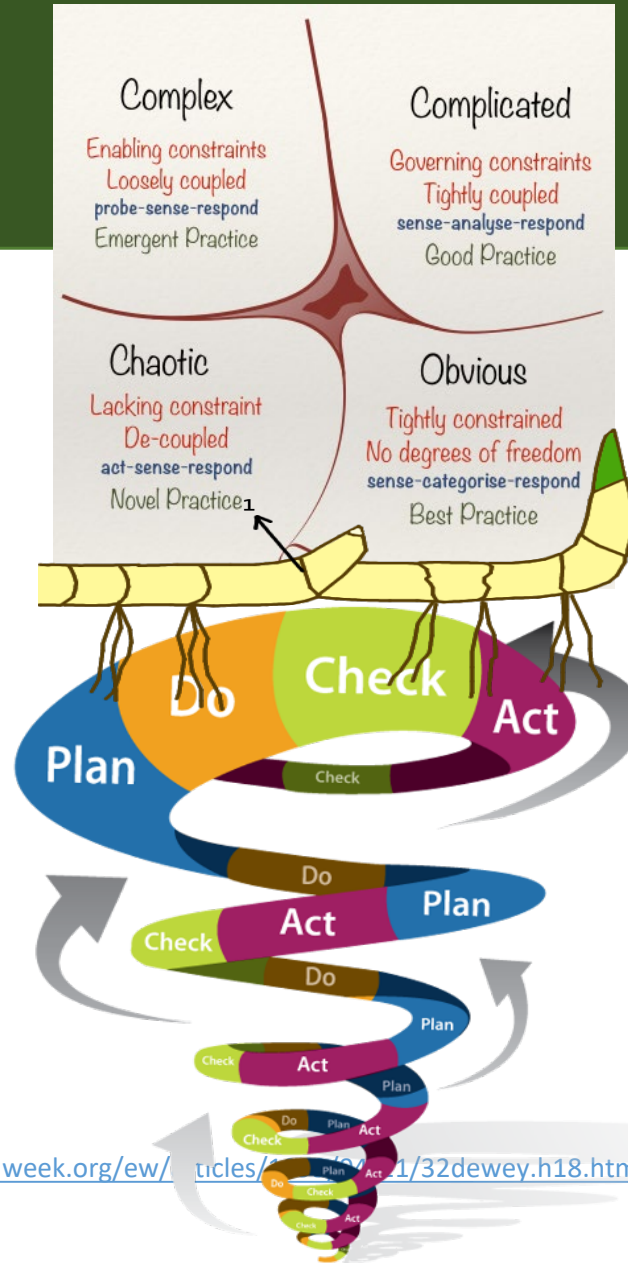
- Traditional education
- Progressive
  - William Kilpatrick
- Experience (Theory of)
  - John Dewey
- Reflection/Critical Pedagogy
  - Paulo Freire



- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/1999/04/21/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)

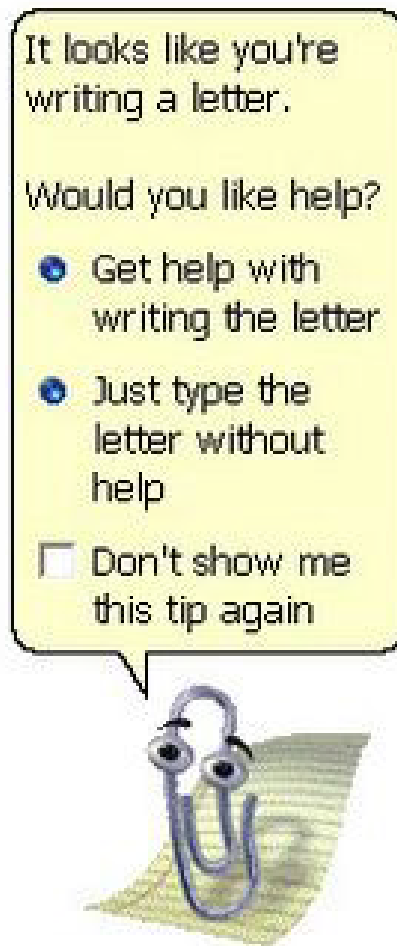
# Learning shifts & sways

- Traditional education
- Progressive
  - William Kilpatrick
- Experience (Theory of)
  - John Dewey
- Reflection/Critical Pedagogy
  - Paulo Freire

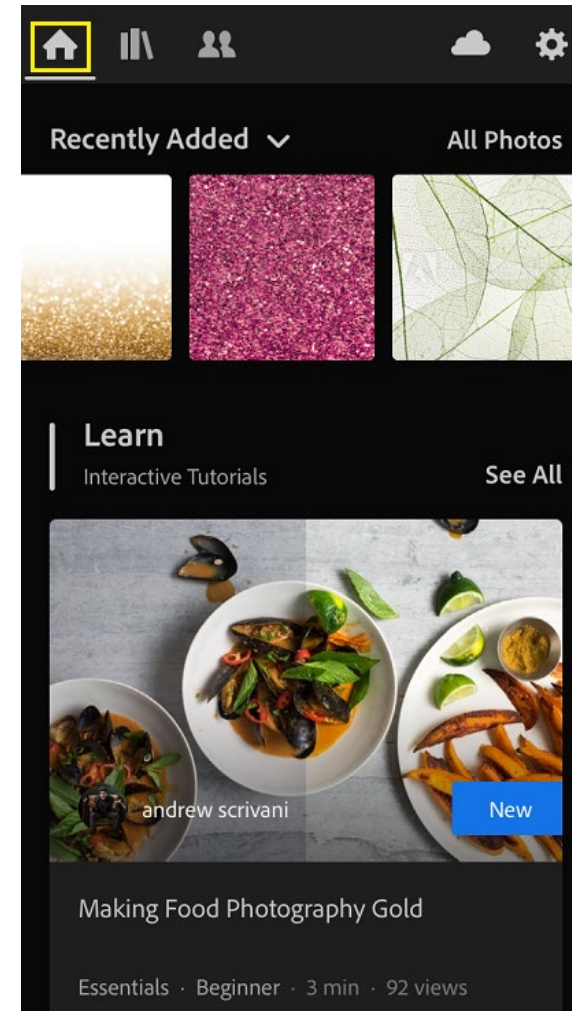
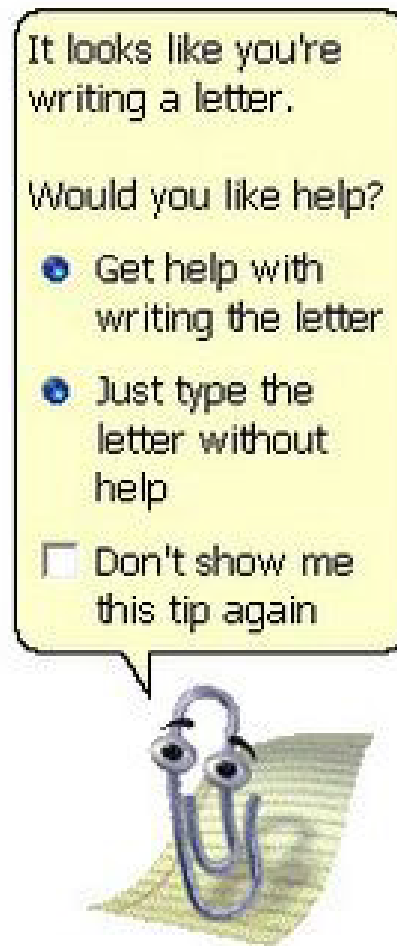


- L. Olson. Dewey: The Progressive Era's Misunderstood Giant (1999). Online: <https://www.edweek.org/ew/articles/2018/06/11/32dewey.h18.html> (Accessed June 2018)
- J. Dewey. Experience and Education. Touchstone. 1997 (Kappa Delta Pi, 1938)
- W.H. Kilpatrick. The Project Method. Andesite Press 2017 (Teachers College Record, 1918)
- P. Freire. Pedagogy of the Oppressed. Continuum, 2006 (Paulo Freire, 1968/1970 English)

# From Clippy to more humane in-app learning



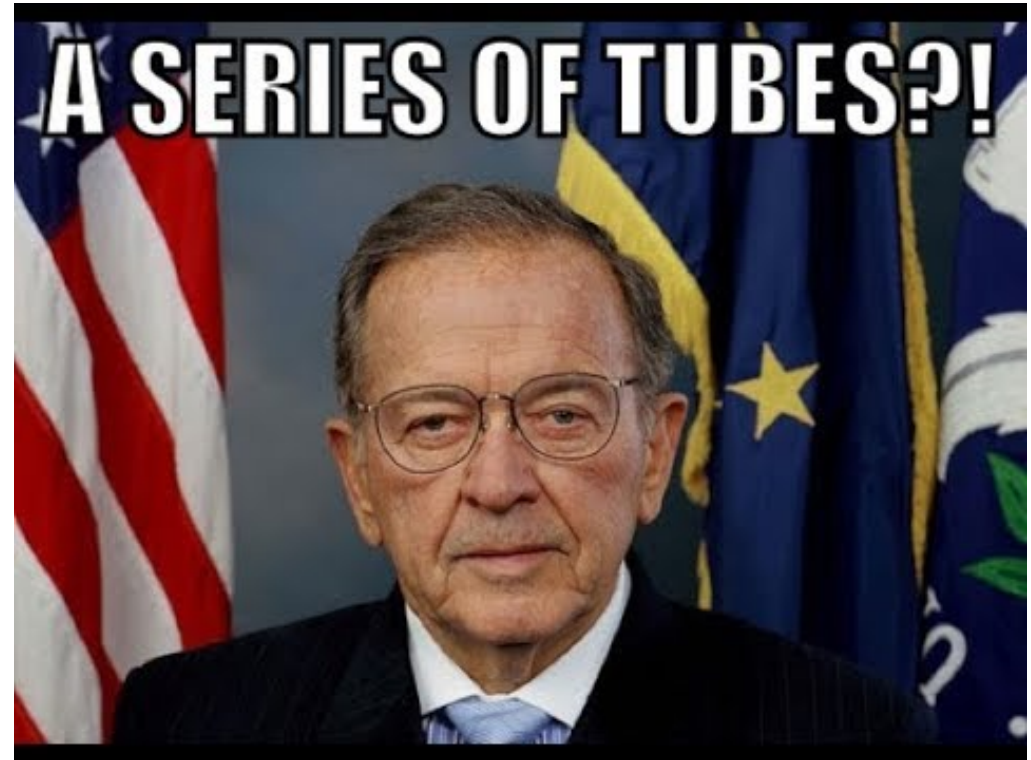
# From Clippy to more humane in-app learning





# CoPs/digital habitats

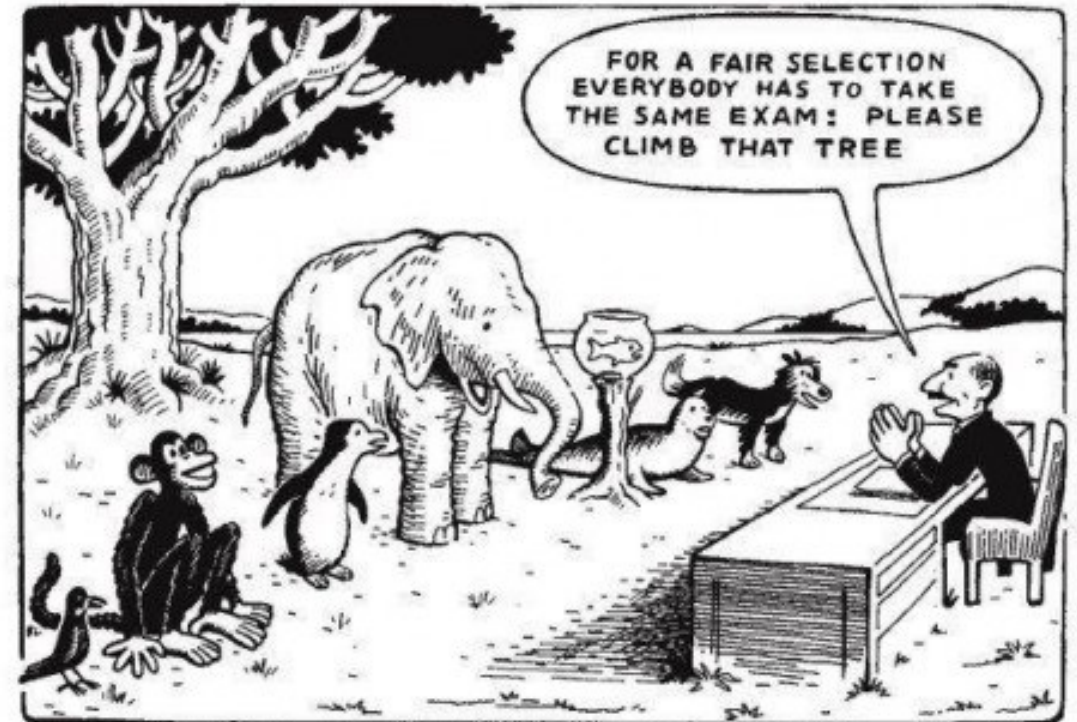
- From local to global interconnectedness



- Columbia University. What We Know About Online Course Outcomes (2013). Online: <https://ccrc.tc.columbia.edu/publications/what-we-know-online-course-outcomes.html> (Accessed Oct.2018)

# CoPs/digital habitats

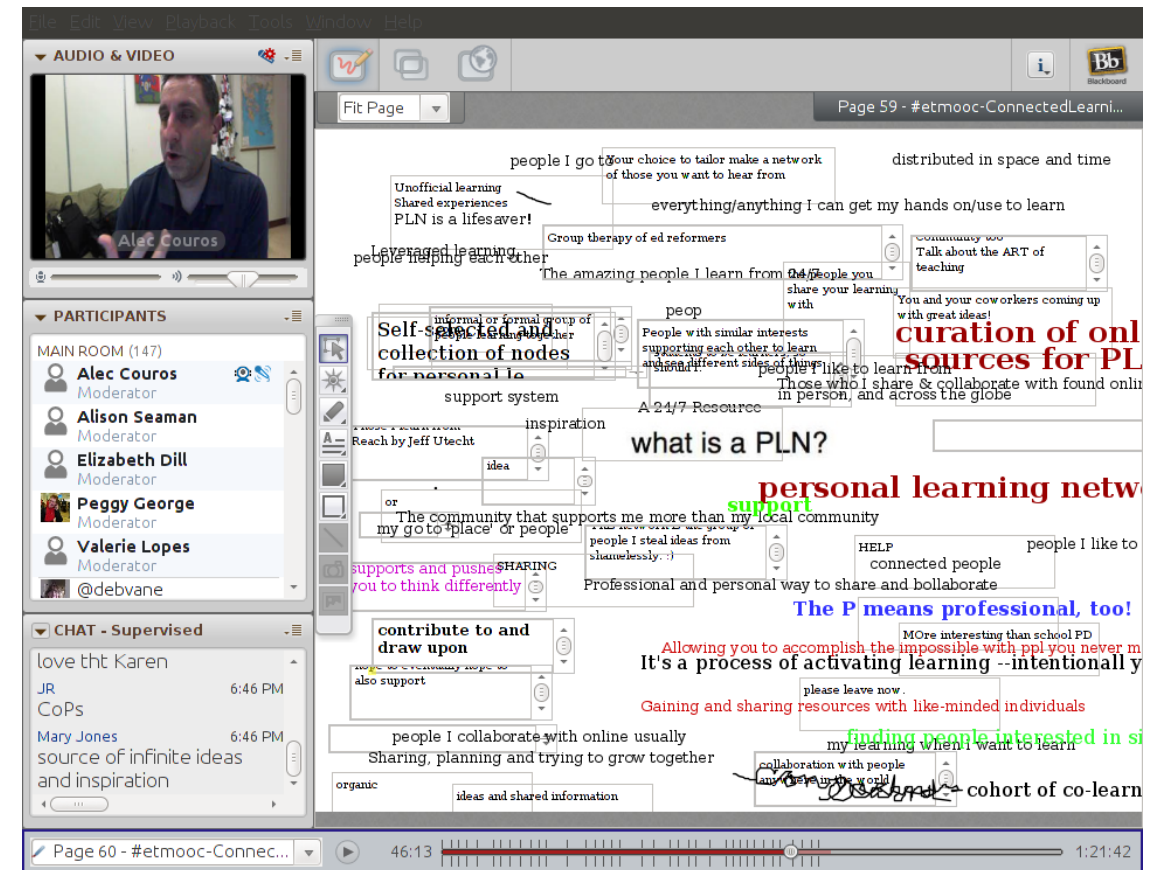
- From local to global interconnectedness
- Towards “tubed” learning & collaboration



- Columbia University. What We Know About Online Course Outcomes (2013). Online: <https://ccrc.tc.columbia.edu/publications/what-we-know-online-course-outcomes.html> (Accessed Oct.2018)

# CoPs/digital habitats

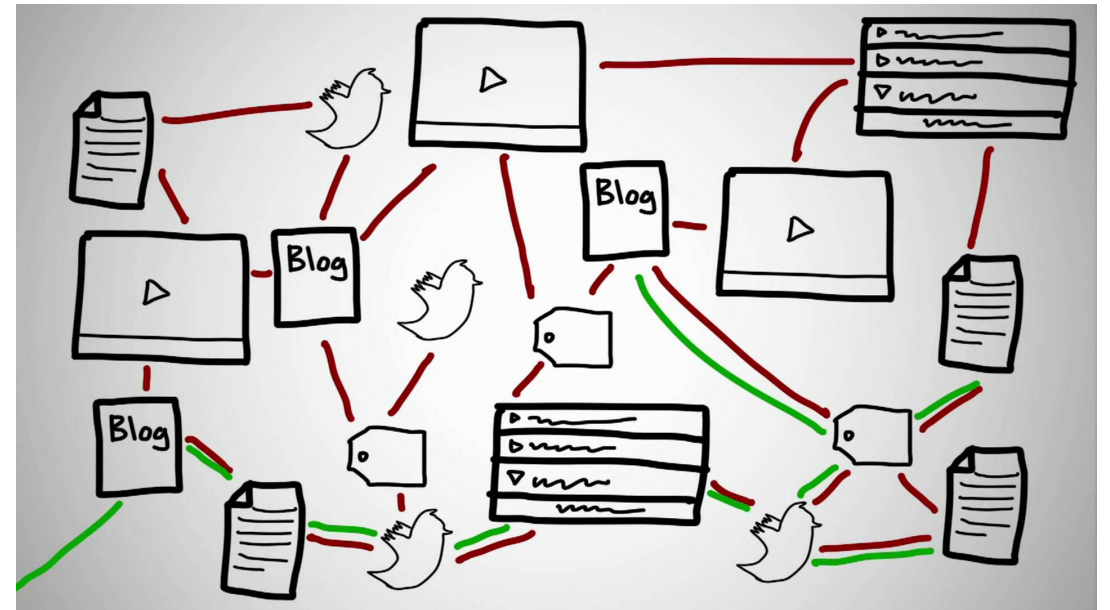
- From local to global interconnectedness
- Towards “tubed” learning & collaboration?
- Towards a blended approach?



- Columbia University. What We Know About Online Course Outcomes (2013). Online: <https://ccrc.tc.columbia.edu/publications/what-we-know-online-course-outcomes.html> (Accessed Oct.2018)

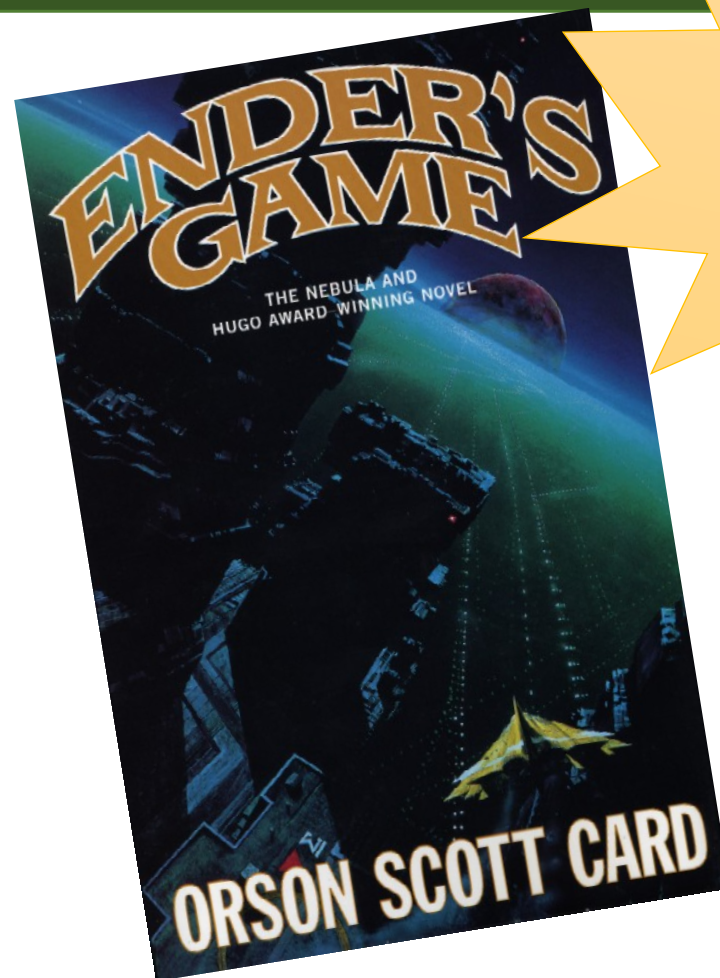
# CoPs/digital habitats

- From local to global interconnectedness
- Towards “tubed” learning & collaboration?
- Towards a blended approach?
- Use of all kinds of technology configurations & ODNCF!
  - ezTalks/Blackboard Collaborate, Twitter #urSSE, Facebook, Instagram, etc.
  - [Orient, Declare, Network, Cluster, Focus](#)





# Ender's game



Spoiler Alert!



- M. Sutton. Games and Learning. Learning Technologies conference 2018. Online: <https://youtu.be/GWNlBjDQViU> (Accessed Nov.2018)

# CoPs & gamification

- Technology, learning, & creativity
  - Enter Gamification!



- M. Sutton. Games and Learning. Learning Technologies conference 2018. Online: <https://youtu.be/GWNlbjDQViU> (Accessed Nov.2018)

# CoPs & gamification

- Technology, learning, & creativity
  - Enter Gamification!
- New forms of collaboration, creativity, and cooperation, e.g.
  - [One year of learning to play piano](#)



- M. Sutton. Games and Learning. Learning Technologies conference 2018. Online: <https://youtu.be/GWNlbjDQViU> (Accessed Nov.2018)



# CoPs & gamification

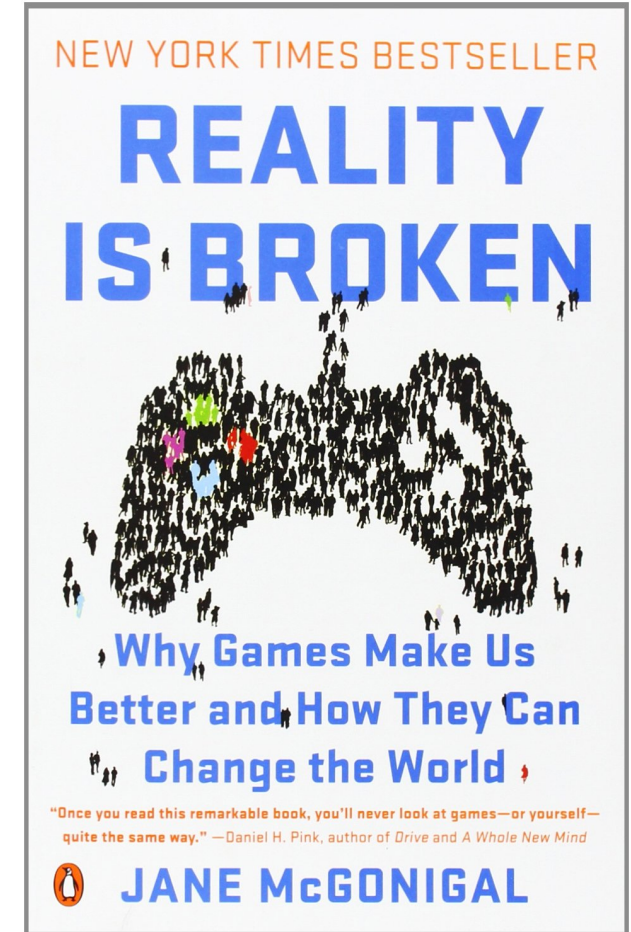
- Technology, learning, & creativity
  - Enter Gamification!
- New forms of collaboration, creativity, and cooperation, e.g.
  - [One year of learning to play piano](#)
- Hypothesis:
  - Games (game-based learning) can help evolve our learning and creativity





# So, games eh?

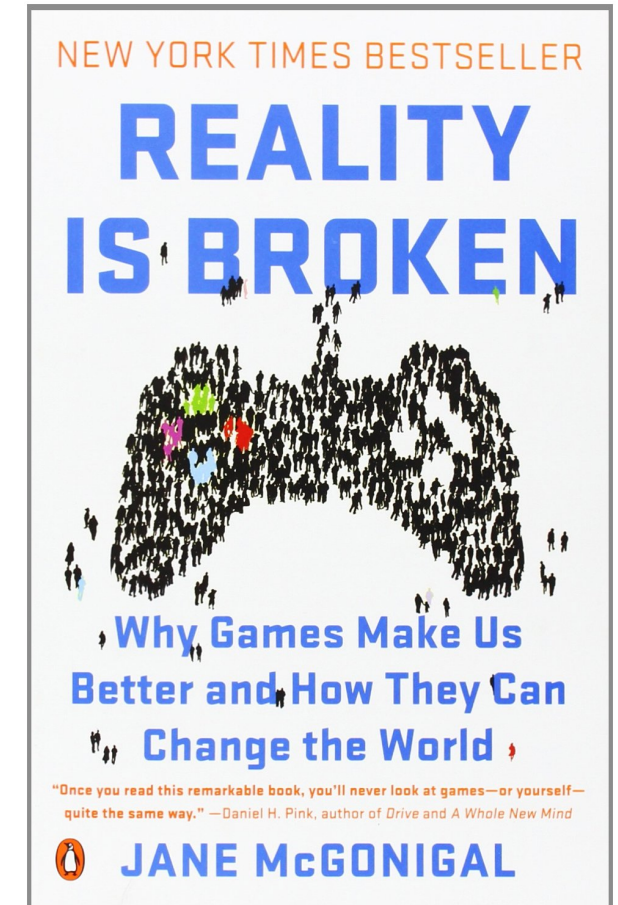
- Bringing “Epic wins” in-game into #RL
  - But why?



- J. McGonigal. Reality is Broken. Penguin Books. 2011.

# So, games eh?

- Bringing “Epic wins” in-game into #RL
  - But why?
- Jane McGonigal
  - [“Gaming can make a better world”](#)



- J. McGonigal. Reality is Broken. Penguin Books. 2011.

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation



# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale



# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most
- Fix 9: More fun with strangers

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most
- Fix 9: More fun with strangers
- Fix 10: Happiness hacks



# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most
- Fix 9: More fun with strangers
- Fix 10: Happiness hacks
- Fix 11: A sustainable engagement economy

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most
- Fix 9: More fun with strangers
- Fix 10: Happiness hacks
- Fix 11: A sustainable engagement economy
- Fix 12: More epic wins

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most
- Fix 9: More fun with strangers
- Fix 10: Happiness hacks
- Fix 11: A sustainable engagement economy
- Fix 12: More epic wins
- Fix 13: 10,000 hrs collaboration

# Gamification fixes...

- Fix 1: Games provide unnecessary obstacles
- Fix 2: Games provide emotional activation
- Fix 3: More satisfying work
- Fix 4: Better hope of success
- Fix 5: Stronger social connectivity
- Fix 6: Epic Scale
- Fix 7: Wholehearted participation
- Fix 8: Meaningful rewards when we need them most
- Fix 9: More fun with strangers
- Fix 10: Happiness hacks
- Fix 11: A sustainable engagement economy
- Fix 12: More epic wins
- Fix 13: 10,000 hrs collaboration
- Fix 14: Massively multiplayer foresight

# Can this work?

- It requires a mindshift





# Image refs

- Education, <https://i.pinimg.com/originals/74/cd/0a/74cd0a088d643c7af67181e36821737d.jpg>
- Traditional ED, <http://blogs.wgbh.org/innovation-hub/archive/2014/8/>
- Traditional ED 2, <https://modernsentimentdotcom.wordpress.com/2013/05/10/the-funny-things-you-can-learn-2/>
- Node chair, <https://arbeehighereducation.wordpress.com/2013/03/28/the-node-chair-keeping-pace-with-active-learning/>
- Learning and play, <https://anconaschool.org/learning-and-the-community/>
- Wil, <https://www.mindomo.com/doc.htm?d=48f200dd37ec44949f018392e5de3a27&m=37bc8a7bce3c4aa3804527444b427972>
- Dewey, [https://upload.wikimedia.org/wikipedia/commons/e/ef/John\\_Dewey\\_cph.3a51565.jpg](https://upload.wikimedia.org/wikipedia/commons/e/ef/John_Dewey_cph.3a51565.jpg)
- Freire, <http://rosemarieberger.com/2013/10/08/paulo-freire-on-the-politics-of-neutrality/>
- PDCA, <http://intlcert.com/pdca-cycle/>
- Rhizome, <http://www.investingbb.com/rhizomes.html>
- Tubes, <https://i.ytimg.com/vi/yGiZfZQsk5U/hqdefault.jpg>
- Endor, <https://vignette.wikia.nocookie.net/ansible/images/8/8e/Ender%27sGameCoverMain.jpg/revision/latest?cb=20160608184731>
- Online learning, [https://education.uwsp.edu/382/memes/meme\\_learning\\_online\\_different.jpg](https://education.uwsp.edu/382/memes/meme_learning_online_different.jpg)
- Clippy, [https://cdn.vox-cdn.com/thumbor/PnCzeDLvefGL\\_DYVvk4TlxTLhNkQ=/0x0:1062x705/1200x800/filters:focal\(447x269:615x437\)/cdn.vox-cdn.com/uploads/chorus\\_image/image/63280536/clippy.0.jpg](https://cdn.vox-cdn.com/thumbor/PnCzeDLvefGL_DYVvk4TlxTLhNkQ=/0x0:1062x705/1200x800/filters:focal(447x269:615x437)/cdn.vox-cdn.com/uploads/chorus_image/image/63280536/clippy.0.jpg)
- Mindshift, <https://media.makeameme.org/created/mindshift.jpg>