**Transforming Education** Through Emerging **Educational Technologies** 

T-561 https://canvas.harvard.edu/courses/18484

Chris Dede Chris\_Dede@harvard.edu https://www.gse.harvard.edu/faculty/christopher-dede

## "Emerging" Technologies

Science-based innovations that have the potential to create a new industry or transform an existing one (disruptive) > the knowledge base is growing > the application to existing markets is undergoing innovation > new markets are being tapped or created Often are based on many prior emerging

technologies (<u>i-phone tech history graphic</u>) James Burke, <u>Connections</u> (2007)

# **Questions for Shared Reflection**

Which digital technologies portrayed are not routinely used now?

Is there a technology you think would be transformative if repurposed for education? How would it empower learning?

Is there a technology that seems "cool," but not useful?

# New Tools for 21<sup>st</sup> Century Work

- Life-sized telepresence with translation
- Complex visual interfaces on touchscreens
- Digital ink
  - Card-sized notices
  - Transfer from screen to paper and back
  - Customized newspaper with videos
- Internet of Things: every object seamlessly connected
  - Every surface a display
- Augmented reality

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### What is Educational "Transformation"?

If we were to redesign education not to make historic models of schooling more efficient, but instead to prepare students for the 21st century simultaneously transforming teaching in light of our current knowledge about the mind what types of scalable, sustainable learning environments might sophisticated technologies enable us to create?

## Key Questions for Educational Visions

Which technologies are transformative?
What types of transformation do they enable?

Are these technologies practical in terms of:
 > Usability

- > Compatibility?
- > Scalability?
- > Value?
- > Cost?

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# <u>Assessing Emerging</u> Educational Technologies

- What difficult problem in learning addressed?
- > What "affordances" powerful for learning?
- What potential weaknesses in developing learners' knowledge and skills?
- What types of outcomes monitored to determine educational effectiveness?
- What kinds of implementation and integration issues in educational settings?
- > What evolutionary path?

# **Cooperative Learning**



### http://www.foundationcoalition.org

# Anytime, Anywhere Learning: **Google Community**

#### HGSF t561

Transforming Education through Emerging Technologies - Fall 2013

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Notifications off





44 members Private

Q Search community

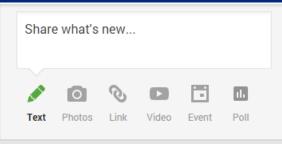
All posts

Discussion

2013-09-16 Question of the We ...

2013-09-23 Question of the We...

2013-09-30 Question





Discussion - Sep 9, 2014

#Spells

I came across this interesting game from the University of California that aims to teach kids coding. It uses blockly (which looks very similar to Scratch) to let players create their own spells in game. Thought some of you might like to check it out!



CodeSpells: Express Yourself With Magic C+ Kickstarter

### About this community

#### Invite people

This is the community for the Fall 2013 section of HGSE t561. Here you can post readings you found interesting and think will be beneficial to your classmates. Or, post links to interesting sites, start a discussion, or remind us of something important.

t561 Course Site



Mirza Ramic Discussion - Apr 1, 2014

An event on MOOCs and online education at the Berkman Center today (April 1) at 12:30 pm.

From the Berkman Center website: Read more (47 lines)

Daniel Koff

 $\pm 1$ Add a comment...



#Immigration

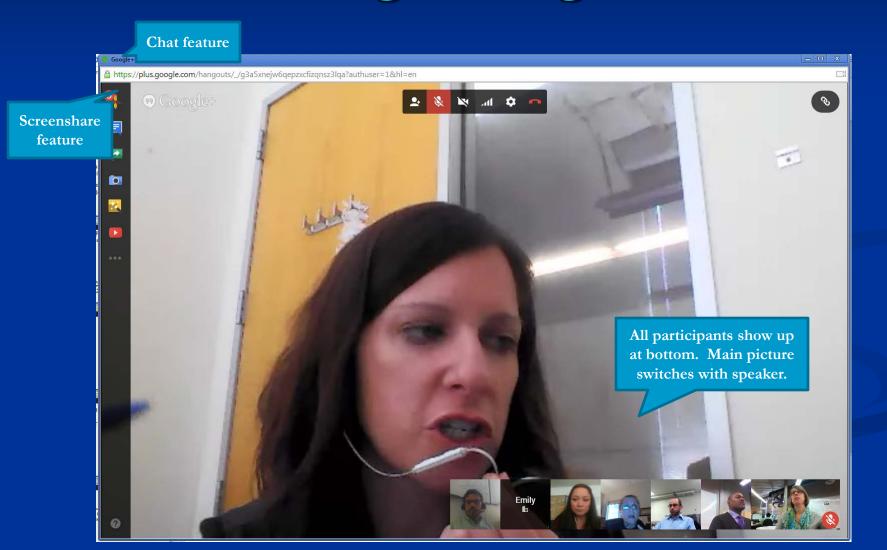
For anyone interested in Lawrence, the partners involved in The Path, and the state takeover of the

Discussion 🔻 - Mar 30, 2014

# **Event-based Twitter Chats**

Y #social     Y #smallbusiness     Y #facebook       Search     Y #search     Y #facebook	10
GPW01 12:44pm via HootSuite Treatment and Side Effect Info from Patients Like You ow.Jy/eckYF ± #social #so	
ParcoursLLP 12:44pm via TweetDeck We're the intercultural communicators our #training adds #social value to your outputs not just a ONE TIME thing profit by employee Time the intercultural communicators our #training adds #social value to your outputs not just a ONE TIME thing profit by employee reat for #smallbusiness #MobileApps	#news !
FannaShare 12:43pm via web Do you understand why and how employees are using #Social media at work? - Great SilkRoad survey and Infographic goo.gl/xxNkA $\pm$ #HR Success Stories w @judybrooks @annakosturova and Rory Armes of budyJuceDK $\pm$	ook fans
BeatrizAlberdi	ok #Fan page
spr.Jy/6011T4QD ± @B2Community #SAP #social Success Stories w @Judybrooks @annakosturova and Rory Armes of Gener8. Vancouver #SmallBusiness Summit Thursday. bit.Jy/ODIdwg ± 12:45pm via TweetDeck In under 3 mins, learn how to edit a #Facebook stat #Facebook stat reposition a photo & tao a commenter w 1st name o	
Explorer bit.ly/nBaeuU 🛨 #social #media 12:43pm via HootSuite 3 ways your #smallbusiness can prepare for the holiday shopping	niy! biliy/RoomF9
EAHHTBR 12:43pm via TweetDeck q re: #social suite #target #customer: #marketing, #CMO, #CIO = answer. "business users' needs from functionality POV" - Tara Roberts #OOW       season. bit.ly/Ocmupd ±       DusTeeHD 12:43pm via Instagram         Image: Biz answer. "business users' needs from functionality POV" - Tara Roberts #OOW       AngelBiz 12:41pm via HootSuite NEW BLOG POST: Do not make this mistake when hiring a manager       DusTeeHD 12:45pm via Instagram	
ennovatesols     for small business - ow.ly/e5Plr + #smallbusiness #hiring #hr       12:42pm via twitterfeed     #manager	
The Squirrel Whisperer and Sneezy The Penn State Squirrel: 1 - Sneezy With a Hat Click her bit/y/T2jD91 + #social #media	witter followers and
Social Media - Five Social Lessons for Small Business From Big 12:42pm via twitterfeed.	
The Squirrel Whisperer and Sneezy The Penn State Squirrel	ers to your social

# Professional Learning Communities: Google Hangouts



# Proposing a Class Assignment

- Applications are due Tuesday the 6<sup>th</sup> at the latest
- Submit using the LHS "Assignment" tab
- Please use the file naming convention described at the end of each assignment – thanks!

