- Test
  - Test
  - Test

Agenda

- The Learning Context
  - Beginning to a.m. break - "wider trends in pedagogy and curriculum, including new critical literacies" - this will situate them firmly in a learning context, and also allow me to introduce a 'critical literacies' tool they can use for reflection through the day
- Data and Cloud
  - Content: developing an understanding of dynamic and fluid data networks, how to access open data, and how to work with data in cloud-based resources.
  - Hands-on activities: access to and use of open data; exploration of a cloud environment.
- Graph and Resources
  - Content: new types of graph-based resources, including distributed knowledge networks.
  - Hands-on activities: experience developing graphs, use of distributed resources such as Jupyter Notebooks.
- Identity and Recognition
  - Content: how we know who someone is, how we project ourselves on the internet, and how we can be safe and secure; how we know what someone has learned.
  - Hands-on activities: creation of 'identity graphs', creation of public and private keys, and creation of digital credentials
- Experience, Community and Agency
  - Content: how to enable learning experiences based on hands-on practice and knowledge creation sufficient to support a rapidly evolving sense of community based on information exchange and consensus.
- Actionable Practices
  - Community network development and management, and
  - Personal learning management and support

The Learning Context

Open Online Learning
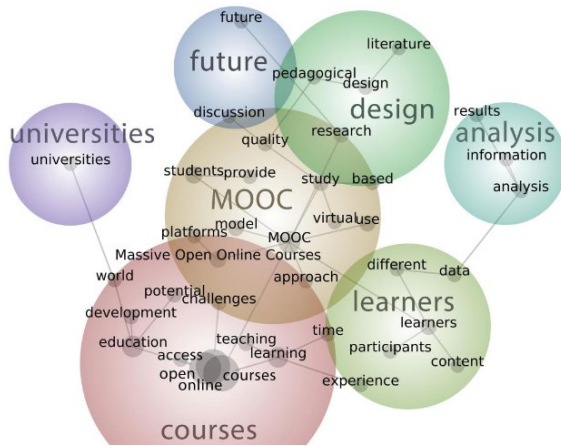
Zawacki-Richter, Bozkurt, Alturki,and Aldraiweesh. 2018. What Research Says About MOOCs –An Explorative Content Analysis. InternationalReview of Research in Open andDistributed LearningVolume 19, Number 1. https://files.eric.ed.gov/fulltext/EJ1174059.pdf

Open Pedagogy

Attribute 1: Participatory technologies	use for interacting via Web 2.0, social networks and mobile apps
Attribute 2: People, openness, trust	develop trust, confidence and openness for working with others
Attribute 3: Innovation & creativity	encourage spontaneous innovation and creativity
Attribute 4: Sharing ideas & resources	share ideas and resources freely to disseminate knowledge
Attribute 5: Connected community	participate in a connected community of professionals
Attribute 6: Learner generated	facilitate learners' contributions to OER
Attribute 7: Reflective practice	engage in opportunities for reflective practice
Attribute 8: Peer review	contribute to open critique of others' scholarship

Gráinne Conole. 2015. MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs. Revista de Educación a Distancia. Número 39. http://www.um.es/ead/red/39

Bronwyn Hegarty. 2015. Attributes of Open Pedagogy: A Model for Using Open Educational Resources. Educational Technology, July/August, 2015. https://upload.wikimedia.org/wikipedia/commons/c/ca/Ed_Tech_Hegarty_2015_article_attributes_of_open_pedagogy.pdf

Perspectives

These are my perspectives. They represent the areas of expertise I have developed over the years. As I study new pedagogies and technologies, I ask questions from the following points of view:

Ψ **Philosophy** My degrees are in philosophy and I specialized in philosophies of mind, science, knowledge and logic. I ask questions about the bases for arguments and claims, look for presumptions about meaning and value, and consider ways of sensing, comprehending and knowing.	🔔 **Education** I am interested in the processes of learning, inference and discovery on a practical level. I ask what it is to learn – why and how people learn - and what are the conditions for best learning outcomes. I am focused on learning experience and personal agency.
💻 **Computing** I took a few courses but have mostly taught myself computer programming over the years, learning a number of languages, and building websites, content management systems, and learning technology. I think of programming as a means of expression.	Ξ **Media** Since my days as a newspaper carrier to my involvement in student journalism to my work today in online media I have worked on new and better means of conveying information, illustration and photography, community-building and interactivity.

What are *your* perspectives? Be sure to give each perspective an icon!

The Critical Literacies

❖	Syntax	⌘	Cognition
♍	Semantics	☒	Context
✋	Pragmatics	♒	Change

The Critical Literacies are best thought of as *ways of seeing* the world. They are the way we make sense of whatever is in front of us.

Open Pedagogy

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Syntax

Semantics

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Pragmatics

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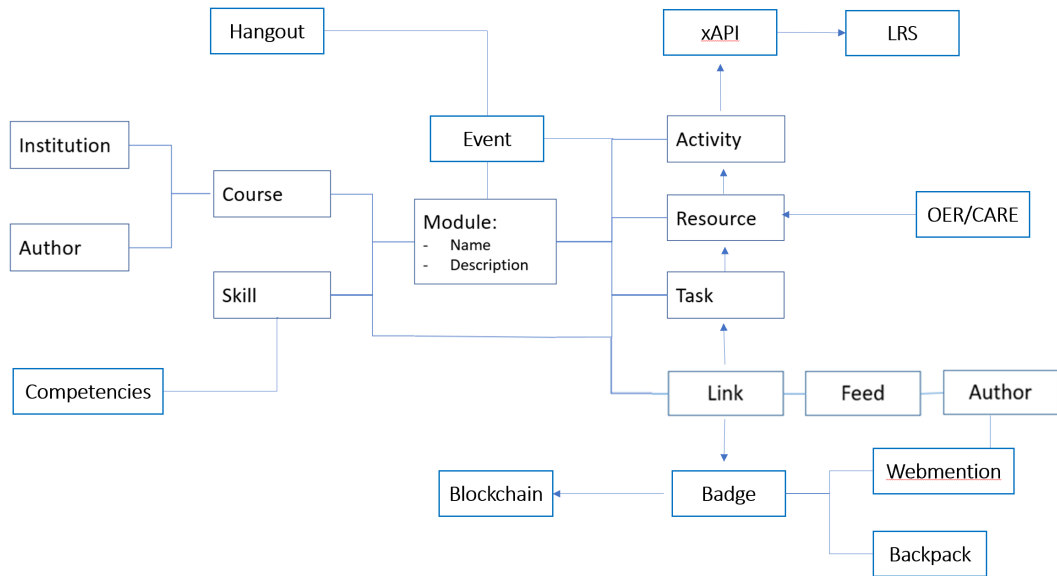https://upload.wikimedia.org/wikipedia/commons/c/ca/Ed_Tech_Hegarty_2015_article_attributes_of_open_pedagogy.pdf

Cognition

Context

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Change

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Bronwyn Hegarty. 2015. Attributes of Open Pedagogy: A Model for Using Open Educational Resources. Educational Technology, July/August, 2015. https://upload.wikimedia.org/wikipedia/commons/c/ca/Ed_Tech_Hegarty_2015_article_attributes_of_open_pedagogy.pdf

Data

This part of the workshop addresses two conceptual challenges: first, the shift in our understanding of content from documents to data; and second, the shift in our understanding of data from centralized to decentralized.

Ψ **From Document to Data** Storing our content as data makes it more flexible and more useful. One piece of data could be inserted into another piece of data, such as a template. Our perspective shifts from a *linear* organization to something more complex.	🔔 **Learning with Data** Learning with data isn't the same as learning with books. It's interactive, immersive and engaging, a process of learning how to perceive and comprehend rather than to decode and store.
💻 **Application Interfaces** The central role played by platforms is diminished in favour of direct interactions between peers, that is, a distributed web, which communicate with each other by means of application programming interfaces (API).	Ξ **Linked Data** Today we are seeing a trend toward decentralized linked data. This is the idea that each person can manage his or her own data, storing it wherever they want, and using it whenever they like.

What are *your* perspectives?

Course as Open Data

| Hangout |

| Institution |
| Author |

| Course |
| Skill |

| Competencies |

| Event |

Module:
- Name
- Description

| xAPI | → | LRS |

| Activity |

| Resource | ← | OER/CARE |

| Task |

| Link | | Feed | | Author |

| Blockchain | ← | Badge |

| Webmention |

| Backpack |

Activities // Resources // The BIG Idea??

Subscribe to RSS Feeds

Access Open Data

Create an Open Data Feed

Gráinne Conole. 2015. MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs. Revista de Educación a Distancia. Número 39. http://www.um.es/ead/red/39

Bronwyn Hegarty. 2015. Attributes of Open Pedagogy: A Model for Using Open Educational Resources. Educational Technology, July/August, 2015.
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My Open Data Feed

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Data: Worksheet

Data from *your* perspectives

Critical reflections

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Cloud

These are my perspectives. They represent the areas of expertise I have developed over the years. As I study new pedagogies and technologies, I ask questions from the following points of view:

Ψ **Computing as Commodity** The conceptual challenge is that it doesn't matter whose computer it is, that it could change any time, and that we should begin to think of "computing" and "storage" as commodities, more like "water" or "electricity".	♤ **Direct Experience** Students are now able to edit and create new tools to create text, music and art. They will be able to directly experience the relation between algorithm and outcome, or between mathematics and music, as the case may be.
🖥 **Virtualization** Server virtualization begins with applications such as VMWare or Parallels, and progresses through a range of increasingly sophisticated computing containers created using programs like Docker and run using services like Amazon Web Services.	Ξ **New Possibilities** These new resources allow us to redefine what we mean by 'textbooks' and even 'learning objects'. By putting powerful applications into the hands of students we create new possibilities for manipulation, visualization and creativity.

What are *your* perspectives?

Courses in Containers
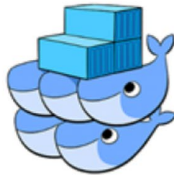
Cloud: Worksheet

Data from *your* perspectives

Critical reflections

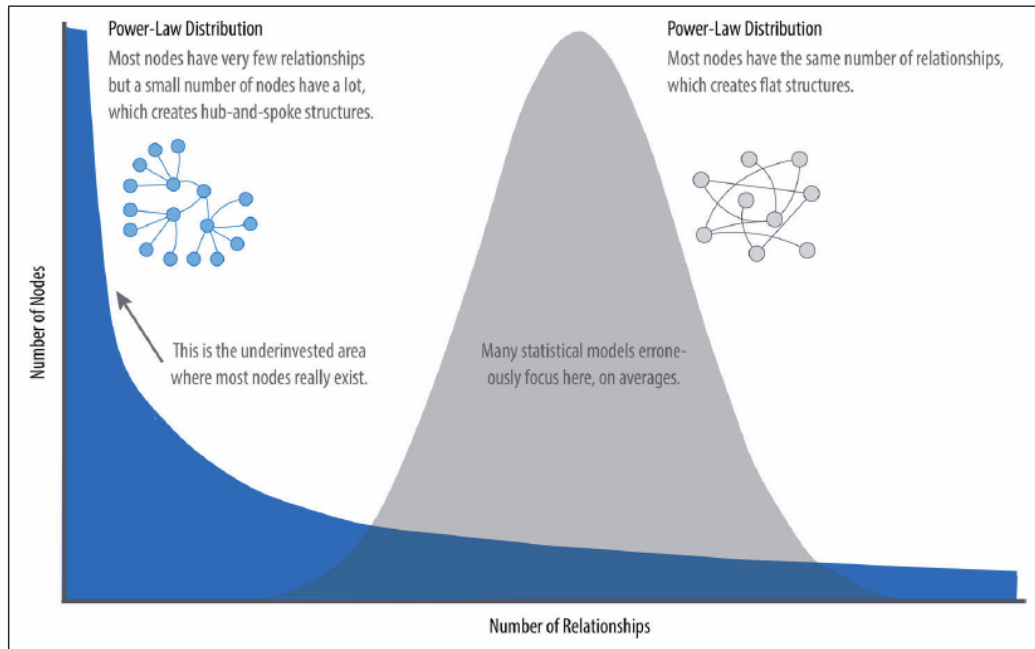|	
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Graph

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💻 **Computing**	Ξ **Media**
I took a few courses but have mostly taught myself computer programming over the years, learning a number of languages, and building websites, content management systems, and learning technology. I think of programming as a means of expression.	Since my days as a newspaper carrier to my involvement in student journalism to my work today in online media I have worked on new and better means of conveying information, illustration and photography, community-building and interactivity.

What are *your* perspectives? Be sure to give each perspective an icon!

Graph, Not Story

Power-Law Distribution
Most nodes have very few relationships but a small number of nodes have a lot, which creates hub-and-spoke structures.

Power-Law Distribution
Most nodes have the same number of relationships, which creates flat structures.

This is the underinvested area where most nodes really exist.

Many statistical models erroneously focus here, on averages.

Number of Nodes

Number of Relationships

Narrations and models focus on common or 'best' practices

Graphs capture patterns, outliers, and the unexpected.

Knowledge is recognition, not remembering

https://ontotext.com/linked-open-data-cultural-heritage/
https://www.w3.org/wiki/LinkedData
https://www.w3.org/wiki/SweoIG/TaskForces/CommunityProjects/LinkingOpenData
https://communitywiki.org/wiki/MachineCodeBlocks (Lion Kimbro, 2005ish)

Graph: Worksheet

Data from *your* perspectives

Critical reflections

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My Model Graph

Resources

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What are *your* perspectives?

Content Addressable Resources for Education (CARE)
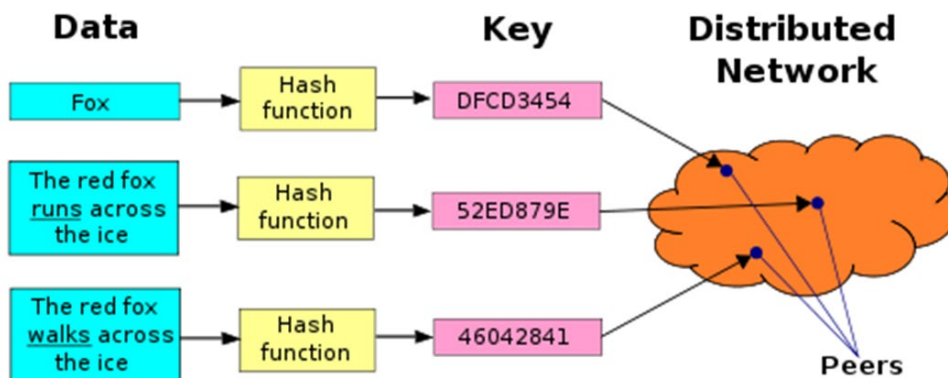
Distributed Hash Table

Each piece of content has a unique address, which is a hash of its content

https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/Distributed_hash_table.html

Resources: Worksheet

Data from *your* perspectives

Critical reflections

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My Notebook

Identity

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What are *your* perspectives?

We Are the Content

Will the 'connected self' be more reflective? Will 'the connective self' more honestly reflect our hopes, aspirations and dreams?

https://www.youtube.com/watch?v=QNKpK_InQHQ
https://jennymackness.wordpress.com/tag/digital-identity/
https://mitpress.mit.edu/books/qualified-self
https://markcarrigan.net/2014/07/23/qualitative-self-tracking-and-the-qualified-self/

Identity: Worksheet

Data from *your* perspectives

Critical reflections

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My Identity Graph

Instructions

Create an Identity Graph

- We are expanding on the marketing definition of an identity graph. It can be anything you like, but with one stipulation: your graph *should not* contain a self-referential node titled 'me' or 'self' or anything similar
- Think of this graph as you defining *your* identity, not what some advertiser, recruiter or other third party might want you to define.
- Don't worry about creating the *whole* identity graph - focusing on a single facet will be sufficient. And don't post anything you're not comfortable with sharing. It doesn't have to be a *real* identity graph, just an identity graph, however you conceive it.

Optional: consider some of these questions about your identity graph:

- What is the basis for the links in your graph: are they conceptual, physical, causal, historical, aspirational?
- Is your graph unique to you? What would make it unique? What would guarantee uniqueness?
- How (if at all) could your graph be physically instantiated? Is there a way for you to share your graph? To link and/or intermingle your graph with other graphs?
- What's the 'source of truth' for your graph?

Recognition

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What are *your* perspectives?

AI-Based Learning Recognition
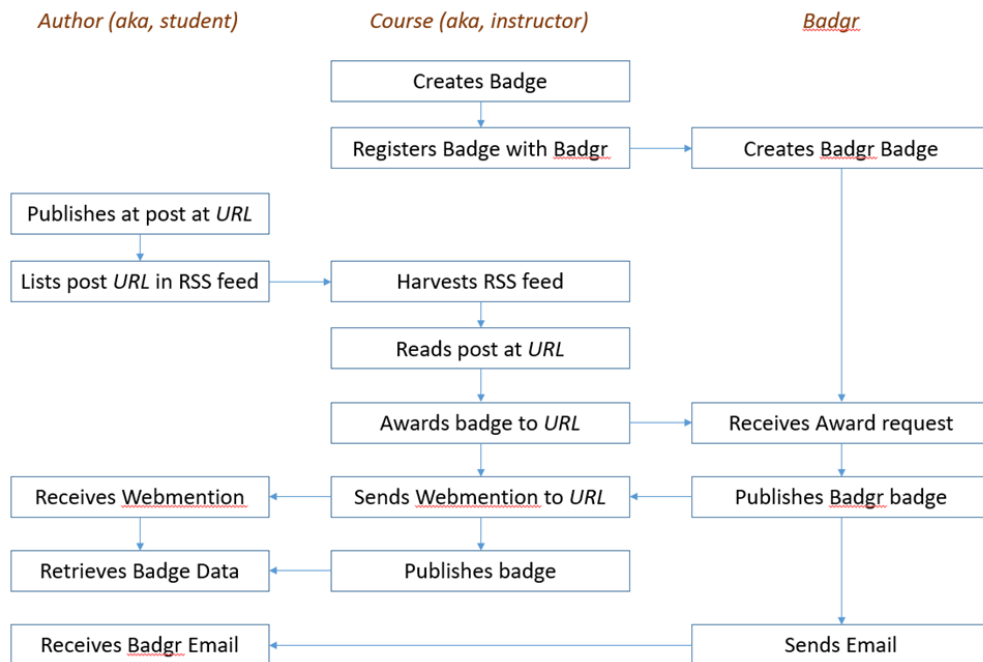
xAPI lets you capture (big) data on human performance, along with associated instructional content or performance context information…

We can also gather data *outside* the school or program, looking at actual results and feedback from the workplace.

My Digital Badge

Instructions

If you have internet access, create a free account on a Badge service (several are listed in the resources for this module). Otherwise, use this space to design your badge, clearly identifying different data elements:

- create a badge and give it a name, criteria, design
- award it to yourself or describe how it would be awarded.
- use a blog post on your blog as the 'evidence' for awarding yourself the badge
- place the badge on the blog post.

Optional

- Define how your digital badge connect to or ties in to your identity graph

Recognition: Worksheet

Data from *your* perspectives

Critical reflections

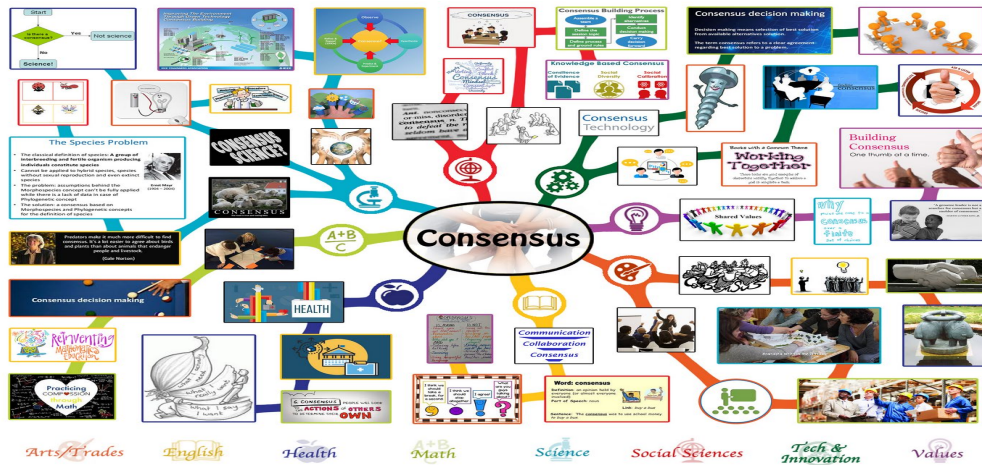|	
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Community

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What are *your* perspectives?

Community As Consensus

The mechanisms we use to interact and reach consensus are what define us as a community…

Is consensus based in work, stake, importance, authority…? What are the *conditions* for consensus?

Community: Worksheet

Community from *your* perspectives

Critical reflections

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My Community

Experience

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What are *your* perspectives?

Content and Creation Combined
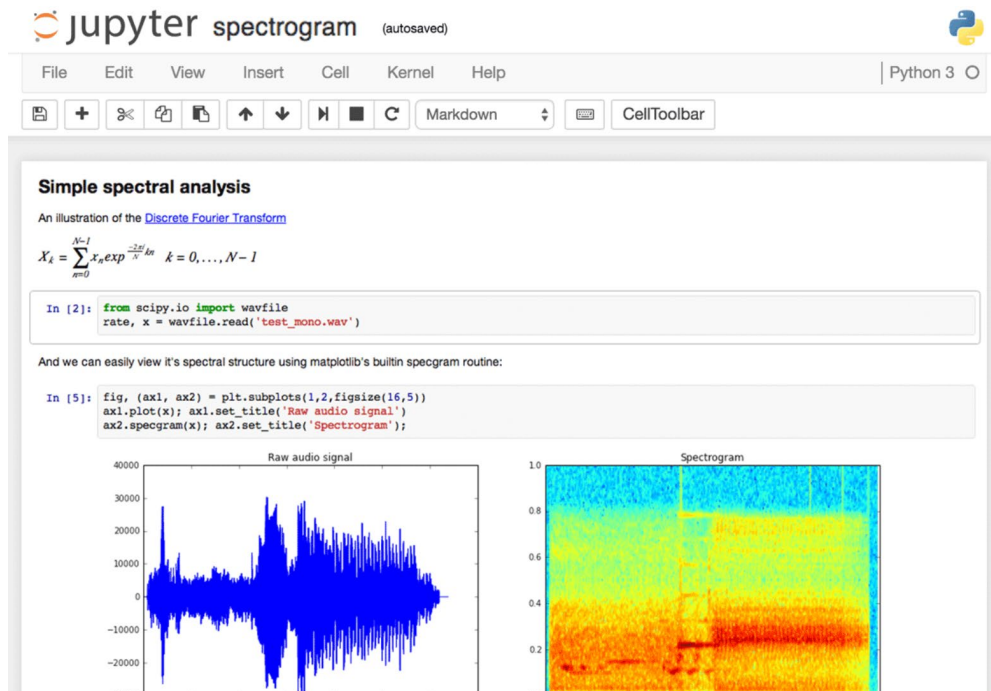
Jupyter Notebook combines data and code in a document

JupyterLab Environment - work with code, data, and the Jupyter notebook format.

Experience: Worksheet

Data from *your* perspectives

Critical reflections

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My Workshop Experience

https://www.iskysoft.com/video-editing/youtube-merge-videos.html

Instructions
- Be creative! Using the medium of your choice, create a representation of your experience of E-Learning 3.0. Then post your creation (or post a link to your creation) on your blog.
- Here's a good example of the sort of thing you could create, by Kevin Hodgeson: http://dogtrax.edublogs.org/2018/12/12/el30-a-visual-sense-of-community-connected/
- If you need inspiration, visit the DS106 Assignment Bank and select one of the assignments, and then interpret it in the light this workshop. http://assignments.ds106.us/

Agency

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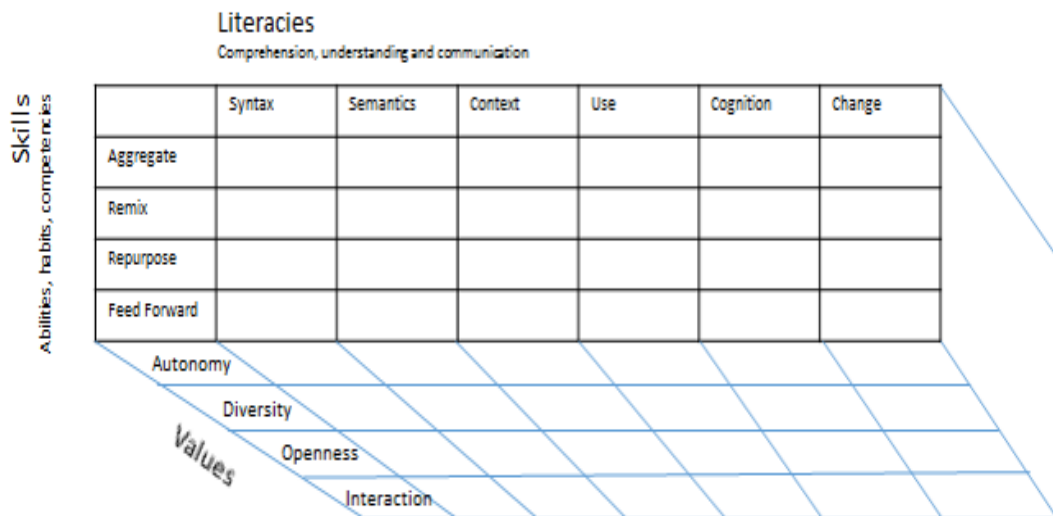| Ψ Philosophy	♤ Education
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What are *your* perspectives?

Redefining Success

Literacies
Comprehension, understanding and communication

	Syntax	Semantics	Context	Use	Cognition	Change
Aggregate						
Remix						
Repurpose						
Feed Forward						

Skills
Abilities, habits, competencies

Values
Autonomy
Diversity
Openness
Interaction

Four key outcomes for a modern distributed learning environment: security, identity, voice and opportunity.

Agency: Worksheet

Data from *your* perspectives

Critical reflections

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Actionable Practices

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