

# How to Help Students Succeed by Taking Ownership of Their Learning Online Through Personal Learning

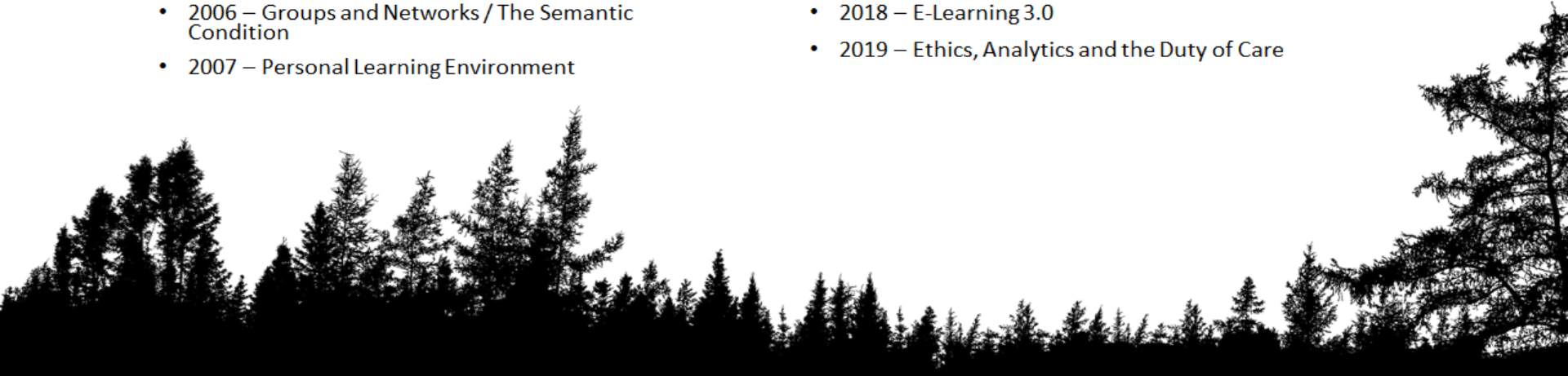
Stephen Downes  
July 29, 2020

<https://www.downes.ca/presentation/524>

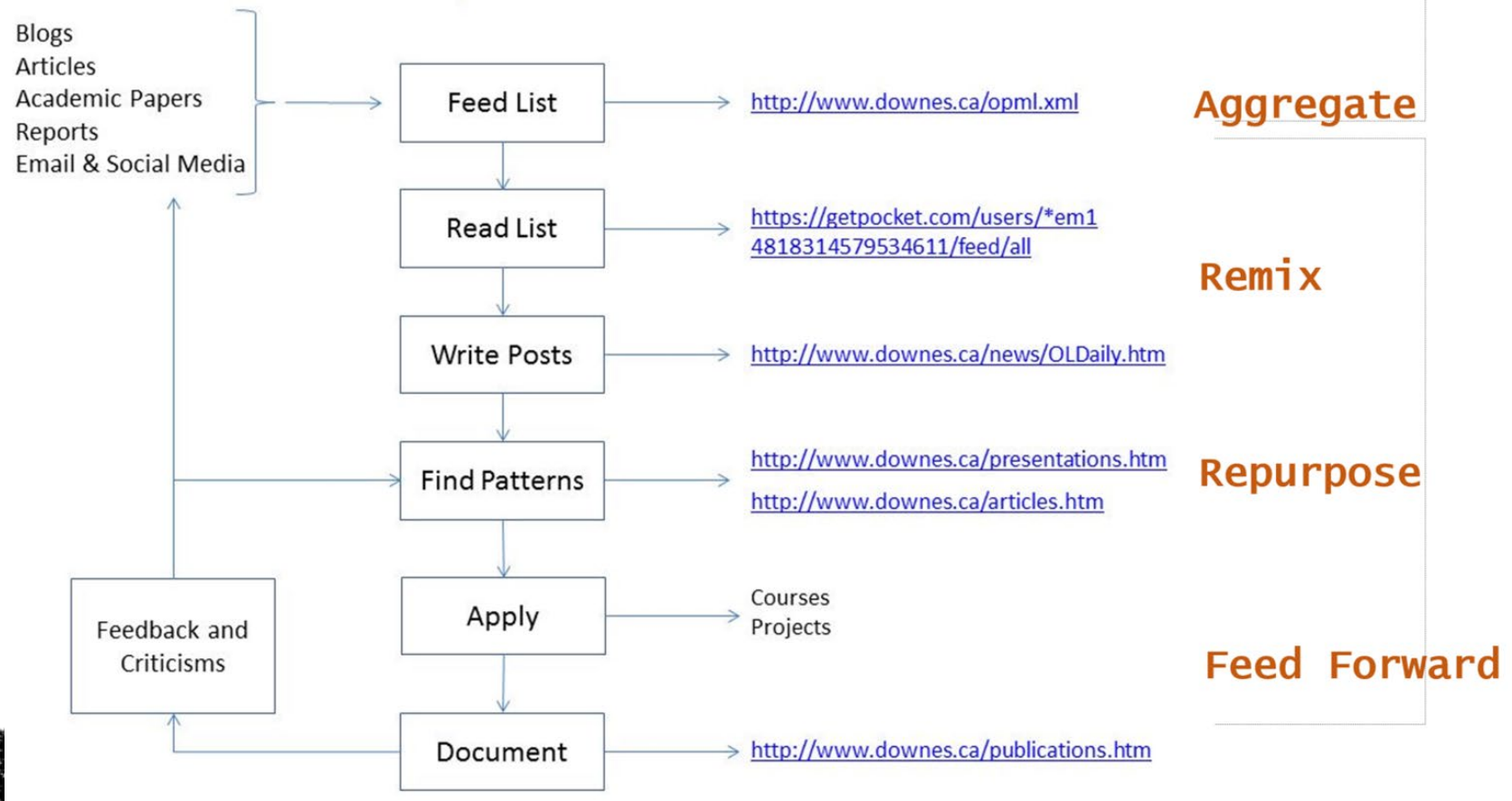


# Three Decades of Enquiry

- 1986 – Models and Modality
- 1993 – The Network Phenomenon
- 1997 – Online Learning Environment (Ole)
- 1998 – The Future of Online Learning
- 1998 – Content Syndication and Online Learning
- 2000 – Learning Objects
- 2001 – Knowledge, Learning, Community
- 2001 – From Virtual to Reality
- 2002 – The Learning Marketplace
- 2003 – E-Learning 2.0
- 2004 – Horse and Palm Tree / Reading the Signs / “We are But Stewards”
- 2004 – Connectivism and Connective Knowledge
- 2006 – Models for Sustainable OER
- 2006 – Groups and Networks / The Semantic Condition
- 2007 – Personal Learning Environment
- 2008 – Massive Open Online Courses / Open Instruction
- 2009 – Speaking in LOLcats
- 2010 – Role(s) of the Educator
- 2010 – Critical Literacies
- 2011 – Knowledge as Recognition
- 2012 – Learning and Performance Support
- 2014 – Collaboration vs Cooperation
- 2014 – Personal Learning
- 2014 – The Personal Graph
- 2015 – Design vs Environment (Outcomes vs Affordances)
- 2016 – Change Drivers and Attractors / Transformation
- 2018 – E-Learning 3.0
- 2019 – Ethics, Analytics and the Duty of Care



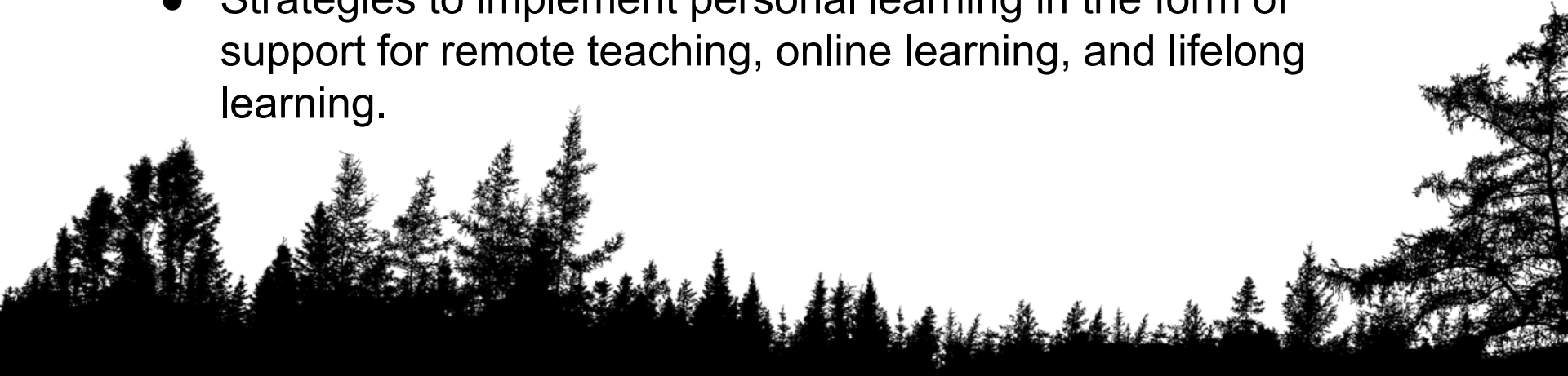
# My Research Workflow



# Takeaways for this Webinar

In this webinar, you learn:

- The difference between ‘personalized learning’ and ‘personal learning’.
- Why personal learning is the preferred concept for student success.
- Key starting points for personal learning, objectives, learning processes and forms of evaluation that best suit personal learning.
- Strategies to implement personal learning in the form of support for remote teaching, online learning, and lifelong learning.



# Topics for Discussion

1. What is personal learning?
1. Personal learning starting points
1. Supporting personal learning online

These slides will be available at:

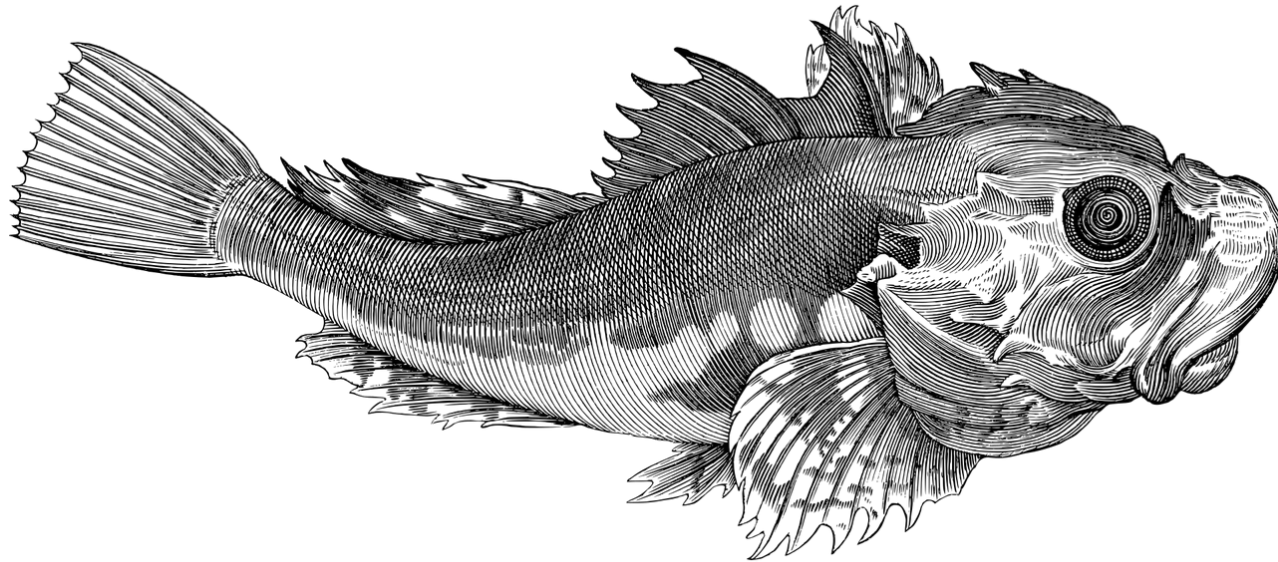
<https://www.downes.ca/presentation/524>

Silhouette Images via Gordon Johnson <https://pixabay.com/users/gdj-1086657/>

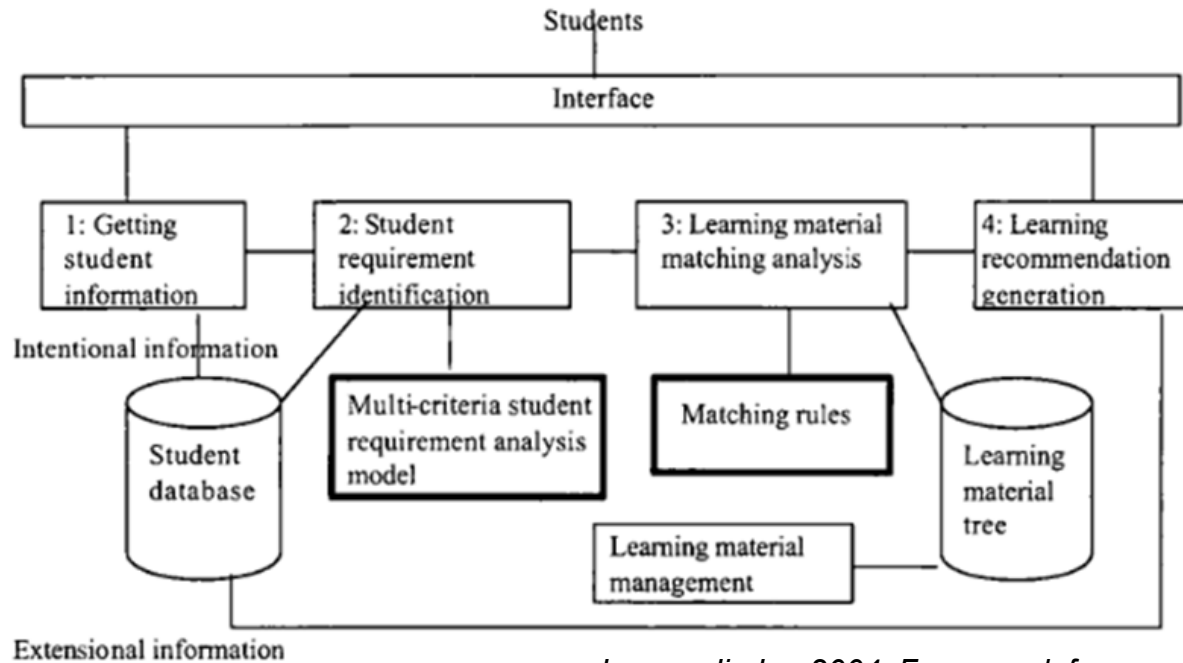




# What Is Personal Learning?



# Personalized Learning



*Image: Jie Lu, 2004. Framework for personalized learning recommender system. P. 376*

# Learning Path Recommendation

Personalized learning path recommendation

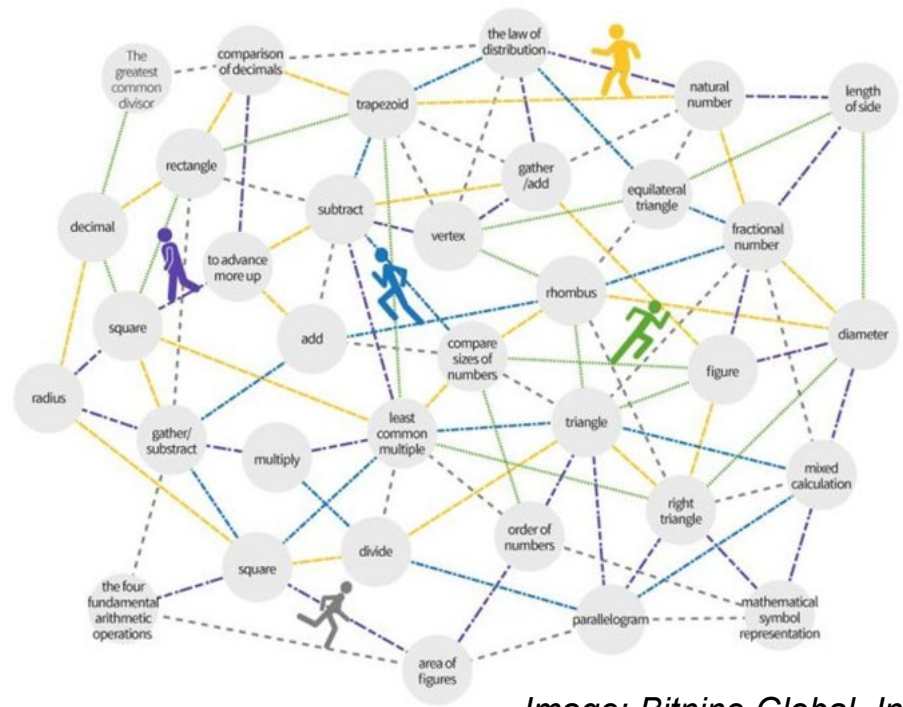


Image: Bitnine Global, Inc. (2019).  
Personalized learning path  
recommendation.

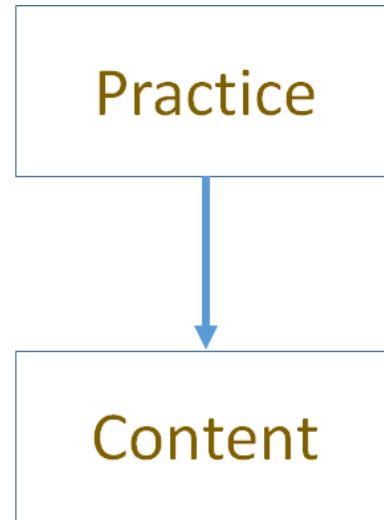
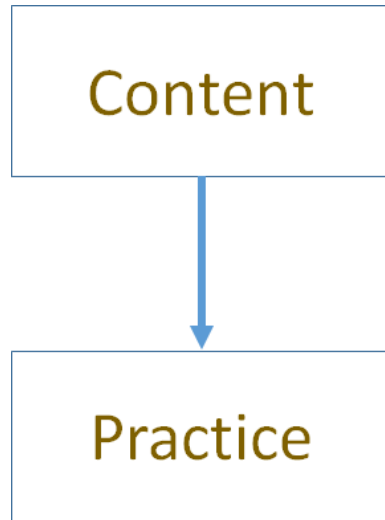


# Criticisms of Personalized Learning

- Personalized learning is ineffective
- Recommendations just aren't very good
- It's isolating and depersonalizing
- Personalized learning systems depend on surveillance and violates personal privacy



# Two Approaches



# Two Approaches

Defines an ideal state

Content



Practice

TEST

Person tests you

Defines a desired state

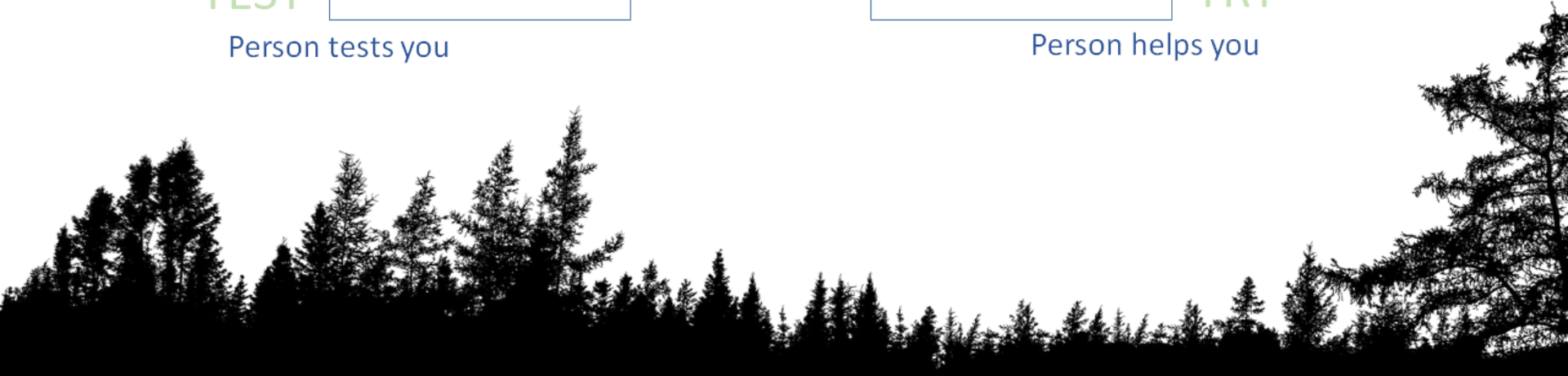
Practice



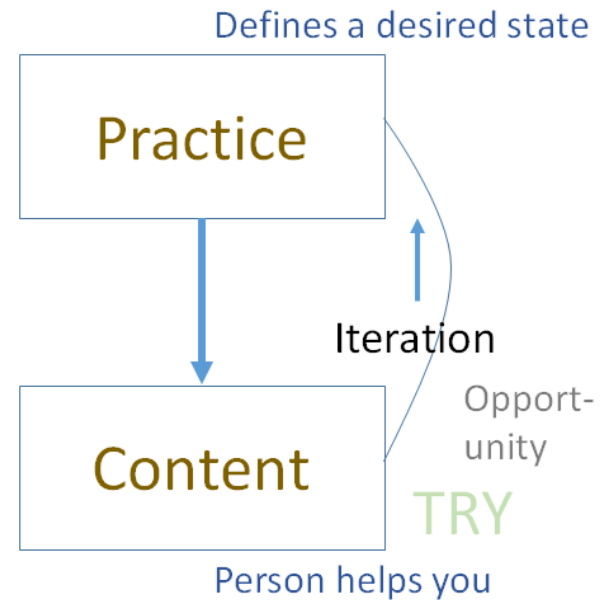
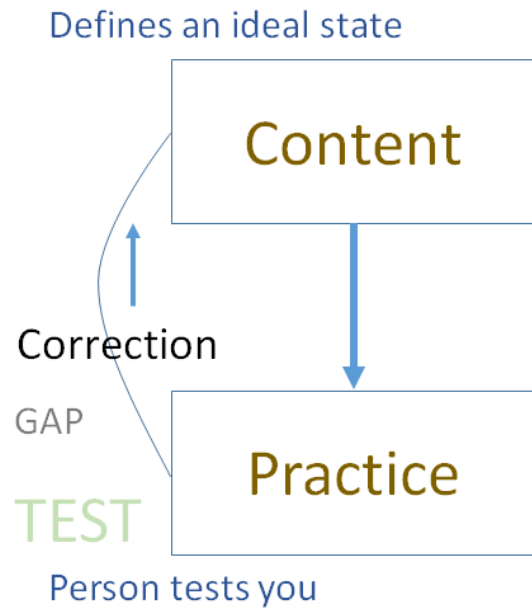
Content

TRY

Person helps you

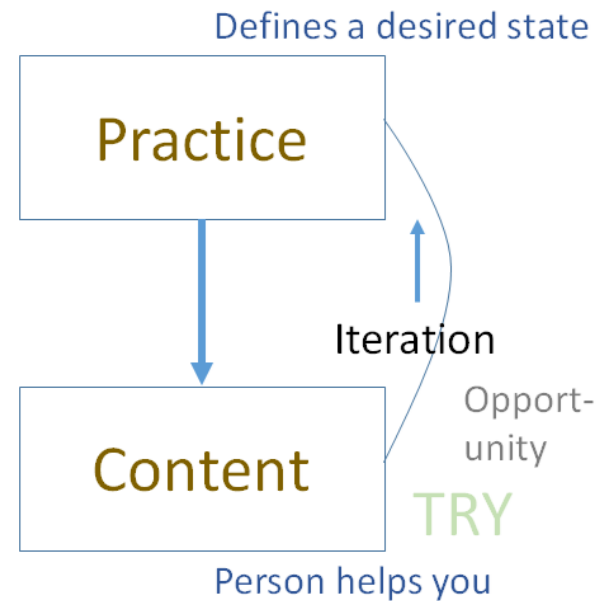
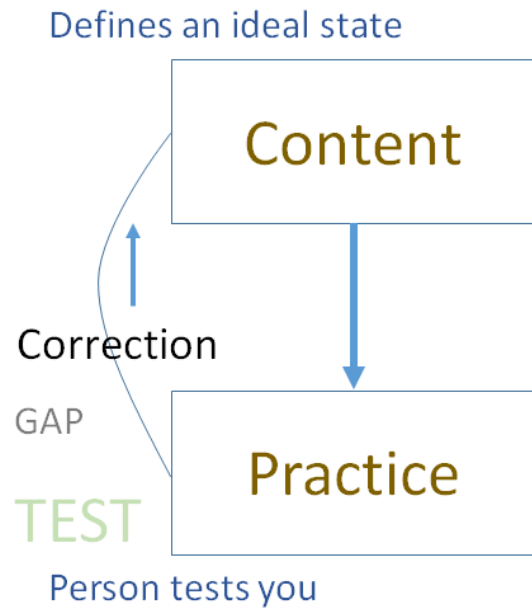


# Two Approaches





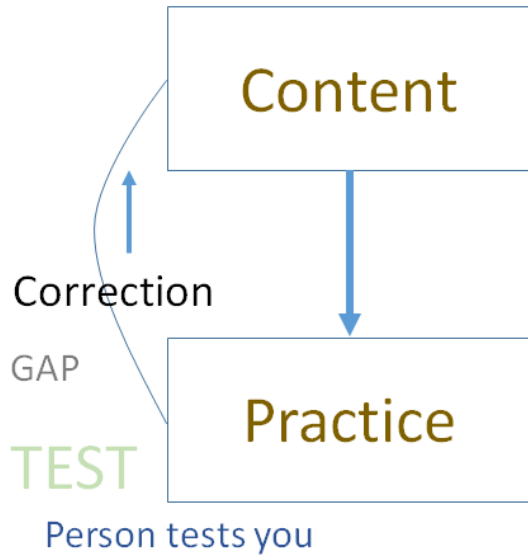
# Library Environment



# Personalized

We do for you (you consume help)

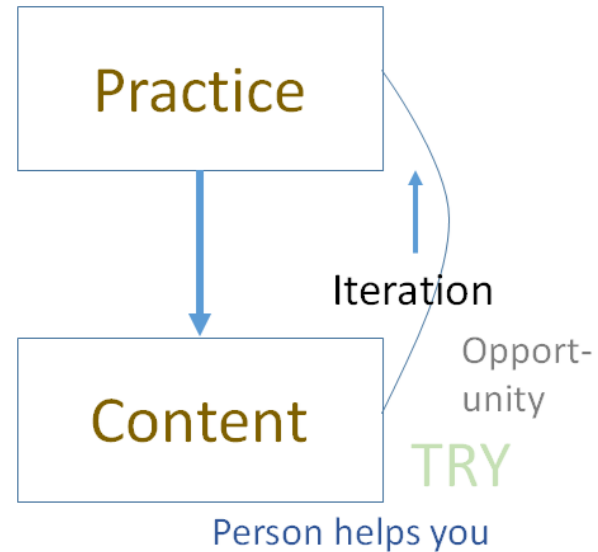
Defines an ideal state



# Personal

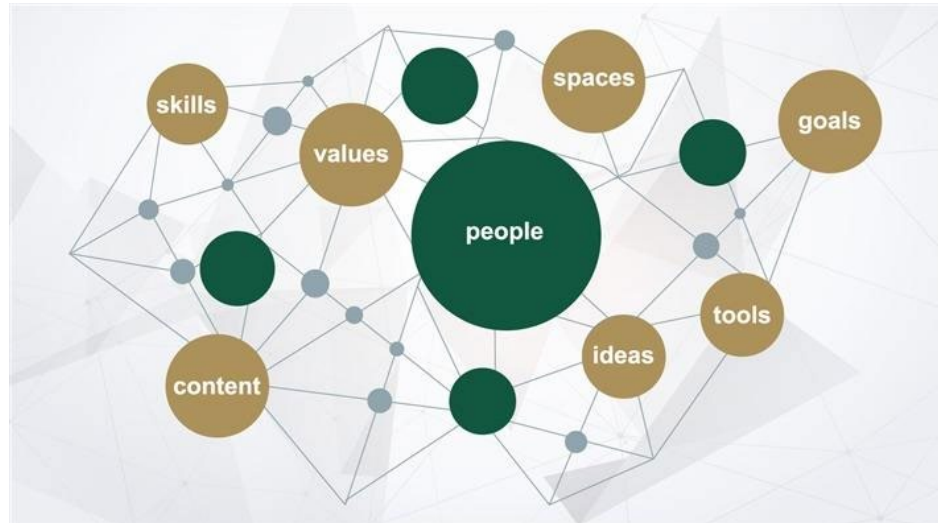
You do for yourself (we help)

Defines a desired state



# Self-Directed Learning

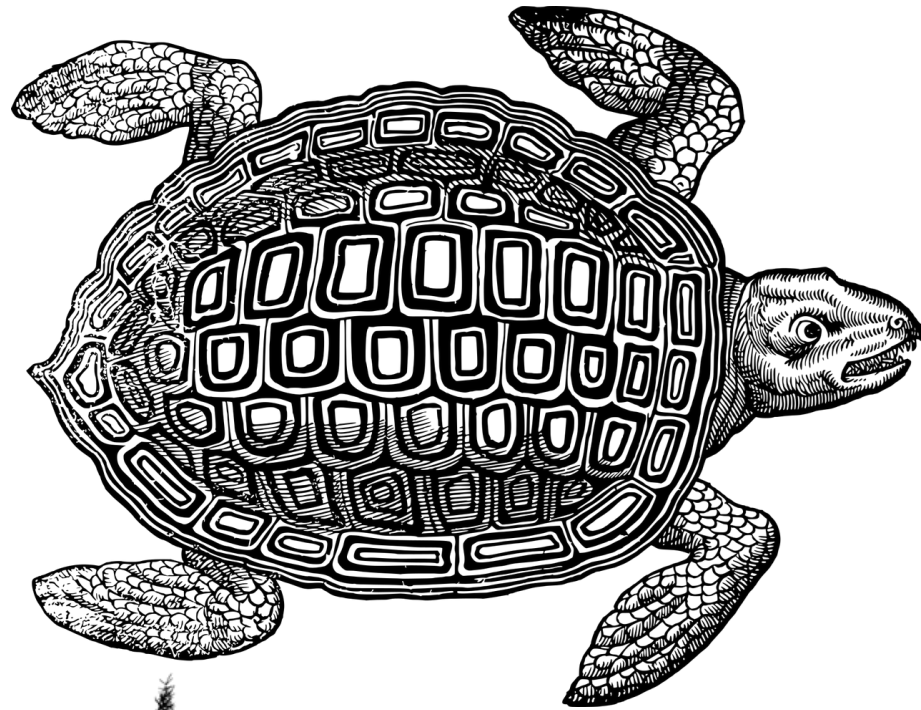
Students "will need to be self-directed in their learning. This includes making sound judgements about how much they know compared to how much they need to know, how they are progressing towards completing quality work and whether or not they need to shift strategies."



Digital learning environments, the science of learning and the relationship between the teacher and the learner. Jason M Lodge, Gregor Kennedy, L. Lockyer.

[https://www.downes.ca/files/TandS\\_Relationship\\_SoL\\_Preprint.pdf](https://www.downes.ca/files/TandS_Relationship_SoL_Preprint.pdf)

# Personal Learning Starting Points





## Items to Consider

- Learning objectives
- Learning processes
- Forms of evaluation that best suit personal learning



# Learning Objectives

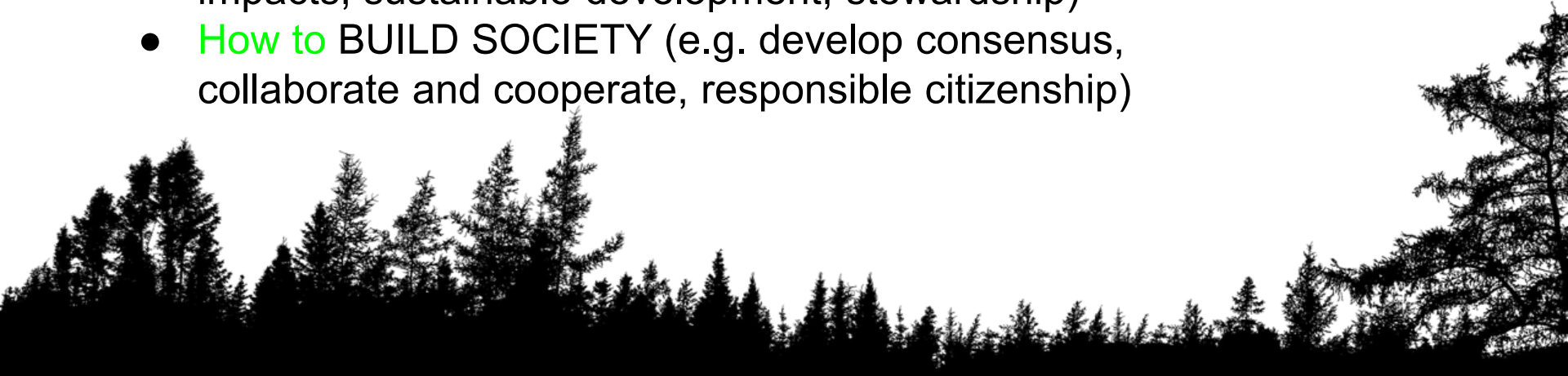
"The oft-repeated assumption that children would have to face an uncertain job market and a fast-changing world a few years from now is already amidst us," write the authors. "Today we are rightly being forced to prioritize well-being over economic growth, for ourselves and the planet."



What if Kindness Is the New Normal? A Call to Re-Imagine the Purpose of Education in the Post-COVID World. Vishal Talreja, Sucheta Bhat, Qatar Foundation. <https://www.wise-qatar.org/what-if-kindness-is-the-new-normal-a-call-to-re-imagine-the-purpose-of-education-in-the-post-covid-world/>






















# Objectives for Learners

- **How to** BUILD AWARENESS (e.g. of contexts and environments, cultures, needs, change, circumstance)
- **How to** BUILD KNOWLEDGE (e.g. of sciences and technologies, formalization, models, algorithms, etc)
- **How to** BUILD CHARACTER (e.g. purpose and value, ethics and emotional intelligence)
- **How to** BUILD JUDGMENT (e.g. recognizing and countering deception, inference and explanation)
- **How to** BUILD RESILIENCE (e.g. global challenges and their impacts, sustainable development, stewardship)
- **How to** BUILD SOCIETY (e.g. develop consensus, collaborate and cooperate, responsible citizenship)



# Objectives for Institutions

## ACE

 <h3>Adaptability</h3> <p><i>We have a responsibility to create learning experiences that can adapt for different learners and different learning contexts.</i></p>	 <h3>Connection</h3> <p><i>Our students are best-served by learning experiences positioned within relationships and real-world contexts.</i></p>	 <h3>Equity</h3> <p><i>We must strive to reach and teach every student, regardless of barriers they face.</i></p>
<h4>Flexible Deadlines</h4> <p> Assignment Level + Description</p>	<h4>The Internet As Classroom and Community</h4> <p> Assignment Level + Description</p>	<h4>UDL Baselines</h4> <p> Assignment Level + Description</p>
<h4>Student Design &amp; Choice</h4> <p> Assignment Level + Description</p>	<h4>Reduced Disposability</h4> <p> Assignment Level + Description</p>	<h4>Rethinking Fairness</h4> <p> Assignment Level + Description</p>
<h4>HiFlex Design</h4> <p> Course Level + Description</p>	<h4>Foster Classroom Community</h4> <p> Course Level + Description</p>	<h4>OER Adoption</h4> <p> Course Level + Description</p>
<h4>Module-Based Schedule</h4> <p> Course Level + Description</p>	<h4>Curriculum Linked to Context</h4> <p> Course Level + Description</p>	<h4>Basic Needs Syllabus Integration</h4> <p> Course Level + Description</p>
<h4>Flexibility through Policy</h4> <p> Institution Level + Description</p>	<h4>Supporting Instructional Design</h4> <p> Institution Level + Description</p>	<h4>Digital Divide Amelioration</h4> <p> Institution Level + Description</p>
<h4>Pedagogy-Driven Tech Adoption</h4> <p> Institution Level + Description</p>	<h4>Portals for Community Partnerships</h4> <p> Institution Level + Description</p>	<h4>Integration with Basic Needs Services</h4> <p> Institution Level + Description</p>

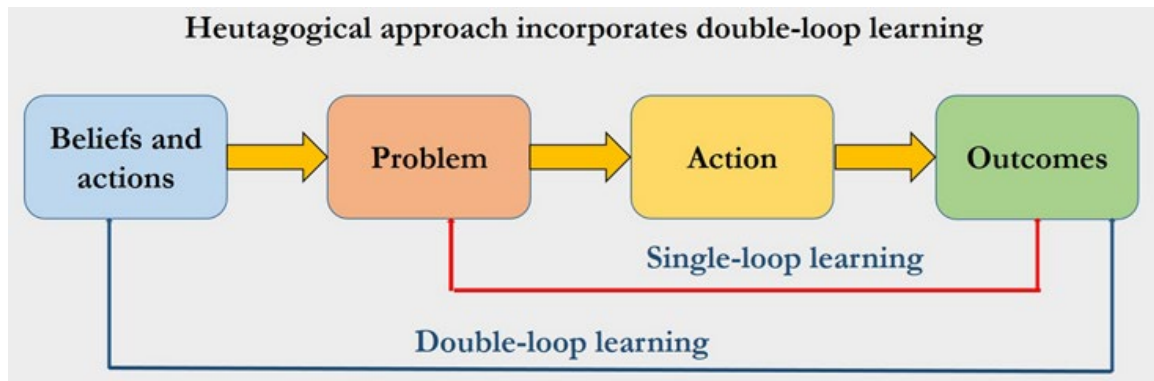
ACE-Informed Practices

ACE Framework. Robin DeRosa, Plymouth State University.  
<https://colab.plymouthcreate.net/ace/>



# Learning Processes

- Learning when the learner is ready
- Requires the learner to move beyond knowledge and
- Learner does not depend solely on the teacher
- Learning is focused on the student not on a syllabus



The principles of heutagogy as outlined in Hase and Kenyon (2013)

Image: Eachempati , et.al. Heutagogy through Facebook for the Millennial learners

<https://www.mededpublish.org/manuscripts/1268>

# Learning Processes

Of these, only the third is employed to any significant degree. Andrew Chimpololo concludes, "training institutions need to create a conducive environment where learners are provided the freedom to define their own learning paths and determine individual learning styles."

**Table 1: Examples of Heutagogical Practices**

Interdependent learning	Double- and triple-loop learning	Participation in communities of practice
Exploration to learn new things	Engagement in self-reflection	Joining and participation in online and face-to-face educational communities comprising lecturers and other experts
Discovery of new knowledge	Ability to analyse what has been learnt	Joining and participation in online and face-to-face educational communities comprising fellow learners
Engagement in research activities	Ability to analyse how new knowledge and the path to learning influences one's values and belief system	Sharing knowledge and content in educational communities
Testing hypotheses	Ability to identify learning lessons from experience	Accessing knowledge and content in educational communities
Validation of knowledge	Application of knowledge and experiences to familiar as well as novel situations	Asking questions in educational communities
Collaboration with lecturers and other learners	Ability to respond to problems and issues related to the learning environment	Responding to questions and issues in educational communities

An Analysis of Heutagogical Practices through Mobile Device Usage in a Teacher Training Programme in Malawi  
 Andrew Chimpololo, Journal of Learning for Development,  
<https://jl4d.org/index.php/ejl4d/article/view/391/485>

# Learning in Context

- Active learning
- Problem-based learning
- Case studies
- Work-integrated learning
- Design and creation

## Learning Supports

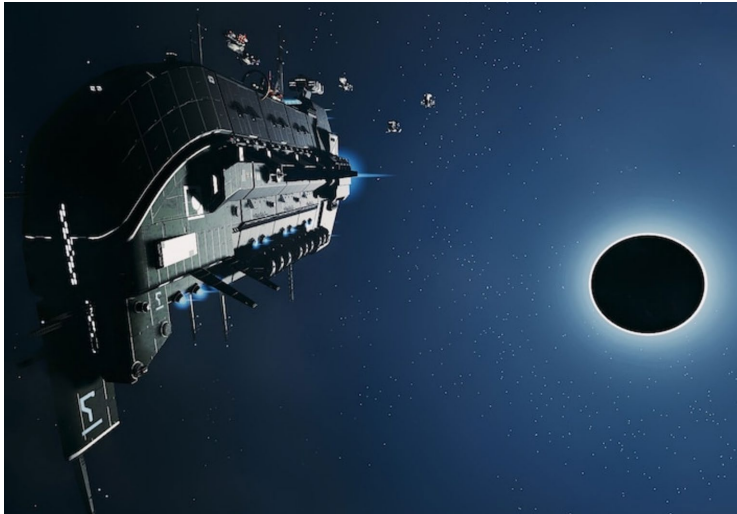
- Coaching and encouragement
- Methods, tools and models
- Access to learning resources
- Connection to community

The effect of authentic project-based learning on attitudes and career aspirations in STEM.

Margaret E. Beier, et.al.

<https://doi.org/10.1002/tea.21465>

# Learning in Context



<https://www.nomanssky.com/>



# Gaming and Simulations

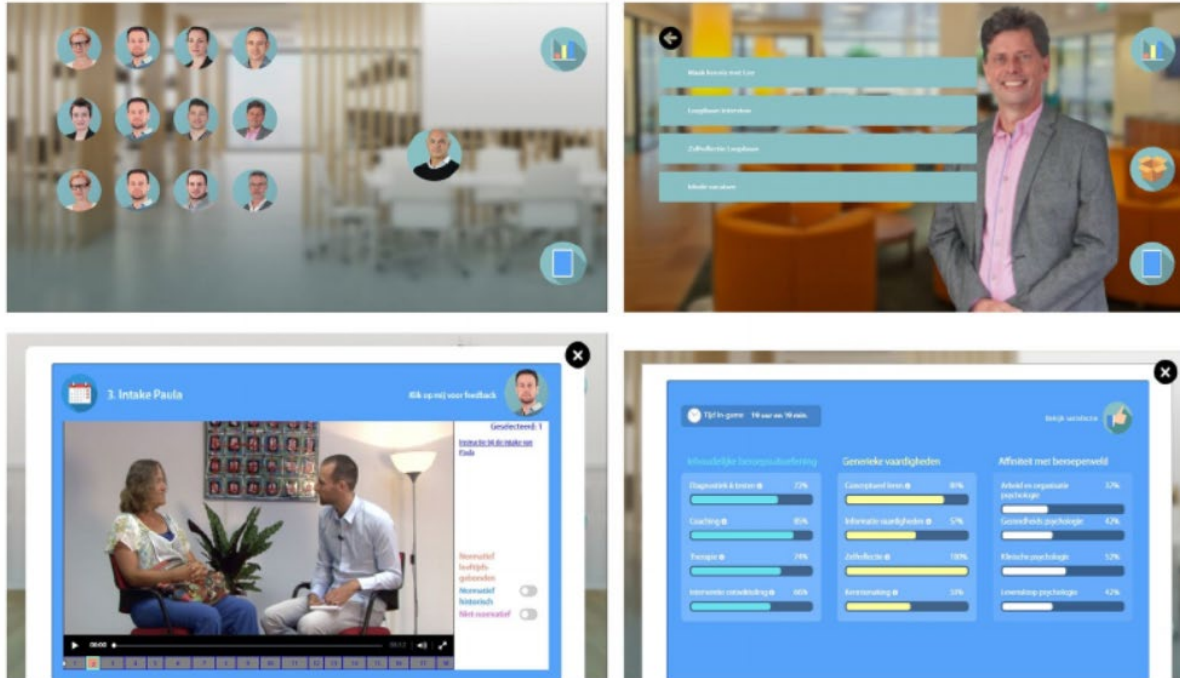


Figure 1: Screenshot from mini-games for psychology awareness

Serious game in introductory psychology for professional awareness: Optimal learner control and authenticity. Hans Hummel, BERA Blog. <https://www.bera.ac.uk/blog/the-thin-line-between-gaming-and-learning>

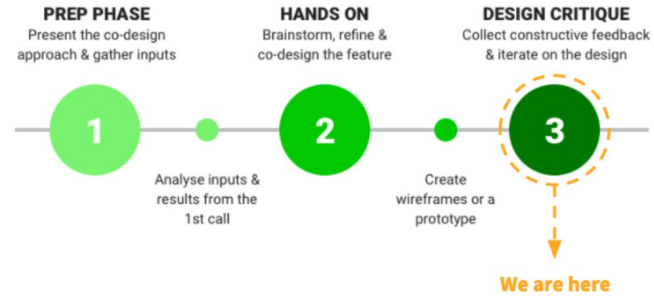


# Supporting Agency



CMSI executive director, Caty Borum Chattoo joins host Rev. Lennox Yearwood Jr., President & Founder of Hip Hop Caucus, .  
<https://mailchi.mp/american/july-2020?e=6eb0d07479>

## CO-DESIGN APPROACH



PLANET 4

The Planet 4 Co-design process — image by the P4 team

Co-design of the “Challenges”: the design critique. Magali Fatome.  
<https://medium.com/planet4/co-design-of-the-challenges-the-design-critique-a096b46b3e13>

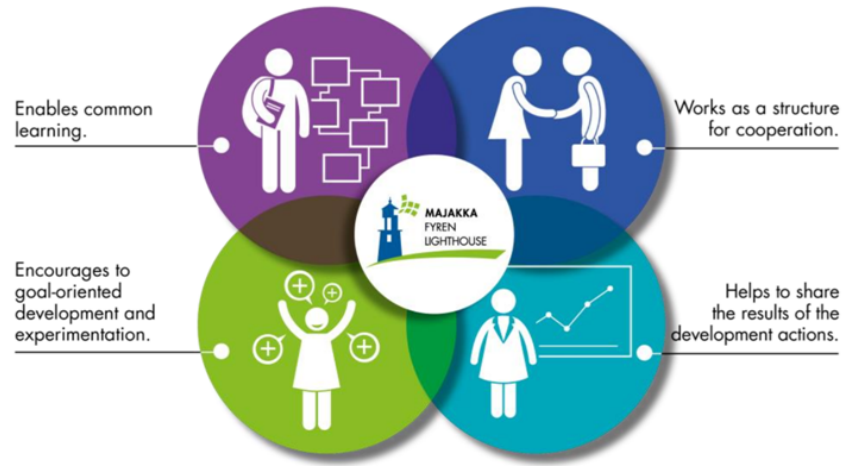
# Networks in Learning

- The major value proposition offered by top tier universities isn't knowledge. This is available anywhere.
- Nor is it even top-flight professors. Great teachers and researchers can be found in institutions large and small around the world.
- No, the value proposition is access to the network of contacts, influencers, and collaborators. Access to networks matters, and it's this gap that isn't addressed in education reform programs ignore, to the detriment of participants.



# Networks in Learning

## Aim of the network



Example: Supporting learning and cooperation between innovative schools: Finland

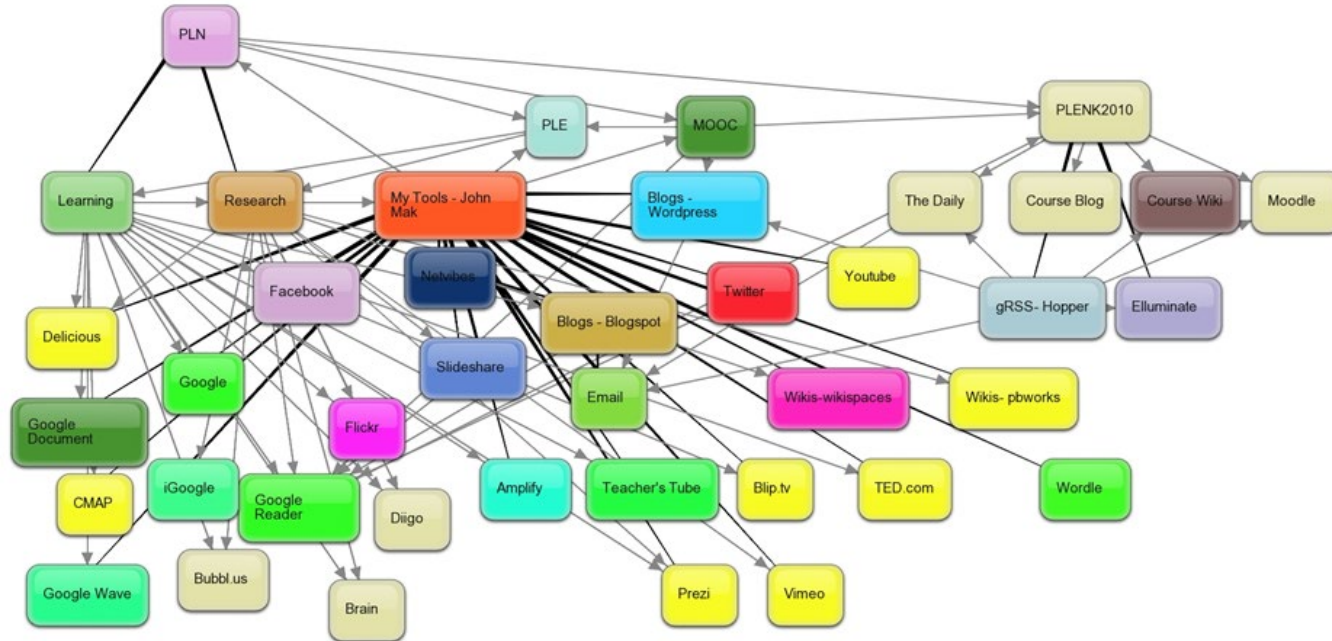
The 'Lighthouse' project is a national, developmental network that aims to: a) support and increase common learning and cooperation between schools in regional and national level; b) encourage goal-oriented development and experimentation, and c) help to share the new pedagogical approaches and innovation as a result of developmental actions

## The formal education system as a resource network feeding into the informal system

ET2020 Working Group Schools. (2018). Networks for learning and development across school education. European Commission. [https://www.schooleducationgateway.eu/downloads/Governance/2018-wgs5-networks-learning\\_en.pdf](https://www.schooleducationgateway.eu/downloads/Governance/2018-wgs5-networks-learning_en.pdf)



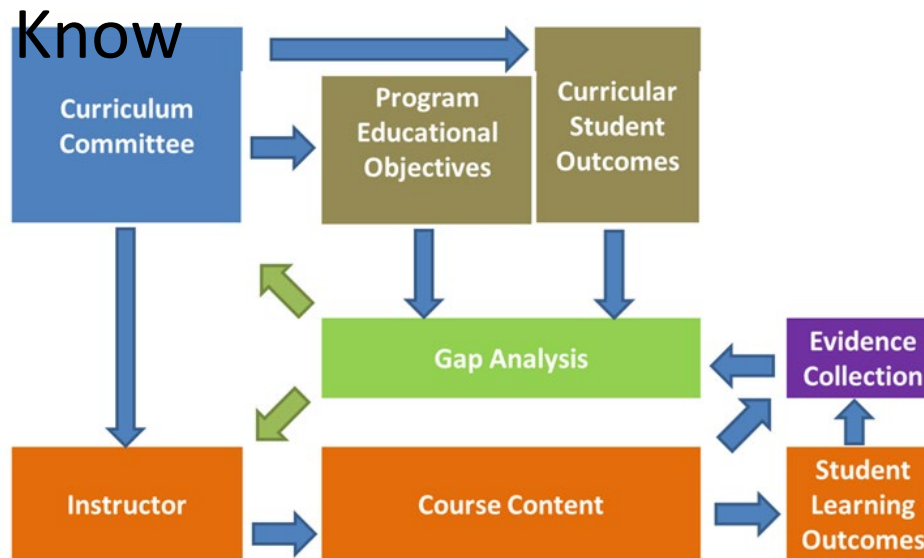
# Personal Learning Environments



Martin Weller: "Open universities across the world have been operating large scale, open, equitable learning for decades." [My response](#). I write, "*the cost of educational labour is what makes it so expensive... (but) The connectivist approach is to do whatever can be done to help students perform this labour themselves.*" <https://www.downes.ca/post/69410>

# Evaluation and Assessment

## Gap-Based Assessment - What You



Curtis, et.al. (2012). Development of evidence management and gap analysis tools for continuous improvement of engineering programs . American Society for Engineering Education. <https://images.app.goo.gl/3XXtbRZ8KPxSHuRD8>



# Evaluation and Assessment

## Iterative Assessment - What You Can Do

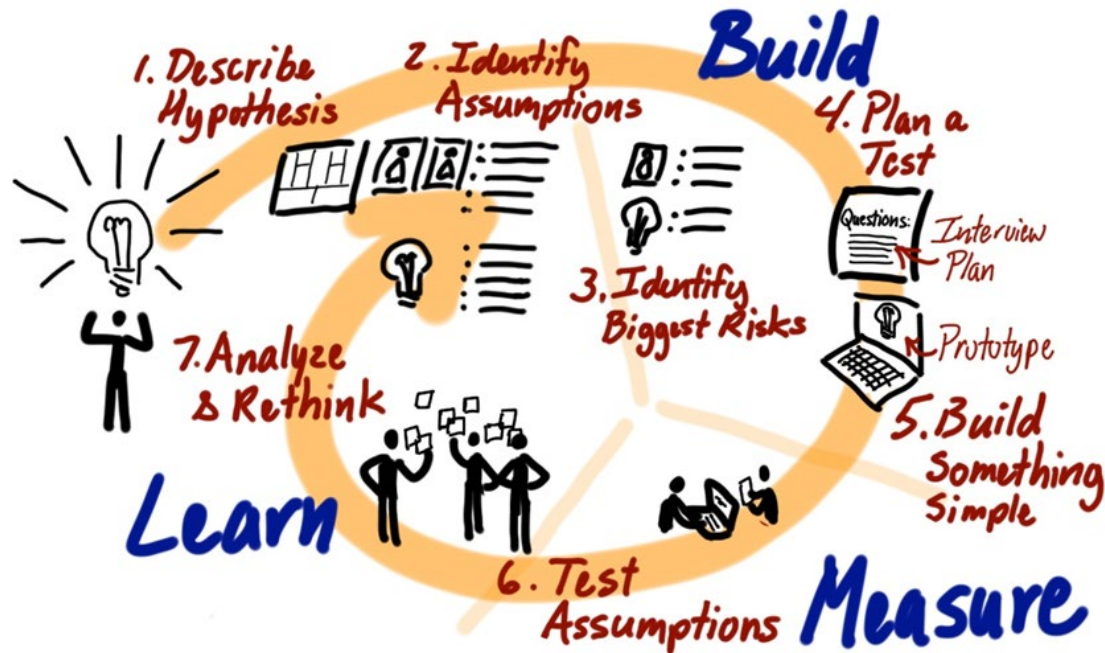


Image: Jeff Patton. (2015). Common Agile Practice Isn't for Startups.  
<https://www.jpattontassociates.com/common-agile-isnt-for-startups/>

# Evaluation and Assessment

## Assessing a physicist:

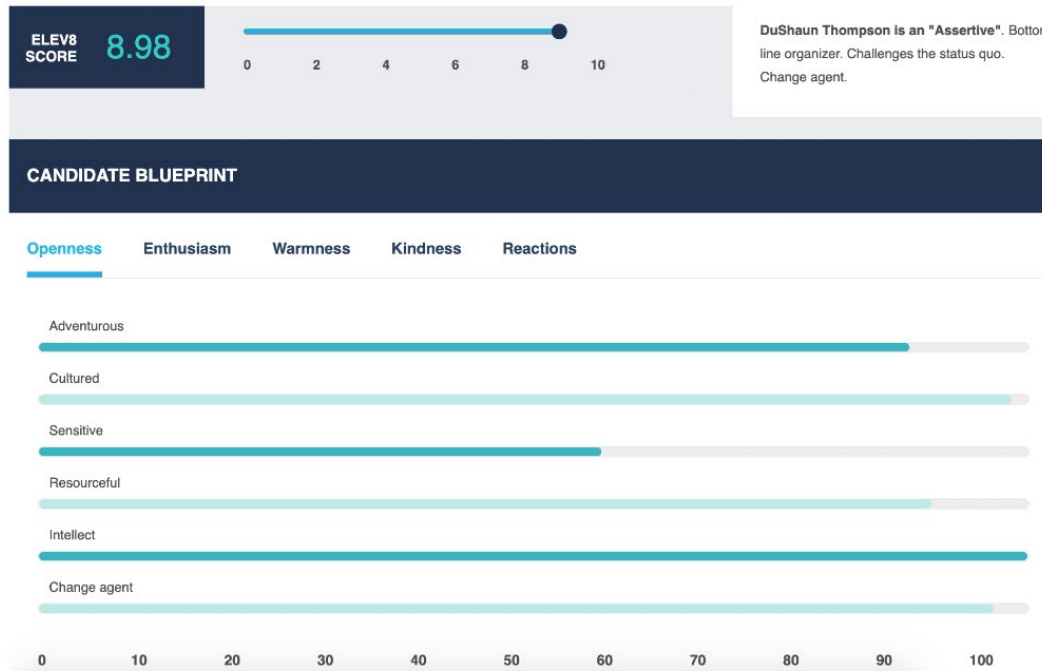
- Do they know a certain body of information

vs

- Do they see the world the way a physicist does?
- Do they ask the same sorts of questions? Use words the same way?
- Do they accept the same sort of evidence to change their beliefs?
- Can they do things physicists can do?
- Have they actually done physics and shared the results?
- Would other physicists recognize them as a physicist?

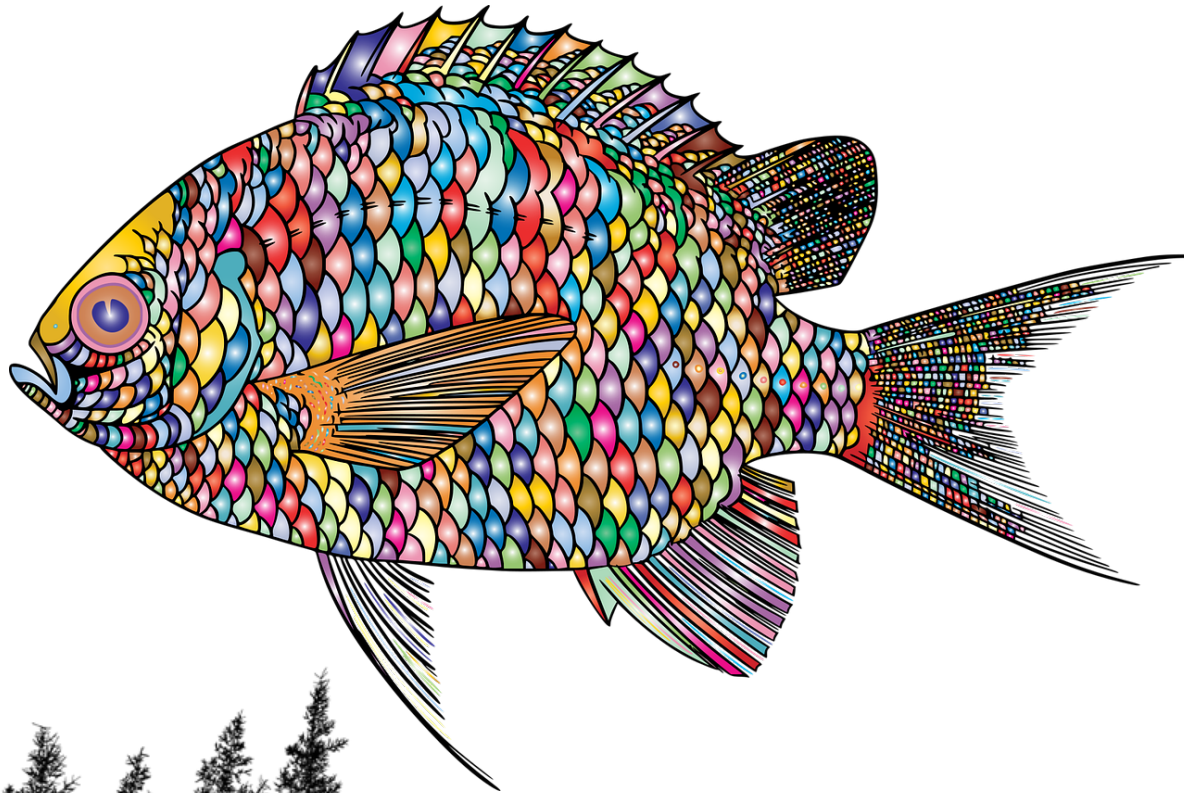


# Algorithmic Assessment



Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices  
Manish Raghavan, Solon Barocas, Jon Kleinberg, Karen Levy, arXiv, Nov 23, 2019 <https://arxiv.org/pdf/1906.09208.pdf>

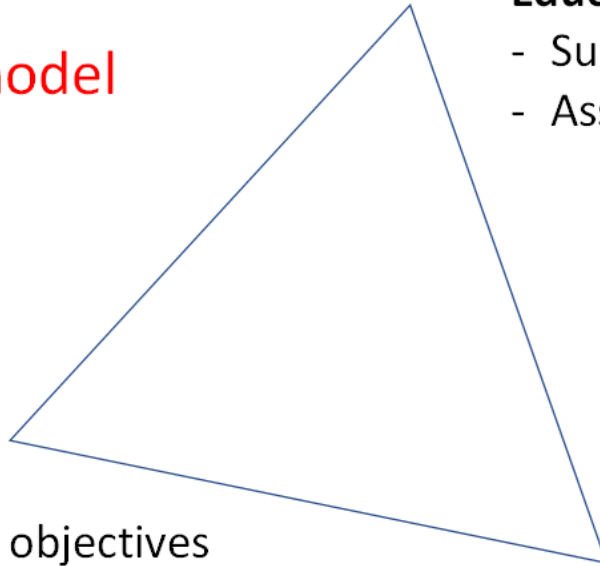
# Supporting Personal Learning Online





# Online Host-Provider Framework

## Triad model



### Learner

- Sets own objectives
- Selects learning resources

### Education Provider

- Subject Matter Experts
- Assessment services

### Host

- Local to learner
- Advocacy for learner
- Coaching and support
- Community



# Online Host-Provider Framework

Aboriginal Financial Officers Association of Alberta and Athabasca University's BComm project

- “we assembled an instructional team including the professor and the indigenous mentor (Robert in this case). And we created a psychologically safe environment, away from the 'norm', an off-site location where the mentor and professor could come together with the students so they could create a learning community.”

<https://business.athabascau.ca/news/creating-opportunities-for-indigenous-learners/>

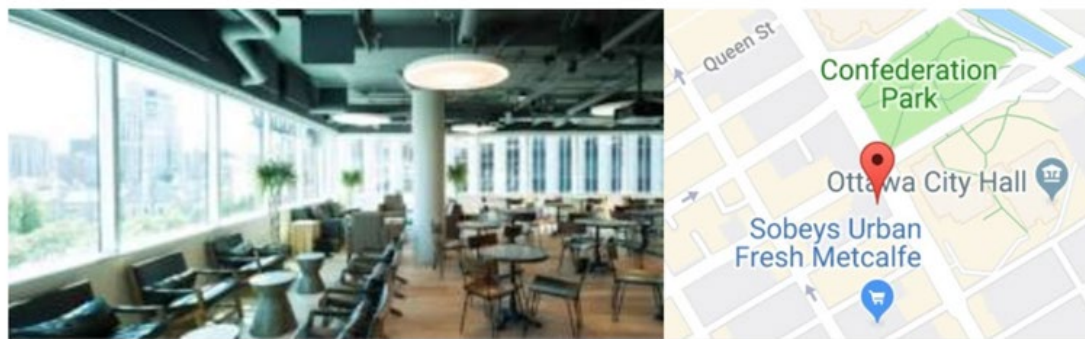
<https://halfanhour.blogspot.com/2019/10/teaching-and-learning-in-digital-age.html>



# Online Host-Provider Framework

## Community Learning Centres

29 OCT. WTD Ottawa Shopify Meetup



- Save event
- More Info
- Directions
- Share

Image: Google Events  
<https://www.google.com/search?client=firefox-b-d&q=shopify+ottawa+meetups&ibp=html;events>

# Online Host-Provider Framework



[https://studio-members.staples.ca/public/calendar?rate.\\$ne=null](https://studio-members.staples.ca/public/calendar?rate.$ne=null)





# Education Providers...

## Intergenerational Learning

Example: NRC IRAP YEP - Youth Employment Strategy Programs

Approximately 2,400 graduates received a YEP internship worth \$15K - \$30K on average, between 2006-07 and 2010-11.

<https://nrc.canada.ca/en/support-technology-innovation/nrc-irap-funding-hire-young-graduates>

Via: <https://guides.co/g/your-ultimate-guide-to-innovation-funding-western-canadian-edition/25744>



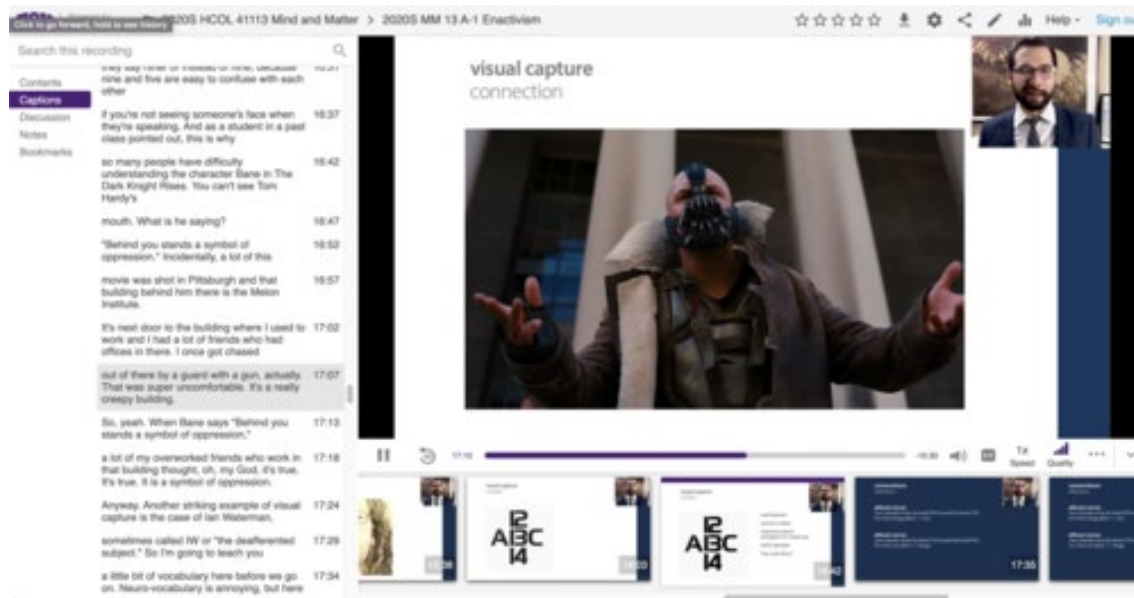
Image:

Imagined by a GAN ([generative adversarial network](#)) [StyleGAN](#) (Dec 2018) - [Karras](#) et al. and Nvidia [Original GAN](#) (2014) - [Goodfellow](#) et al.

<https://thispersondoesnotexist.com/>

# Education Providers...

## Teaching from Home



Creating an Online Community, Class or Conference - Quick Tech Guide

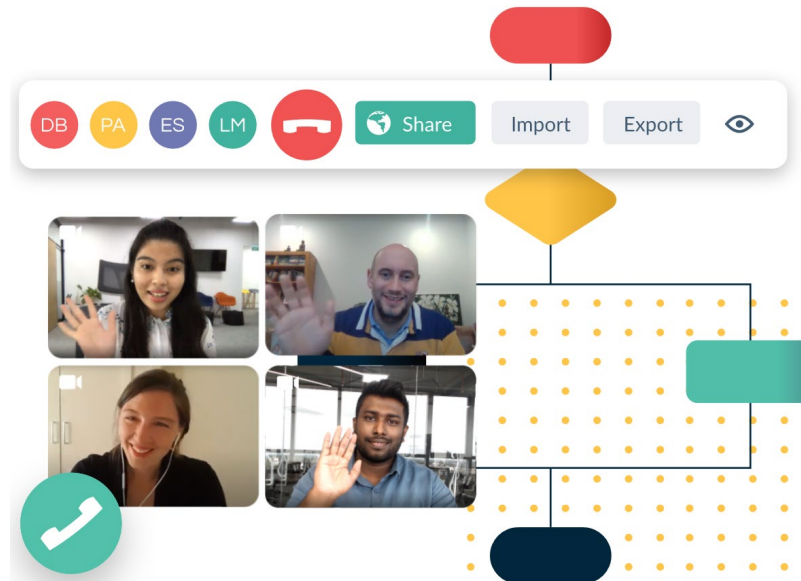
- <http://bit.ly/quicktechguide>



# Education Providers...

## Collaborative Tools

For example, [Creately](https://creately.com/), a web-based tool that allows users to collaboratively create designs using a common interface.



<https://creately.com/>

# Education Providers...

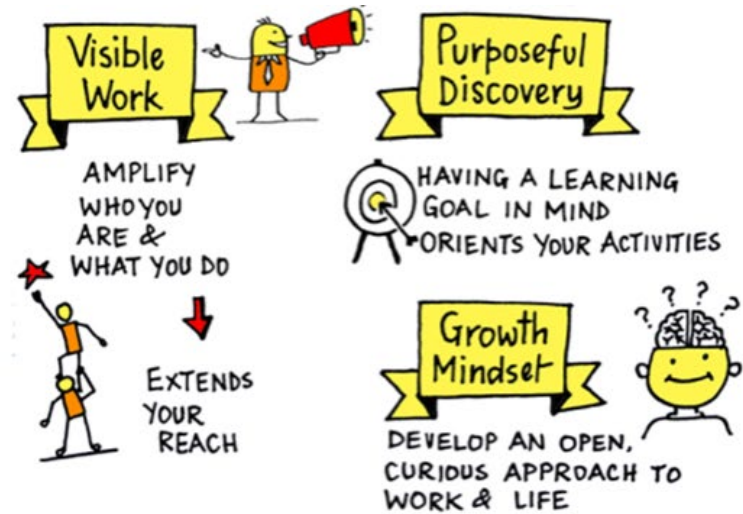
## FIVE ELEMENTS of WORKING OUT LOUD

John Stepper

Relationships  
ARE AT THE HEART  
OF WOL

THE PATH TO  
KNOWLEDGE IS  
VIA OTHERS

Generosity  
WE ARE  
WIRED FOR  
RECIPROCAL  
ALTRUISM  
THE CURRENCY OF REAL  
NETWORKING IS GENEROSITY



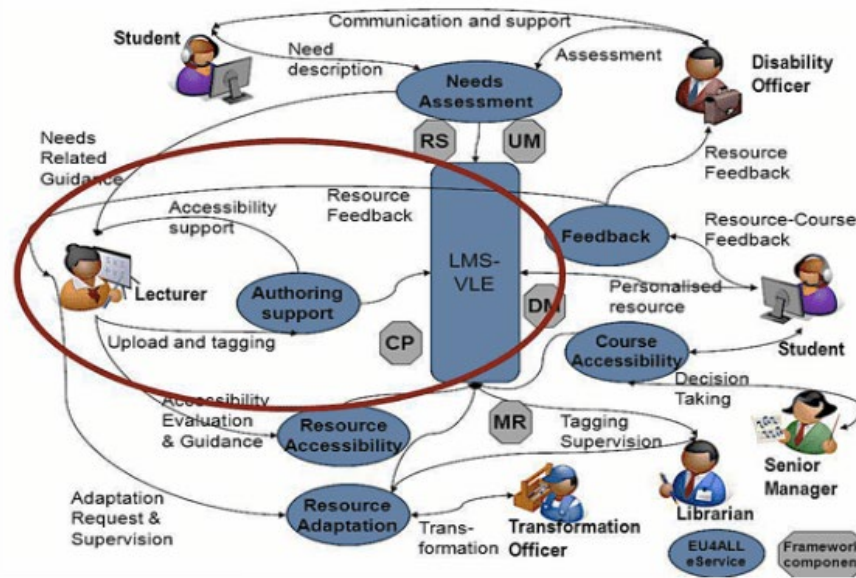
Sketchnote by: Tanmay Vora | @tnvora | QAspire.com

Image: <https://workingoutloud.com/about-2>

# Education Providers...

## OERs

Support for community in the development, discovery, use and sharing of open educational resources



<sup>2</sup> <https://www.tecnologiasaccesibles.com/es/proyectos/eu4all>.

<sup>3</sup> <https://www.uned.es/universidad/inicio.html>.

Accessible Open Educational Resources and Librarian Involvement  
Silvana Temesio, International Journal of Open Educational  
Resources. <https://www.ijoer.org/accessible-open-educational-resources-and-librarian-involvement/>



# Education Providers...

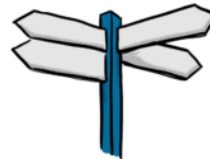
*an architecture of participation*



CLEAR MISSION



INVITATION TO PARTICIPATE



EASY ONBOARDING



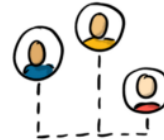
MODULAR APPROACH



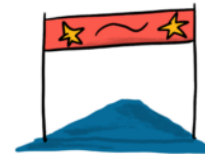
STRONG LEADERSHIP



WAYS OF WORKING OPEN



BACKCHANNELS & WATERCOOLERS



CELEBRATION OF MILESTONES



Doug Belshaw - <https://blog.weareopen.coop/howto-create-an-architecture-of-participation-for-your-open-source-project-a38386c69fa5>



# Stephen Downes

<https://www.downes.ca>

