

PERSONAL LEARNING: TAKING OWNERSHIP OF LEARNING ONLINE

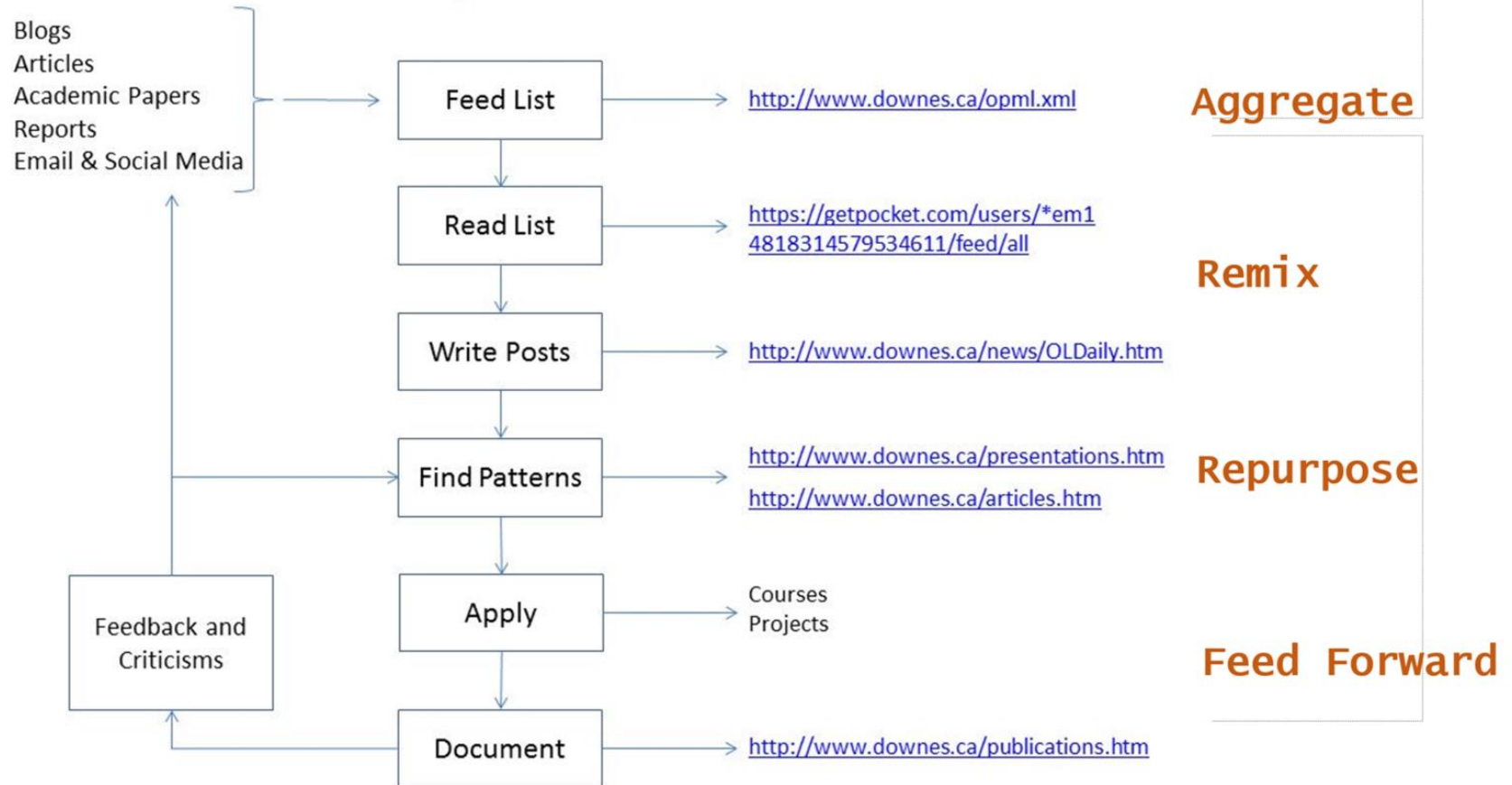
Stephen Downes
August 27, 2020

<https://www.downes.ca/presentation/525>

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 Instructon
- 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 - Practical

1. What are relevance, usability, interactivity?
2. Starting points
3. Supporting them when they're not supported (a.k.a. Geurilla Tactics)

These slides will be available at:

<https://www.downes.ca/presentation/525>

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

Topics for Discussion - Theory

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

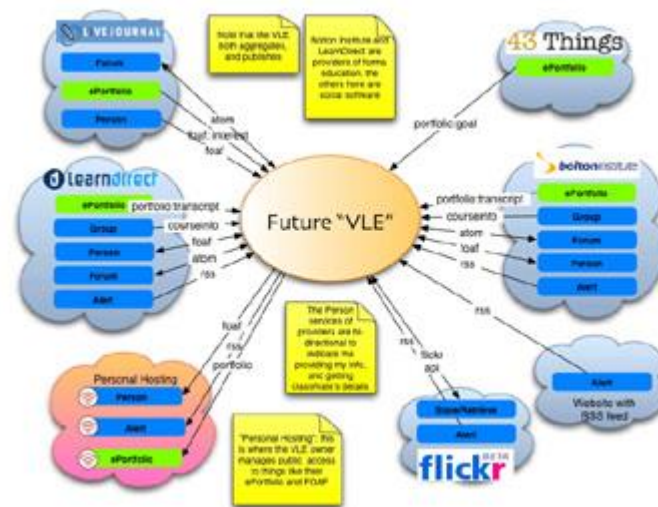
These slides will be available at:

<https://www.downes.ca/presentation/5245>

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

Three Principles:

- Interaction – participation in a learning community (or a community of practice)



Three Principles:

- *Usability* – simplicity and consistency



Three Principles:

- *Relevance* – or *salience*, that is, learning that is relevant to you, now





Interaction:

“... the capacity to communicate with other people interested in the same topic or using the same online resource.”

- Why do we want it?
 - **Human contact** ... *talk to me...*
 - **Human content** ... *teach me...*

Interaction: How to Get It

- You cannot depend on traditional learning for interactivity...
 - Most learning based on the broadcast model
 - Most interactivity separated from learning



Interaction: How to Get It

- Built your own interaction network
 - Place yourself, not the content, at the centre



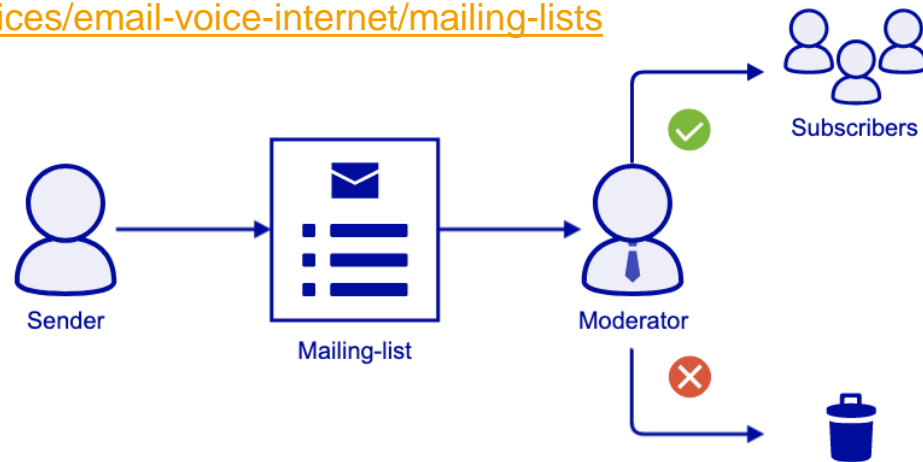
Interaction: Your Personal Network

- Email and mailing lists

- Google Groups

- Institutional Lists

<https://it.ubc.ca/services/email-voice-internet/mailling-lists>



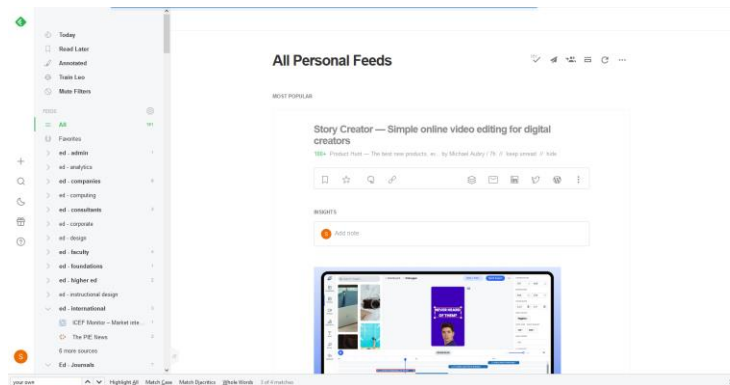
Interaction: Your Personal Network

- **Blogging** – reading your subscriptions, leaving comments, longer responses in your own blog
 - Wordpress
 - Edublogs
 - Blogger

Interaction: Your Personal Network

- Personal communication – instant messaging, Skype
- Social Networks – Twitter, Mastodon
- RSS – Feedly

<https://feedly.com>



Interaction: Principles

- Pull is better than push...
- Speak in your own (genuine) voice (and listen for authenticity)
- Share your knowledge, your experiences, your opinions
- Make it a habit and a priority



Interaction: Guerilla Tactics

- If interaction isn't provided, create it...
 - Eg., if you are at a lecture like this, blog it



Interaction: Guerilla Tactics

- If your software doesn't support interaction, add it
 - Eg., embed Javascript comment, RSS in LMS pages



Interaction: Guerilla Tactics

- Use back-channels
 - Private lists, Gmail accounts,
 - Flickr, IM, more...



Usability:

“... probably the greatest usability experts are found in the design labs of Google and Yahoo!”

- Elements of Usability
 - **Consistency** ... *I know what to expect...*
 - **Simplicity** ... *I can understand how it works...*

Consistency? As a Learner?

- Yes! Take charge of your learning...



Consistency? As a Learner?

- Clarify first principles...
 - for example, how do you understand learning theory? Eg. [Five Instructional Design Principles Worth Revisiting](#)



Consistency? As a Learner?

- Organize your knowledge
 - For example, build your own CMS (using, say, Drupal)

Simplify the Message

- Summarize, summarize, summarize
 - (and then put it into your own knowledge base)

Simplify the Message

- Use your own vocabulary, examples
 - You own your language – don't let academics and (especially) vendors tell you what jargon to use

Simplify the Message

- Don't compartmentalize (needlessly)

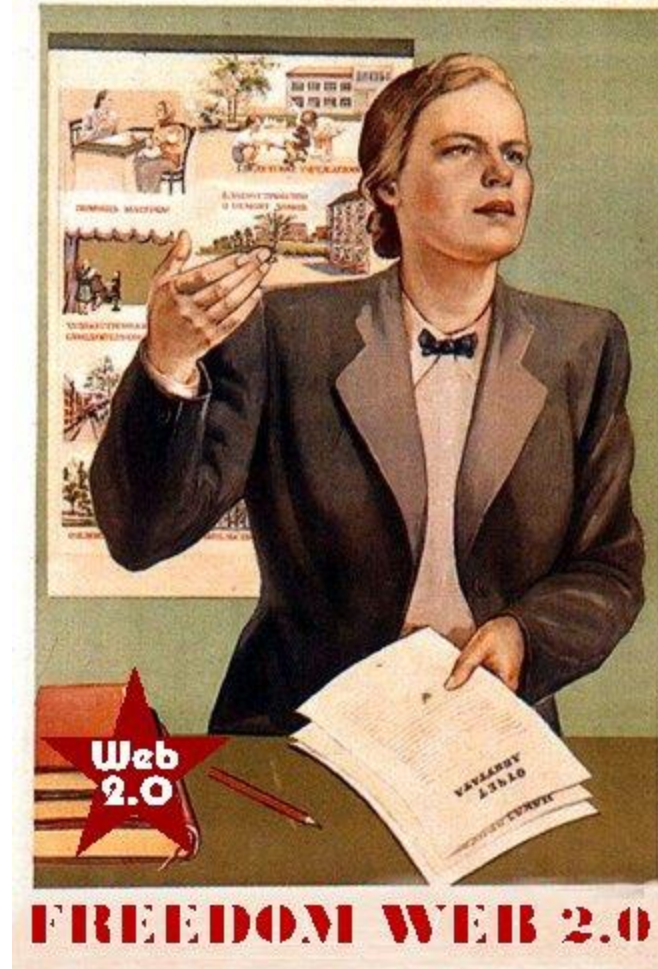


Usability: Principles

- Usability is Social:
 - Can you search your own learning?
 - Do you represent similar things in similar ways?
- Usability is Personal:
 - Listen to yourself
 - Be reflective – eg., is your desktop working for you?

Usability: Guerilla Tactics

- Important: your institutional CMS is almost certainly dysfunctional – create your own *distributed* knowledge management system...



Usability: Guerilla Tactics

- Create a blog on Blogger, just to take notes



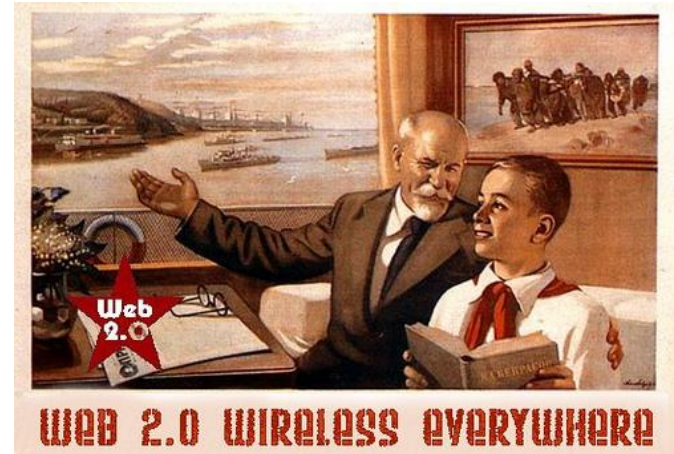
Usability: Guerilla Tactics

- Store photos on Flickr



Usability: Guerilla Tactics

- Create a GMail account and forward important emails to yourself (and take advantage of Google's search)



Usability: Guerilla Tactics

- (Maybe) use Google desktop search

Relevance:

“... learners should get what they want, when they want it, and where they want it “

- *Generating Relevance*

- **Content** ... *getting what you want*

- **Location, location, location...**

Getting What You Want

- Step One: maximize your sources – today's best bet is RSS – go to www.google.com/reader, set up an account, and search for topics of interest

Getting What You Want

- Step Two: filter ruthlessly – if you don't need it now, delete it (it will be online somewhere should you need it later)

Getting What You Want

- *Important*: Don't let someone else dictate your information priorities – only you know what speaks to you



Getting It Where (and When) You Want

- Shun formal classes and sessions in favour of informal activities



Getting It Where (and When) You Want

- Do connect to your work at home (and even on vacation) – *but* – feel free to sleep at the office
 - Most work environments are dysfunctional
 - Your best time might not be 9 to 5 ...
 - Ideas (and learning) happen when they happen

Principles of Relevance

- Information is a flow, not a collection of objects
 - Don't worry about remembering, worry about repeated exposure to good information
- Relevance is defined by function, not topic or category
- Information is relevant only if it is available where it is needed

Relevance: Guerilla Tactics

- Develop unofficial channels of information (and disregard most of the official ones)



Relevance: Guerilla Tactics

- For example, I scan, then delete, almost all institutional emails (and everything from the director)

Relevance: Guerilla Tactics

- Create 'project pages' on your wiki (you have a wiki, right?) with links to templates, forms, etc.



Relevance: Guerilla Tactics

- Demand access



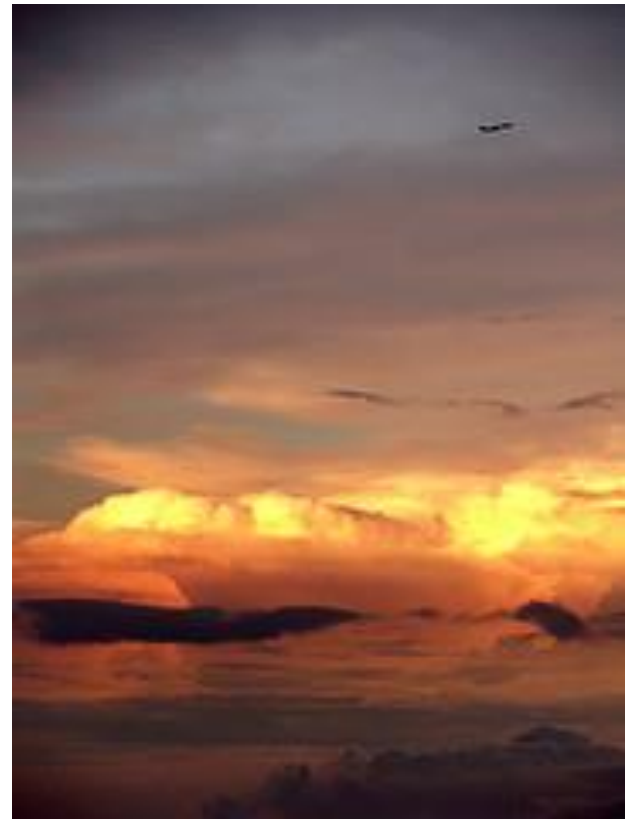
What I'm Really Saying Here...

1. You are at the centre of your own *personal learning network*



What I'm Really Saying Here...

2. To gain from self-directed learning
you must *be self-directed*



What I'm Really Saying Here...

3. These principles should guide *how we teach* as well as how we learn



What Is Personal Learning?



Personalized Learning

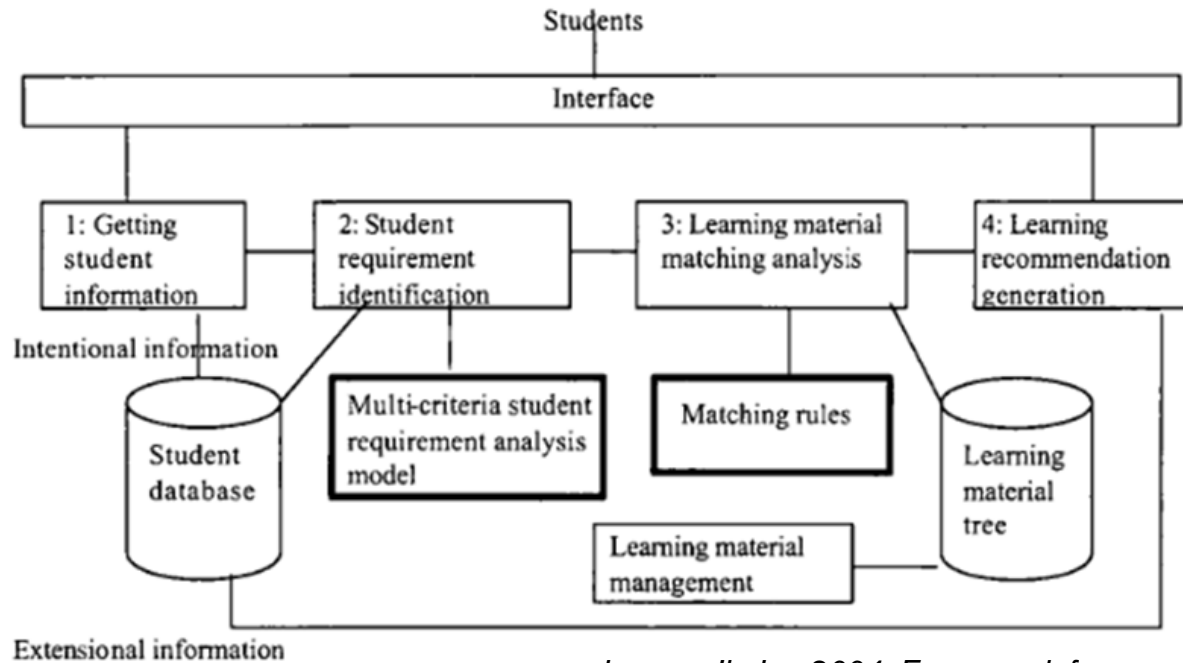
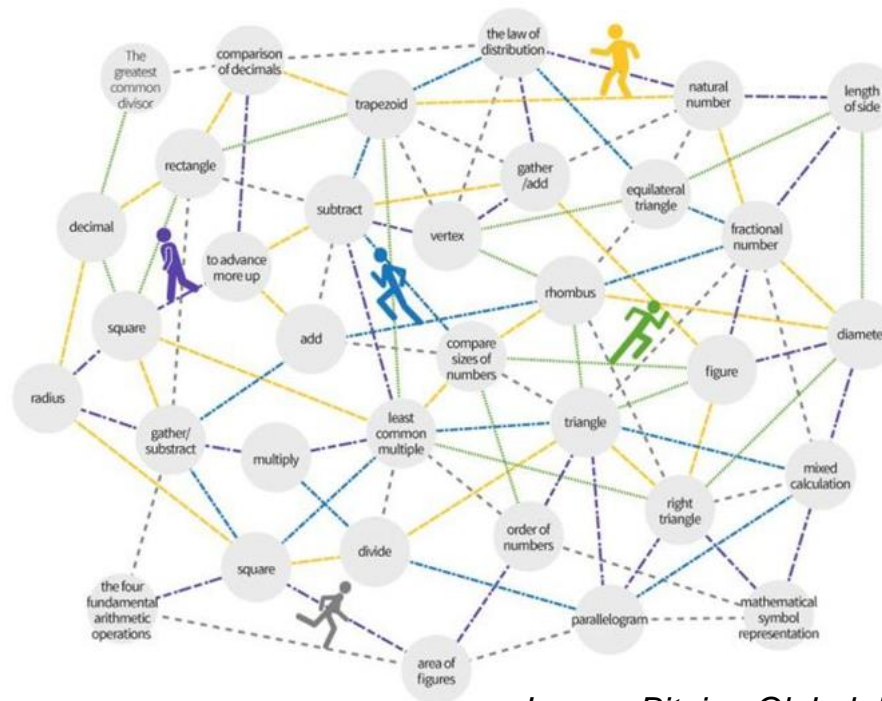


Image: Jie Lu, 2004. Framework for personalized learning recommender system. P. 376

Learning Path Recommendation

Personalized learning path recommendation

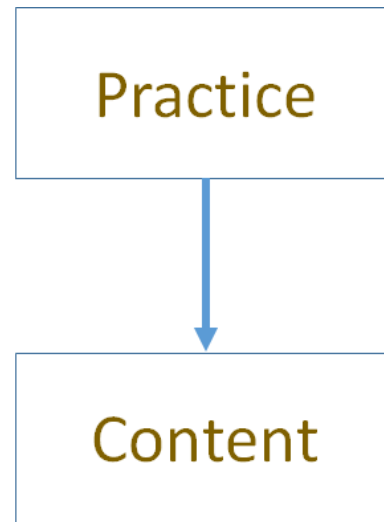
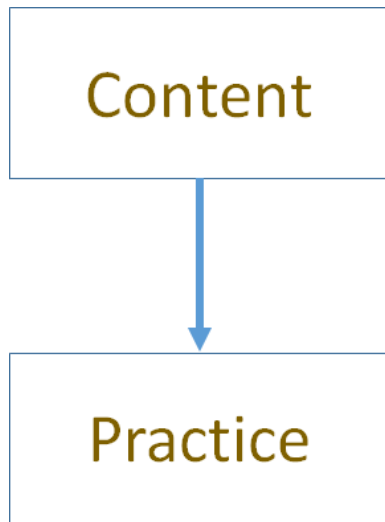


*Image: Bitnine Global, Inc. (2019).
Personalized learning path
recommendation.*

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

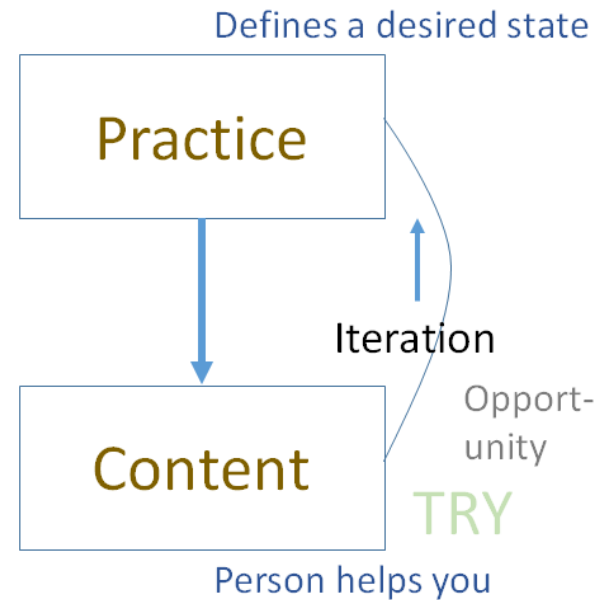
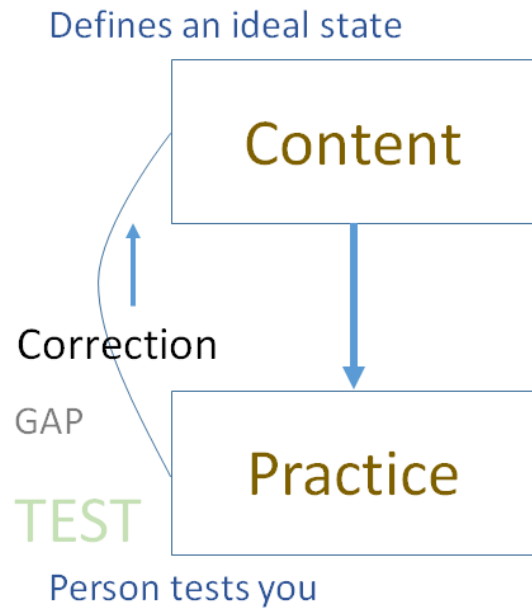


Content

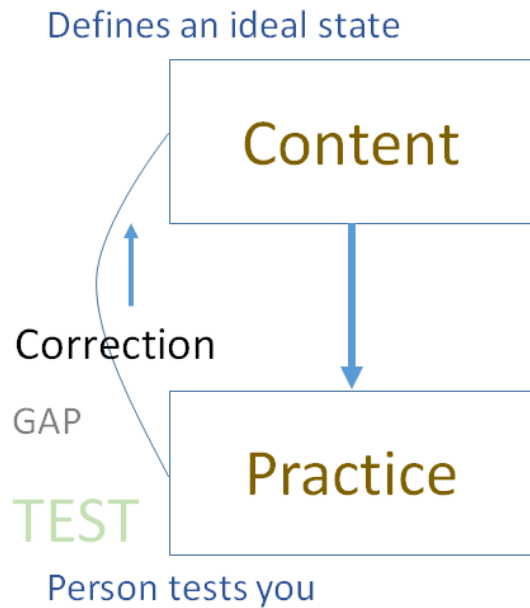
TRY

Person helps you

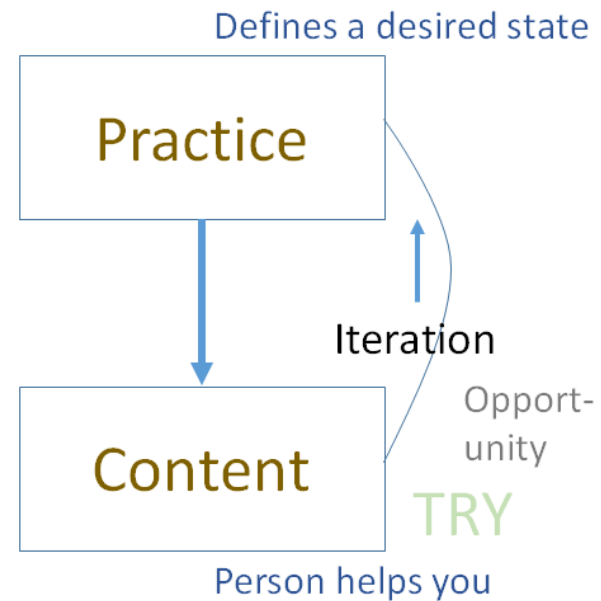
Two Approaches



Library

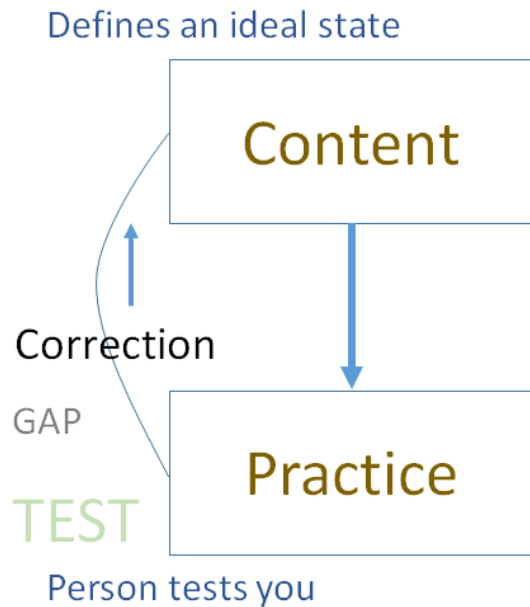


Environment



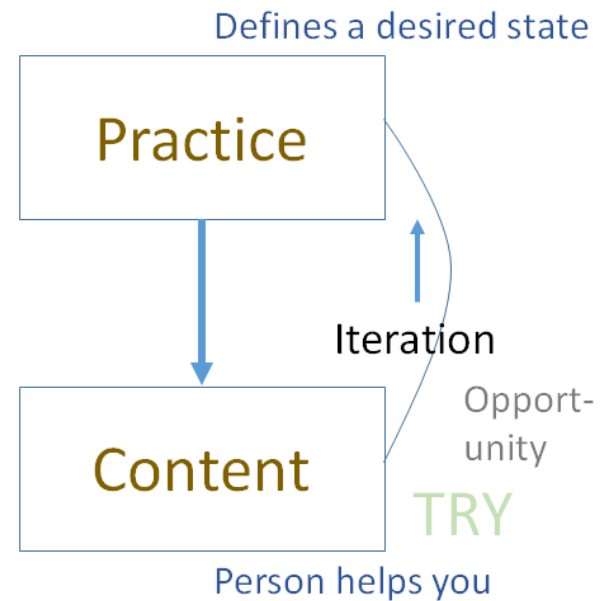
Personalized

We do for you (you consume)



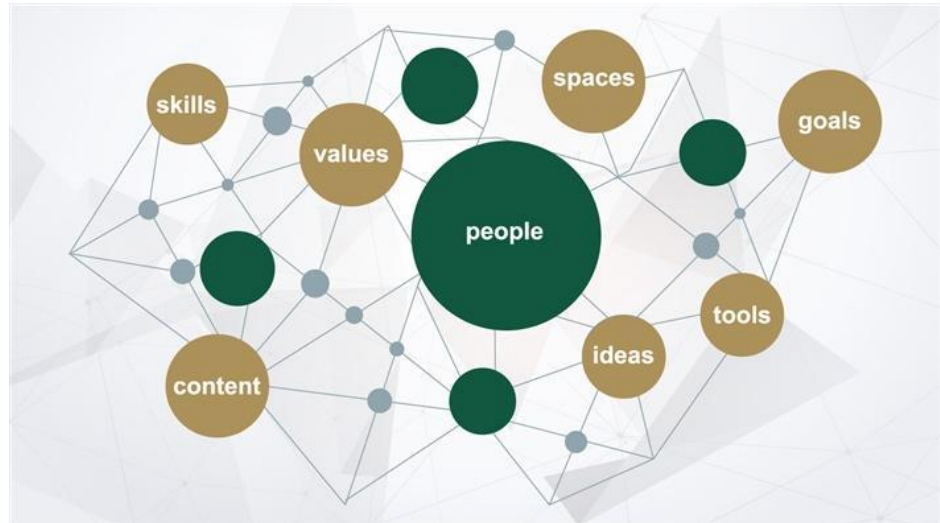
Personal

You do for yourself (we help)



Self-Directed Learning

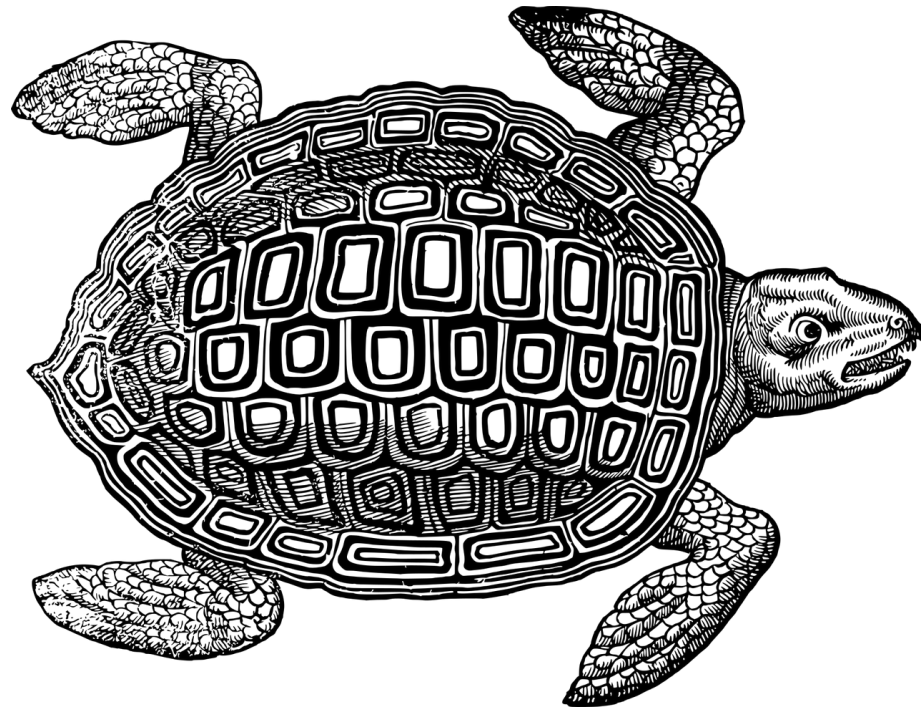
Students "will need to be self-directed in their learning. This includes making sound judgements about how much they know compared to how much they need to know, how they are progressing towards completing quality work and whether or not they need to shift strategies."



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

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



Adaptability

We have a responsibility to create learning experiences that can adapt for different learners and different learning contexts.



Connection

Our students are best-served by learning experiences positioned within relationships and real-world contexts.



Equity

We must strive to reach and teach every student, regardless of barriers they face.

Flexible Deadlines + Assignment Level + Description	The Internet As Classroom and Community + Assignment Level + Description	UDL Baselines + Assignment Level + Description
Student Design & Choice + Assignment Level + Description	Reduced Disposability + Assignment Level + Description	Rethinking Fairness + Assignment Level + Description
HiFlex Design + Course Level + Description	Foster Classroom Community + Course Level + Description	OER Adoption + Course Level + Description
Module-Based Schedule + Course Level + Description	Curriculum Linked to Context + Course Level + Description	Basic Needs Syllabus Integration + Course Level + Description
Flexibility through Policy + Institution Level + Description	Supporting Instructional Design + Institution Level + Description	Digital Divide Amelioration + Institution Level + Description
Pedagogy-Driven Tech Adoption + Institution Level + Description	Portals for Community Partnerships + Institution Level + Description	Integration with Basic Needs Services + Institution Level + Description

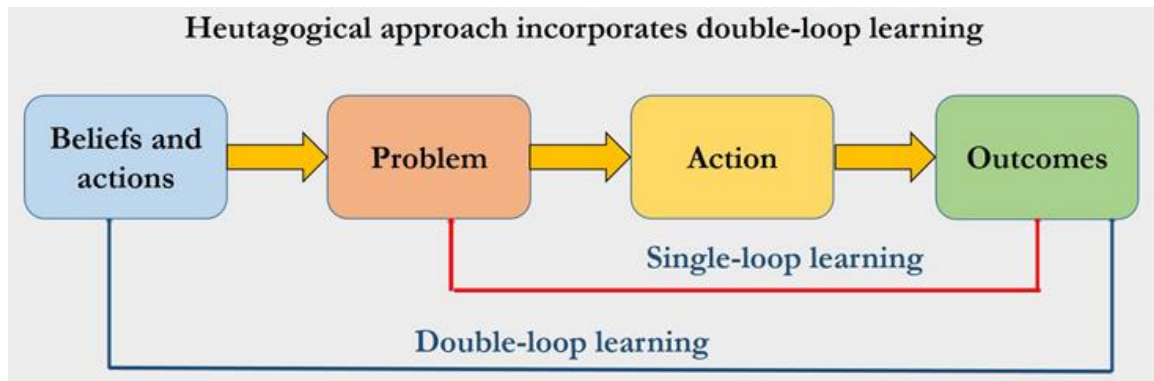
ACE-Informed Practices

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

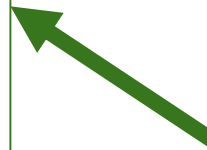
An Analysis of Heutagogical Practices through Mobile Device Usage in a Teacher Training Programme in Malawi
Andrew Chimpololo, Journal of Learning for Development,
<https://jl4d.org/index.php/ejl4d/article/view/391/485>

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

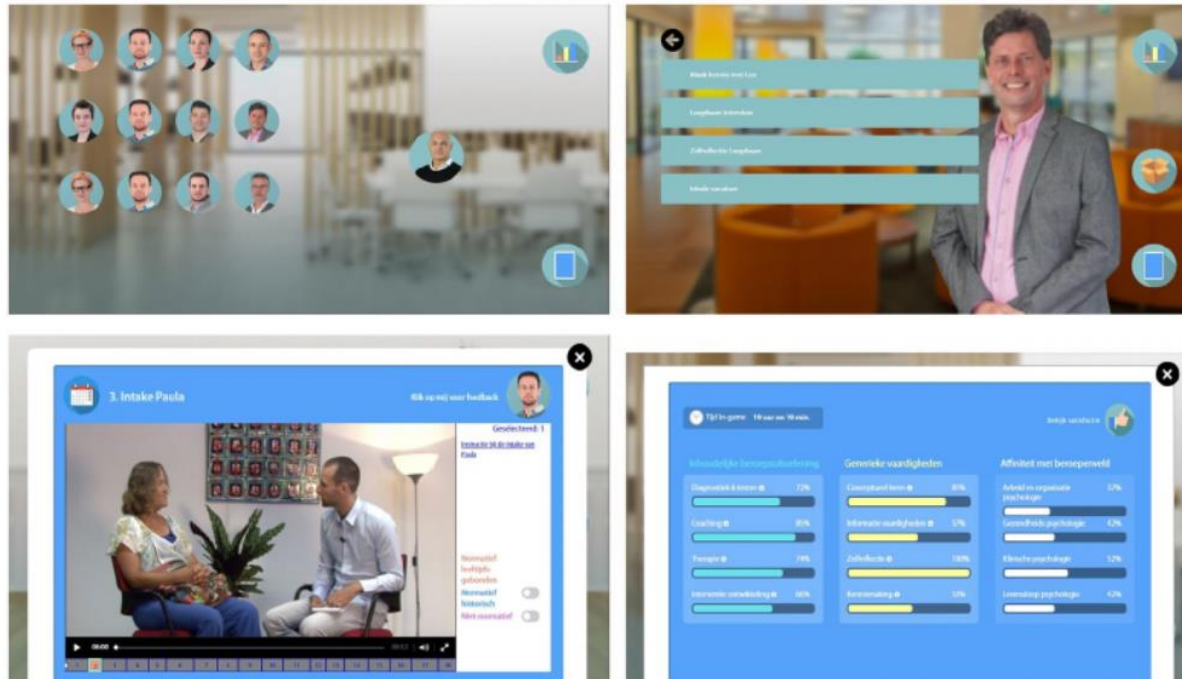


Figure 1: Screenshots from mini-games for psychology awareness

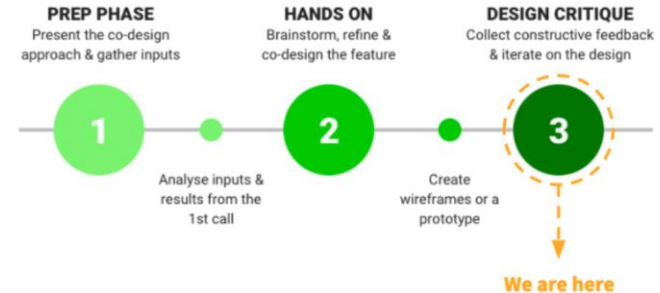
Serious game in introductory psychology for professional awareness:
Optimal learner control and authenticity. Hans Hummel, BERA Blog.
<https://www.bera.ac.uk/blog/the-thin-line-between-gaming-and-learning>

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



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



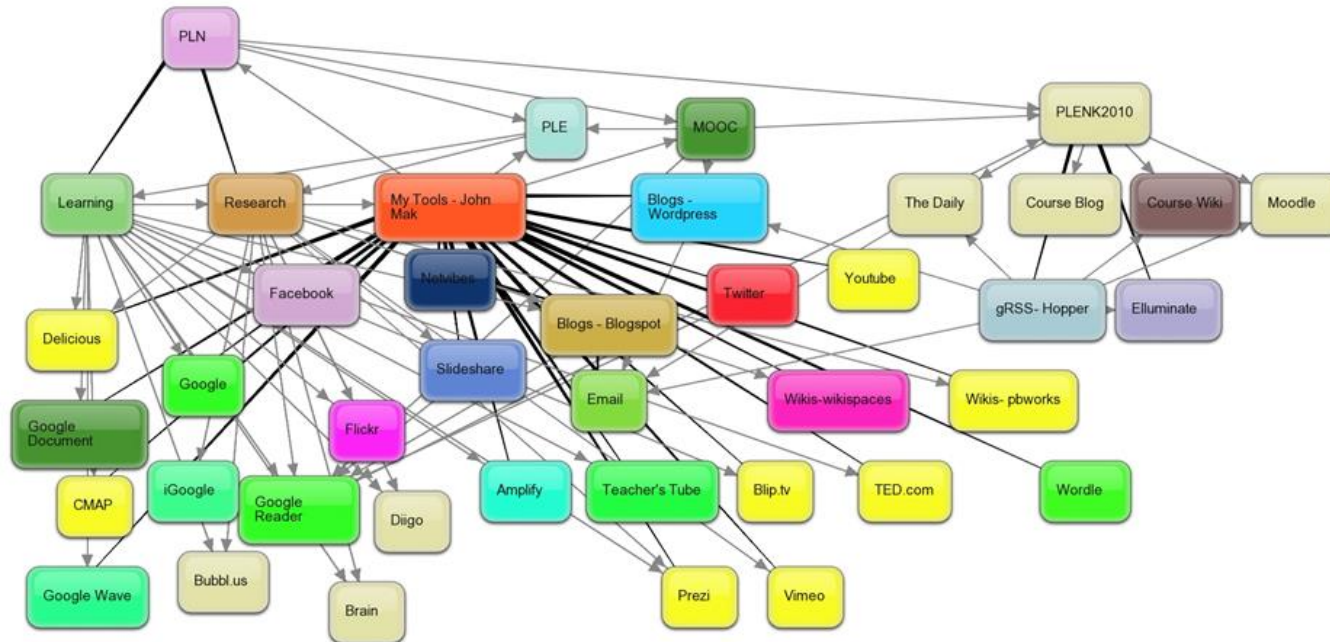
Example: Supporting learning and cooperation between innovative schools: Finland

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

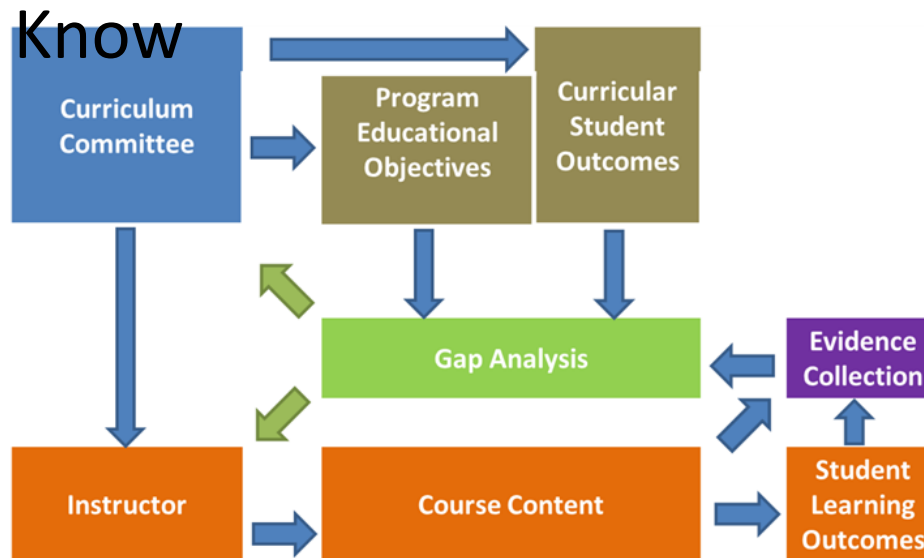
Personal Learning Environments



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

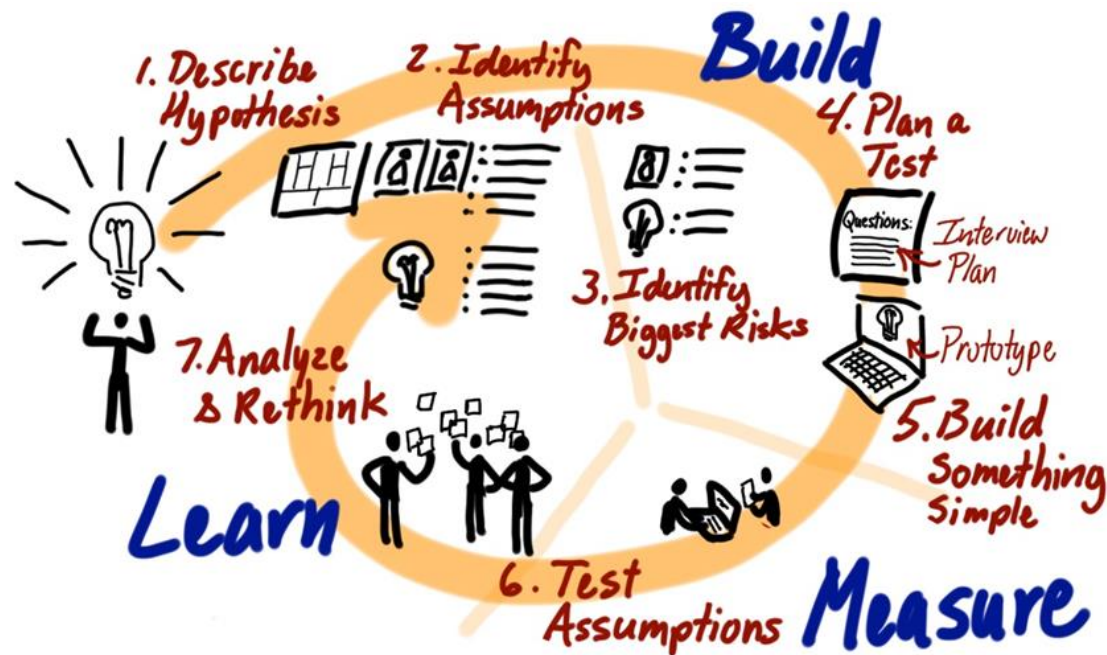


Image: Jeff Patton. (2015). Common Agile Practice Isn't for Startups.
<https://www.jpattontassociates.com/common-agile-isnt-for-startups/>

Evaluation and Assessment

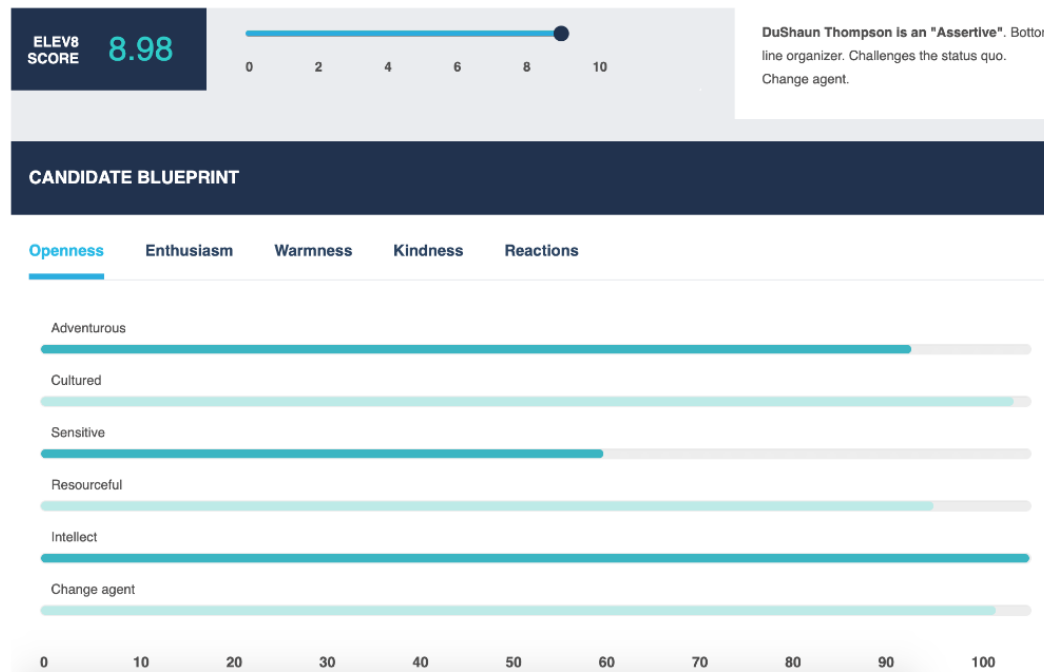
Assessing a physicist:

- Do they know a certain body of information

vs

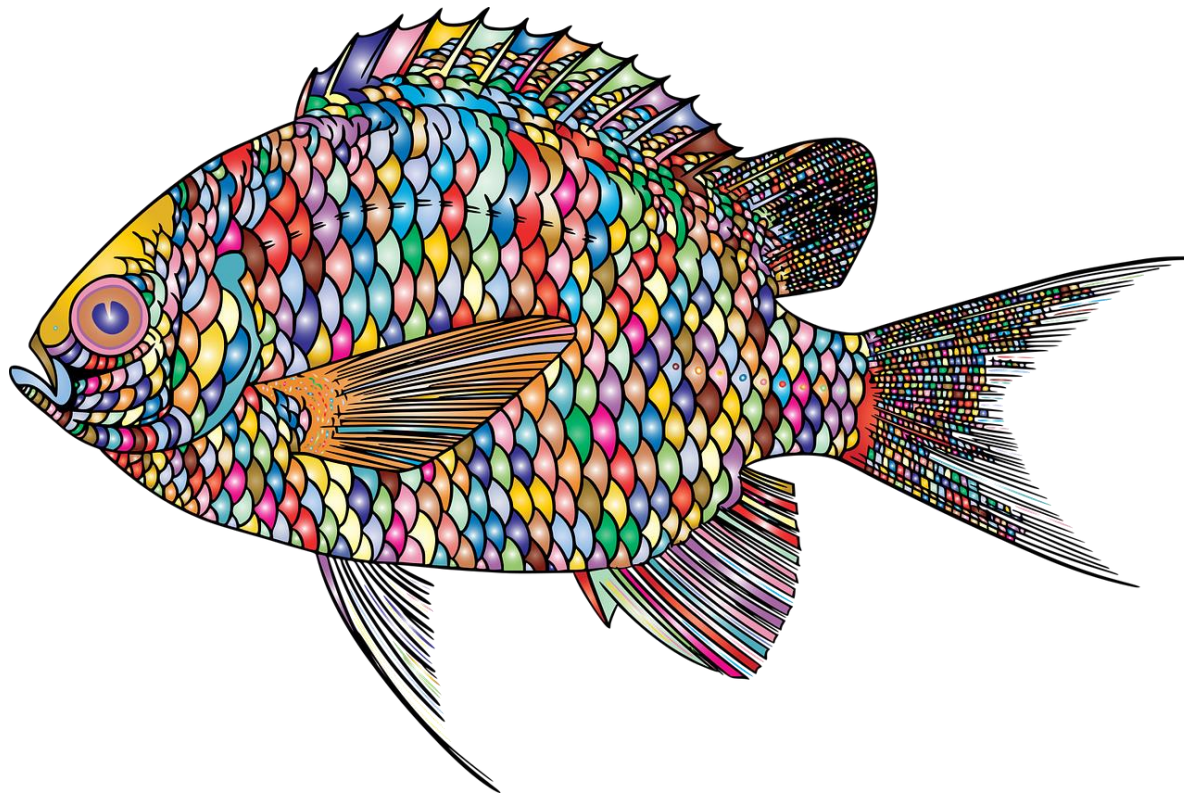
- Do they see the world the way a physicist does?
- Do they ask the same sorts of questions? Use words the same way?
- Do they accept the same sort of evidence to change their beliefs?
- Can they do things physicists can do?
- Have they actually done physics and shared the results?
- Would other physicists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

Algorithmic Assessment



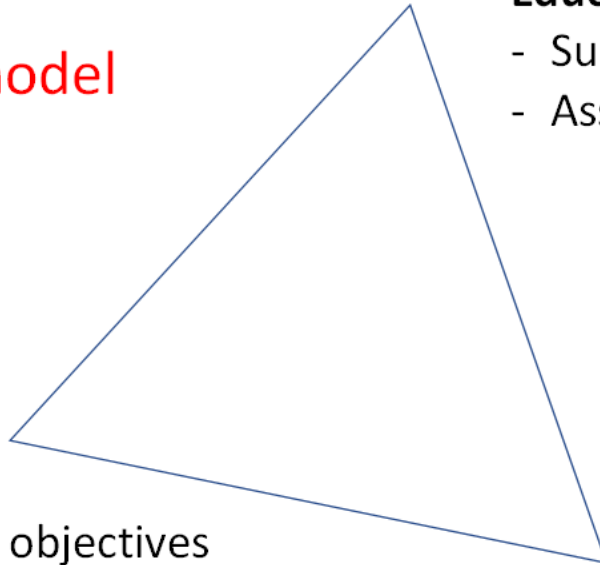
Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices
Manish Raghavan, Solon Barocas, Jon Kleinberg, Karen Levy, arXiv, Nov 23, 2019 <https://arxiv.org/pdf/1906.09208.pdf>

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

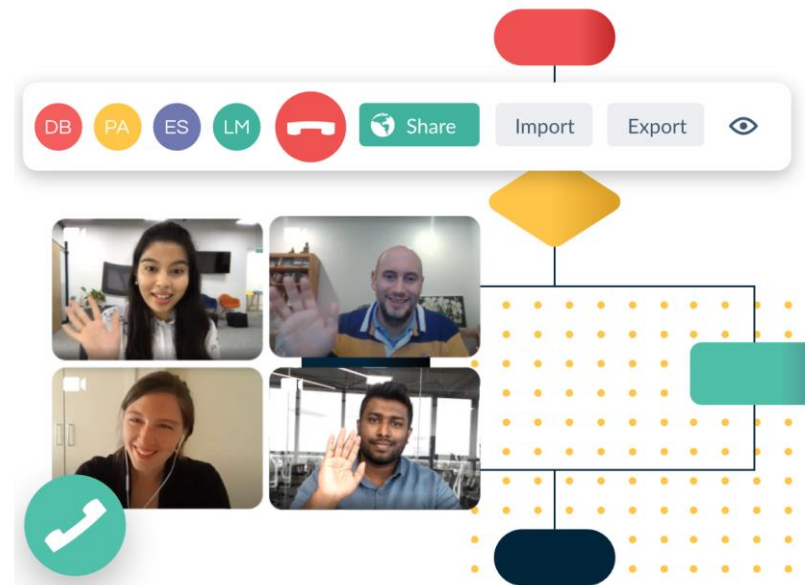


Creating an Online Community, Class or Conference - Quick Tech Guide - <http://bit.ly/quicktechguide>

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

Visible Work

AMPLIFY
WHO YOU
ARE &
WHAT YOU DO



EXTENDS
YOUR
REACH

Purposeful
Discovery



HAVING A LEARNING
GOAL IN MIND
ORIENTS YOUR ACTIVITIES

Growth
Mindset

DEVELOP AN OPEN,
CURIOUS APPROACH TO
WORK & LIFE



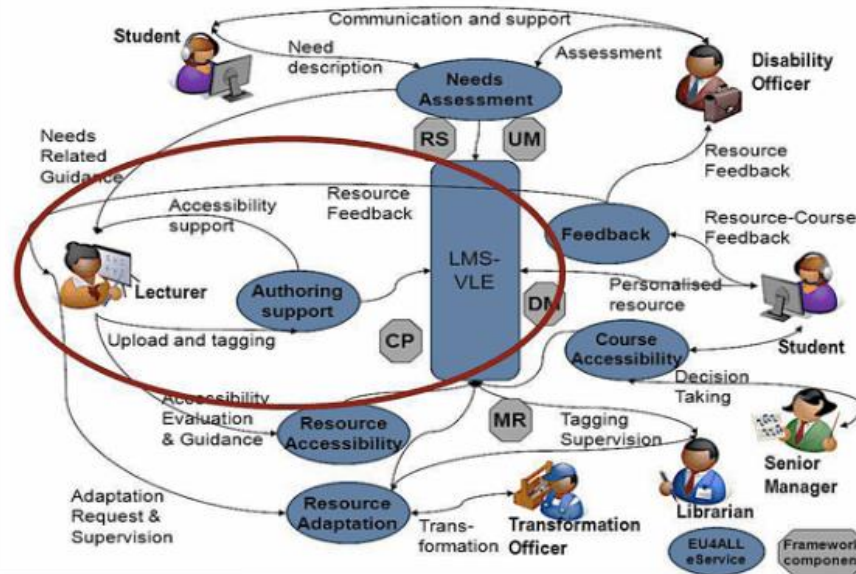
Sketchnote by: Tanmay Vora | @tnvora | QAspire.com

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

Education Providers...

OERs

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



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

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

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

Education Providers...

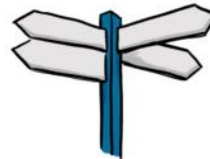
an architecture of participation



CLEAR
MISSION



INVITATION TO
PARTICIPATE



EASY
ONBOARDING



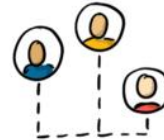
MODULAR
APPROACH



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>

