

EDUCAUSE: Connectivism

Know Where: Learning in a
Complex, Adaptive Age



Gates on education...

"By obsolete, I mean that our high schools--even when they're working exactly as designed--cannot teach our kids what they need to know today.

Training the workforce of tomorrow with the high schools of today is like trying to teach kids about today's computers on a 50-year-old mainframe. It's the wrong tool for the times."

<http://www.eschoolnews.com/news/showstory.cfm?ArticleID=5586>

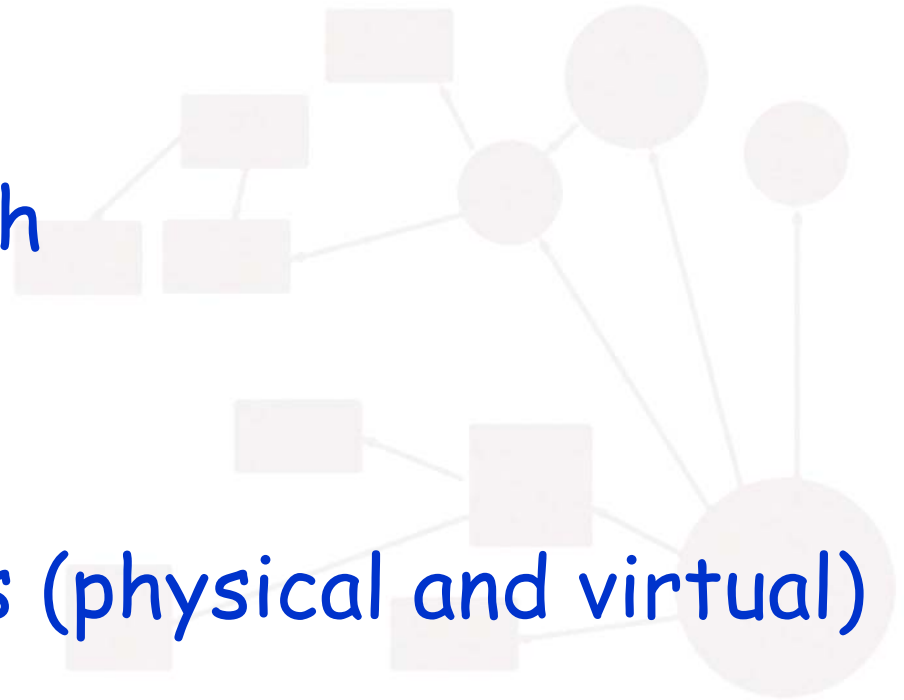
Toffler on education...

"Mass education designed for the industrial age meets the needs of neither the pre-industrial village nor the post-industrial future...indeed, all education - has to be totally reconceptualized."

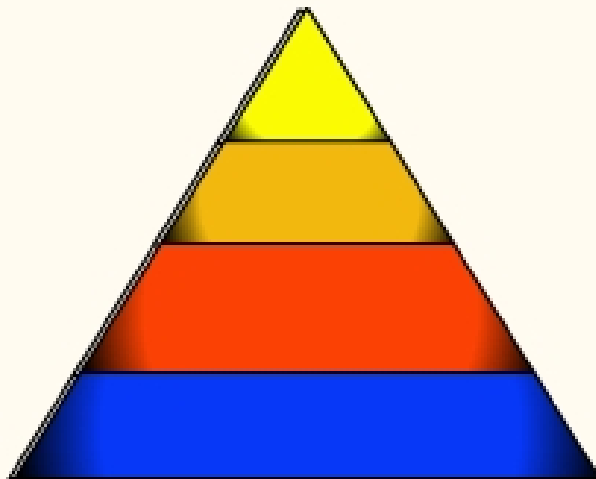
-Alvin Toffler "Revolutionary Wealth"

What's happening?

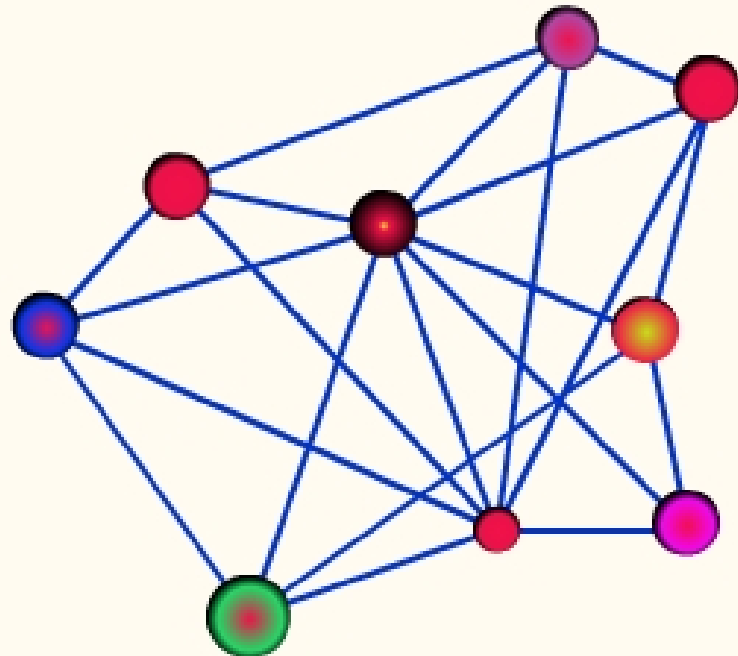
- Networks
- Technology
- Decentralization
- Knowledge growth
- Globalization
- Control shift
- Blurring Realities (physical and virtual)



STRUCTURES

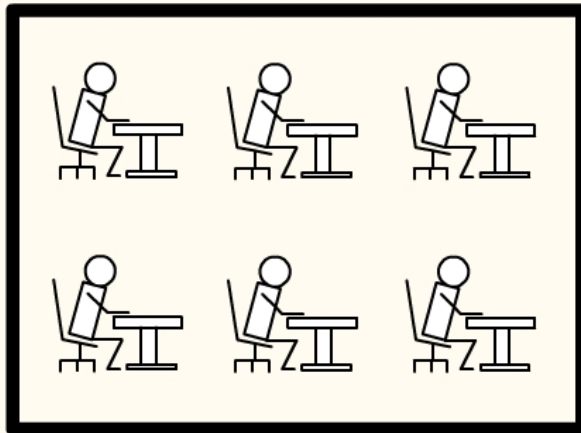


Hierarchy
(static)



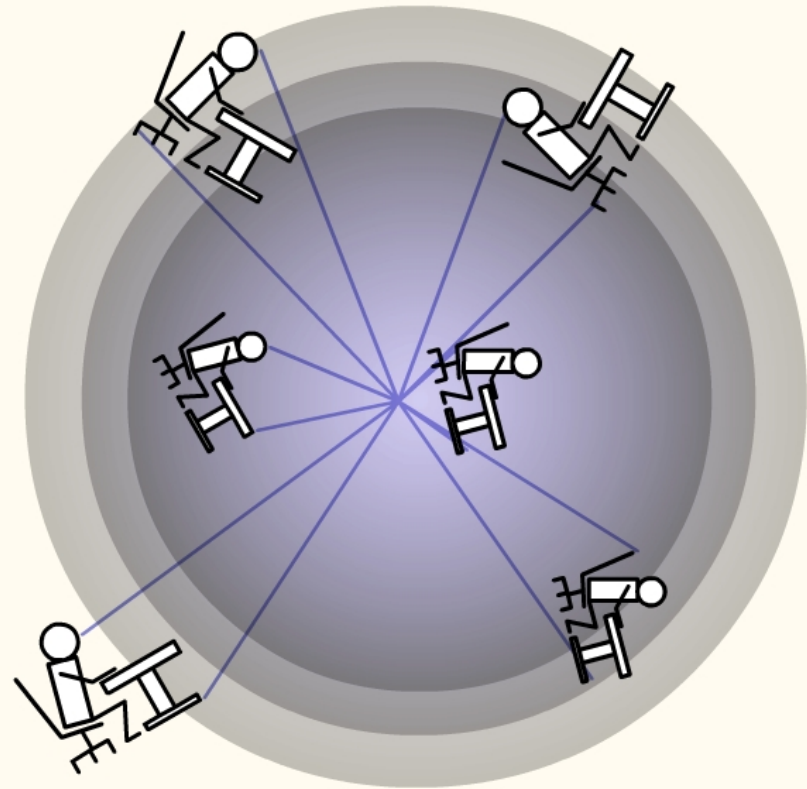
Network
(dynamic)

SPACES



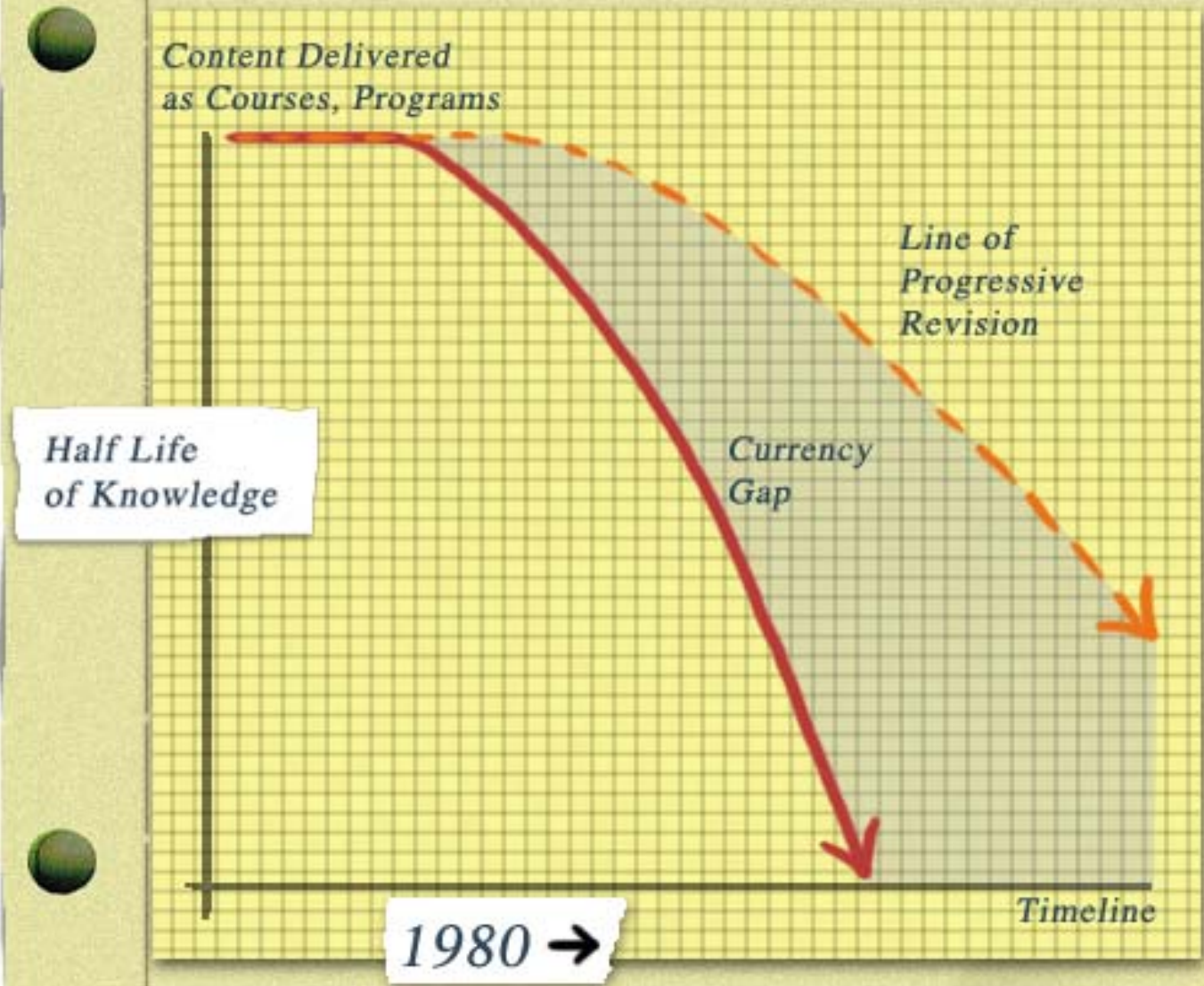
**CLASSROOM
LMS**

(built)

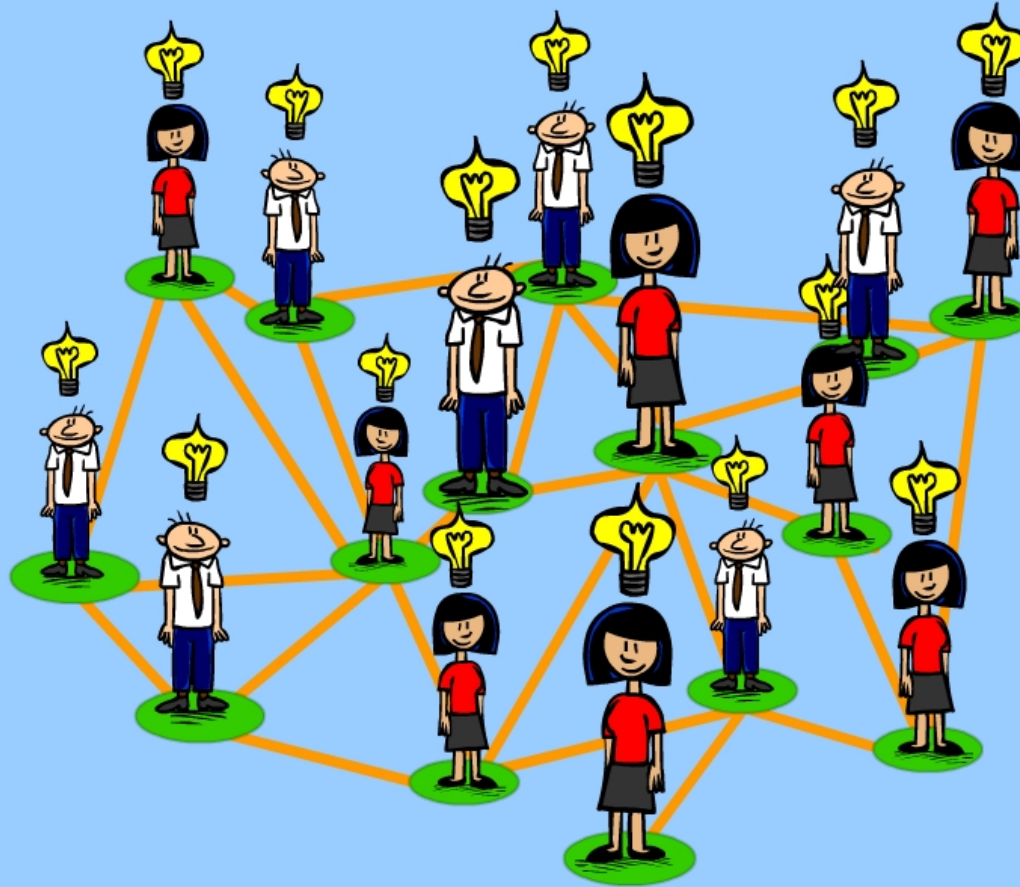


**ECOLOGY
(nurtured)**

Half Life of Knowledge



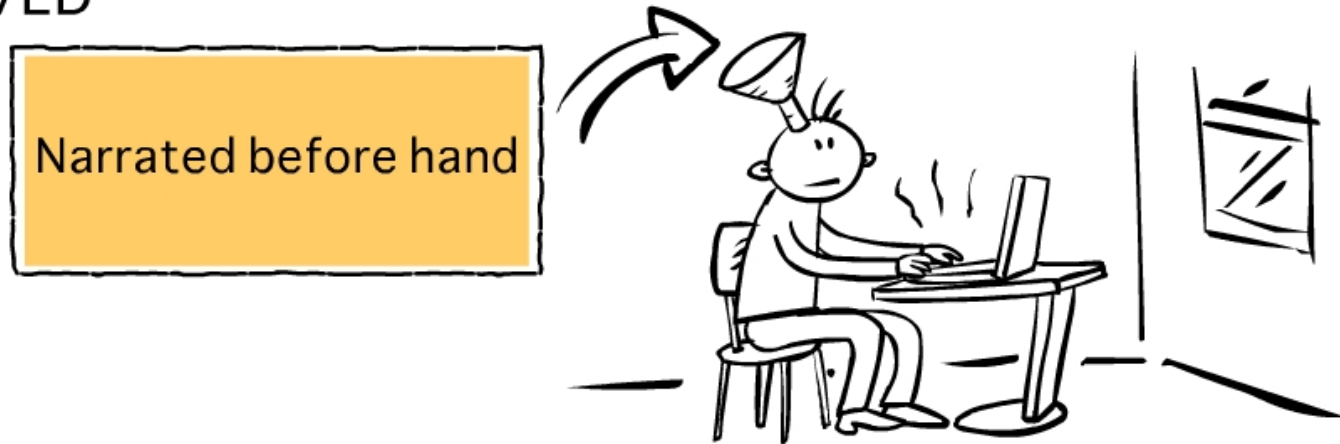
Distributed Knowledge Representation



Network is the learning

FILTERING... THROUGH THE PROCESS, NOT IN ADVANCE.

CONTRIVED



DYNAMIC



Where does knowledge reside?

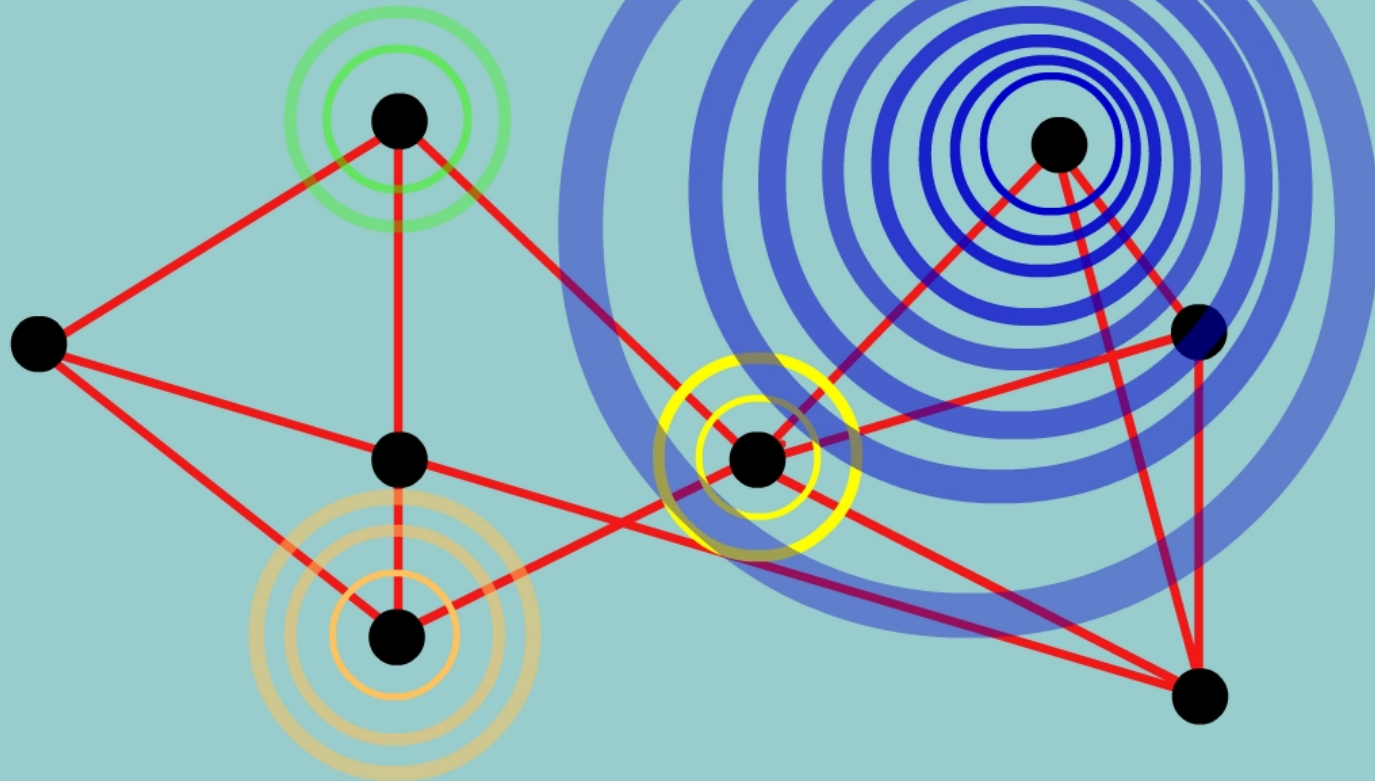
- Vygotsky, Wittgenstein, Spivey
- Landauer & Dumais - more than should be revealed

(<http://lsa.colorado.edu/papers/plato/plato.annotate.html>)

- The network is the learning

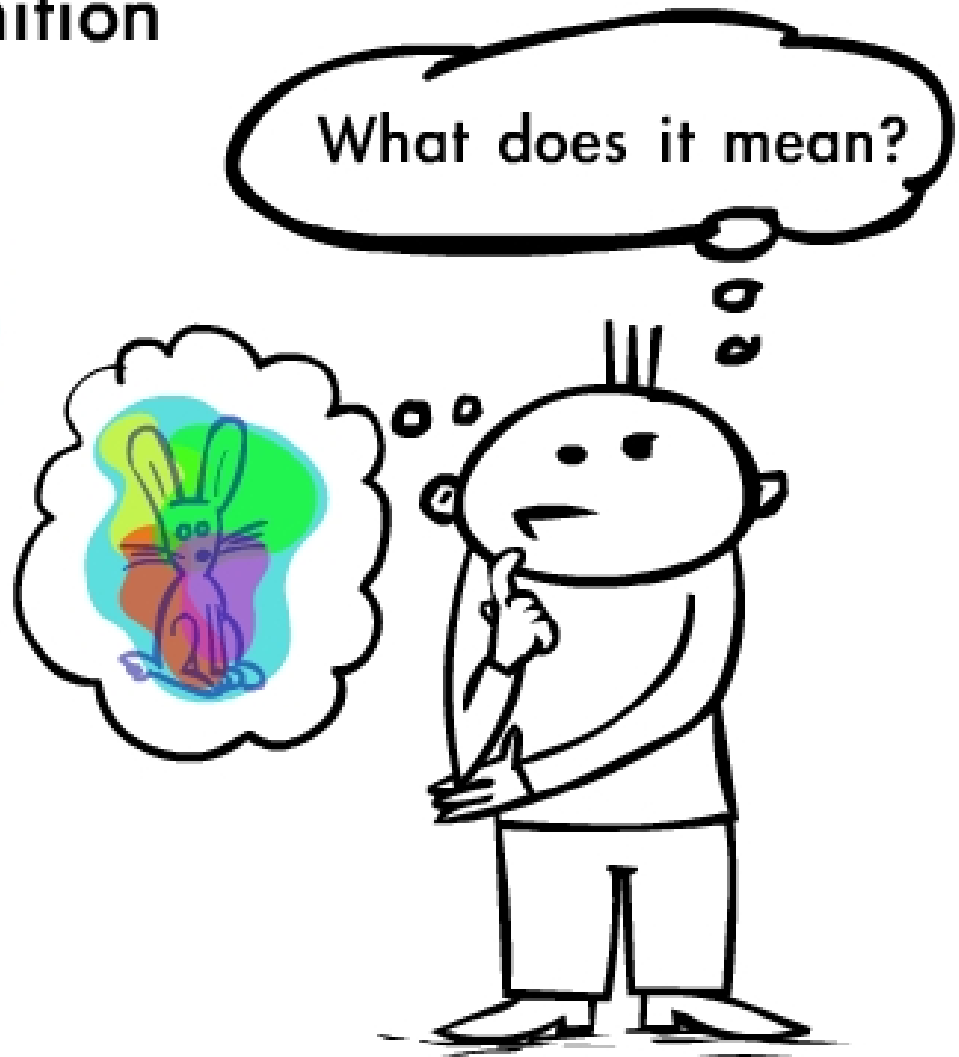


Learning is:

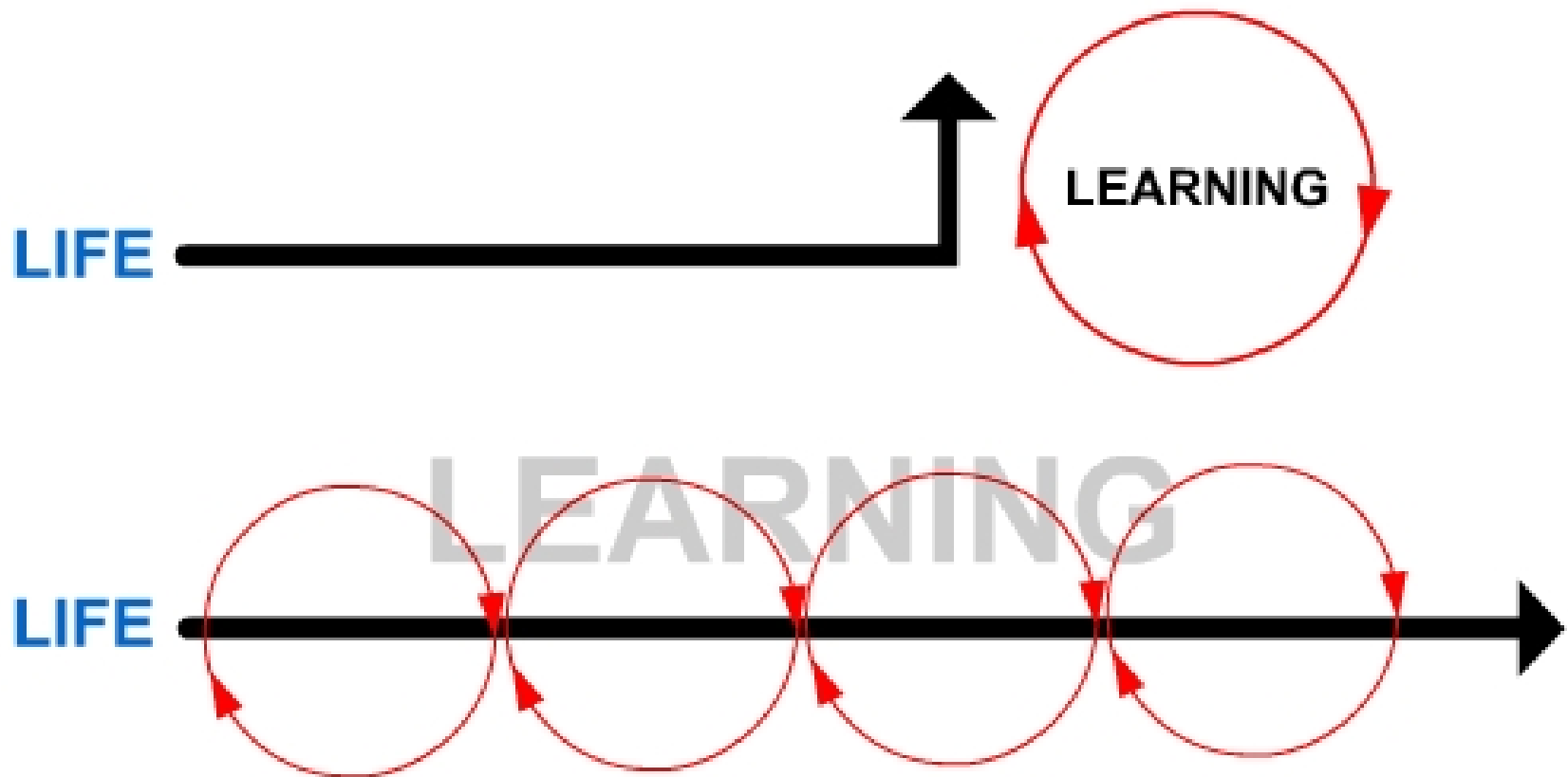


"Network Formation: adding new nodes,
creating new neural paths"

Pattern Recognition



LEARNING IN SYNCH WITH LIFE



Centering

“Things fall apart; the center cannot hold;
Mere anarchy is loosed upon the world”

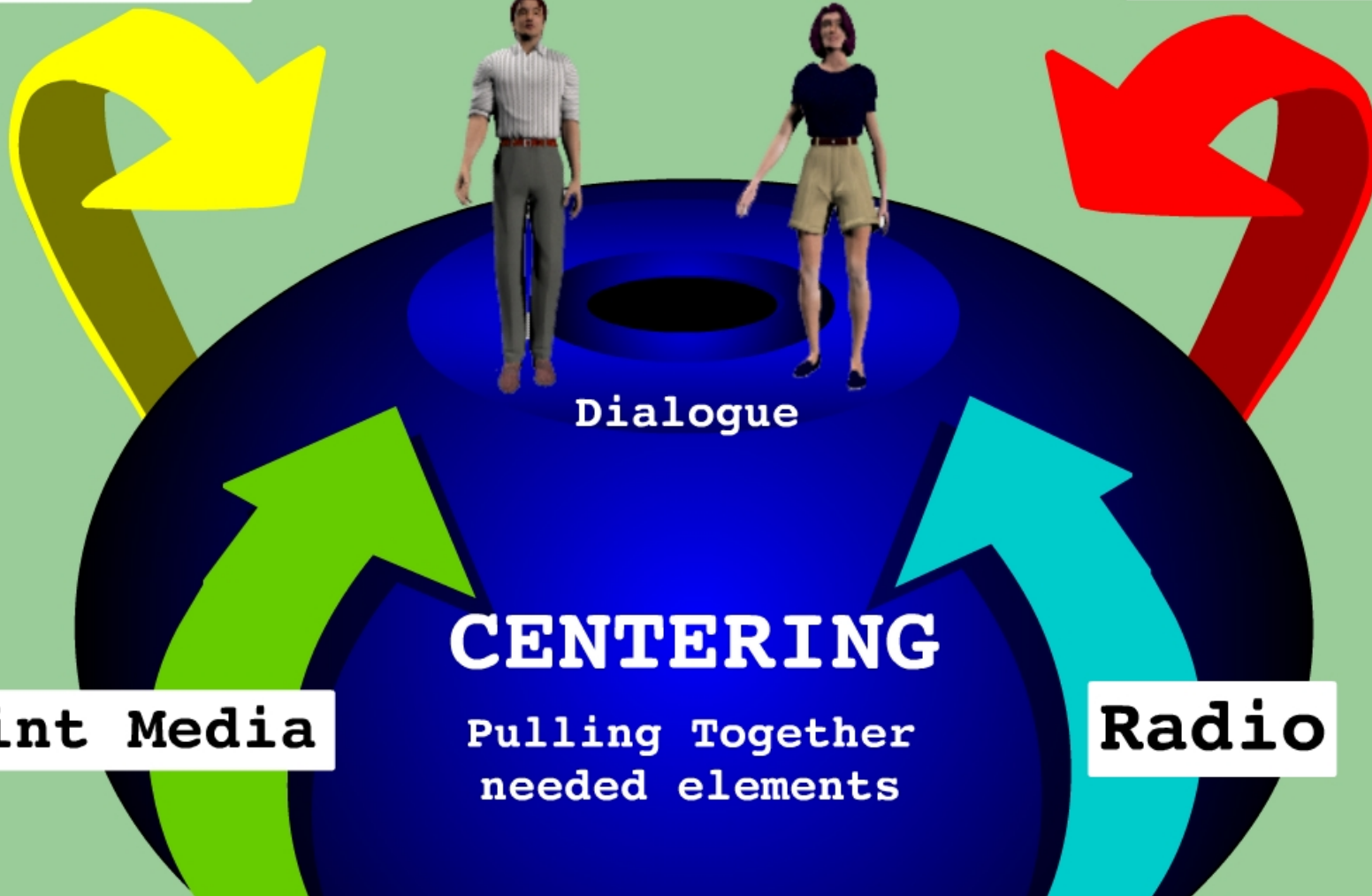
- W.B. Yeats



INTEGRATING

Television

Internet



Dialogue

CENTERING

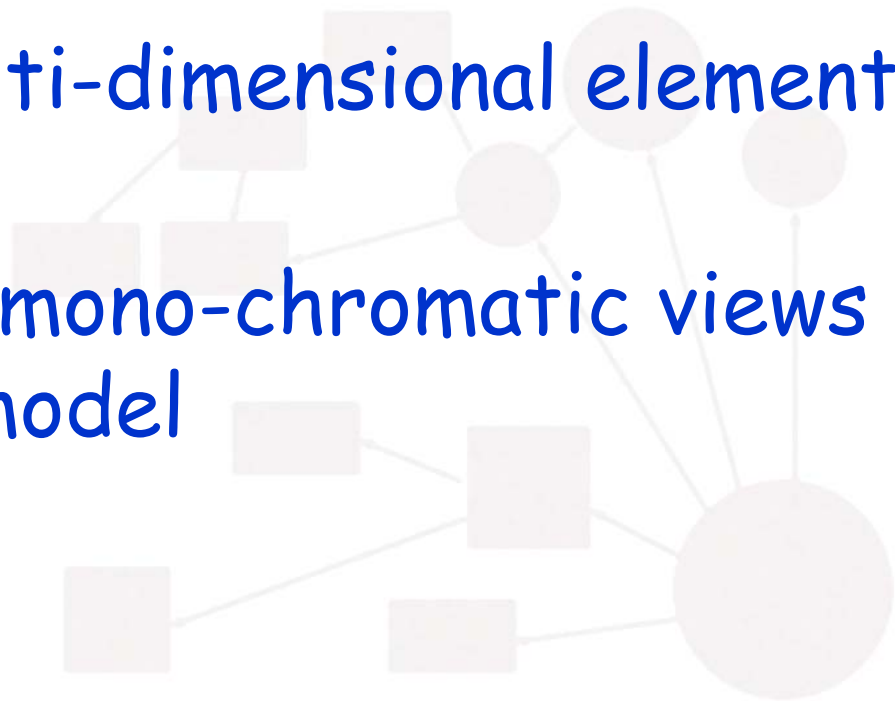
Pulling Together
needed elements

Print Media

Radio

Creating whole with pieces

- Achieving a clear aim in a distributed, decentralized model
- See nuanced, multi-dimensional elements of learning
- Move away from mono-chromatic views - don't force one model



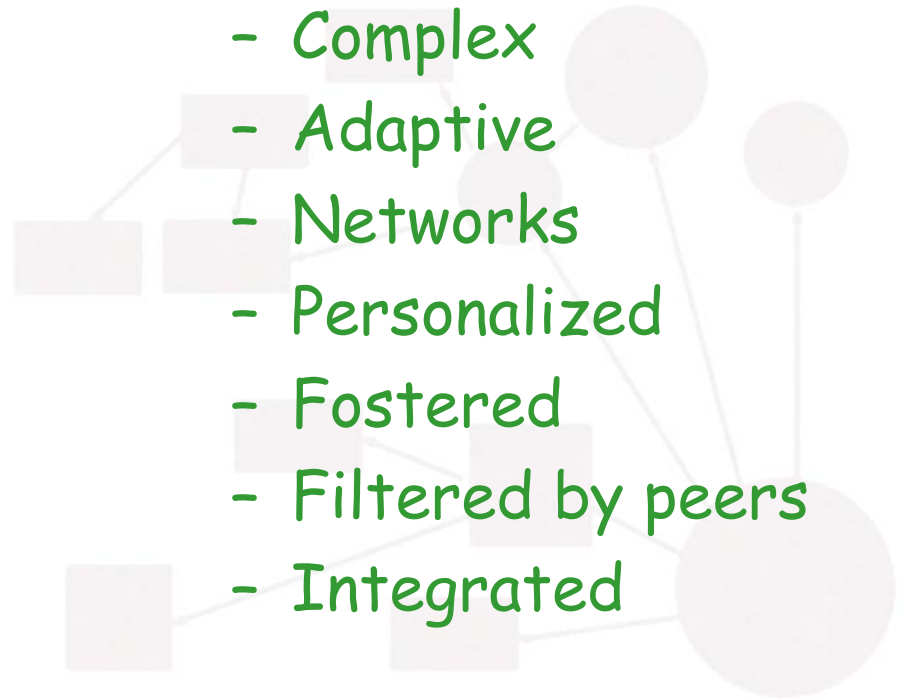
Ecologies, not courses

- Courses

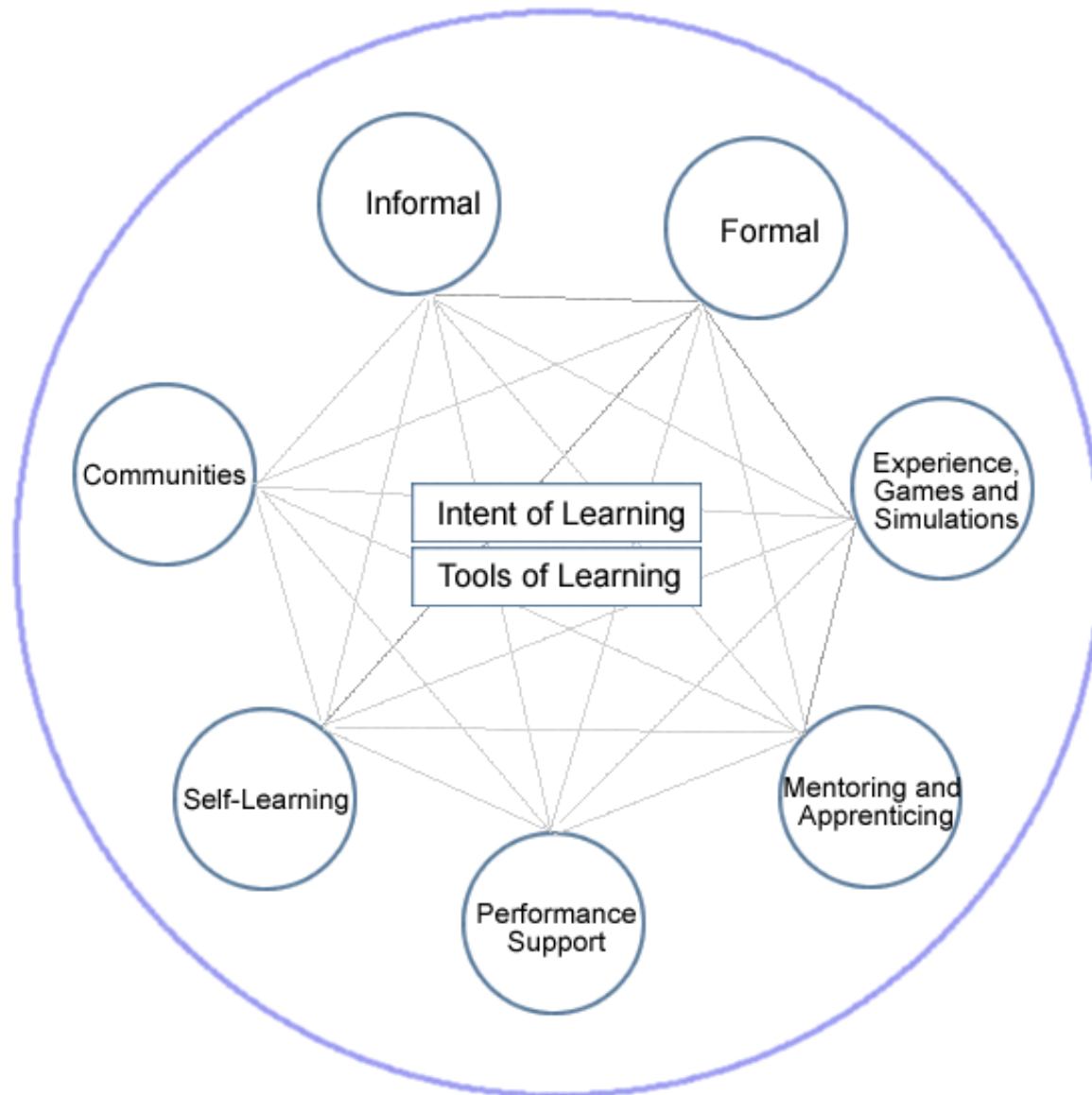
- Static
- Structured
- Centralized
- Controlled
- Created
- Pre-filtered
- Mono-chromatic
- Out of synch with life

- Ecologies

- Dynamic
- Complex
- Adaptive
- Networks
- Personalized
- Fostered
- Filtered by peers
- Integrated



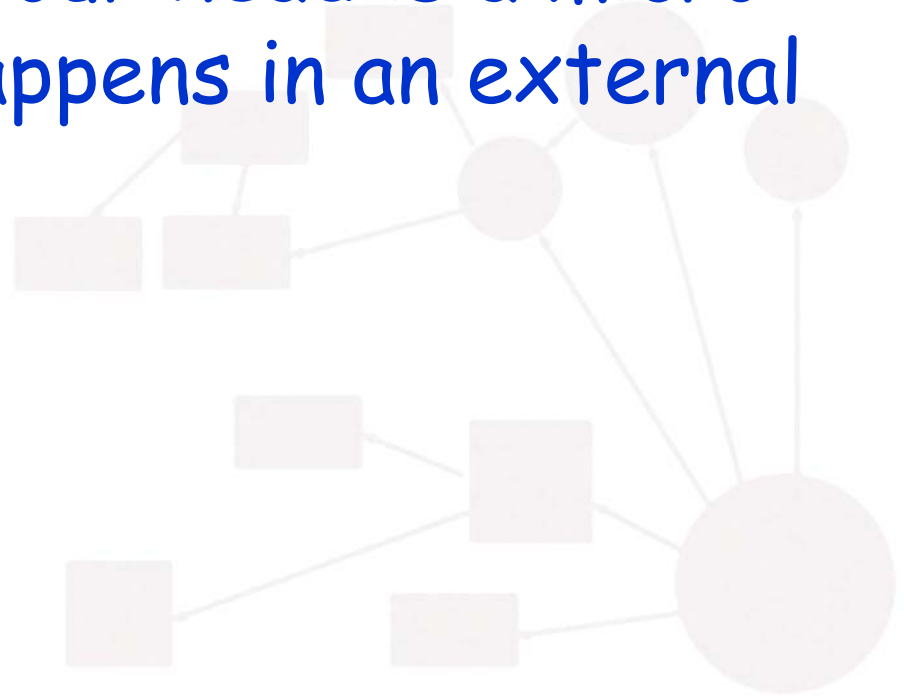
Learning Ecology



Connectivism: Process of creating network

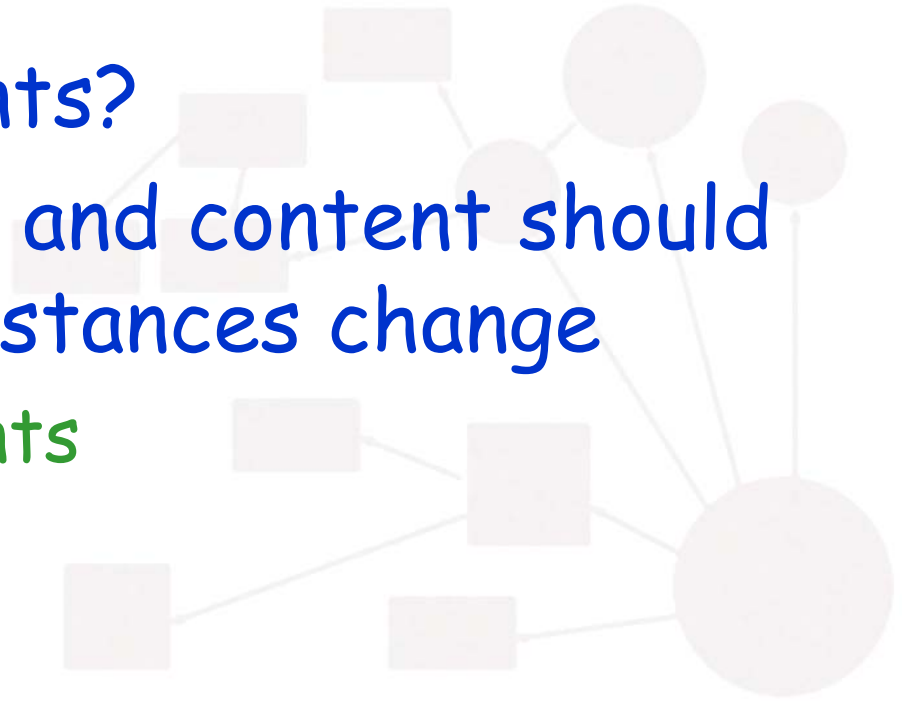
Networks: Micro and Macro

What happens in our head is a micro model of what happens in an external network



How should our learning be adaptive?

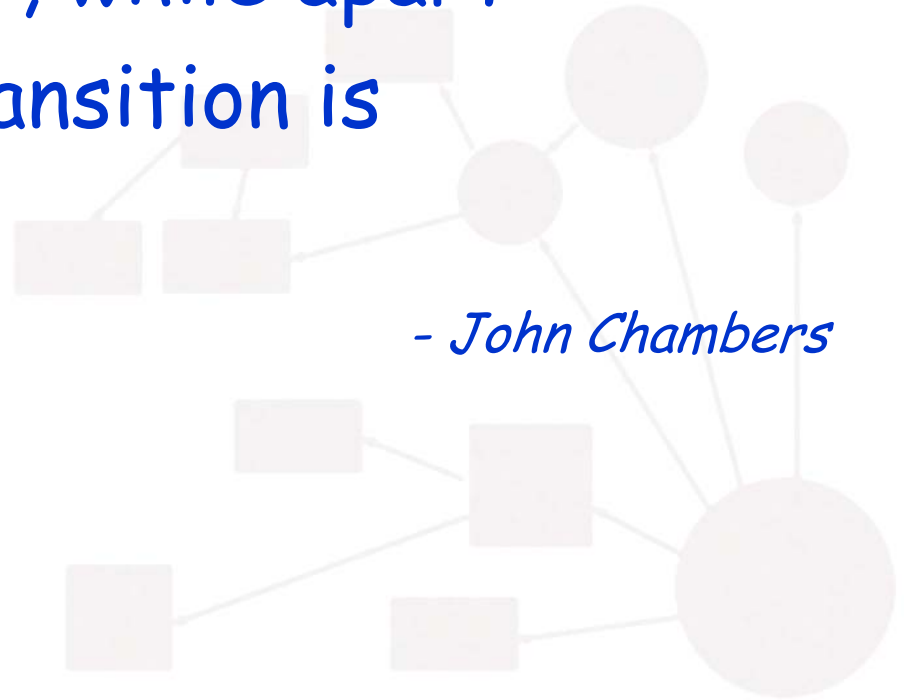
- To the content?
- To the participants?
- Space, structure and content should change as circumstances change
 - Game environments



All of us

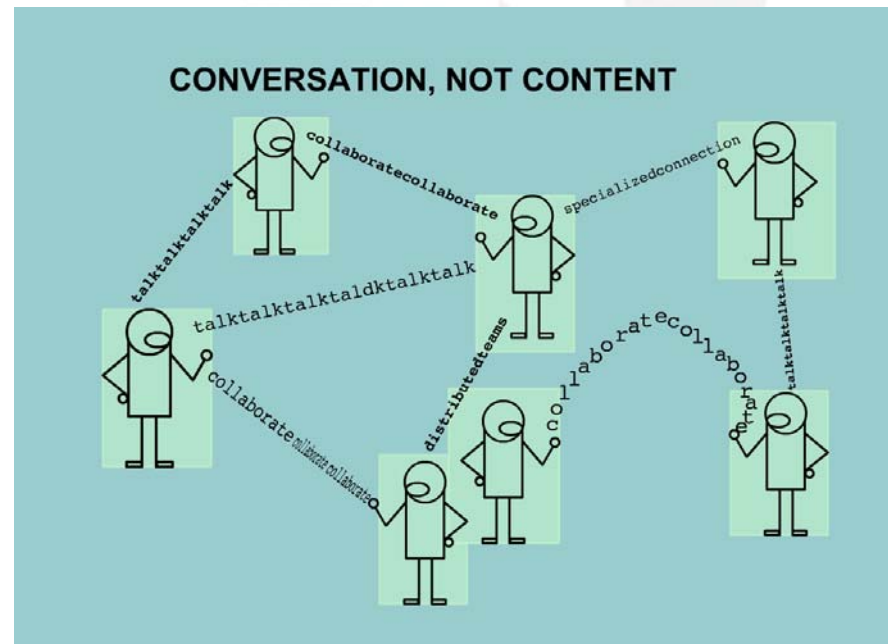
- Doing it together, while apart
- “Next market transition is collaboration”

- *John Chambers*



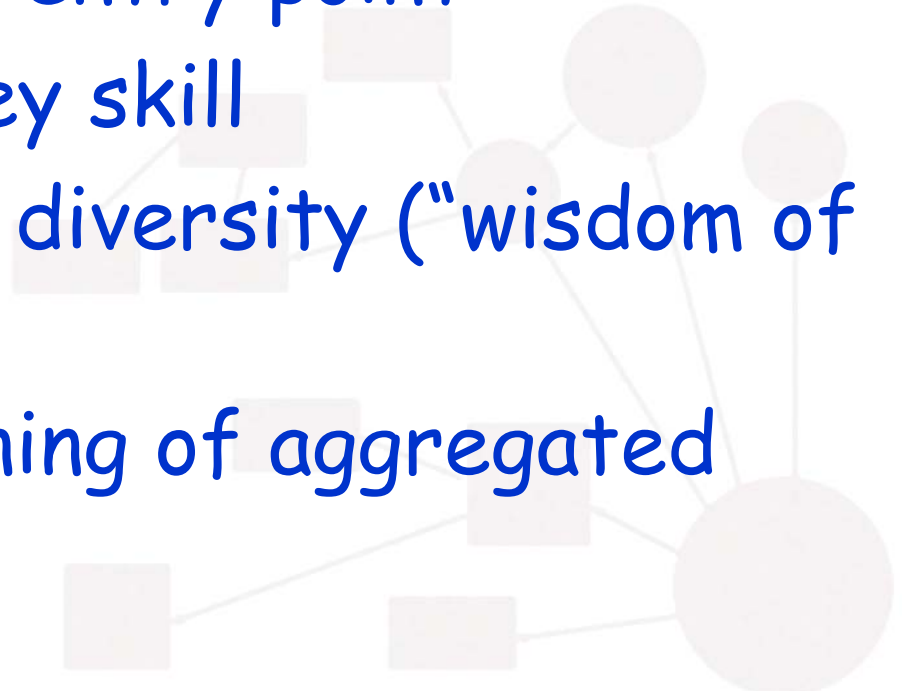
How do we need to change our structures?

Value point: potential for connections



Content vs. Conversations

- It's the pipe that counts
- Knowing where is entry point
- Aggregating is key skill
- Incorporation of diversity ("wisdom of crowds") is key
- Recognizing meaning of aggregated image is critical



What about content?

- Is it required in advance of the learning?
- Is it a by-product of learning?



See the whole, function in the part

- Each learning task requires a different approach
- Need drives selection (not selection driving options)
- Learning type determined by need, context, resources



What are required skills?

- Navigating information landscape
- Evaluation/authentication
- Creating personal learning network
- Critical and creative thinking
- Pattern recognition
- Acceptance of uncertainty (moving forward on "best image" of situation)

Are our educational spaces and structures ready?

- Comprehension of changes is missing
- Vision is lacking
- Need innovation, conceptualization
- Rebuild, not retool, education



Next Steps?

