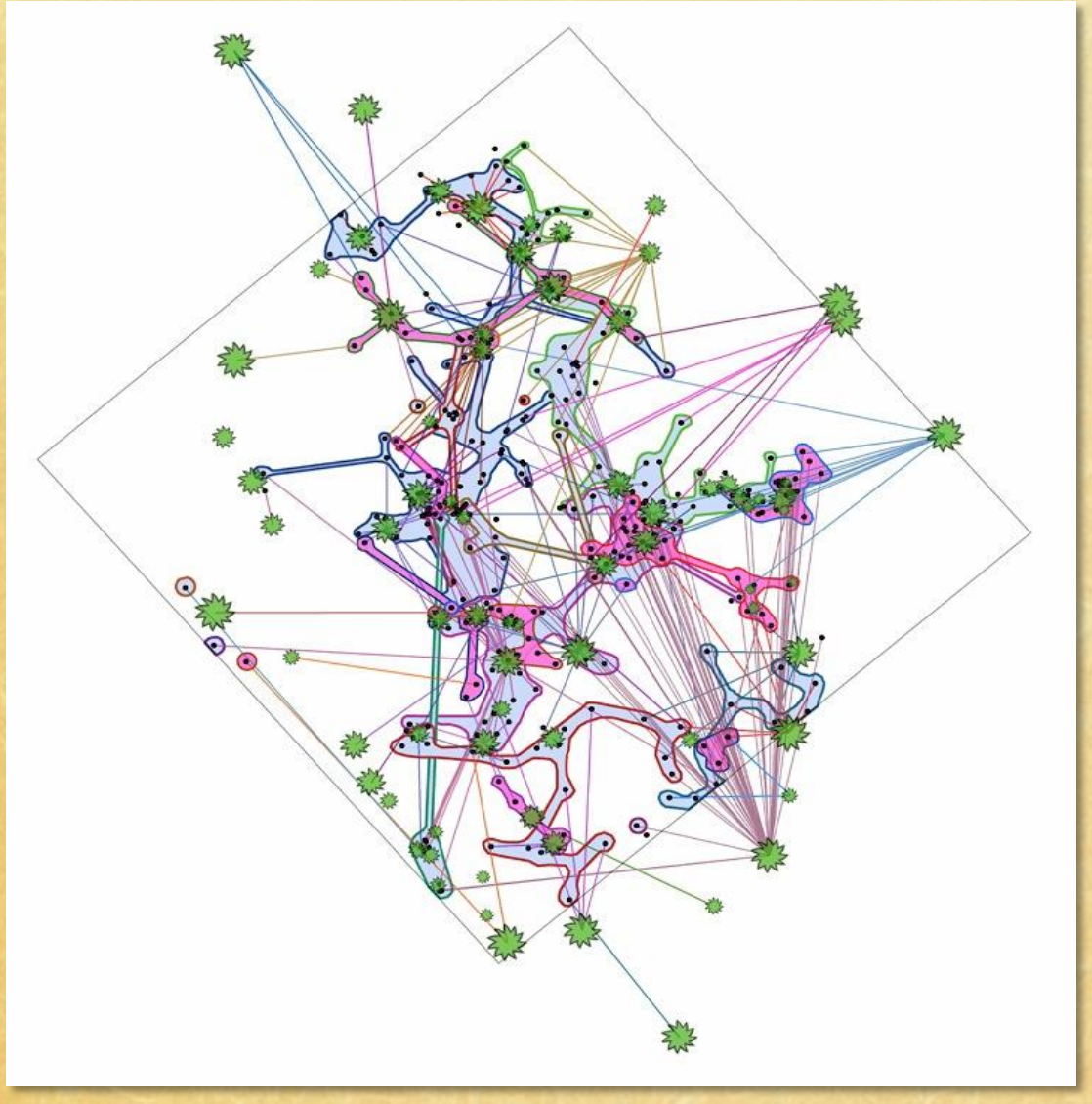
Emergent Learning in the New Learning Ecologies

Roy Williams, Regina Karousou, Jenny Mackness

RW ...

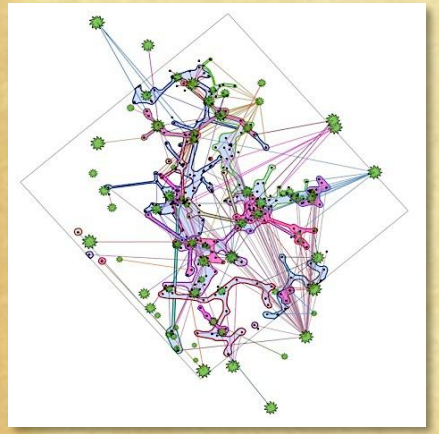


Resource Sharing Tree-Network …

Mycorrhizal Fungi & Douglas Firs

(Kevin-Beiler)

RW …



Some thoughts on Emergent Learning …

- The Internet provides new opportunities for taking initiative in learning.
- This provides new affordances for teaching, learning, and collaborating.

  ….. But we need new frameworks to help us to understand and respond to these changes.

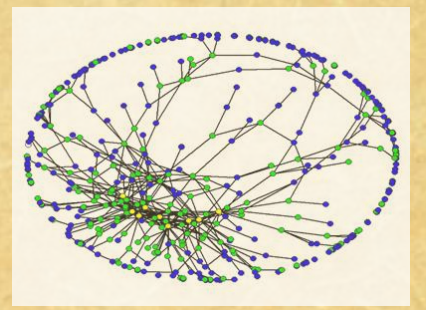
- What is ‘emergent learning’, and can it form the basis for a new framework?
- Questions and discussion.

> RK: new opportunities in Web…

New opportunities for people to *take the initiative* in learning

The Internet makes it possible for people to:

- Access people and content
- Create and distribute content
- Create and participate in networks
- Explore virtual identities and worlds

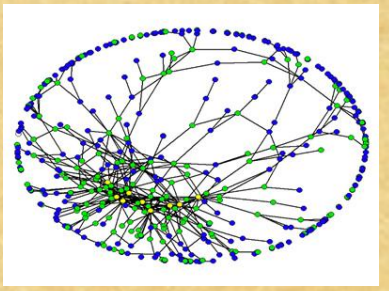


Social Network Analysis

> JM: new affordances 4 learning…

This provides New Affordances

- Particularly in Web 1, 2, and social media.
- New ways to interact, and organise your own learning, resources, and networks.
- But … is self-organised learning different from 'learner centred' and 'constructivist' learning?



Social Network Analysis

JM …

New Affordances ?

JM …

Some examples …

- Reflection and sharing
- Recorded conversations
- Threaded discussions
- Chat (text, audio, video)
- Applications sharing – and discussion
- Constructing knowledge
- Mash-ups of all the above
- Mobile space
- Virtual space
- Poly-synchronous interaction
  (a hybrid of a/synchronous)

> RW: frameworks…

We need new frameworks to help us to:

- Understand these affordances
- Facilitate them
- Find ways to benefit from them – i.e. to match particular affordances with particular learning contexts.

Note: This assumes that there will always be other affordances that are appropriate for other learning contexts – see for example the section on **Prescriptive Learning** in the IRRODL paper.

RW …

Emergence

To start with, emergent learning is unpredictable, and is likely to arise …

- Where learning is substantially self-organised, and adaptive.
- From frequent interaction
- Between a large number of people and resources (micro-agents)
- Where no-one is able to see (or monitor) everything that is happening
- Where participation is as open as possible

RW …

Emergence is…?

Self-organizing → Adaptive

Unpredictable

… frequent interaction …

with open participation

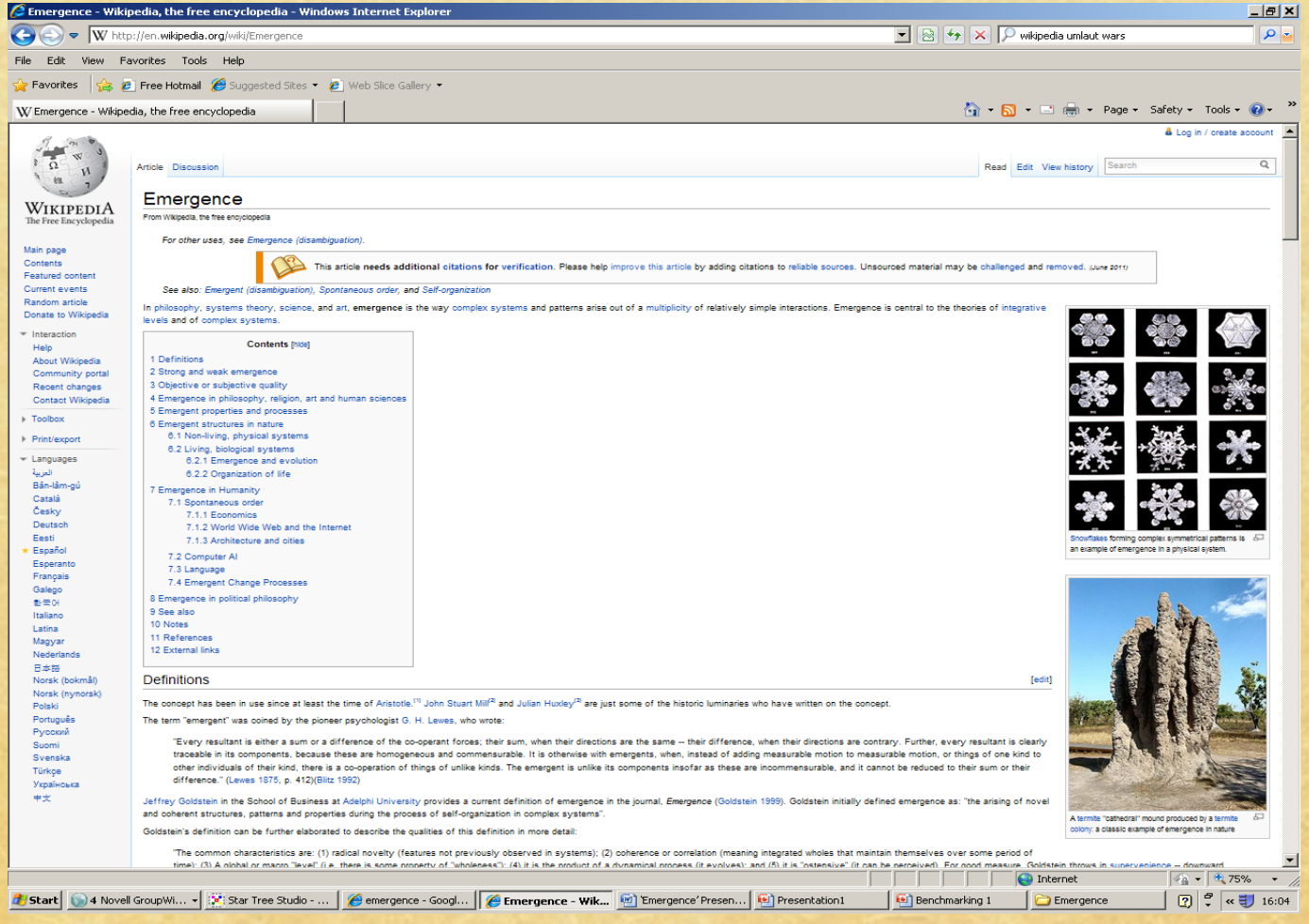
… between many people & resources ...

…with no-one able to follow all everything.

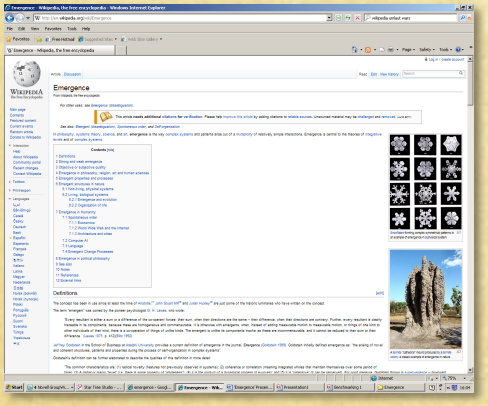
> RK: 1st Case Study…

Case Studies …

Wikipedia



RK …



Wikipedia

Self-correcting?

(External) Validity?

Is it too big? Too constrained? (editorial rules have changed recently).

Does anyone edit Wikipedia pages?

(Roy recently met someone who has responsibility for 54 Wikipedia pages!)

> JM 2nd Case Study …

Case Studies … MAMLL

MA Management Learning and Leadership (Lancaster)

A. Van Dijk, ISC Websites

JM …

MAMLL

The students negotiate the curriculum. They are self-organising and self-correcting. To some extent they co-create the institutional structure. The barrier is assessment and the University assessment regulations

- Open syllabus.
- Self-managed, learning.
- Co-constructed negotiated curriculum.
- Unpredictable, surprising, creativity..
- Learner autonomy and control.
- Diversity and difference. Collaborative assessment.

Dynamic, adaptive system.

> RW: 2nd Case Study …

Case Studies …

Hole in the Wall / SOLE's

RW …

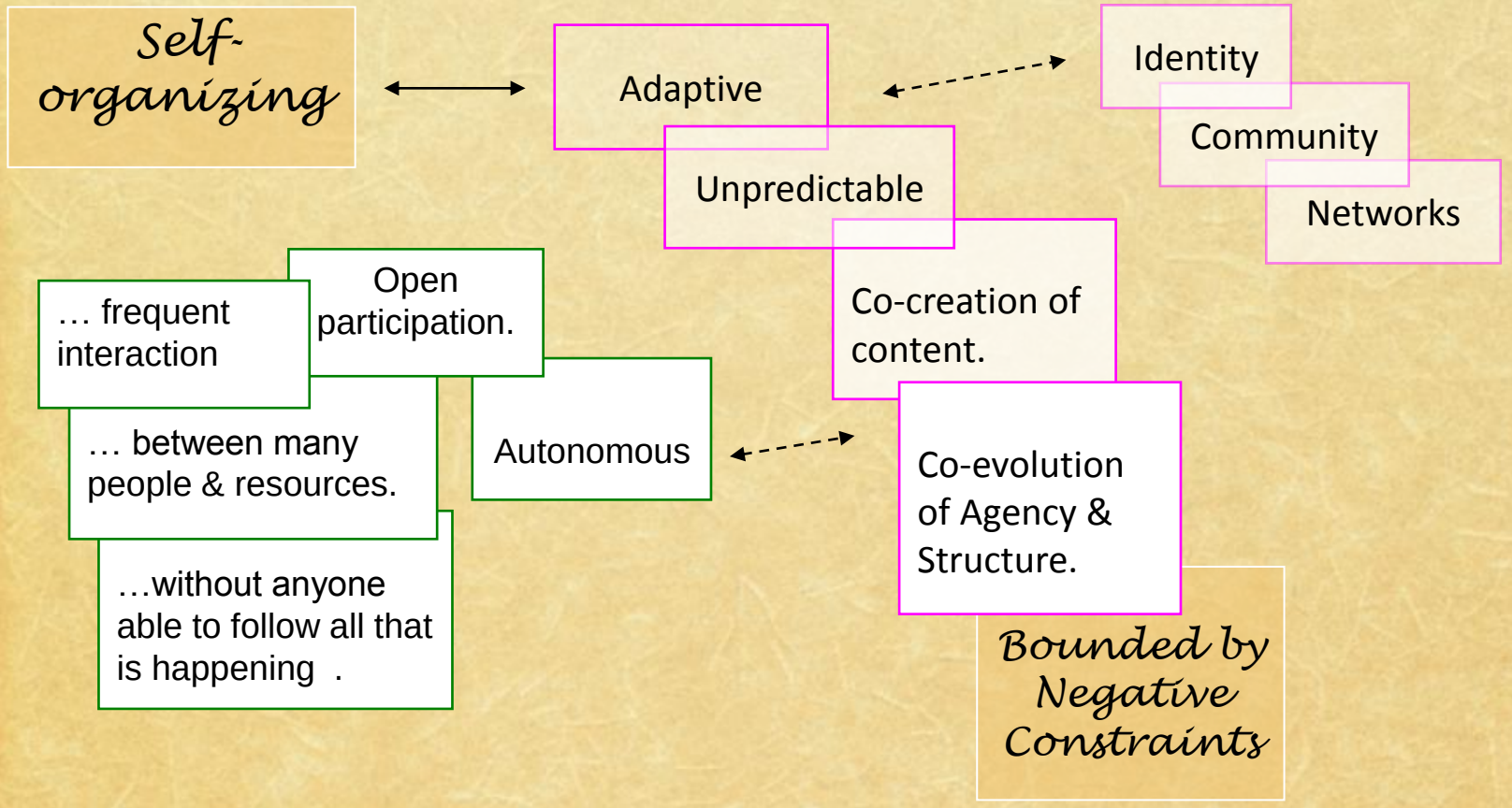
Self-Organised
Learning Environments / HIW's

Sugata Mitra's radical experiments in:
Minimally invasive teaching /SOLE's.

- How much can you remove?
- Are the slum children self-organising?
- Granny Clouds?
- Teachers? Walls?
- Curriculum?

RW …

Emergence is…? (2)



RW …

Future Research

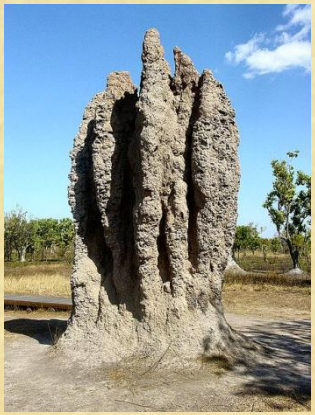
- ***Descriptions / visual analysis of emergence in practice … to create better practice and better strategic frameworks, for …***

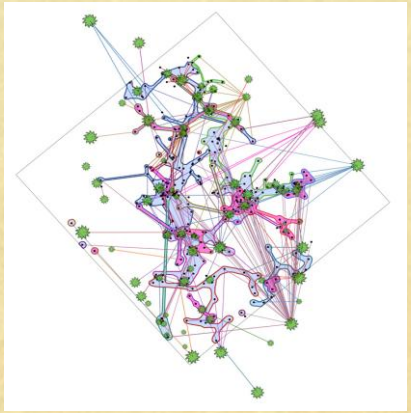
- Designing and using learning spaces / architectures (for co-evolution of agency and structure)
- Facilitating emergence < > constraints
- Benchmarking emergent learning
- Certifying emergent learning
- Integrating emergent learning into broader learning practices/ ecologies. (e.g. Mathematics: Kumon, Montessori , LOGO, Problem-based learning, etc).
- Relationship to broader ecologies of learning/ knowledge creation/ accumulation/ distribution

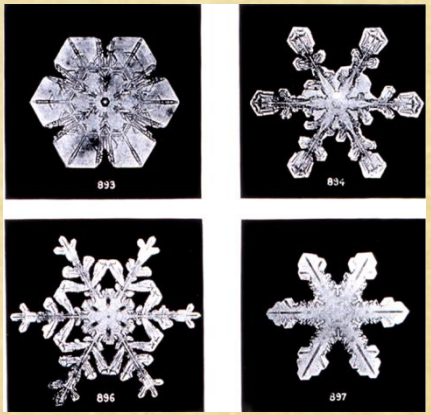
Questions

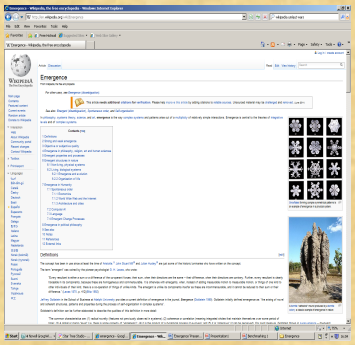
1. Does emergence require constraints?
2. Are ‘learning events’ compatible with emergence?
3. Can emergent learning be assessed?
4. Can we integrate emergent learning with other kinds of learning?
5. Are there examples of learning/events in which emergence could/should play no role at all?

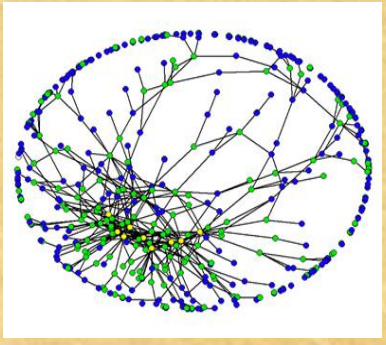
RW …



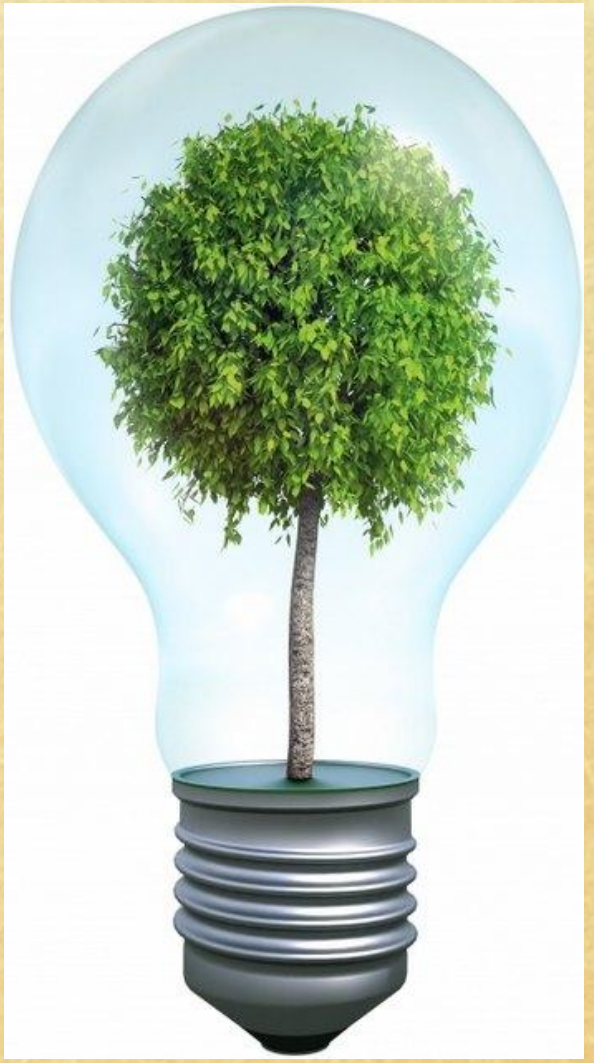



893
894
896
897





Many thanks …



Modes of Learning	Domains of Application	Types of Knowledge	Organisation	Modes of Production	Validation & Self-Correction
Pre-scriptive Learning Systems	Predictable, Objects & Events	Predictive control	Hierarchy, Institutional Control	Centrally pre-determined *for users.*	Scientific Method, Objectivity, Elite Peer Review.
Emergent Learning Networks	Complex-Adaptive Organisms & Events	Retrospective coherence	Collaboration Self-Organisation	Open & distributed. Created at scale *by users.*	Openness, Interaction Scale, Constraints, Ethics.

Learning Ecologies

The End …