

Learning in multidisciplinary teams leading technology change and adoption



Mandy Lacy – Hanover, Germany – June 2015

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Change & Adoption

learning in multidisciplinary teams leading new technology implementations

[An invitation](#)

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An invitation

You are invited to attend this learning event on researching multidisciplinary teams leading new technology implementation change and adoption. This blog is a way of providing more information and also to begin engagement with you before the workshop.

The workshop will bring together our experiences of working with teams dealing with new technology implementations. You will have the opportunity to apply thinking from transactional analysis perspectives when considering individual, team and organisational change and adoption.

Included in the day will be a brief overview of my research project approach, methodology and theories involving problem structuring methods, expansive learning and transdisciplinary leadership. Followed by transactional analysis concepts for consideration when investigating individual and systemic resistance, early adoption processes and strategies.

As an experiential workshop you will be able to examine your own experiences, thinking and solutions through a pluralist lens of several methods and concepts. Then share application to your own situations for the experience of transdisciplinary learning as a community of practice.

Today

- Global View
- German Lens
- Own Cases
- Research Overview
- Learning Experiences
- Change & Adoption
- Hungers & Appetites
- Application
- Summary





Darwin to Perth	4396km
Perth to Adelaide	2706km
Adelaide to Melbourne	726km
Melbourne to Sydney	887km
Sydney to Brisbane	972km
Brisbane to Cairns	1748km



Area size comparison of
Australia and Europe

Australia's area = 7,706,168 sq km
Europe's area as shown = 3,483,066 sq km

What Happens in an Internet Minute?



And Future Growth is Staggering



WORLD POPULATIONS



1. CHINA



2. INDIA



3. FACEBOOK



4. TENCENT



5. WHATSAPP



6. UNITED STATES



7. GOOGLE+



8. INDONESIA



9. LINKEDIN



10. TWITTER

VIRTUAL AND ONLINE COMMUNITIES WILL OUTGROW

GEOGRAPHICAL AND PHYSICAL POPULATIONS

#2014GLS

WWW.LONDON.EDU/GLS



1.34
BILLION
CHINA



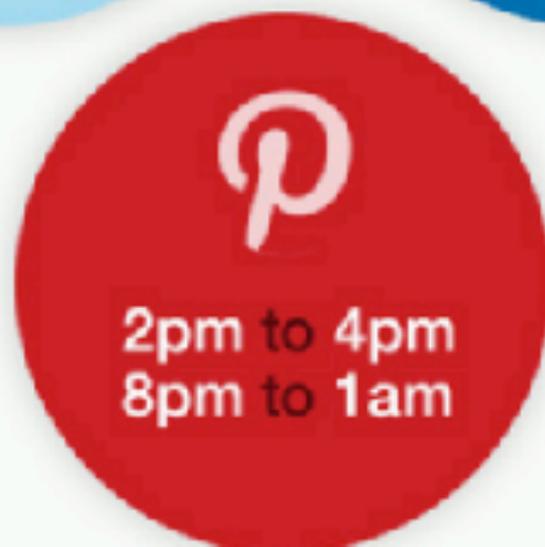
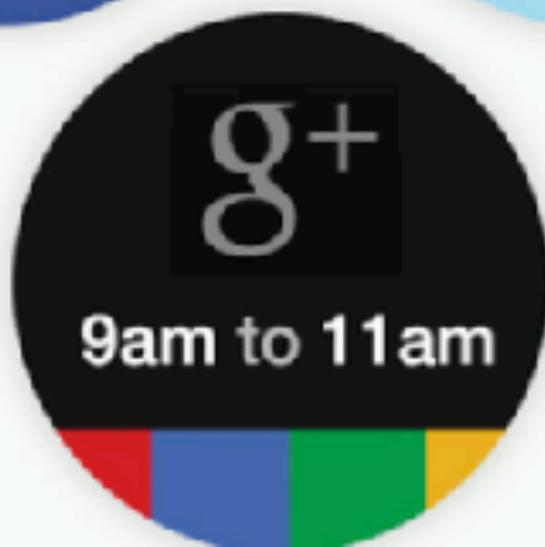
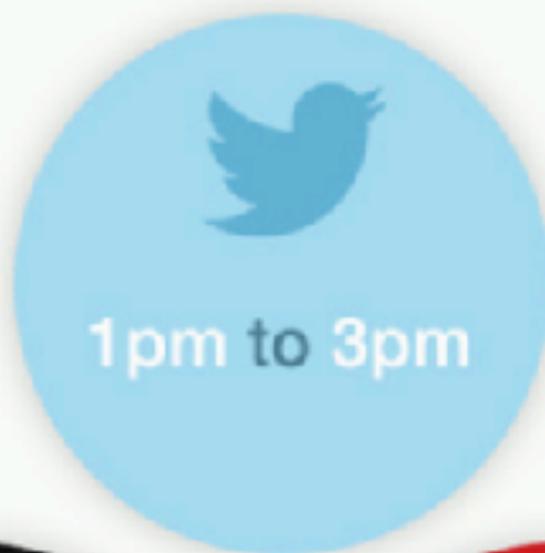
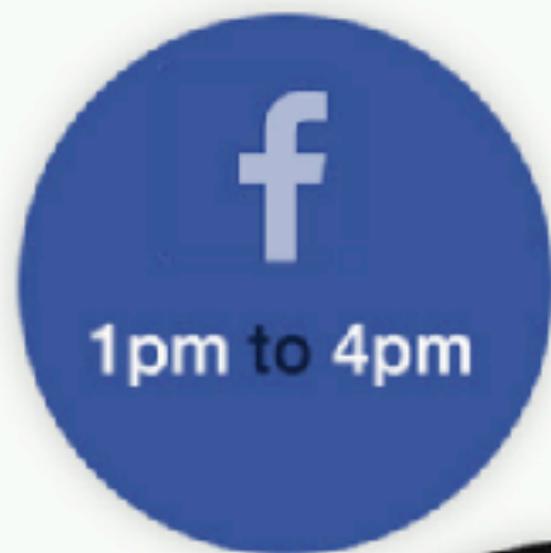
1.24
BILLION
INDIA



1.23
BILLION
FACEBOOK NATION

SHARE AT THE RIGHT TIMES

Different social networks have different peak times for posting. Take advantage!



Uber

The world's largest
taxi company, owns
no vehicles.

The world's most
popular media owner,
creates no content.

Facebook

Alibaba

The most valuable
retailer, has no inventory.

The world's largest
accommodation provider,
owns no real estate.

Airbnb

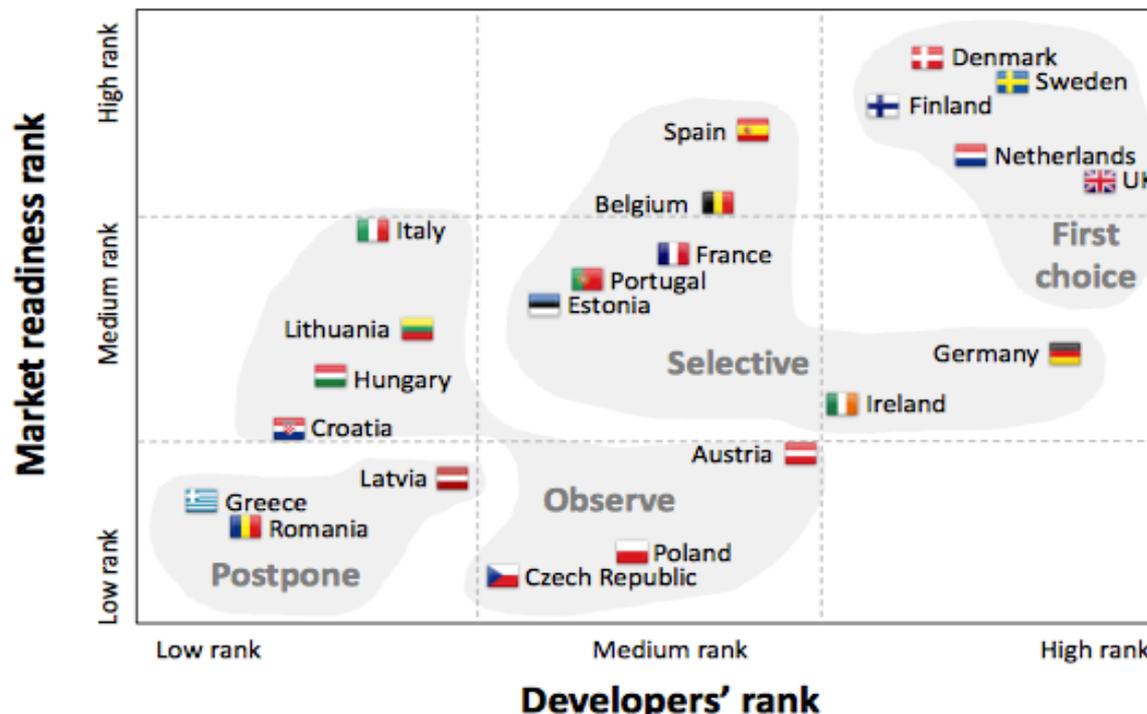
Something interesting is happening.

TOM GOODWIN

The German Lens

5 COUNTRIES OFFER THE BEST MARKET CONDITIONS FOR STARTING AN MHEALTH BUSINESS IN EU

Comparison of country's rank in market readiness score and developer index



Developers rank – country rank by developers and decision makers,

Market readiness rank – rank of country based on eHealth adoption, level of digitalization among population, market potential, ease of starting business, mHealth regulations

BERLIN, GERMANY - (HealthTech Wire / News) - Germany is among Europe's leading nations when it comes to scientifically researching and implementing telemedicine applications.



Major clinical studies on the telemedicine monitoring of outpatients suffering from chronic illnesses, with regard to vital parameters in cases of heart insufficiency, have taken place in Germany.

- <http://www.hitcentral.eu/healthtech-wire/conhit-2014-telemedicine-important-factor-business>

Your Experience and Cases

From your experience and observations of technology disruption / implementation - what have been the:

- Enablers
- Inhibitors
- Drivers
- Culture

@ team meetings

@ individual level

@ leadership

@ projects, consultancy, coaching, training, other



Learning in Multidisciplinary Teams Leading Technology Change & Adoption



Approaches:

- Expansive Learning
- Transdisciplinary Leadership
- Problem Structuring Methods

Research

- Approach:
 - Realistic evaluation
 - Theorising
- Theories
- Methods:
 - Design Based Research
 - Data collection from
- Subjects:
 - Telehealth
- Situational Lens
 - Team Meetings
- Current position
- TA Connection - PSM



Research is about gaps and interesting Questions

Alvesson & Sandburg 2011

‘it is increasingly recognised that what makes a theory interesting and influential is that it challenges our assumptions in some significant way’ (p.247)

- What is interesting to notice?
- What is the mystery or problem to solve?

Realistic Evaluation

Pawson & Tilley 2004

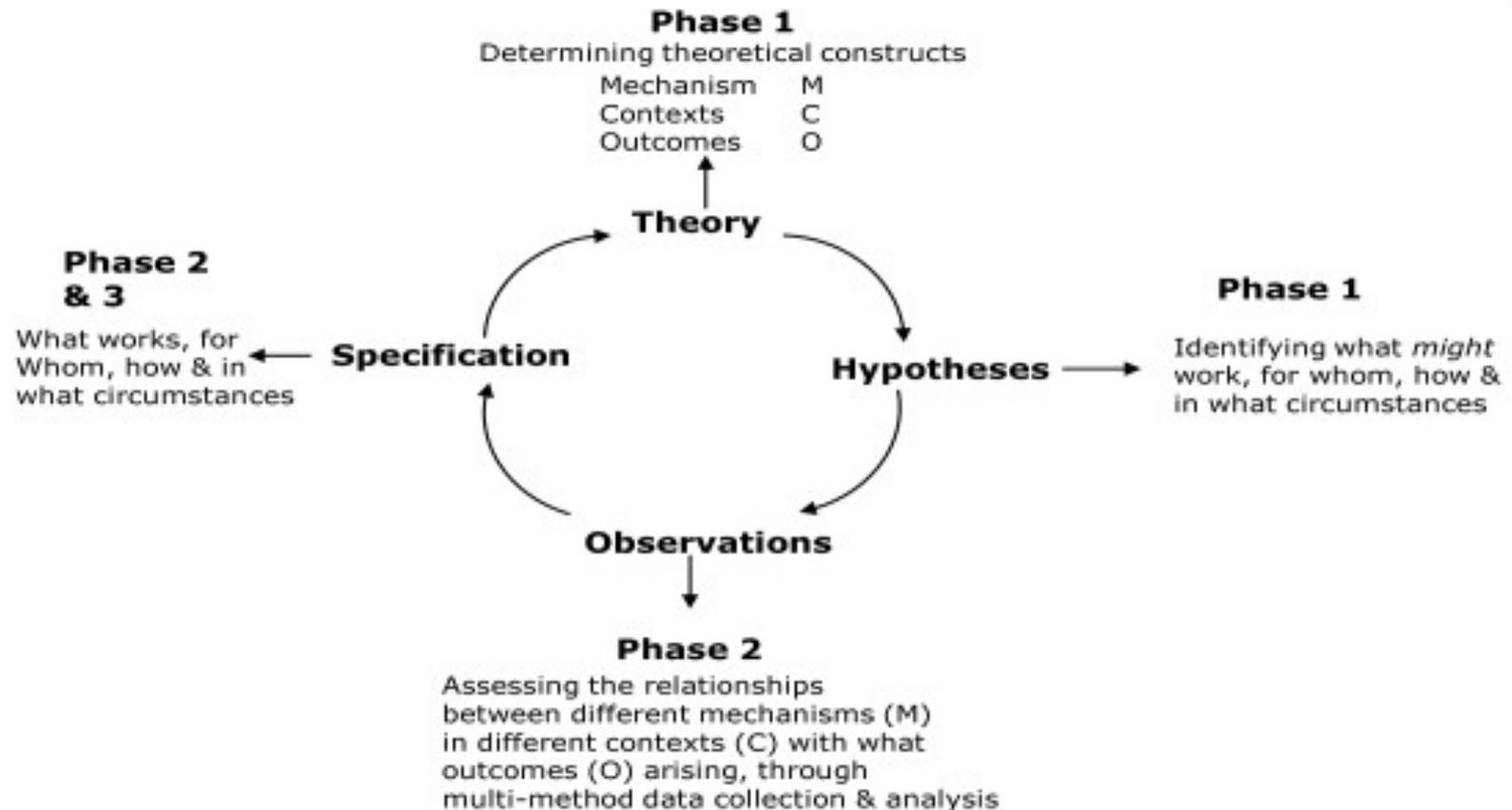


Figure 2: Realistic evaluation cycle as applied to this study

Discovery Informing Theorising

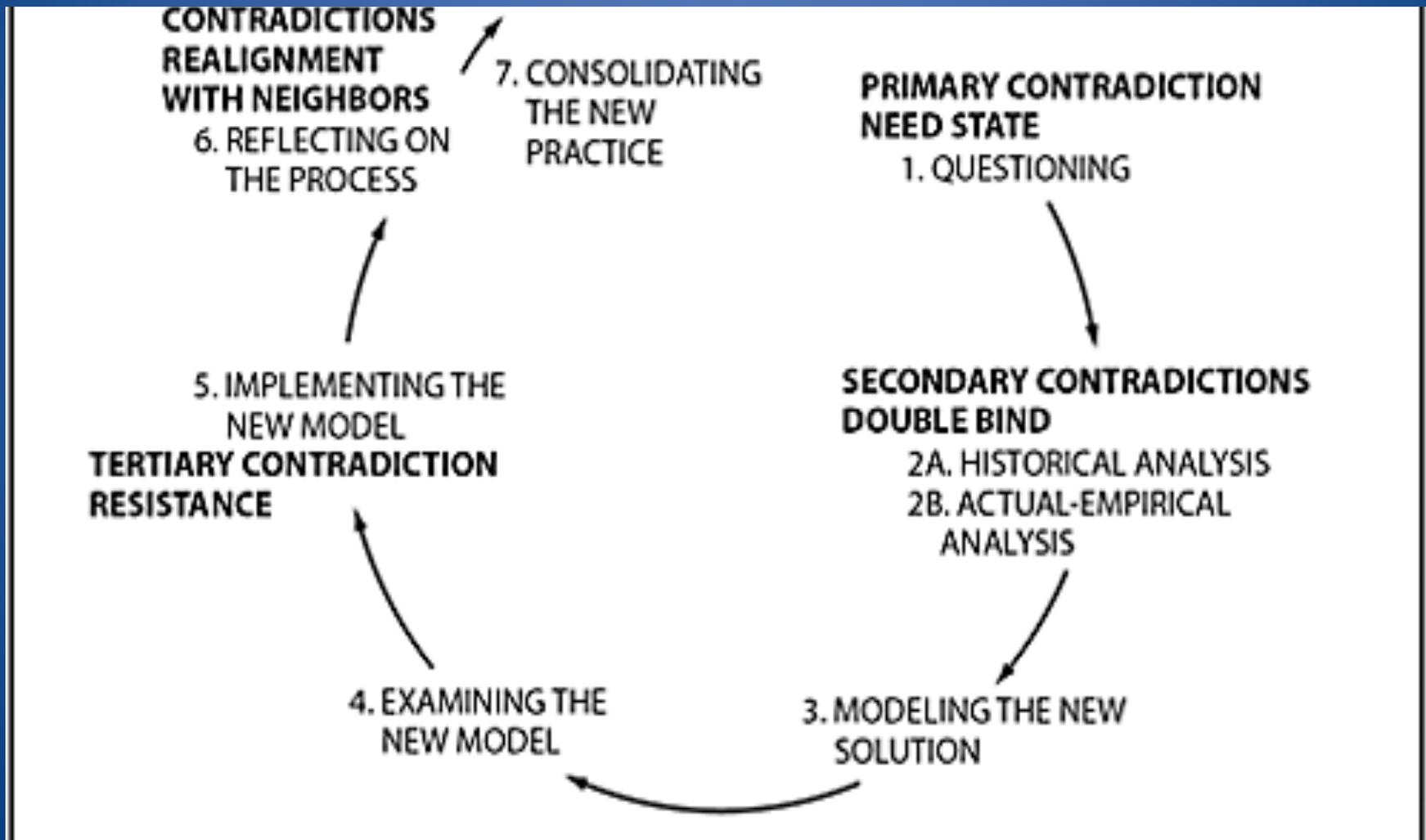
Swedburg 2012

Two-phase research approach:

- **Phase 1:** The prestudy or discovery phase or an early and imaginative phase of theorizing that can consist of:
 - observations
 - naming and formulating the central concepts
 - building out a theory
- **Phase 2:** The main study or the phase of the major research and justification and consists of:
 - drawing up the research design
 - execution of the research design
 - writing up the results. (p. 10)

Expansive Learning - Engestrom 2009

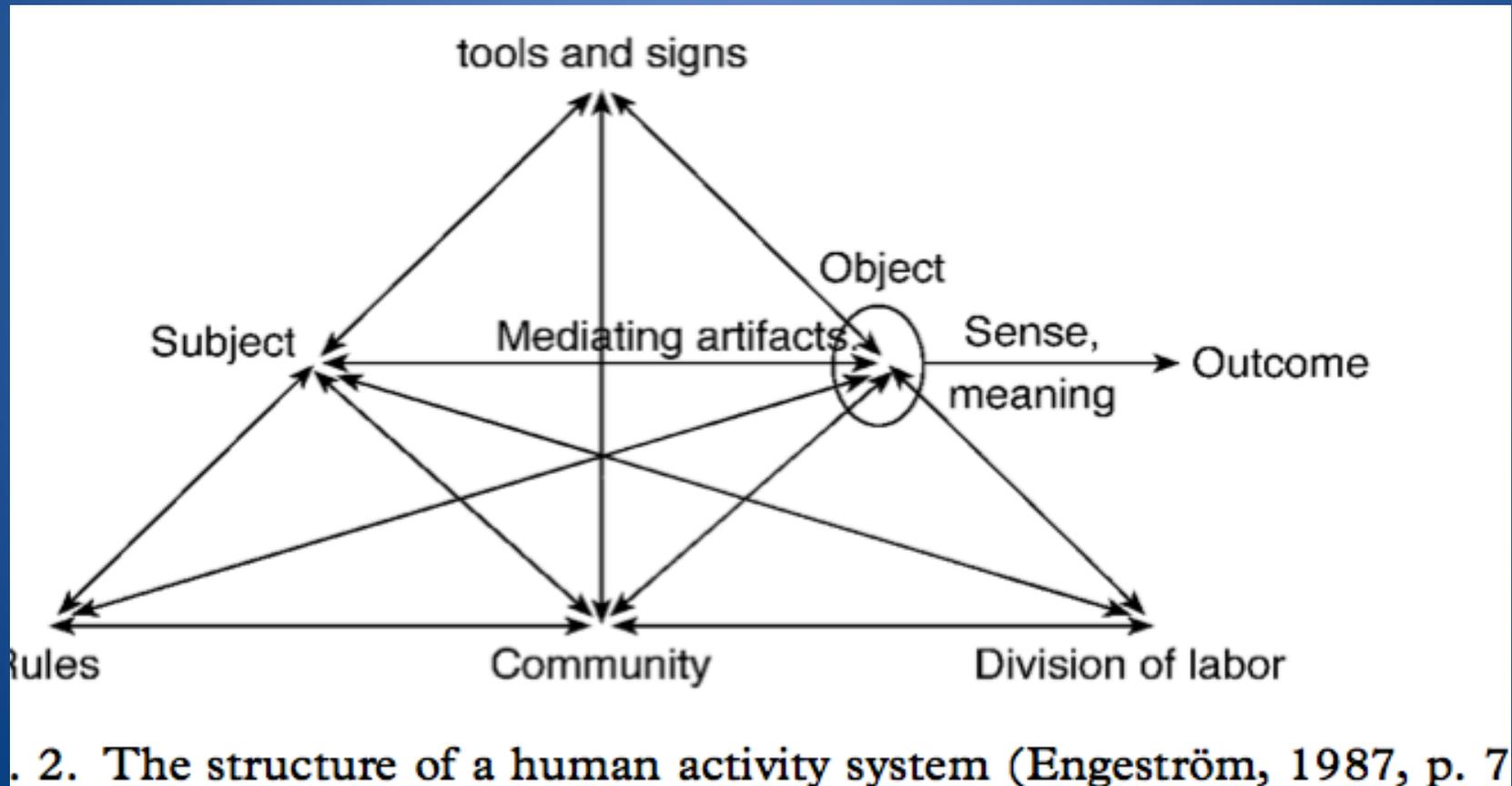
directionality of learning and development



Activity Theory

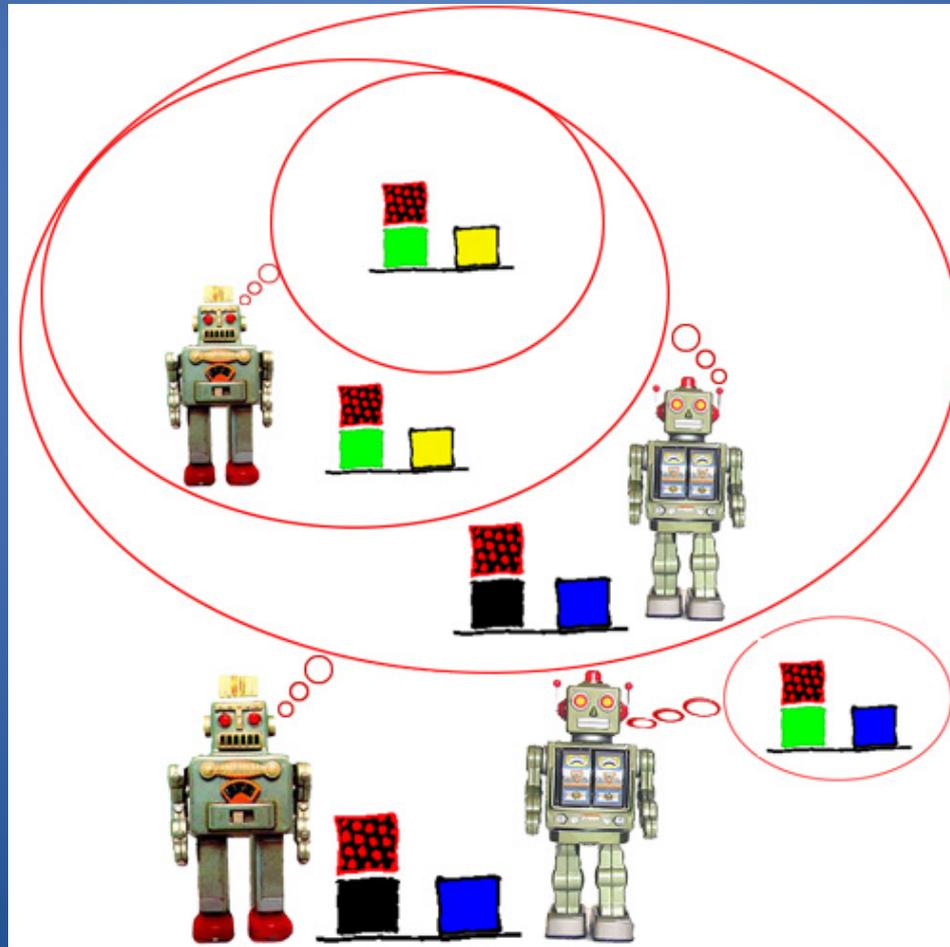
Engestrom 1987, 2009, Halvorsen & Sarangi 2014

- ‘a framework for understanding human interaction through their use of tools and artifacts’



Epistemic Objects (Ewenstein & Whyte 2009)

‘relatively stable or in flux; as abstract or concrete;
and is used within or across practices



Problem Structuring Methods

Problem structuring methods (PSMs) are a broad group of model-based **problem** handling approaches whose purpose is to assist in the **structuring of problems** rather than directly to derive a solution. They are participative and interactive in character, and normally operate with groups rather than individual clients.



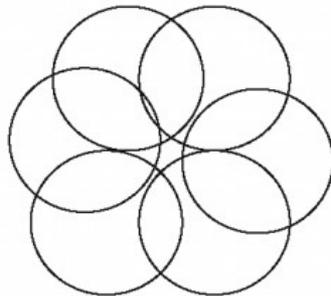
Transdisciplinary Leadership

McGregor & Donnelly 2014

solving problems as the centre of transdisciplinary practice – not the disciplines

Generic
(Pooled interdependence)
“MULTIDISCIPLINARITY”
Co-ordination by standardization
(system-wide)
Investment into the whole system
(systemic goals)

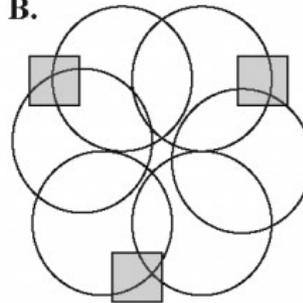
A.



Information inputting
-Each stakeholder represented
-Multiple closed systems interacting within an open system

Sequential
Interdependence
“INTERDISCIPLINARITY”
Co-ordination by planning
(Inter-systemic goals)

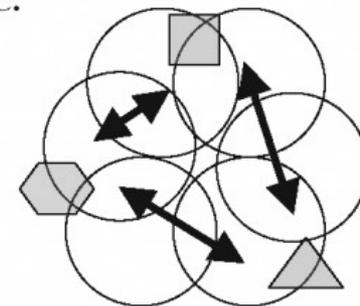
B.



Throughputting
-Each stakeholder contributing
-Planned disciplinary interaction

Reciprocal
Interdependence
“TRANSDISCIPLINARITY”
Co-ordination based on integrated input/output (individual and systemi goals in dialogue)
Investment into th uncertainty generated by pooled an sequential interdependence

C.



Homeostasis
-Each stakeholder affecting
-Reorientation.

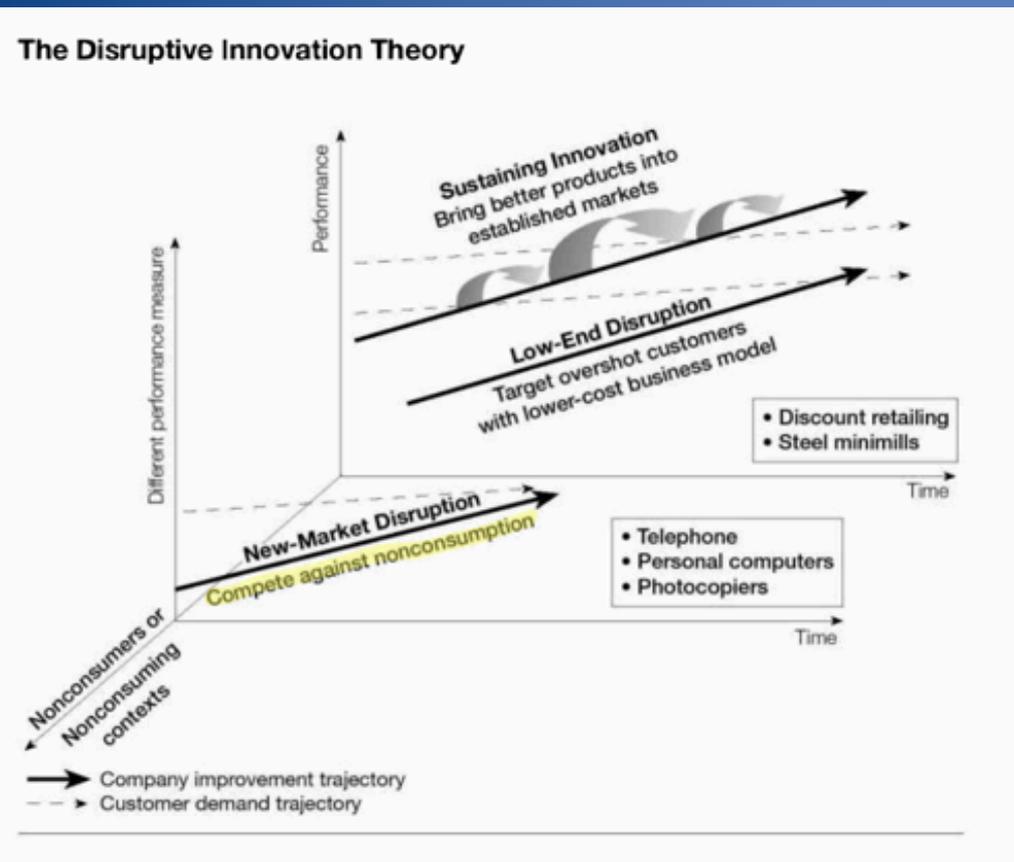
Disruptive Innovation Theory

Christensen 1997, 2006; Yu & Wang 2010

Is from the challenges and disruptions technology brings –
innovations of existing products

Identified five key responses

- focus on and invest in the traditional business,
- ignore the innovation – it's not your business,
- attack back – disrupt the disruption,
- adopt the innovation by playing both games at once and
- embrace the innovation completely and scale up.



Methods

Design Based Research is characterised as an inter-disciplinary mixed-method research approach conducted 'in the field' that serves applied and theory-building purposes.

- Reimann 2010

Data collected from: case studies, video recordings, surveys, interviews

Hypothesis

When leading technology implementation, multidisciplinary team meetings are a place for explicit learning on many levels ways:

- individually
- as a team
- over time
- From structuring problems
- through trans-leadership
- in parallel with key stakeholders.

Research Questions

Proposed:

- What learning, objects and artifacts naturally occur at team meetings?
- How do introduced objects and artifacts facilitate learning and knowledge building?
- How is transdisciplinary leadership naturally and deliberately applied at team meetings?
- What expansive learning happens over time in MDT leading C&A?
- How do PSM facilitate learning at various levels? TA
- How are individual implicit and explicit learning needs at MDT meetings identified/known? TA

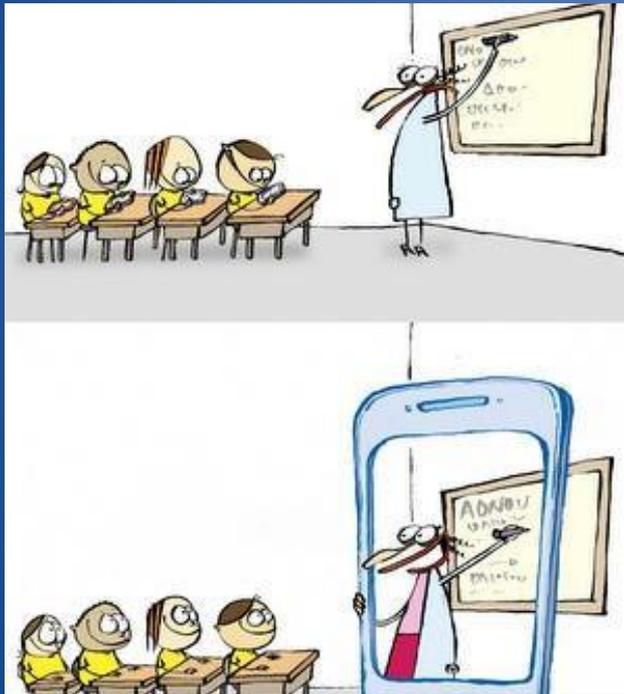
What is interesting to ask and the mystery to solve?

FOMO



<https://youtu.be/VweJslp1SbE>

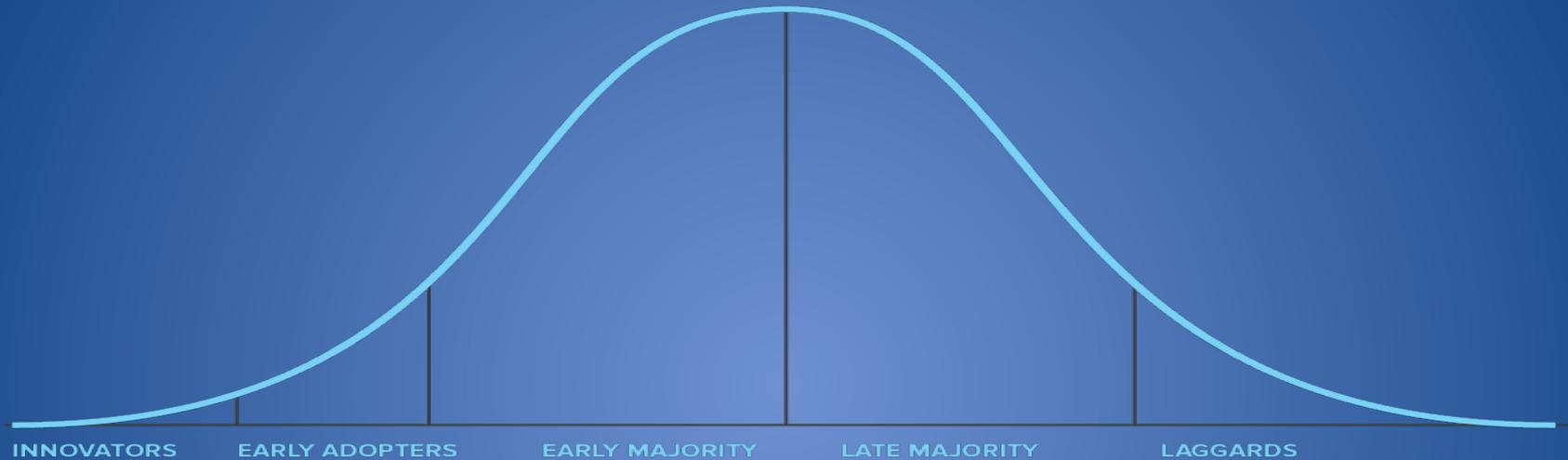
Learning, Technology & You



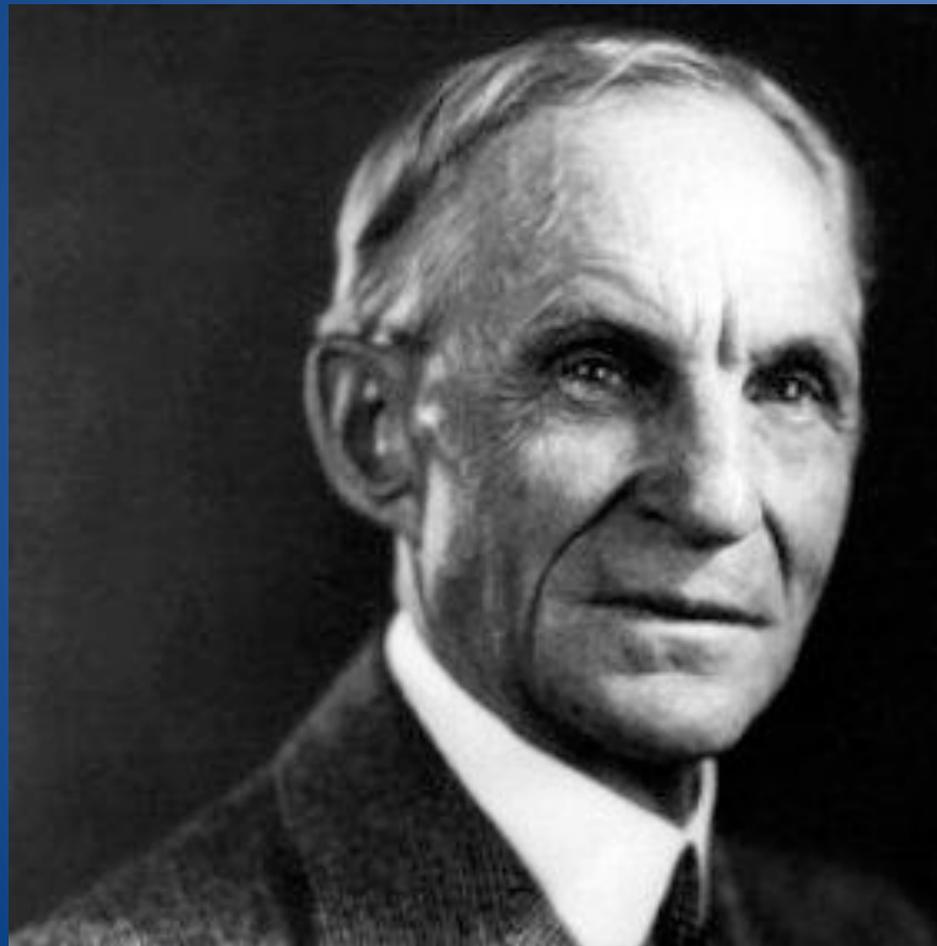
- How do you
- What helps
- When is best
- Why
- Emotions
- Reactions to others
- Influence of situations

Change & Adoption

Everett Rogers — Diffusion of Innovations 1995/2003



Innovators	Early Adopters	Early Majority	Late Majority	Laggards
Tech Enthusiasts	Visionaries	Pragmatists	Conservatives	Skeptics
Volunteer Want to be 1 st Usually no buying power	Driven by dream of change Personal recognition Ref on 1 st projects \$ least concerned	Values productivity Will pay for service Others do the change	Prefers tradition, stick with things that work Change needs to be simple, cheap, does not interrupt	Only block change Doubts change will bring promised returns
Let them play	Paint a picture	Show how you can improve their day	Show those who survived	Neutralise with the bigger picture for everyone



“If I had asked people
what they wanted,
they would have said
faster horses.”

—Henry Ford



*“Don't forget your magical
inner child”*

Technology and Hungers

Hunger	Satisfaction	Overindulgence
Stimulus		
Recognition		
Structure		



Hunger theorists

- Berne 1972
- Barnes 1981
- Erskine 1998
- Meredith 2001
- Sills & Hargenden 2003
 - Cornell 2008
- Mountain & Davidson 2011
 - Lacy 2015

Berne

- Stimulus (sensation) is the need for sensory input from others and the need of being with others (1972)
- Recognition hunger encompasses all the ways we seek recognition – both negative and positive
- Structure hunger is that of needing our time structured

Barnes 1981

Three levels that articulate internal and external manifestations – ‘where do I fit in?’

- At the

1. Existential level there is position hunger
2. Social level there is structure hunger
3. Psychological level it is recognition hunger

Erskine 1998

Motivation theory

- ‘hungers for stimulus, structure and recognition are interwoven, interactive and interdependent (and) operate as a dynamic motivational system’. (p. 132-142)

Meredith 2000

- Control as the 4th psychological hunger
- ‘that the desire for control is a natural psychological hunger, satisfied by empowerment, stability and connection’.
(p.285)
- And that by analysing the motivators of human behaviour that includes control – offers more for understanding of ourselves and others

Sills & Hargenden 2003

Two main tasks that are essential to human beings:

1. Is related to structure and stimulation which 'is striving to master our environment' and
2. Is related to recognition hunger which 'is our need to be in relationship' (p.21-22)

Cornell 2008

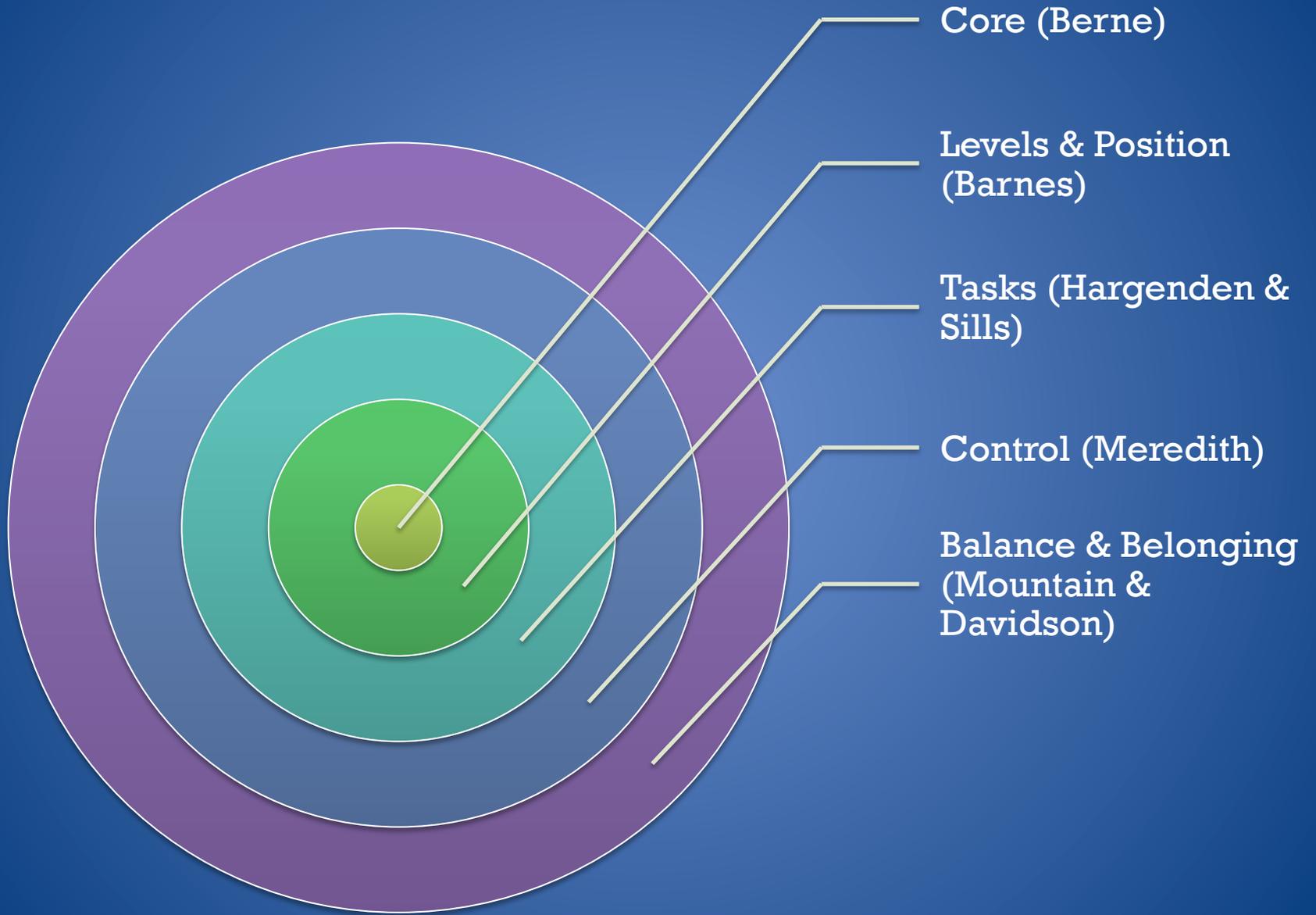
- Describes hungers as ‘an active force, a force of activity, not just to relieve itself of its tensions on a field of object but to seek things, people, stimulation, and so on, and take them in.’ (p. 172)
- Also that ‘these hungers live among themselves within the human psyche in a constant, rather competitive dialectical tension’.

Mountain & Davidson 2011

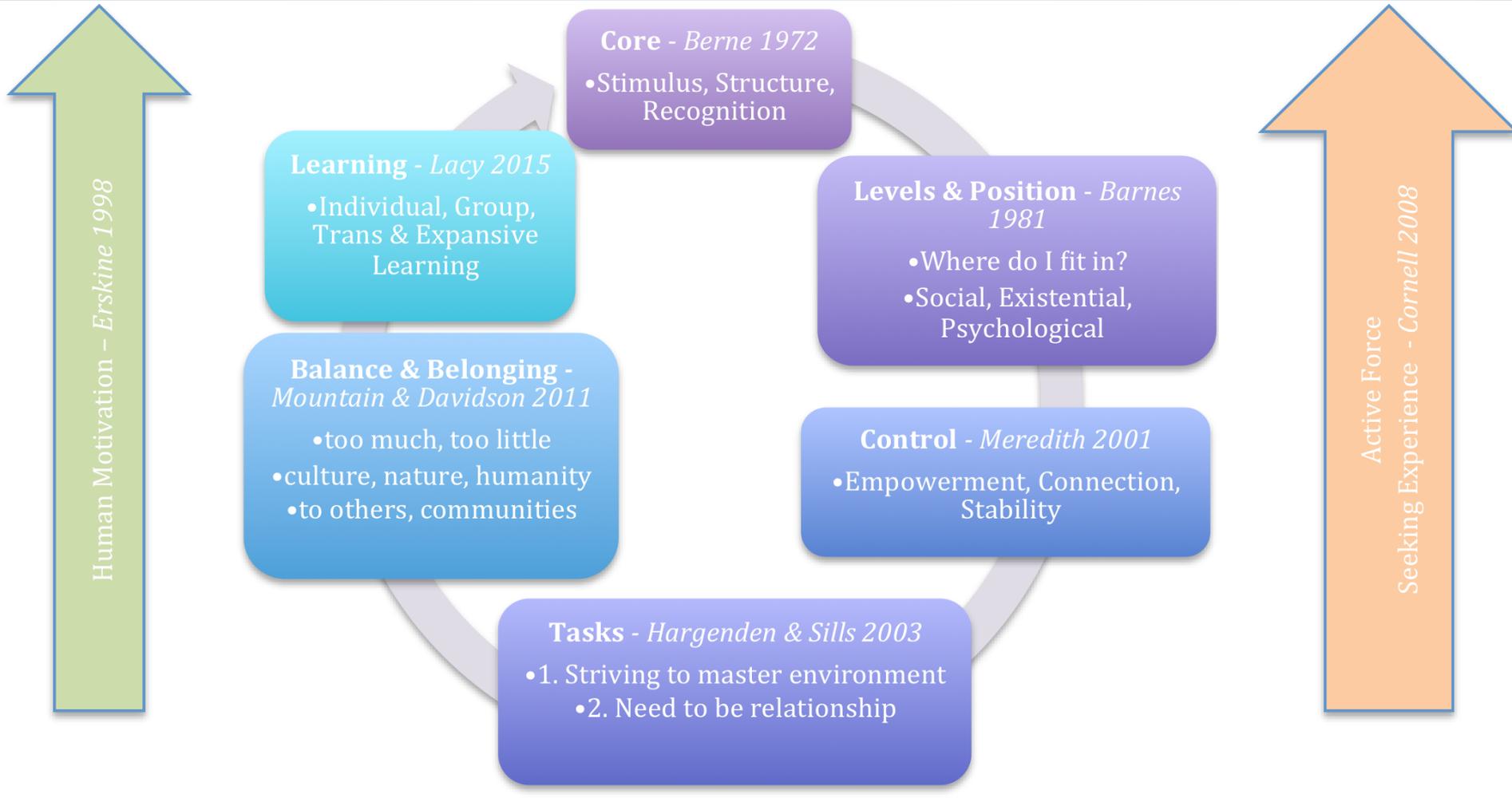
- Biological hungers that are ‘biological driven needs that are the motivating force for human beings’. (p.70)
- too little = apathetic, too much = burnt out
- Recognition as stimulus
- 1. Stimulus, 2. Belonging
- *‘everyone needs to feel a sense of belonging and it is this aspect that enables us to feel safe enough to offer our thoughts and opinions since we feel valued’ (p. 71)*

Lacy 2015 theorising

- **Appetite of Change:**
 - for individual, group and trans learning
 - of both passive and active resistance and enthusiasm/engagement
- That each of these theories, concepts and aspects either separately or combined - influences our motivation for learning and knowledge building when it comes to our engagement and experience of technology either individually or in groups.



Internal appetite for change

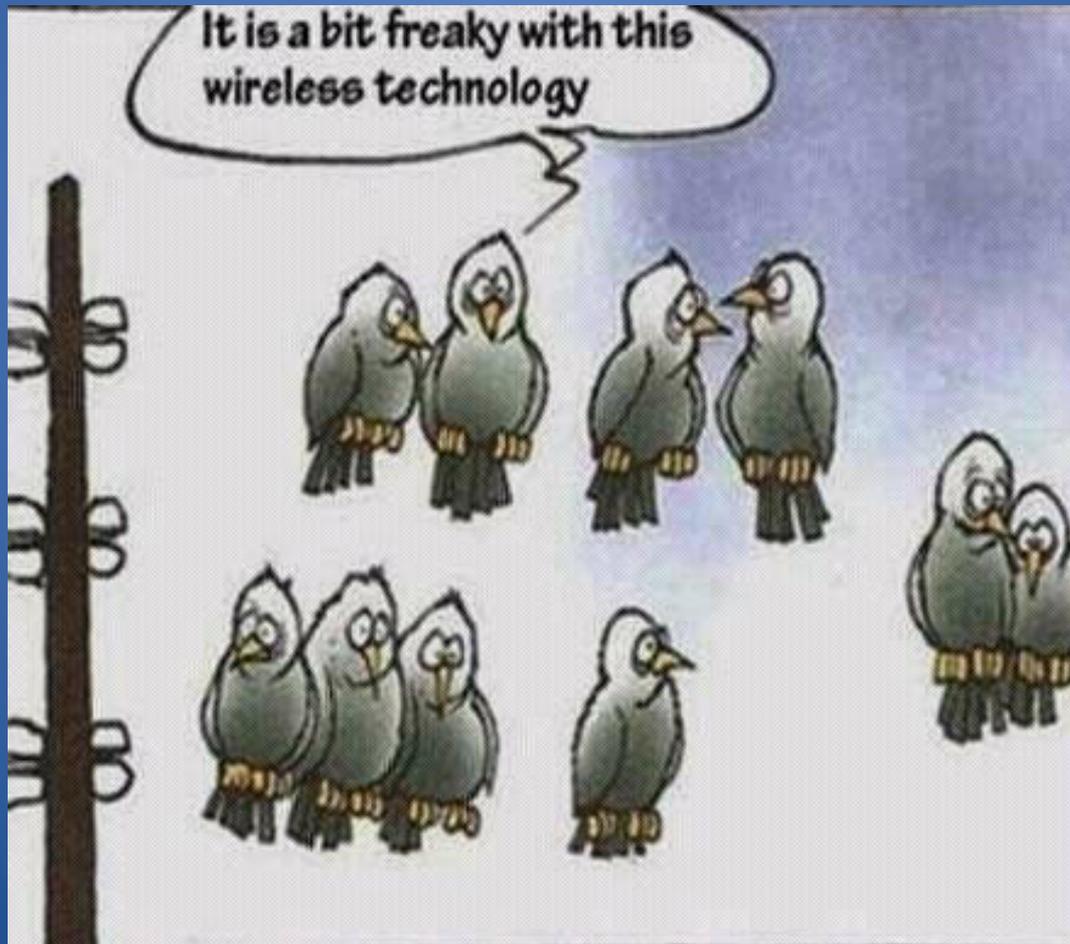


Questions

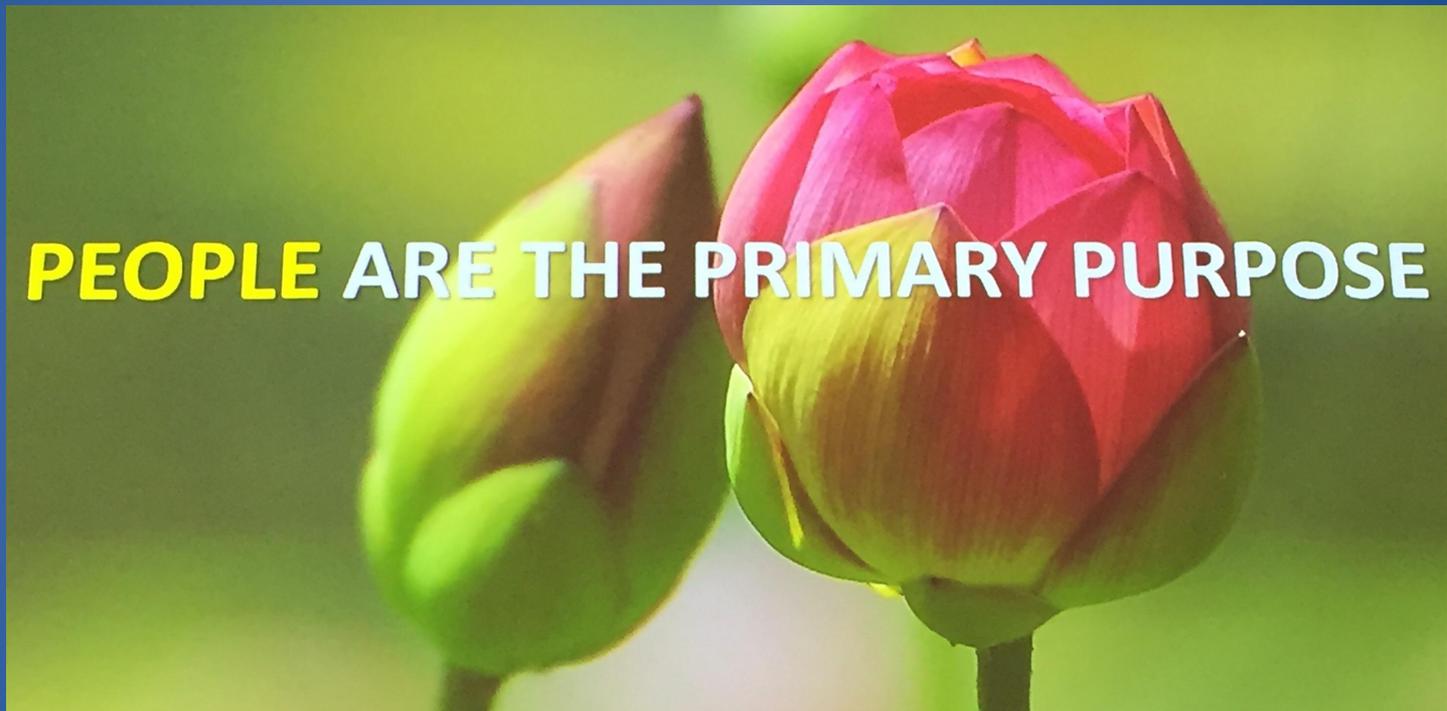
individual, observation, experience

- **Core:** sensations, recognition, structure noticed
- **Levels:** fitting in on a social, existential and psychological level?
- **Control:** Rate of satisfaction of being empowered, feeling stable and connected?
- **Tasks:** Over or under compensating to master the environment, and to be in relationships
- **Balance:** +ve and -ve experiences & sense of belonging
- **Motivation:** what are the motivators
- **Seeking Experience:** what active forces are in place (or not)

In closing



Thank You



PEOPLE ARE THE PRIMARY PURPOSE

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