

# THE EVOLUTION OF ORGANIZATIONAL CAPABILITIES IN THE ZOONIVERSE

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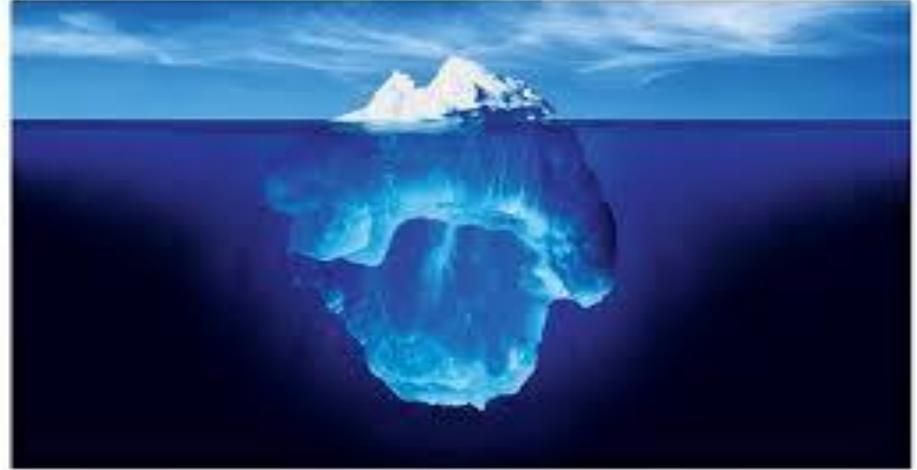
# Capabilities Unpacked

- Capabilities are emergent
- Emerging stable patterns of action, behaviour, or practice (Eisenhardt and Martin 2000)
- Capacity to generate action (Cohen et al. 1996)
- Individuals, processes and structure (Felin et al. 2012)
- Study of transition (and transmission) mechanisms between ancestors and descendants (Winter, 2012: 1403)
- Contextually entrenched within the structural, social and cultural aspects of the firm (Grewal and Slotegraaf, 2007)
- Capabilities as the interplay between the emergent powers of structure, culture and agency (Meriton, 2015)

# What is the Morphogenetic Approach?

## Some Core Ideas

- ❑ Critical Realism
- ❑ Realist Ontology
- ❑ Relativist epistemology
- ❑ Emergence
- ❑ Reflexivity
- ❑ Internal Conversation
- ❑ Analytical Dualism



# What is the Morphogenetic Approach cont..?

- Builds on analytical dualism
- Structure always predates agents
- Agents are placed involuntary in structured positions (T1)
- Reflexively, agents act (T2-T3) to reproduce or elaborate structure (T4)
- Unintended and/or intended consequences of agents action structure context of action for agents in the future

T<sup>1</sup>

Structural conditioning

Social interaction

T<sup>2</sup>

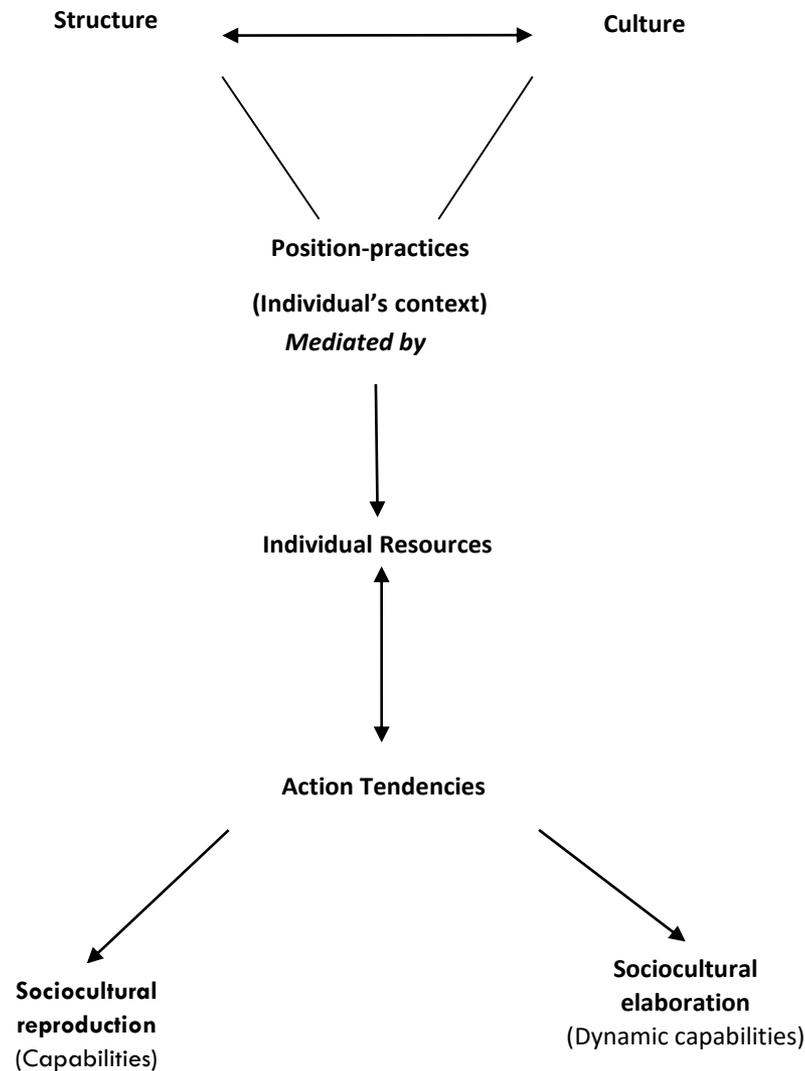
T<sup>3</sup>

Structural elaboration

T<sup>4</sup>

*Source: Archer 1995: 193*

# Applying the Morphogenetic Approach to Organizational Capabilities



# Applying the Morphogenetic Approach to Zooniverse

## Method

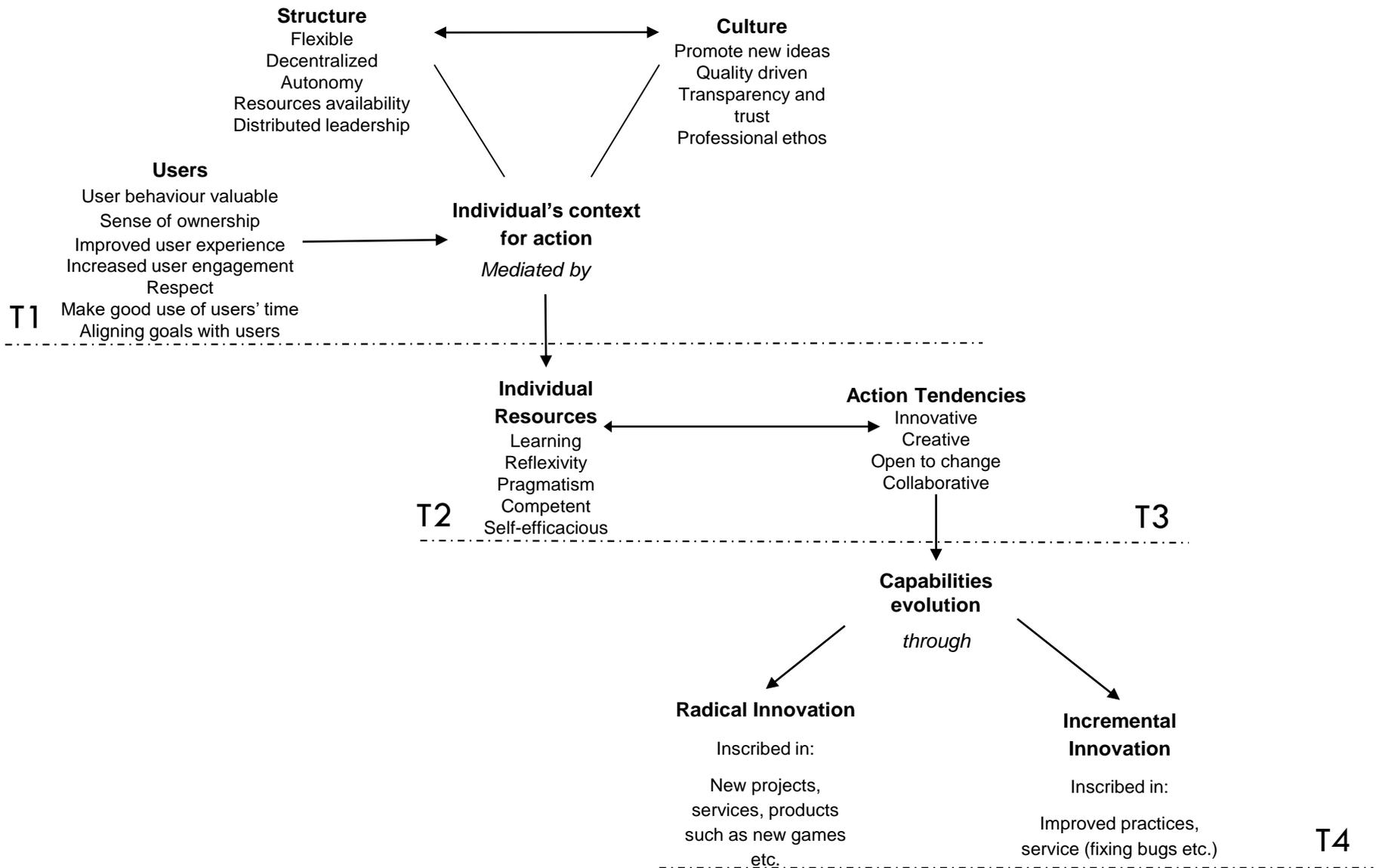
- 23 semi-structured qualitative interviews taken from the Zooniverse team, taped and transcribed
- Respondents included managers, software designers, programmers, education officers and scientists,
- Thematic analysis with the help of NVIVO
- Sentiment analysis using KNIME

# Summary of Findings

## Snapshot of findings

Zooniverse attributes	Some Useful Quotes
<b>Work environment</b> <ul style="list-style-type: none"> <li>• Informal</li> <li>• Flexible</li> <li>• Learning culture</li> <li>• Responsive</li> <li>• Distributed leadership (to some extent)</li> <li>• Not overly bureaucratic</li> <li>• Fun</li> </ul>	<p>It's a great work environment and it's super interesting. Everything's always moving forward quickly and changing so it's pretty fun</p> <p>There's not a super formal, "This is who you report to every day." We all work together and just collaborate on things and it's very free, in that if there's something that we see that needs building then we'll figure out who has hand work on it and then we collaborate that way.</p> <p>That we cared enough to make this experience enjoyable and fun and friendly and open, and exciting and – yeah. We actually spent the time to convince a brand new person who comes onto the site that yes, your time will be of value and it will be cherished, and thanks for spending your time here</p> <p>Well, when I started there was no formal organisation around that stuff at all, everyone just did what they could....There is more structure than there was because we need a hierarchy as we get more complicated. But that structure is very inconsistent and even – I was just saying to Mr XX over lunch that I think the structure of what we do has changed since he arrived and that was May or something, so it really is quite fast-moving. It just evolves</p> <p>But at the top of the organisation there's Mr XX, although that's less of a steep climb than it was. It used to be that Chris was at the top and then there was a bunch of us doing other things, but now Mr XX is at the top but he's very much leaning on several people</p>
<b>People</b> <ul style="list-style-type: none"> <li>• Creative</li> <li>• Empowered</li> <li>• Willing to learn</li> <li>• Reflective</li> <li>• Autonomous</li> <li>• Self-efficacious</li> <li>• Collaborative</li> <li>• Innovative</li> <li>• Open to change</li> </ul>	<p>Everyone's here because they like it, so I think that's what drives everything forward, it's just the people who work here want to be here as opposed to this is your corporate job, you show up every day and then go home. It seems like everybody wants to be a part of it and I think that helps drive things forward.</p> <p>Very open-minded, people are willing to listen to you and very open to new ideas. [0:08:19] is cool because there's always new stuff coming out. So I like that people are always willing to give things a shot. That's really what I like about it, just the openness to move forward and experiment with things. Sometimes people will have an idea for a small [0:08:36]. Something that might be useful and they will give you time to build it or experiment with it, which is fun</p> <p>So just to be stuck in your one way of doing things is a huge red flag to me, saying well, I – you know, I did it this way and this is the right way. And just trying to exude that feel of I'm willing to – like not only willing but I'm kind of constantly attempting to learn new things.</p> <p>The freedom to learn new things. And not just coming in and writing the exact same things in the exact same technology, get you out for your entire employment [0:25:13] they'll change all that.</p>

# Zooniverse Capabilities Evolution Framework



# Discussion

- Climate of contextual discontinuity (CCD) conditions creativity and innovation
- Users help to shape CCD
- Structural context only shapes action, individuals exercise a degree of agency
- Capabilities resides in the flow of interaction between context and individual properties, both affect each other reciprocally
- Capabilities evolution can be top bottom as well as bottom up

# Contribution and Implication

- Micro-foundations of dynamic capabilities
- Organizational and personal characteristics required to efficiently extract value from the crowd
- Interactional dynamics between the individuals and the organization in the context of crowd organization
- New understanding on the “unintended consequences” of engaging the crowd and the “unanticipated role” of the crowd
- “Born virtual” business model for sustainable performance



Thank you