

The dynamic between policy and entrepreneurial opportunity: a complexity perspective

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Overview

- Dynamic between policy and entrepreneurial opportunity
- Case study from airline service industry
- Use of complexity theory, implications for practice

Colleagues and projects

- Ted Fuller, Fredericke Welter
- Paul Argyle, CEO FlightDirectors
- Projects
 - FlightDirectors
 - Tesco.com
 - High tech spinout
 - Currently developing projects with fuel cell industry (KTN); creative industries/digital economy/EPSRC; nxp semiconductor

Airline industry: policy & entrepreneurs

- Michael O'Leary (Ryanair)
- Stelios Haji-Iaonnou (EasyJet)
- Richard Branson (Virgin)
 - Low cost, no frills airline
 - Single Market in Air Transport
 - Full cabotage: the right of an EU-based airline to operate out of any country in the community
 - 1998-2002, low cost capacity grew 5-fold
 - On-going shift in market behaviour
 - Open Skies?

Electric vehicle industry: USA policy?

- Federal Clean Air Act Amendments, 1990
- California Air Resource Board Low Emission Vehicle Requirements, 1990, 1996, 1998, 2002
- Zero Emission Vehicle (ZEV) mandate 1990 /1994 - >battery powered cars, 2% of all new vehicles, 5% for 2001, 10% for 2003 → disruptive technologies
- 1996,1998, 2002 → concessions after pressure from carmakers, oil companies and their lobbying groups → hybrids can now meet regulations
 - Dyerson and Pilkington



Low carbon agenda

- Will they, won't they?
 - An entrepreneurial conundrum!!!!

Paul Argyle

- 52 year old, Entrepreneur.
- Mortgage
- Degree in Management, Masters in Entrepreneurship
- Married 20 years with 3 Teenage children (expensive)
- 2 Horses, 2 Dogs, 2 Donkeys, 1 Rabbit, 1 guinea pig, 8 chickens and 6 cats,
- Ridiculous 2 seater Lotus sports car.



People and places



Case of FlightDirectors

- 23 year history , up to 100 people prior 9/11
- Services to airline industry
- Many changes – sustainability – have to be prepared to react in an agile manner:
 - **Anticipate new value creating systems**
- Deep-rooting of technological in industry structural context, highly regulated
 - **Yet free flowing, collaborative, new combinations**

Airline Business - issues

- Fuel prices!!
- Open skies ends a closed shop
- Terminal 5 open March 2008 (enquiry opened May 1995)
- Airline consolidation
- Boeing on track for record orders, again Thu Nov 8, 2007
- A380 launch - possible 853 seats.
- Global Alliances or stand alone
- Low cost or Traditional or All Business
- Primary or Secondary Airports
- Web bookings or call centre
- New intermediaries
- Global Alliances
- Travel trends – where's fashionable ?

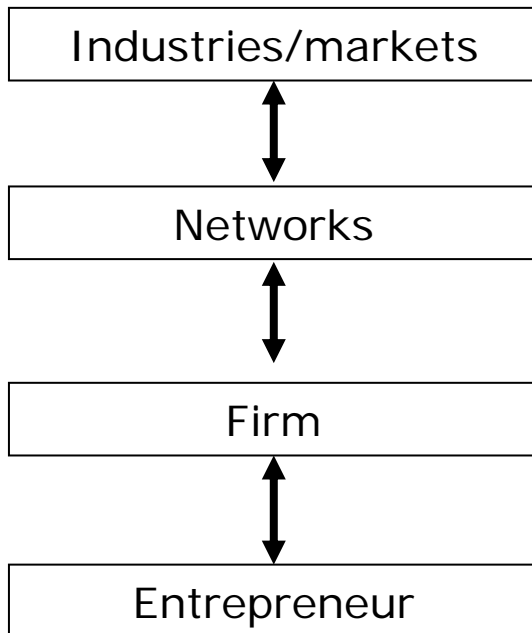
Processes of emergence

- **Experiments** - small scale models testing for fitness in the landscape, co-evolutionary in nature but involving cross-over
- **Reflexivity** - the continuous reshaping of the meaning of what the owner and the business 'are' in relation to others (identity)
- **Organising Domains** - the breaking and reforming of patterns of doing business everyday (new attractor patterns?)
- **Sensitivity to conditions** - the detection and evaluation of environmental change and the motivation to respond (sensing, imperatives)

An entrepreneurial mechanism?

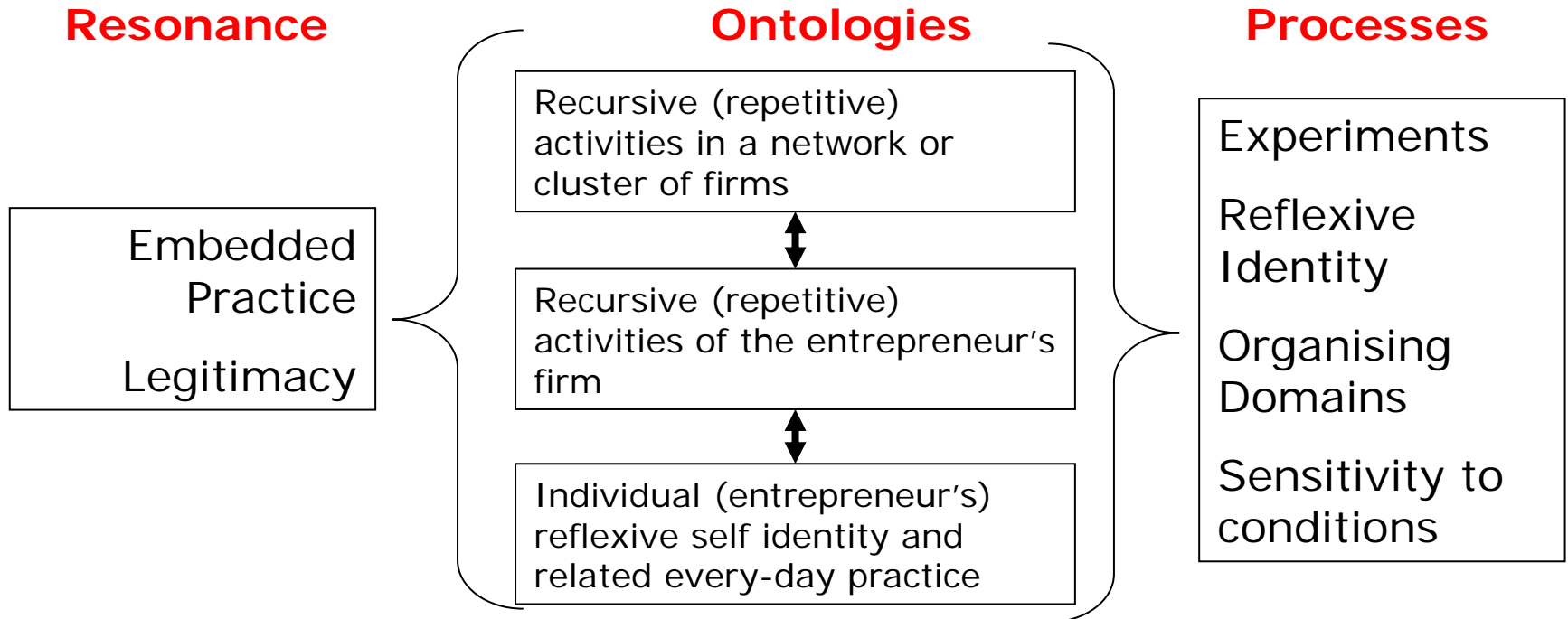
- Process of continuous experimentation that continually generates many new strategic options, some of which 'become the firm'.
- Gary Hamel: *experimentation beats planning* (p156)
- A process of anticipation that can be developed, not mysterious prescience (unstable/ephemeral)
- Embedded patterns of behaviour, developed unique to context and identity of firm/industry networks

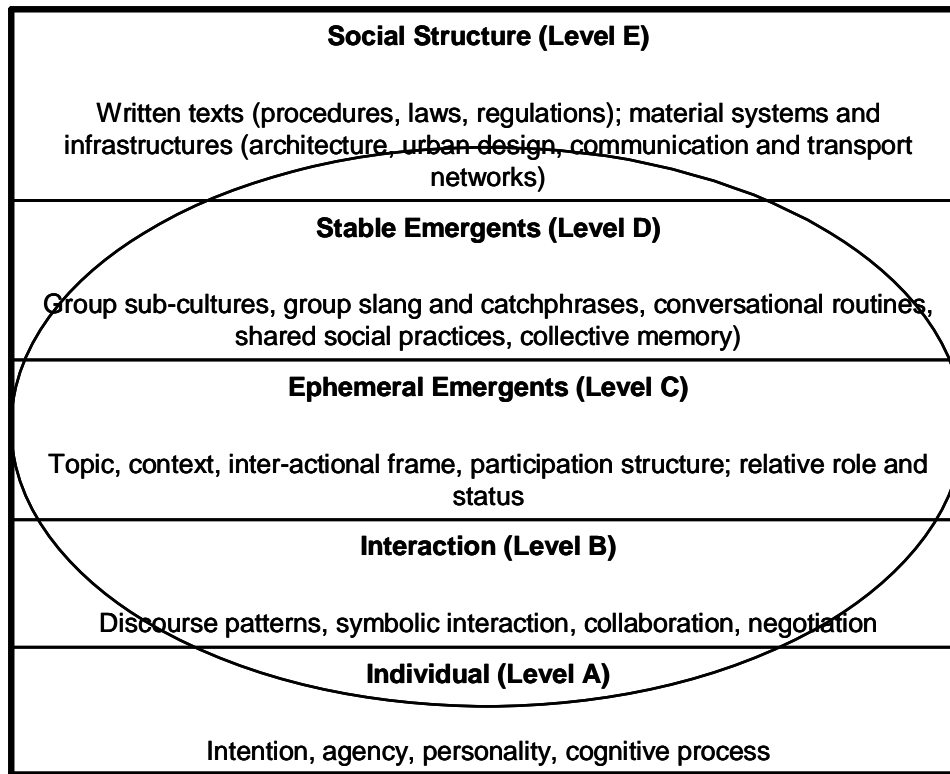
Entrepreneurship



- Creation of novel patterns (order)
- ‘Creative destruction’ – discontinuous change that destroys economic equilibria (Schumpeter 1934)
- Gaze is upon the individual actor (‘born or made’ etc etc..)
- Literature addresses multiple and explicitly hierarchical categories (ontologies)
 - individual / social setting / firm / networks of firms / industries

Dynamic relation between social processes at local/global level





The Emergence Paradigm (Sawyer 2005, p211), showing the 'circle of emergence' (p220), i.e. that area which is subject to social emergence

	Experiments	Reflexive identity	Organising domains	Sensitivity to (changes in) conditions
Social Structure (Level E)				
Stable Emergents (Level D)				
Ephemeral Emergents (Level C)				
Interaction (Level B)				
Individual (Level A)				



In progress....

- capturing an entrepreneurial mechanism (four processes in the cases considered), that spans the individual, firm and industry network levels of analysis, thus placing the entrepreneur in the context of firm and environment.
- developing a relationship between those processes and a range of unstable and ephemeral emergent structures (products, service, new value creating systems) resulting from entrepreneurial activity.
- Methodological implications for research into dynamic, emergent sectors

Significance

“Creative leaders can use a broad spectrum of new technology-enabled options to craft their strategies. These trends are best seen as emerging patterns that can be applied in a wide variety of businesses. Executives should reflect on which patterns may start to reshape their markets and industries next— and on whether they have opportunities to catalyse change and shape the outcome rather than merely react to it”

■ *McKinsey, 2007*