Business *Un*usual

How insights into complexity can guide corporate innovation

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Innovation in professional services is a complex challenge

Innovation is often poorly understood, despite the huge quantity of literature available on the subject:

•The difference between: invention, revolution, party and innovation

•Romantically as: the intersection between someone's imagination and the reality in which they live.

•Practically as: creating new ideas that relate to an enterprise and then implementing them.

Regardless of how it is defined, it must be developed with context (history, intended strategy) of the organisation and leads to some interesting tensions and paradoxes that need to be embraced.

My intention is to reflect upon Deloitte's experience of innovation and relate this to complexity theory. Indeed the insights gained from this field can be helpful in planning and managing corporate innovation.

Key concepts from complexity theory

1. Complex Adaptive Systems
2. Interaction of subsystems and autonomous agents
3. Emergence and self-organisation
4. Non-linearity
5. The existence of feedback loops
6. Integrative decision making

Complex Adaptive System: dynamic network of **many** agents **acting in parallel** and **reacting** with each other. Examples of CAS: stock market, immune system, human communities

Emphasis on dispersed and decentralised control.

Order is emergent rather than pre-determined.

Non-linear – a small change can lead to disproportionately major consequences.

Because of presence of all of these factors, a force applied to a system will mean it is very unlikely to return to its previous state. Indeed, the future state will be very difficult, if impossible to predict – this severely inhibits our ability to extrapolate and plan.

Deloitte = Complex Adaptive System?

- A professional service firm's employees could be defined as *autonomous agents*.
- Whilst there is a hierarchical management structure, our employees typically have considerable drive, ability and work experience – all enabling factors for personal autonomy.
- There is considerable *diversity* of work experience, cultures, background and education within agents across the firm.
- The *web of interactions* in which social and political systems co-exist with the legitimate 'system of management' has been shown to be complex (*Stacey, 96*)
- Flow – *exchanges between agents is considerable*, reputations and access to knowledge (internal models) and service offerings causes groups of agents (aggregation, niches) to *emerge* within the organisation.

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NB: A firm may have a significant brand and history, but the future performance of the organisation is not predictable (*Snowden, 07*).

Matrix structure with support infrastructure: Persistence of each individual agent depends on the context provided by other agents (Holland)

Extremely high importance placed on relationships – with clients, community, industry and between staff (counsellors, mentors) – links strongly with Lewin and Regine article on self-organisation in CAS. Genuine and strong commitment to people – allow people to develop and build their own networks (Harkema).

 X-Connections important – how individual functions does industry (demand) and competency (supply) interact and share ideas (Simon, H.A)

> (Snowden) – Tools for managing complex content: Open up discussion (forums); Set barriers (QRM, brand); Stimulate Attractors (Pilots); Encourage Diversity (everything from firm employees to approach); Monitor for Emergence (Digital arm – breakaway?)

Strong interactions are in place with some business partners – strategic – sharing of resources, intelligence and relationships with clients (McKinsey, Open Innovation)

Tools for managing complexity could be easily applied to a corporate innovation programmes

1. Open up the discussion
2. Set barriers and constraints
3. Stimulate attractors (initial probes that resonate)
4. Encourage constructive dissent and diversity
5. Manage starting conditions and monitor for emergence

Extracted from:
A Leader's Framework for Decision Making (David Snowden, HBR, 2007)
"Tools for Managing Complex Context"

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Examples:

1. Innovation cafes
2. Constraints are actually helpful at getting people to think creatively – Amantha Imber (Inventium) – "Fat Chance" – Creativity Training – but there is a danger than constraints following the financial crisis will constrain innovation.
3. Ideas = probes – follow through voting
4. World cafe format is excellent for diversity – especially for multiple service lines. Reference to of cultural interventional as a measure of environment, time, nature of people, orientation to action, focus and proximity
5. Communications focus on encouraging good things to emerge rather than force results – take care with language used, channel and context. Typical profile after change "welcome it" (20%), Adapters "wait and see" (60%) and Traditionalists "resist or ignore' (20%).

Silos are useful for corn – not innovation => Yammer has been a good tool for X-service line awareness.

In turn encourages loose coupling of organisational components (complexity!)

I really like the link here to the "interplay between top-down and bottom-up structure and how new properties of systems emerge" (Emergent Strategic Managemet and Planning Mechanisms for Complex Adaptive Systems, Bovaird, Pub. Man. Review, 2008)

Before the crisis	The New Normal
Managers	Leaders
Contacts	Personal relationships
Co-operation	Trust
Talk-and-chalk	Learning from experience
Growth	Sustainability
Write a paper	Action a short term plan
Defending business	Creating new space
Succeed slowly	"Fail Safe"
Portfolio of businesses	Portfolio of core competencies
Comprehensive	Just enough
Coffee	Coffee
Logic	Paradox
Model & Decide	Try
Give up	Relentless pursuit

Inspired by: Lorigan (2008), Hamel & Prahalad (2000), Dent (1999)

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A new worldview – as Dent notes

Leadership – has been studied even further and includes: distributed intelligence, fostering conversations, **sustaining tensions** (story) and looking for patterns

Note the year of publication of references

Strong link to complexity theory:

- Understanding emergence by not managing but rather stimulating self-organisation.
- Neither top-down or bottom –up both (seen as a key element of culture change)
- Don't over analyse – action, adapt, action, adapt
- Stance on risk taking – it is required – but this time it is responsible risk rather than irresponsible risk (cf. Financial crisis)

It is dangerous to over-fit a model to circumstances (a lesson from complexity!) but: Innovation involves emergence (hence adaptive style), relies on the interactions of others and non-linear