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Helen M. Hasan
University of Wollongong, hasan@uow.edu.au

Mary Barrett
University of Wollongong, mbarrett@uow.edu.au

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CHAPTER 9

Emergence, change and precarious systems: A new lens on people and organisation

Mary Barrett*
School of Management and Marketing
University of Wollongong, NSW, Australia

Helen Hasan
School of Economics
University of Wollongong, NSW, Australia

*corresponding author
Email: mbarrett@uow.edu.au

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Abstract
The authors of this paper are members of the People and Organisation (P and O) Research Centre which is a node of the Social Innovation Network (SINet). P and O was formed in response to the need for new, holistic, multifaceted, and innovative research to enhance how we understand the way people organise in environments of complexity and uncertainty. P and O members study the socially innovative organisational strategies that encourage creativity and innovation which are socially and ethically acceptable. In a series of workshops, members determined that P and O's focus can be described as 'change', 'emergence' and 'precarious systems'. In this paper we summarise the research being undertaken by P and O members and reflect on the issues that arise from considering, on the one hand, 'people' and 'organisation', and on the other, the concepts of 'change', 'emergence' and 'precariousness'. This reflective process is being used to strengthen both P and O's focus and its capacity to carry out its research mission as members identify their common commitment to investigating people and organisation through a social innovation lens.

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Introduction
The modern world is characterised by complexity and uncertainty, within an environment of evolutionary and revolutionary change (Sundarasaradula et al. 2005) whose elements are increasingly interrelated (Robbins 1990). New, holistic, multifaceted and innovative research is needed to help us understand how people organise in this environment. Recent research has moved away from strategies seeking mere efficiencies in the production of goods and services, towards 'triple bottom line' strategies that retain the focus on making a profit but are also socially and environmentally responsible (Elkington 1994).

These newer strategies are also socially innovative. That is, they develop concepts and tools to enable individuals and communities to organise themselves in a way which enhances both economic and personal well-being. Understanding people and organisation – that is, the phenomenon of organisation itself, especially its human dimension, not simply the

functioning of various different organisations – is crucial to this endeavour. It means understanding change, both planned and emergent, and coming to terms with the often precarious nature of the systems which support how people organise. Using the research being undertaken by members of the 'People and Organisation' (P and O) research node of SINet, this paper reflects on the issues that arise from considering, on the one hand, 'people' and 'organisation' and on the other, 'change', 'emergence' and 'precarious systems'. While the projects are diverse, they are linked through their commitment to investigating people and organisation through a social innovation lens.

The paper begins by outlining the background to P and O and summarises members' research. It then explains three broad themes underpinning this research: 'change', 'emergence' and 'precarious systems'. Finally it discusses qualities of social innovation inherent in this work and how new approaches to social innovation are enhanced by focussing on these three themes.

Background to the People and Organisation (P and O) Research Centre
In 2007 a new set of research centres was created within the Faculty of Commerce at the University of Wollongong. People and Organisation (P and O), based in the discipline of Management, was one of the research teams that succeeded in obtaining funding. Given members' focus on organising for social innovation, P and O was an obvious choice as a founding node of SINet. Later, when there was a call to consolidate the research centres into a smaller set of more viable units, P and O had developed a reputation for inclusiveness and innovative research into contemporary organisation science. This attracted several new members from less viable groups. P and O thus became a large self-selected group of researchers (many with industry experience) and a wide range of interests and capabilities.

In 2008 members met with the aim of specifying the focus of the centre. Rather than seeking to limit the parameters of members' topics and activities – and the centre enjoyed a very disparate range – it was decided to make explicit the underlying themes of members' research. Simply listing research topics and projects or writing snapshots of individuals' work (as had been done when P and O's website was being created), would not adequately bring out P and O's characteristics as a collective endeavour. The research culture of the university requires that research centres have a coherent focus. A research assistant was employed to interview P and O members and to write a one-page summary of each of their research interests. The resulting summaries provided the starting point for members to work on P and O's collective identity. In addition, a series of brainstorming workshops involving all P and O members was held to work towards a consensus on the group's focus. After several analytical alternatives were considered, the topics 'change', 'emergence' and 'precarious systems', appeared best for summarising members' work. A summary of the thought process by which members collectively arrived at the three topics appears below and in Table 1.

Deriving 'Change':   A common feature of most topics being researched by P and O members is that they would be both affected by change and involved in any organisational program requiring purposeful change management. Thus the column in Table 1 headed 'Change' lists the topics of interest to members that would affect, or be affected by, changes to the situation of a study or project under investigation. These include (but are not limited to): human resource management; occupational health and safety; performance management; information security; information/records management; organisational behaviour; e-collaboration; knowledge management; ethics; performance management; workplace communication; leadership; information systems; organisational learning; project

management; risk management; research and development (R&D); strategic management; organisational discourse; industrial relations; and corporate communication.

Deriving 'Emergence': This column (Table 1) was more difficult to construct. However, a further close reading of the summaries of members' research suggested that many members were concerned with the *antecedent conditions or enablers* of change, or the state of affairs immediately preceding change, especially when these conditions or enablers had a chaotic or unpredictable character. The term 'emergence' seemed to sum up this list of contextual attributes. They include: enlightened leadership; expecting to be innovative, creative and flexible; leveraging diversity; having suitable motives; being socially and environmentally responsible; developing trust; not being stifled by processes; working co-operatively; leveraging the social experience at work; having a sense of identity; being prepared for the unexpected; being entrepreneurial; supporting informal knowledge transfer; building social networking; working with complexity; experiential learning; allowing open discourse; crossing borders; and promoting a transforming culture.

Precarious systems: The third common feature of members' research is that many if not all of them work with systems that are not robust or able to be taken for granted without dire consequences. Examples include local politics, healthcare systems, virtual/temporary organisations, international institutions, minority groups, network-centric organisations, cross-sector collaboration, strategic alliances, systems in developing countries, and workers in non-standard arrangements. The term 'precarious systems' sums up both this fragility and also the interconnectedness of these systems.

Table 1 presents the results of this initial group thinking exercise. A blank cell indicates that the research is still under development. Also included in Table 1 are the main industrial, government and community sectors in which the various researchers have conducted projects and gathered data.

Table 1
P and O members' research interests classified according to their links with 'change',
'emergence' and 'precarious systems'

Change	Emergence	Precarious Systems	Industry Context
Human resource management Occupational health and safety	Innovation	Dismissal of Wollongong City Council	Potentially all
Failure of change Performance management	Expecting to be innovative and flexible	Cultural aspects of organisations	Public service
Information security Information/records management	Enlightened leadership; leveraging diversity	Healthcare systems Electronic health records	Health
Organisational behaviour E-collaboration; knowledge management; information systems	Having suitable motives	Virtual/temporary organisations	Films
'Big picture' ethics and human resource management; social responsibility; spirituality	Being socially responsible	Dismissal of Wollongong City Council	Corporate
International project management Cross-cultural studies	Working co-operatively, developing trust	International Institutions	Asia-Pacific Economic Co-operation
Human resource management Performance management	Leveraging the social experience at work; sense of identity	Performance appraisal	Coal mining
Change processes	Being prepared for the unexpected; being creative; storytelling	Large scale change processes	Aerospace
Workplace communication Leadership and management	Valuing so-called 'feminine' characteristics in the workplace; entrepreneurship; informal knowledge transfer	Minority groups Learning groups	Family business
Information systems Knowledge management	Building social networking Environmental responsibility Working with complexity	Network-centric, hybrid organisations	Military
Innovation and change management; organisational learning; project management	Project-based (experiential) learning	Local politics	Local government Manufacturing
Managing risk; government policies on research and development	Enabling cross-sector issues	Cross-sector collaboration	Public sector
Strategic management	not being stifled by processes	Strategic alliances	Asian multinational firms
Organisational discourse	Open discourse	Community	Community service organisations
Industrial relations and human resource management across borders	Crossing borders A transforming culture	HRM systems in developing countries	Developing countries
Human resource management practices; occupational health and safety; quality of working life	Managing diversity	Workers in non-standard arrangements	Services – call centres
Corporate communication	Knowledge transfer processes	Sustainable biotechnology	Biotechnology as firms foster and exploit innovation

Change, emergence and precarious systems: earlier views
In this section we briefly consider what the literature says about the topics of change, emergence and precarious systems with reference to how P and O focusses on them.

Change is a broad topic. While no aspect is *a priori* excluded, P and O members focus on two types of change:

- **change that is sought and planned.** Changes that people in organisations – especially managers – consciously and 'rationally' plan may or may not be achieved.
- **change that occurs in organisations' environments without being sought.**

According to the classical rational view implicit in both academic literature (e.g. Argyris 1965; Argyris & Kaplan 1994; Argyris & Schön 1974; Bennis 1966; Cyert & March 1963; Levitt & March 1988; Lewin 1947; Mayer 1972; Schein & Bennis 1965; Simon 1973) and popular management literature (e.g. Bremer 2006; Collins 2001, Peters & Austin 1985; Peters & Waterman 1982), planned change in organisations involves examining the interacting aspects of an organisation's structures, technology, systems, culture and relationships, so that the effects of change can be foreseen and managed. Not understanding these relationships sufficiently will lead to managers' attempts at planned change being unsuccessful. A particularly problematic aspect of the human side of change is the problem of making planned changes 'stick'. This typically has to do with the ways we overlook how power is embedded in inconspicuous aspects of organisations such as their structures, rather than solely with acknowledged 'change agents' such as the organisation's managers and the consultants it appoints (Ball 1978; Clegg 1989).

The problem of making change stick is related to the broader issue of sustainability which is now of such national and international concern (see for example the Australian Federal Government's Sustainability Charter[1]). Much of the current environmental debate centres on the costs of 'going green'. In many organisations the short-term outlay in converting to a greener way of operating is interfering with the long-term social and environmental benefits of making these changes.

The second type of change is mentioned frequently in the academic change literature – the texts mentioned earlier are examples. It arises from the fact that various environmental pressures emanating from outside organisations affect life within it. With the addition of perhaps only climate change, the list below, elements of which appear in most textbooks, is a good summary of this type of change:

- moves towards more international trade, competition and the globalisation of economic units
- technological change in processes and products
- demands for participative decision-making
- moves towards deregulation, tariff reduction, and micro-economic reform
- economic recessions
- calls for greater gender equality in employment opportunities and career development, including more non-traditional stakeholders such as women, ethnic minorities, governments, consumers, conservationists
- rises in the cost of capital.

Most organisations work hard to deal with the second form of change, constantly monitoring the business environment, especially competitors' products and strategies. Yet some highly successful organisations do not do this. They actually use the first, internally-focussed

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[1] http://www.aph.gov.au/house/committee/environ/charter/

approach to change to manage the second. Apple, the designer of the iPod, iPhone, and other highly intuitive software, is an example of success produced through rational planning, high internal and external secrecy, and bureaucratic reporting structures. However, while these rigid controls are important, Apple also uses organisational and physical structures that promote an atmosphere of creativity in particular organisational units and in particular locations within its buildings. According to Morrison (2009), these strategies have been so successful that Apple has been able to "reject touchy-feely consumer focus groups and efforts to imitate successful products from other companies".

Emergence

According to Wikipedia[2], emergence is the way that complex systems and patterns arise out of a multiplicity of relatively simple interactions. Emergence is central to the theories of integrative levels and of complex systems in philosophy, systems theory and science. An authoritative definition of emergence has been attributed to Newman (1996) in his efforts to counter the dominant reductionist approach of rationalist thinking. Newman proposes that non-reductionist emergent properties are an essential aspect of chaotic, non-linear, dynamic systems. In our view, 'chaotic, non-linear, and dynamic' is an apt depiction of most situations involving 'people and organisation'. Emergent properties are qualitatively different from the other properties of chaotic systems. They cannot be predicted nor anticipated from these other properties and are related to the complex whole of the system and not to its component parts. Although chaos theory has a basis in mathematics, this concept of emergence provides an apt metaphor for valuable outcomes of organisational activities that were not intended but are nonetheless valuable. In fact these unintended outcomes often work better than those that were intended.

Snowden (2002) suggests that there is a place for both ordered and emergent change but that they are different and need to be treated differently. He describes ordered change as being possible in situations that are simple or somewhat complicated to a controlled degree with predictable outcomes. Organisation can thus be considered mechanistic. On the other hand emergent change occurs in unordered situations and only makes sense in retrospect. Here organisation must be more organic where attractors and boundaries replace rules and regulations, to use terminology from complex and chaos theories.

Particularly relevant to people and organisations are three specific instances of emergence: emerging economies, emergent strategy, and emergence in entrepreneurship.

- **Emerging economies**   Several members of P and O are engaged with issues of management in emerging economies. Typically, these projects illustrate the difficulties of adapting systems established elsewhere. The emergence of 'raw' forms of capitalism in the former Soviet Union is an obvious example. In P and O issues of emerging economies are examined on several levels, but particularly the level of individuals and organisations. Path-dependence theory and institution theory are among the many frameworks that members use in this area.

- **Emergent strategy**   (also called realised strategy) is a pattern of action that develops over time in an organisation in the absence of a specific mission and goals, or despite a mission and goals. An emergent strategy or realised strategy differs from an intended strategy. Mintzberg (1994) argues that strategy emerges over time as

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[2] www.wikipedia.com

intentions collide with and accommodate a changing reality, and that this may be used to help organisations learn. Mixing the deliberate and the emergent strategies in some way will help the organisation to control its course while encouraging the learning process. "Organisations ... [may] pursue ... umbrella strategies: the broad outlines are deliberate while the details are allowed to emerge within them" (Mintzberg 1994, pp.23-25). The concept of emergent strategy has been said to take a better account of the reality of strategy making and strategy implementation than classic, rational models of strategy-making such as strengths, weaknesses, opportunities and threats (SWOT) analysis. However, practical implications of emergent strategy tend to be overlooked because they have 'feminine' overtones (Downs, Durant & Carr 2003). In other words, they require an understanding of the 'soft and fuzzy' side of organisations.

- **Emergence in entrepreneurship**   Emergence is seen in the way that entrepreneurs recognise and develop opportunities. Both are notoriously difficult to pin down as processes. Ardichvili and Cardozo (2000) nevertheless argue that entrepreneurial opportunities are discovered through recognition rather than purposeful search, do not require an exceptional level of creativity, and are not likely to involve a prior knowledge of the ways to serve markets. Development, if anything, is where the less definable processes of emergence lie.

A new and promising idea for dealing with emergence is the notion of the tipping point (Gladwell 2000) when an idea, product, or system suddenly becomes popular for no obvious or predictable reason. Some examples of tipping points, some more trivial than others, include the sudden popularity of sun-dried tomatoes, ugg boots, Crocs and pet rocks. A 'point that has just tipped' is green issues, especially organisations' responses to climate change. Perhaps green issues came to prominence in the light of the growing awareness of the need for more general corporate social responsibility. A possible tipping point to come may be parents' growing awareness, anger and mobilisation about the sexualisation of childhood (Lunn 2009).

Precariousness
Precariousness invokes the notion of fragility. When considering people and organisation we see three aspects of fragility or precariousness: arising through novelty, through inherent conflict or tension, and through environmental pressure (as well as some others that are hard to classify).

- **Fragility through novelty**   Precarious systems are often fragile simply because of their novelty. It is still unfamiliar for organisations and governments to incorporate non-economic factors (such as the need to preserve the planet) into policy-making, so that systems being considered (such as the Emissions Trading Scheme) are fragile at least in part because of their newness.

- **Inherent fragility**   Secondly, there may be an inherent fragility in systems. For example, solidarity is important in nations but there is simultaneously a need for diversity (Soutphommasane 2009). This is reflected in organisations in the need for group cohesiveness. At the same time there is the tendency for various group pathologies to arise (such as group-think) in the presence of too much cohesiveness.

- **Fragility through environmental pressure**   Thirdly, systems may not be inherently fragile, but may become so as a result of pressure from the environment. Democracy in

a country with a long history of press freedom, participative mechanisms in decision-making of various kinds, and separation of powers is much less fragile than democracy imposed by an occupying power in a country with no such traditions.

Some other kinds of precariousness are hard to classify, and they may have elements of all three kinds of precariousness. For example, some long-established systems have been shown to be surprisingly fragile, which makes their failure surprising. Examples include the recent economic downturn which took governments, financial institutions and business owners alike by surprise, despite earlier warning signs. In our own territory we have seen the educational market for international students come under threat, despite our awareness of poor practice in parts of the system.

Leveraging specific viewpoints
From the descriptions and exemplification of the three elements presented above, it becomes apparent that in P and O a specific perspective on change, emergence and precarious systems predominates. This perspective can be described as follows.

Change   Whether emergent or deliberately identified and planned, change management needs to be a holistic process which incorporates a broad range of expertise, including: risk management, knowledge management, project management, diversity management, occupational health and safety, human resource management to ensure sustainability (economic, social and environmental), organisational learning and innovation.

Emergence   Organisations can have both mechanistic and organic natures. Leveraging the latter, an organisation acquires the ability to instinctively sense opportunities and threats in the environment and, on the fly, find the capability to respond appropriately to mitigate against the threats and take maximum advantage of the opportunities in creative and innovative ways without being hampered by the formal organisational machine.

Precarious systems Organisations need systems (operational, management, social, technical and socio-technical) that can survive and prosper through emergence and change and support organisations in doing so. This concept acknowledges the fragility of many systems and organisations in the current diverse and changeable environment.

The value of focussing on change, emergence and precarious systems
The P and O's 'take' on change, emergence and precarious systems is valuable because of its capacity to create synergies. It directly influences members' work and also opens up unsuspected links between topics that members are working on. This means that they can see them in new, broader ways. Each of the three components from the perspective discussion directly suggested some research topics and even potential consultancies for P and O members.

Change   It was clear that the research areas of all members of P and O had some relevance to organisational change. This could be interpreted to mean that any organisational change initiative should include attention to issues in many of these areas. Thus change management should incorporate consideration of human resource management, information systems, knowledge management, project management, organisational learning and so on. As a result, there could be opportunities for all P and O members to contribute to improvements in the management of organisational change initiatives from their own area of expertise.

Emergence   It seems that emergence is a much less tangible concept than change; drawing out elements of emergence from the summaries of P and O members had not been as easy or obvious as for the first topic of change. However, it is often pointed out that emergence is likely to occur in environments and cultures that support people who are creative and innovative, and many members' projects addressed these issues. These environments would be characterised by enlightened leadership, diversity, social and environmental responsibility, allowing open discourse and transformations. Supportive cultures tend to have attributes of trust, flexibility, learning, informal knowledge transfer and a sense of identity. Thus new topics suggest themselves that relate to the environment from which sustainable and innovative products and processes are able to emerge.

Precarious systems   Although not a commonly used term, the expression 'precarious systems' has become meaningful to P and O members. The more members looked around the more they recognised the precariousness of many of the systems that they are investigating. Many of the environments we work in have conflicting demands and so are complex and fragile. Examining these fragilities is a first step to knowing how to make them less fragile.

Productive links
The process of examining the work of P and O revealed a wealth of links via the three elements of its focus: change, emergence and precarious systems. Indeed many of the situations where P and O members have conducted research foster both planned and unplanned change, and also exhibit the complexity that is conducive to emergence. There is obviously a close relationship between emergence and unplanned change, so that one could regard 'emergence' as a sub-category of 'change'. However, as noted earlier, members consider that emergence is worth considering in its own right since it has properties relating to the complexity of organisational contexts and the holistic nature of systems, particularly precarious ones. There is also a link between the emergent type of change and precarious systems. Members can thus bring together the three areas of focus in the statement: emergence takes place in precarious systems where change is continual and disruptive.

The studies of P and O members that span boundaries demonstrate the interconnection of change, emergence and precarious systems. For example, the project on multi-national corporations' human resource management practices in developing countries shows that problems can arise when change is planned using frameworks from developed countries. More appropriate solutions to problems can emerge from within the 'host' population even though many of their systems are inherently precarious and exist within fragile environments.

While this project clearly demonstrates all of the interconnected elements, it is not alone in this regard. As the following examples show, many other P and O projects illustrate more than one of the themes of 'change', 'emergence' and 'precarious systems'.

- **Planned change**   The first project listed in Table 1 involves the sacking of an elected local government body and replacing it with administrators who replace a chaotic situation with a planned approach to the change. Time will tell whether this is sustainable and whether a demand for the reinstatement of an elected council will emerge.
- **Unplanned change**   The project on healthcare reveals the fragmented approach to change in that area. While change is planned at the State government level, what actually happens at the coal-face can be quite different. This project recommends the value of enlightened leadership and diversity in this precarious system.

- **Sustainability of change**   The project on workplace communication and its links with the slowness of women's advancement at work points to the difficulties of making planned changes stick.
- **Emergent economies**   The project that examines International Institutions in APEC is strongly focussed on the path of emergent economies in our region.
- **Emergent strategy**   The project on project-based (experiential) learning is an example of a deliberate process to allow strategy to emerge through the learning that takes place as projects unfold.
- **Emergence and entrepreneurship**   Studies of entrepreneurship in indigenous communities in Australia also show the difficulty of adapting systems established elsewhere. The concept of emergence is a useful construct to guide understanding of how indigenous entrepreneurs develop opportunities into entrepreneurial ventures.
- **Novel precarious systems**   What is new is often fragile simply because of its novelty, as shown in the work on transferring HRM knowledge in multinational companies where the host country and/or the subsidiary have a less robust set of HRM practices than the parent company.
- **Inherently precarious systems**   The inherent fragility of systems is exemplified in the dual positive and negative nature of 'familiness' in family firms (Habbershon & Williams 1999; Habbershon, Williams & MacMillan 2003).
- **Systems made precarious under pressure**   Health, environmental issues and cross-organisational systems of all kinds are precarious since they face pressures from the environment which make them particularly fragile.

Conclusion

This discussion is by no means a comprehensive appraisal of P and O but rather provides illustrations of its area of research focus to give the reader a sense of the breadth and depth of views that we bring to the topic of people and organisation. We conclude with some more general observations.

First, many of the emergent attributes are stereotypically feminine characteristics, for example co-operation, multi-tasking and managing diversity. These skills tend to be overlooked in organisations whose executive level is male-dominated with a consequential homogeneous and competitive work culture. Alternatively, women exercising these skills may find that they receive less credit for them than men do because they are regarded as natural for women.

Second, P and O members use a variety of research methods often in combination with each other. In particular several members realise the importance of discourse analysis research in pinpointing and following emergent phenomena such as those associated with 'tipping point' changes.

Third, it is expected that P and O members' work will throw new light on previously established concepts. For example, shifts in the 'frontier of control' and the 'psychological contract' established concepts (from industrial relations and human resource management respectively) can be extended through a consideration of the emergent properties of non-traditional entrepreneurial ventures.

Finally, it appears that the very exercise of finding the underlying themes to members' work has been an enabling one. Creating P and O has already been a 'silo-breaking' exercise. However, for members to consider their projects at a higher level of abstraction via the

'change, emergence and precarious systems' has freed their thinking to consider new angles of investigation and new combinations of their talents.

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