

## **From Social foresight to social entrepreneurship: pathways to sustainability**

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### **ABSTRACT**

*This study asks the central question, 'Are social entrepreneurs using foresight to create innovation based on triple bottom line sustainability measures?' and 'if so, how?' Sustainability is the emergent criteria for evaluating many aspects of the social world, including corporate governance, health systems, economics, social welfare and the environment. All the while, innovation is one of the key factors in the constitution of our social worlds, be this legislative, organisational, social or technical change. Therefore, it appears that the drive toward sustainability should be coupled with an emphasis on innovation – in particular creating innovation toward sustainability. Yet unexamined assumptions exist behind such language. Sustainability is a concept within the context of 'the future', requiring one to question 'what is the future' – in essence a utilisation of the strategic capacity for foresight. Foresight, moreover, ranges from the tacit assumed personal foresight of the ordinary individual to the specialised foresight of the professional forecaster, scenario planner, or foresight practitioner.*

### **INTRODUCTION AND BACKGROUND**

The Australian Foresight Institute, (AFI), is located within the Australian Graduate School of Entrepreneurship, (AGSE), building at Swinburne University of Technology. This exploration into social foresight and social entrepreneurship owes its inception to the cross-fertilisation of ideas and concepts of the researchers that has grown from this co-location. The opportunity to ground some of these ideas into practice arose through an approach by Questacon, The National Science and Technology Centre in Canberra, Australia, to collaborate in the development and delivery of a youth enterprise conference to be known as the 'Invention Convention'.

The Questacon 'Invention Convention' (QIC) was designed to provide youth from rural Australian communities the opportunity to combine and share experiences and ideas about science and technology and to gain practical skills in developing new business enterprise initiatives. The AGSE became involved in the collaboration to develop the program by playing a supporting role and hosting two facilitators to provide the requisite expertise. Creating a program for youth that focussed on technology and innovation through the lens of foresight provided a unique opportunity for two facilitators to come together; each offering vastly different skill sets, experience and knowledge to the project. One being

from AFI and the other being from the AGSE , their task was to design, develop and deliver an entrepreneurship, innovation and foresight education component to fulfill the 'empowerment' criteria of the QIC aims.

By the conclusion of the conference the benefit of the foresight perspective to innovation was clear to the facilitators. Throughout the course of a week the conference participants, mostly unknown to each other, formed teams, generated ideas through the tension created from drawing out preferred and probable futures and assembled business concepts that utilised technology and social innovations on products and services that were geared toward sustainability. This prompted the refinement and next phase of the research and the subject of this paper into social entrepreneurs, social foresight and innovation within a framework of sustainability and triple bottom line measures.

#### RATIONALE

The need to bring together foresight, innovation and entrepreneurship is succinctly articulated in Everett Rogers' classic 'Diffusion of Innovations'(Rogers 1995). Rogers brings together various strands of diffusion research into a large volume, and has a very general perspective on what an innovation is, which can include social innovations (new types of social organisation), technical innovations, and even the boiling of water (Rogers 1995, pp.1-5). In an overview of types of innovation research, less than 0.2% were dedicated to studying the consequences of diffusion. This amounts to 2 studies (or less) per 1000. (Rogers 1971, pp.72-73) The other 98.8% of innovation research, it seems, is much more closely associated with an instrumental approach to innovation. This might look at rates of adoption, attributes of change agents, perception of innovation, opinion leadership, and the like. Existential questions (why should people adopt innovations) and prospective questions (what are the consequences) are assumed or relatively unexplored. It reveals a strong 'pro innovation bias' at the heart of innovation research in general, expressed through developmental assumptions (Rogers 1995, pp.421). This assumes the superiority of science and technology, its advantageous adoption by the mainstream, and poses value loaded distinctions (via a standard deviation bell curve) that puts 'innovators' first, 'early adopters' second, and 'early and late majority' in the middle, and 'laggards' at the end. (Rogers 1995, pp.262)

Rogers himself has belatedly acknowledged the problems inherent in the marginalisation of consequences:

*Change agents also give little attention to consequences. They often assume that adoption of a given innovation will produce only beneficial results for adopters. This assumption is the pro-innovation bias. Change agents should recognize their responsibility for the consequences of innovations that they introduce. They should be able to predict the advantages and disadvantages of an innovation before introducing it to their clients, but this is seldom done. (Rogers 1995, pp.405)*

He has called for a shift from instrumental innovation research that asks 'what variables are related to innovativeness' to a more prospective innovation research that asks 'what

are the effects of adopting innovations?’ (Rogers 1995, pp.409) Part of the problem, he states, is the longitudinal nature of such research; it takes many years of tracking to analyse diffusion effects. Other problems include the predominance of survey sampling, which is inadequate for analysis of consequences. As well as the difficulty in measuring consequences, not least of all cultural differences, which mediate values, and the evaluation of the desirability of the innovation, which is often higher among change agents than the adopter groups. (Rogers 1995, pp.411)

So while social foresight should play a central role in the process of innovation, it seems we are still far from this goal. On the other hand, having experimented with linking social foresight with innovation and entrepreneurship in a conference format, we found that the juxtaposition actually altered the nature of the entrepreneurship toward what might be termed ‘social entrepreneurship’. So that we might say that linking these fields not only fulfills the theoretical knowledge gap that Rogers speaks of, but from another perspective might be a way of generating unimagined value.

Before moving to investigate the use of foresight by social entrepreneurs, some clarity of the field of social entrepreneurship is required. During the extant literature review definition of three recurring inter-related concepts that were to dictate the direction of the case study research we found elusive; social entrepreneurship, social enterprise and the social entrepreneur.

In defining social entrepreneurship authors have tended to defer the definition to that of the social entrepreneur, (Dees 1998);(Schuyler 1998). Tregilgas (2003) extends this approach by also describing social enterprise. Whilst it is reasonable to expect that social entrepreneurship will be conducted under the direction of a social entrepreneur and may well involve social enterprise, defining these attributes can not be considered a satisfactory definition of social entrepreneurship due to the circularity of the terminology

To address this issue perhaps it is better to reflect on the nature of the problem of definition. In attempting to define social entrepreneurship many authors in the field have first referred to the root literature on entrepreneurship, (Johnson 2000); (Davis 2002). This approach is unlikely to yield common agreement given that, in the first instance, there is no universal agreement on the definition of entrepreneurship, (Gartner 2001b); (Hansemark 1998); (Low and MacMillan 1988);(Lindsay and Hindle 2002). Ultimately it leads to multiple definitions and a form of taxonomy of various types of activities that may be considered to fall under the scope of entrepreneurship.

However one popular definition of entrepreneurship (Markman and Baron 2002) has been put forward by Shane & Venkataraman, (Shane and Venkataraman 2000), that states entrepreneurship to be a “scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited” (Erikson and Nerdrum Oct2001); (Gartner 2001b); (Gartner 2001b); (Ucbasaran, Westhead, and Wright 2001). This would appear to be equally applicable to the field of social entrepreneurship although perhaps with a more specific focus. Social entrepreneurship is said to be emerging as “an innovative approach for dealing with

complex social needs”, (Johnson 2000). Further, it has been stated that “social entrepreneurship extends the definition of entrepreneurship by its emphasis on ethical integrity and maximizing social value rather than private value or profit” (Davis 2002).

Social entrepreneurship research then can be said to involve the examination of how, by whom and with what effects opportunities to create future social value are discovered, evaluated and exploited. Therefore, given this framework an investigation into social entrepreneurship will involve ventures that deal with complex social needs and will focus on social value creation.

In 1987, the then Norway Minister Gro Harlem Brundtland through the World Commission on Environment and Development (1987) created the landmark definition of sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability then deals with guarding the position of future generations and representing their rights to live and inhabit this earth.

A combination of factors, identifying sustainability as a critical agenda for innovation, our experience designing and delivering the QIC conference, and a lingering lack of clarity about how foresight, innovation and entrepreneurship overlap led us to a central set of initial propositions.

*Proposition 1: That such a process would begin at social foresight, move into innovation and carry through to social entrepreneurship.*

We initially identified that the current disassociation between foresight, innovation and entrepreneurship was itself problematic. As it became apparent that there was a need to bring together these disparate domains we began to develop a conceptual pathway. It seemed that social foresight flowed naturally into innovation and specifically social innovation. For example well known social activist and futurist Hazel Henderson has used foresight as a platform for social innovations.(Henderson 2000) The well known workshop process developed by Robert Jungk (1987) uses a critical futures approach toward generating social innovation. And in Future Search, large community groups begin the process by examining trends and emerging issues, which naturally flow into community social innovations. (Janoff 1995) In addition, innovation often precedes entrepreneurship, and is considered a fundamental component of entrepreneurship (Covin and Miles 1999) as well as being a key element of business (Gartner 2001a).

Generally speaking, social foresight disassociated from social innovation, where there is not the dynamic feedback within a healthy informational system, would add little to a society’s capacity for sustainment. On the other hand innovation cut off from social foresight can create problems within societies and eco-systems – those innovation can become more disruptive than helpful. Finally, entrepreneurship without social foresight can lead to the marketing of products and services without intrinsic value, and lead to the exacerbation of social problems through a lack of understanding of *consequences of*

*consequences.* The need for social integration, following long periods of social differentiation, has been well established, for example through the work of Smelser. (Smelser 1970) One well known case study for how this disassociation has been dealt with is Senge and Scharmer's work around Community Action Research through their SOL project at MIT. (Senge 2001)

*Proposition 2: That the level of foresight 'potential' or 'capacity' (meaning self awareness in the use of foresight and depth understanding of complexity and epistemic problems) correlates to the scale of influence of the social innovation (pragmatic, progressive, transformational) proposed.*

Following on from this we explored the possibility of a causal link between depth of foresight and the potential influence of the social innovations. Gunderson and Holling (2002) demonstrate that one of the key features that distinguish human systems from ecological ones is foresight. They argue that human systems, as distinguished from non-human ecologies, are capable of self-awareness, the abstract conceptualisation of change processes, of future expectation and the influence of future conditions. (Gunderson 2002, pp.49-50) 'Foresight potential' corresponds to 'cultural capital', the development of the arts and education that make humans distinctively human. Through the development of foresight capabilities, human systems are able to overcome the challenge of internal rigidity (the trajectory of a conservation phase) and external variability (exogenous forces which can tip a system). (Gunderson 2002, pp.59) They don't, however, attribute a fixed status to such foresight, for example saying that all human systems have the same foresight. For them it is a key variable and question. Higher foresight potential corresponds to the capacity to intervene in the various aspects of an adaptive cycle, lower foresight potential would diminish a human systems capacity to intervene in the adaptive cycle constructively. (Gunderson 2002, pp.100)

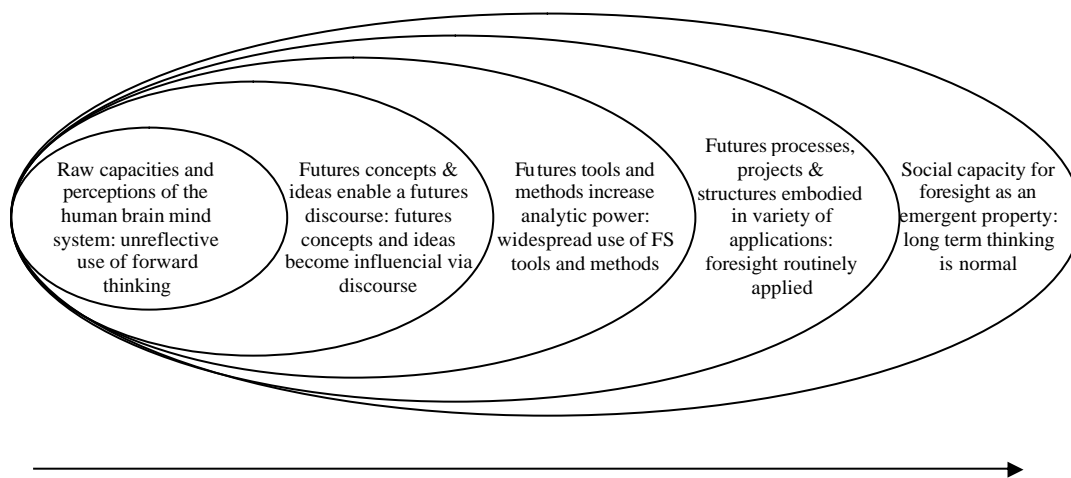
To understand the underlying principles in complex adaptive systems, in particular relating to systems balance and resilience, they begin with the worldviews we hold in relation to nature. This mediates our own capacity to take responsibility for our place and approach to 'Nature'. (Gunderson 2002, pp.12) Our capacity for wise intervention, therefore, depends on the depth of our understanding of the complexity of nature, both from a technical and paradigmatic perspective, roughly equating to foresight potential. The use of foresight as an 'optimising' force is problematic, for example, as forestalling without taking into account the adaptive cycle eliminates fast variables, setting up the system for a more fundamental crisis through long cycle episodic transformation. The authors ask: 'when does foresight potential or forward expectation not reduce variability?' (Gunderson 2002, pp.60) Therefore shallow foresight aimed at optimisation of systemic variables will undermine systems resilience, while depth foresight lay the ground work for systems resilience.

It follows that increasing social foresight potential would be key in informing the actions of social (inclusive of technical) innovators. Such foresight potential could be the basis for social and ecological variability and adaptation, what Holling and Gunderson identify as critical in resilience. Human systems sustainment is thus individual autonomy based

on social foresight, social responsibility coupled with individual initiative and the freedom to experiment.

A theory of ‘social foresight potential’ has already been extensively developed by Richard Slaughter, who distinguishes between different levels of foresight capacity. He came to the conclusion that a much higher foresight capacity is required socially if humans are to be able to respond effectively to the challenges they face. (Slaughter 1996) He documents such foresight as unfolding development levels as shown in Figure 1.

**Figure 1 – Slaughter’s typology of the development of levels of foresight (R. Slaughter, Futures Studies: From Individual to Social Capacity, Futures 28, 8, 1996 pp753)**



As evident in Slaughter’s framework, foresight capacity begins small and innate, but needs to unfold socially at greater and deeper levels if the ‘foresight potential’ alluded to by Gunderson and Holling is to make a difference in dealing with complex social and ecological challenges. However this framework explains the diffusion of foresight but not necessarily the depth. Foresight potential would require both diffusion and depth. So we have also conceptualised a relationship between the scale of influence of an innovation and the level of foresight required to address the issue successfully, using another of Slaughter’s framework distinguishing, *pragmatic, progressive and transformational* foresight, to speculate on whether such a correlation existed. (Slaughter 1999)

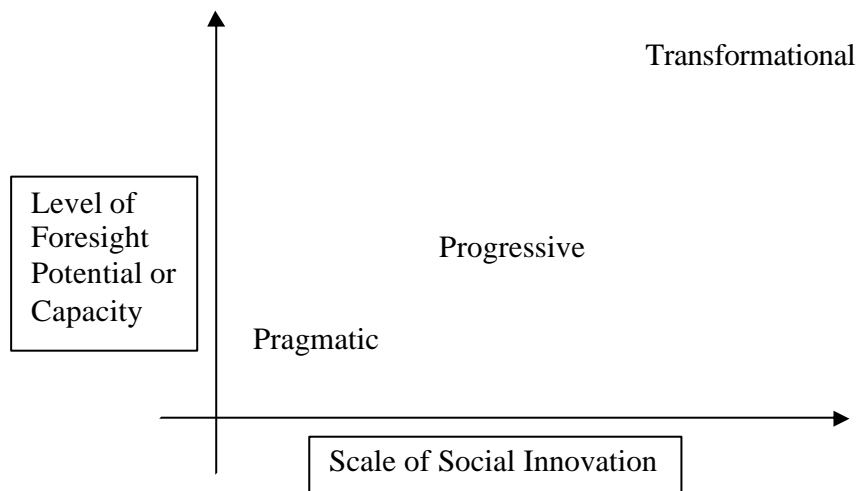
Pragmatic innovation would be used as tools and techniques that can help ventures or organisations to succeed. They might be driven by narrow interests and not as self critical of personal assumptions.(Lickona 1976) ‘Sustainability’ would be a knee jerk reaction, only using simplistic and assumed foresight to fix problems, but not bothering to look underneath issues. And mainly dealing with ‘fast variables’ as described by Gunderson and Holling.(Gunderson 2002, pp.69)

Progressive innovation would begin looking at the effects of social and technical innovation on society such as specific diffusion effects and counter-intuitive

understanding – foresight for social goods. This would be conventionally minded or socio-centric (Lickona 1976), combining broader society wide interests. Sustainability would be dealt with, but only through policy and basic systems understanding. It would utilize informal or tacit foresight (literature) or some explicit yet basic foresight methods, and deal with medium speed variables.

Transformational innovation would develop social innovation in the context of explored futures, as part of agency in the face of history, deep time and a civilisational dimension. Such an approach would be world centric, dealing with global futures. Sustainability would be well understood as a long term perennial issue incorporating future generations. There would be explicit social / global foresight which is rigorous, worldview reflective and conscious of complexity. Finally it would deal with slow variables. Figure 2 displays this proposed relationship.

**Figure 2– Relationship of Foresight Potential and Scale of Innovation (Hayward & Ramos 2003)**



*Proposition 3: That social entrepreneurs would have a connection to Triple Bottom Line (TBL) indicators as a basis for opening up multiple value propositions and developing innovations.*

We also were interested in the role of triple bottom line indicators in framing progress and the role innovation plays in this. As an instrument that makes the socio-ecological world more understandable and transparent, they play a vital role in the informational flows necessary for a healthy response process. But have they been used as a platform for innovation and entrepreneurship – as a way of moving toward the goal of sustainability? And if so are current indicator systems grounded in a deep understanding of systemic and adaptive change? The use of TBL indicators might be analysed through the lens of layered foresight perspectives of Slaughter and Inayatullah (Slaughter 2000; Inayatullah 2002).

At a shallow 'litany' level TBL reports are a reaction to public pressure and a way of boosting a company's image. This approach can be seen, for example, through Shell Oil's public announcement that they will comply with Kyoto Protocols to cut carbon emissions by 8%. Most experts would probably agree that an 8% reduction does little to tackle global warming and in fact doesn't even take into account the CO<sub>2</sub> emissions from the petrol that is sold.

At a deeper social processes level TBL reports are done to measure impacts, and to optimise benefits ecologically, socially and economically. This is the most common approach, yet measurement and optimization is problematic considering the nature of complex processes. Holling and Gunderson argue, for example, that such an optimization program will have counter-intuitive effects. By eliminating variability through an optimisation regime, the long term resilience of the overall system will be undermined. (Gunderson 2002, pp.70)

At an 'epistemic' level, which Holling and Gunderson refer to in their discussion on the 'worldviews' of nature that mediate our understanding of systems, we can look at how we see Nature for a core set of variables that indicate on complex adaptivity across multiple time frames. This level is less common, but has begun to be developed at a practical level by some. This perspective also changes the way we look at foresight and entrepreneurship, essentially making a case for indicators that facilitate 'foresightful' entrepreneurship based on an understanding of adaptive systems complexity as a way of maintaining resilience and balance. This level might look for dynamic sustainability, as opposed to fixed and static (optimisation) concepts of sustainability.

Thus we wanted to examine how indicators inform actors, innovators and entrepreneurs. Is TBL being used by social entrepreneurs? Has TBL shifted from the need for transparency, publicity and image exercises and simple reporting to enabling responsiveness to socially and ecologically systemic issues? We sensed that indicators that reflect the resilience characteristics of a system that could be communicated might serve as platforms for more responsible innovation, providing a basis for a 'community' or organisation (roughly defined) to self organize around certain social ventures that are timely and needed.

*Proposition 4: That innovation which creates sustainability would require depth understanding of complex systems, mindsets and resilience requirement.*

We felt that an understanding of complexity could be a platform for innovation which leads to 'sustainability' and entrepreneurship which leads to greater systems resilience. Complexity, including epistemic complexity and depth, fundamentally changes our view of the future. The future can no longer be just mechanistic, linear, deterministic, or eschatological – hence *futures*. It introduces agency within adaptation, forcing us to grapple with a future of uncertainty and in-determinacy. Complexity prompts us to re-conceptualise our world, and the future as far more than simple arithmetic, but as a 'future as challenge'. This future as challenge forces us into depth exploration of issues,



into understanding the existential world, and natural world. Such an understanding is reflected in how Hollings and Gunderson characterise the worldviews we hold about nature. (Gunderson 2002, pp.12)

Such a theory combining the many mindsets we have concerning the ecological and social world, explaining adaptive change, resilience and stability in social, political, institutional, economic, ideational and ecological systems, would seem to be necessary in producing innovations of sufficient sensitivity that they produce more resilient systems.

We therefore perceived a link between the depth in an entrepreneur's understanding of complexity in regards to the system they are dealing with, and their capacity to provide innovations that increase resilience and sustainability. So not only would the capacity to innovate for sustainability require a depth understanding of systemic complexity, it would also require depth understanding of 'epistemic' complexity.

## METHODOLOGY

In assembling this research we were faced with the issue of the overlapping and yet contrasting interests of foresight and entrepreneurship of the two researchers. This resulted in two distinct perspectives observing a common phenomenon. It was considered that the innovation was the component of overlapping interest and therefore our research methodology should reflect the exploratory nature of investigating this interface between foresight and social entrepreneurship.

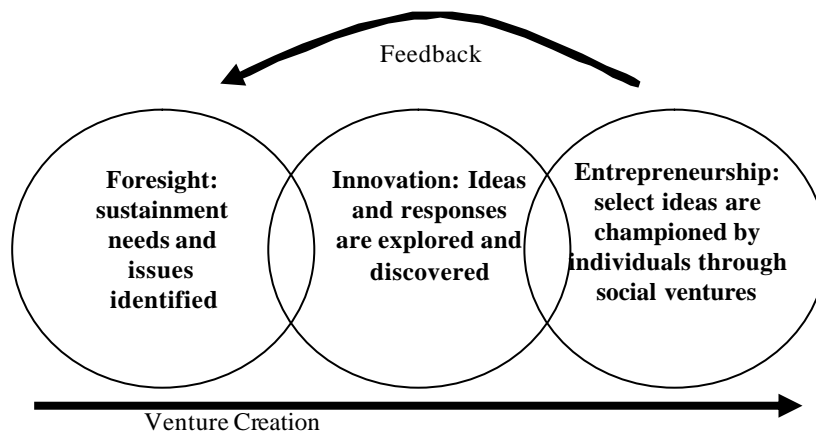
In exploratory research the authenticity supersedes the context in importance, (Lowe 1995). Our methodology is an adapted grounded theory approach as suggested by Hill and MacGowan, (1999) that alleviates some of the difficulties in absorbing the vast array of impacts and influences that may be encountered in small business development, or in our case social venture development. Our question arising from the observational and conversational data of the QIC conference lead to conducting a series of case study interviews with an open-ended questionnaire structured around a pre-determined framework. This approach follows an extension of the grounded theory approach developed by Strauss and Corbin (1990) which is used when the main objective is creating theory from data. This adaptation involved an inductive pause to refine categories and develop a framework before leading into the final interview phase.

## SAMPLE

Five active social entrepreneurs were chosen from our database of contacts. These contacts were a combination of relatively familiar and unfamiliar social entrepreneurs each attending to complex social needs and focussing on social value creation. The contrasting levels of familiarity were an important factor in the research design. Those we were familiar with were closer to the field of foresight and we anticipated the potential of a greater level of incorporation of some of our propositions, whilst the unfamiliar were more of a random selection of persons that we had had some casual contact with that we perceived to be social entrepreneurs engaged in social ventures dealing with complex social issues. The sample is briefly described:

- ◆ Case A – An association involved with establishing a relatively young organisation with an expansive brief to bring together, promote and facilitate the growth of social enterprise activities.
- ◆ Case B – An establishment team member of a young enterprise focussed on the growth of an independent education facility and infrastructure with strong social beliefs in democracy, freedom of choice and universal rights to low cost education.
- ◆ Case C – The leader of a mature social enterprise charged with the mission of identifying, planning, establishing and growing new social venture activities within a defined geographic area.
- ◆ Case D – A social entrepreneur of a long standing venture with a clear agenda of establishing and developing eco-economic infrastructure.
- ◆ Case E – A previously successful social entrepreneur recruited to a mature social venture concerned with welfare issues facing significant challenges of relevance and effectiveness in a changing environment.

**Figure 3– Research design framework**



#### DATA COLLECTION

The exploratory data was collected by conducting unstructured interviews of up to one and one quarter hour duration. The interviews were recorded with the permission of the respondents. Each person was interviewed based on a set of open-ended questions. The responses were probed for further clarifications. A conceptual framework was designed by the authors to ensure exploration of an agreed set of key issues for the study and is shown in Figure 3. The questions were divided into three main categories:

1. Foresight – investigating the participant’s view of sustainability and their expectations with respect to their individual forward view for society, the venture and themselves through a set of seven questions. The conceptualization of the venture from a triple bottom line framework was also incorporated here.
2. Innovation – exploring ideas, creativity and responses. Contained here were seven questions designed to explore systemic, strategic and innovative thinking. How each

participant was responding to the foresight issues in terms of actions, strategic planning and growth were the primary focus.

3. Entrepreneurship – selecting ideas, champions and social ventures. This set of twelve questions relating to venture start-up and formation questions book-ended the interview. The questions covered such issues as; values; the age and type of venture; the means and methods of foundation; the process of establishment; the fundamental issues underpinning the venture's establishment; as well as the precedents and antecedents for the venture.

## FINDINGS AND OBSERVATIONS

In this section, we discuss some of our findings and observations. Our findings and observations are limited to the five cases that were examined and from these we do not claim any generalisation. The ensuing analysis is derived from the main focus areas of the interviews namely; foresight, innovation and entrepreneurship.

*Testing proposition 1: That such a process would begin at social foresight, move into innovation and carry through to social entrepreneurship.*

We found that there was no apparent causal sequence leading from social foresight to innovation and then onto social entrepreneurship. In case E foresight was an after thought, something to tack on later. In cases A, B, & D differing levels of foresight led to the creation of the social venture, at which point specific innovations emerged. In Case D tacit foresight led to the creation of the venture, which became a vehicle for a very long period of rigorous foresight, now just getting into 'implementation'. One case, C, is already a well established not-for-profit, which through the use of explicit forward thinking has led to the development of the innovation.

Generally tacit foresight existed as a basis for the venture: social, cultural, economic, environmental and a variety of other needs were identified. Yet this led to a longer period in which the new venture found its way more slowly. Because many of the ventures were experimental, there was a need for flexibility, and a fear that an overly prescriptive path wouldn't work. Instead of specific value propositions in the form of innovations, they were more mission oriented. Overall patterns, however, couldn't be identified. While there would seem to be interaction between the three domains, the pathways between the three seem to have been flexible, heuristic, and dependent on the specific context the ventures were situated in.

*Testing proposition 2: That the level of foresight potential or capacity (meaning depth understanding of complexity and worldviews) correlates to the influence of the social innovation (pragmatic, progressive, transformational).*

There was a general correlation between foresight potential and the scale of the influence of the social innovation. For example, Case D aimed at the whole scale transformation of economic systems in order to create a sustainable economy, and this corresponded to a

depth exploration of historical precedent, anticipation, modeling change processes, value systems, and deep time. Meanwhile Case E employed ad hoc tacit foresight in the form of imaging the social innovation, which corresponded to less ambitious aims. Case E, however, still aimed at bringing novelty into the system through integrated 'intervention' strategies to deal with issues of abuse within the family unit, demonstrating an understanding of the systemic nature of the problem faced. In this case visualising the effects of the innovation on society, building a picture, and developing subsets of this picture, was a form of foresight. In the cases of A, B, and C, a modest understanding of emerging issues in their specific area, and the systemic issues underneath this corresponded to ambitious but not transformational innovation aims. We would term these progressive innovations. These 'progressive' innovations stemmed from the social entrepreneurs understanding of strategic points of influence, which had been more or less well identified. Two of these cases, B and C, (the educational initiative and early intervention strategy respectively), were innovating for precedent, knowing that if their innovation succeeded, this would be copied by others, and could have a replicating effect.

In all of these cases, foresight also emerged from the social entrepreneurs own experience in his or her career. Intimacy with the area they were working in allowed them to provide advancing innovations in the face of systemic complexity.

Foresight potential also emerged inter-subjectively, as all these innovations emerged from 'conversational spaces' with many people over varying periods of time. This corresponds to Holling and Gunderson's assertion that foresight potential is an expression of social capital.

*Testing proposition 3: That social entrepreneurs would have a connection to TBL indicators as a basis for opening up multiple value propositions.*

In each of the cases, TBL indicating was either not considered at all, or considered too simplistic. In Case A, the networking venture, value propositions numbered in the dozens, and TBL was an overly simplistic way of conceptualising value. In Case B, the educational initiative, TBL didn't apply because the venture was focused on a specific set of values around 'cultural sustainability' (equity, participation, democracy). In Case C, the early intervention innovation, TBL had little meaning, and was already incorporated into the value system of the organization to varying degrees. In Case D, creating a sustainable economy, the aim was so audacious as to make quantitative measurement apparently impossible. And in case E, the innovation dealing with abuse, it also had little meaning, the question of value, progress and development was more specific as well as much deeper than TBL.

In general, each venture was developing innovations dealing with specific issues. And the complexity of the specific issues, either focused broadly or narrowly, transcended TBL as a measurement tool. For example, a progressive society for case E was 'reflective, not linear, and not in a box, fair, generous, energetic' and measurements were 'staff who are open, able to take an oppositional view and respect difference'. Each case displayed a

close knit set of values and principles which reflected the ventures particular context and mission.

*Testing proposition 4: That innovation which creates sustainability would require depth understanding of complex systems, mindsets and resilience requirements.*

Generally, this proposition was confirmed, as each case displayed a specific understanding of the complexity of the system they were dealing with, principles that underpinned sustainment, and aspects of how to create resilience in their particular context, and through their particular innovations. Resilience, for example, meant something slightly different in each case, but still reflected a strong consciousness of principles that underpin it. In Case A, the network venture, resilience meant ‘a wide variety of social forms, ventures, which perform (in a self sustaining way) services....activity and engagement rather than passivity and dependence’. This corresponds to Holling and Gunderson’s assertion that resilience is partly a function of ‘foresight-full’ variability. Case B, the educational initiative, also reflected this, but added a deeper understanding of the role of cultural mindsets, saying: ‘mindset and ideology (culture) is at the heart of un-sustainability – so education is one of the key areas for addressing sustainability. When education is destroyed, people lose the capacity to think, about different ways of being, and alternatives are closed down’. ‘Alternatives’ here are equated with resilience in its role in offering variation. Case C, the early intervention strategy innovation, had the goal of building ‘resilient families with resilient children – giving children and their families the tools to cope with the challenges of society.’ Case C also reflected a holistic approach to care which was ‘cradle to grave’, treating the whole person through building trust and confidence.

Case D, aimed at creating a sustainable economy, explored deep systemic issues aimed at unearthing root causes rather than surface symptoms. This exploration process was generally lengthy, catalysed by the appearance of anomalies and contradictions, pathways toward grappling with the unknown. Finally Case E, the innovation aimed at alleviating abuse, grappled with ambiguity to develop a new model, and acknowledged ‘what I don’t know I don’t know...there is some stuff, 10%, which is far beyond us.’

#### RESEARCH LIMITATIONS

Generally speaking, limitations in the research include the small number of participants, very broad and exploratory research questions and its descriptive nature. The selection criteria also limit the generalisability as it is not an unbiased representative sample. While the spectrum of distance between researcher and researched varied, the narrow base makes the validity of the research only local and perhaps idiosyncratic. The research however has brought new clarity to the relationship between foresight, innovation and entrepreneurship. Proposition two, regarding the correlation between foresight potential and the influence of an innovation, sheds light on the social change process.

#### DISCUSSION

This research we feel will be useful to social entrepreneurs who need a better understanding of social processes to innovate more effectively, as well as for the strategic

effectiveness of social ventures themselves. Educators interested in fostering more effective and socially oriented entrepreneurship will also find the research valuable, as a way of enhancing existing entrepreneurship literature through the inclusion of social foresight. Because much of social foresight resides in the institutional domain between government and NGOs, we can envision the research having implication for how social foresight is diffused via government, smaller organisations and then social ventures.

One important question that emerges is the correlation between the diffusion process of the innovation, through the dimensions of voluntary/coerced adoption, the extent of diffusion, and the depth of foresight employed. This could shed light on the actual social effects of innovations.

A general critique of service systems that treat people in parts, and delivers without a systemic and comprehensive approach emerged. Most of the social innovators were engaged in developing holistic solutions to problems at a systemic level. This has implications for social policy initiatives. Further the research challenges the 'pro-innovation bias' and modernist assumption in the view that innovation is implicitly good.

With respect of the TBL reporting question it is suggested that this approach is too simplistic and doesn't go far enough. It needs more sophistication to be useful to niche / specialised ventures or organisations. TBL is normally applied to broad multi-sector actors / government / corporations, and not to single mission niche ventures, and thus might be modified to incorporate deeper levels of foresight that could be useful for value specific actors.

Such a deep foresight indicator framework, based on Gunderson and Holling's consideration of sustainable futures, would need to be simple enough to understand yet complex enough to be useful and would in their words encompass:

- *Three to five key interacting components*
- *Three qualitatively different speeds*
- *Nonlinear causation and multi-stable behaviour*
- *Vulnerability and resilience that change with the slow variables*
- *Biota that create structures that re-enforce biota, and*
- *Spatial contagion and biotic legacies that self organise over space and time*  
(Gunderson 2002, pp.102)

Our research supports the literature and points to a need for TBL reporting to move past surface measurements, and reflect more strongly the underlying systemic and epistemological issues that lead to sustainability. Based on the role entrepreneurship plays in systems resilience, indicators also need to be far more focused on being platforms for foresight (based on the adaptive cycle) which can then be used to ramp up social entrepreneurship, making the renewal process an opportunity for sustainable innovation.

## CONCLUSION

We have developed a theoretical connection between foresight, innovation and entrepreneurship that suggests the existence of the complex and dynamic interaction between them that would be worthy of more rigorous investigation. Social entrepreneurs and innovators we feel would want to know that every innovation they produce would have at best a positive or at worst a negligible effect on the sustainability of society, our world and future generations. If entrepreneurship is about creating value, we need to inform this value more rigorously through deliberate prospection.

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