

## **Some insights into the future from the Social Innovation Network of the University of Wollongong**

### **Preamble**

Digital technologies and the Internet have transformed the way we work and live, with each decade bringing a new round of radical changes. Rarely do we have time to look back and remember what it was like to live without mobile devices, without the World Wide Web, without email, without computers. We do not always appreciate that for the first time in history we have a truly global civilisation where time, location, cost and language are increasingly less of a barrier to the connections between people. An image posted on twitter can be seen by millions all over the world within minutes. The answer to almost any question can be found with a quick search on Google. Most people, particularly the young who know nothing else, take this for granted. However, it is interesting that few people in previous decades predicted that the Internet and digital devices would have such an influence on how we now transact business, communicate and amuse ourselves.

Now, well into the second decade of the 21<sup>st</sup> century, we are probably not any better placed to predict how technology will continue to evolve and how it will affect our work and private lives in the next 10-20 years. Before we realised it, revolutionary developments become part of our lives with impacts that few people had anticipated. We have in the main adapted to each wave of new capability only as it came upon us and we experienced it. This prompted us to reflect on how the next few decades will unfold, what we would like the future to be and what could be done to influence the direction in which we go.

People everywhere could plan with a lot more certainty if they had some expert opinion of what the next digital revolution could be and what it will enable them to do. Will the functionality and global connection continue to grow and become more ubiquitous and powerful? Or will there be a tipping point that takes a completely new direction? How can we best prepare to embrace what comes next?

A huge amount of research has been reported over the years on the effects of each new wave of technologies but only looking back to what has already happened. Some of us who have been in this game for decades have some knowledge on which to base predictions of the future. Although we may come up with different future scenarios it could be productive to compare these, work through their implications and speculate on the planning necessary to respond in beneficial ways.

The Social Innovation Network (SInet) at the University of Wollongong was set up to be a forum where academics from different disciplines and people outside academia could exchange views on important societal issues and look for a way forward on wicked problems. In October 2014 SInet sponsored a day-long workshop entitled "Looking Ahead to the next Decade: Responding to a Range of Future Scenarios in Digital Communication and Coordination". We brought together researchers, practitioners, policy and decision makers to share ideas and brainstorm new ones. There were 16 participants in total. The intention was to formulate responses to possible future scenarios that will affect decision makers in community planning, local and state governments' emergency and disaster management, and adaption to the consequence of climate change.

This report synthesises the ideas and insights generated by their interaction at this workshop. It suggests four possible future directions and speaks particularly to the one that many of us see as the most sustainable.

## The Starting Point

The date for the workshop was chosen to coincide with the visit of US Anthropologist and highly respected researcher in Human-Computer Interaction, Professor Bonnie Nardi, whose recent work included an article on Collapse Informatics. This begins with the premise that “contemporary global industrial civilization will not persist indefinitely in its current form, and may, like many past human societies, eventually collapse”<sup>1</sup>. Professor Nardi suggested that there were many indicators that the collapse could come with the next few decades, citing evidence such as the spiralling increase in global population, the rapid depletion of non-renewable resources, growing inequality between rich and poor, impacts of climate change, the global financial crises brought on by greed and corruption and global ramifications of local urban wars. She said that there is little evidence that the current market driven economy, with continued growth as its mantra, is sustainable or even leading to a better world for the majority of its citizens.

### At the Workshops



Paul, Brian, Helen, Michael, Louise



Kate, Bonnie, Linda, Andrew, Crystal, Cecile, Shaheena

Among the participants were academics from the disciplines of management, economics, biology, psychology, education, environmental science and several from information systems. There were also participants from emergency services, the police government and some independent consultants with links to the university. As expected there was a variety of opinions on whether a collapse of our civilization was imminent either gradually over time or due to a sudden catastrophic event. In either case the rich communications and coordination we now enjoy on the Internet would severely degrade and impact on the capability of almost every human endeavour. While there was little support for the possibility of catastrophic event as seen in the movies but a gradual degradation of the current technology enabled lifestyle was something that many participants could be envisaged. Others researchers presented contrasting scenarios where we will be able to use mobile, interconnected digital technologies to greatly expand what we can do now. To make sense of the opinions expressed and issues raised, we have decided to structure them under four possible scenarios of two dimensions: (1) whether there would be a collapse involving degradation of the resources and technologies of our current civilisation or not and (2) in either case whether our quality of life would improve or deteriorate.

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<sup>1</sup> Tomlinson, B., Blevins, E., Nardi, B., Patterson, D.J., Silberman, M.S., and Pan, Y. 2013. Collapse informatics and practice: Theory, method, and design. *ACM Trans. Comput.-Hum. Interact.* 20, 4, Article 24 (September 2013), 26 pages

The following table thus summarises our starting point.

<b>Collapse versus Quality of Life</b>		
	<b>Collapse</b>	<b>No Collapse</b>
<b>Improve our quality of life</b>	Most of us came into the workshop thinking it <b>highly unlikely</b> that life would improve if our current technologically-enabled civilisation collapsed. However, Professor Nardi put forward a compelling case for this as her preferred option as it could lead us to a simpler, more equitable and fulfilling way of life.	The prevailing <b>view of the optimists</b> among us is that as a planet we have never had it so good; that advances in science and technology have, and always will, improve the lot of human kind; and that we will eventually learn the lessons of history on how to live together in peace and harmony.
<b>Deterioration in our quality of life</b>	With reference to the outcomes of many disaster movies, the initial view of many workshop participants was that a collapse of our civilisation would be disastrous for everyone and so collapse was <b>undesirable</b> .	The <b>pessimistic view</b> is that despite all the advances in science and technology, these benefits have not been experienced by a large percentage of people on the planet and that most of those that do enjoy these benefits have become self-centred and materialistic losing sight of the good things of life.

### **The Anatomy of a Collapse**

At the workshop we did not see much point in dealing with the causes and ramification of a sudden catastrophic global disaster apart from some reference to the movies where a few brave souls remain on earth to rebuild and forge a new civilisation from the ashes of a nuclear war or meteor collision. However, there was enough expertise in the room to recognise the threat to us of changes that were already occurring such as exponential increases in population, growing inequality between rich and poor, climate change, spreading epidemics, natural disasters, depletion of resources such as oil and the rare elements used in digital devices, the commercialisation and government control of the Internet together with corruption, abuses of power and poor governance. It is not hard to imagine that the convergence of several such occurrences could cause widespread food shortages, huge numbers of displaced persons, market crashes, government failures and an increase of violent conflicts among old and new adversaries. This could lead to a degradation of communications and transport systems together with a breakdown of the cooperative mechanisms among agencies of the UN, governments and NGOs that currently enable the world to cope with each individual emergency let alone several together. A collapse of global order could quite quickly follow and long term survival could well depend on the resources and resilience of local communities possibly quite cut off from each other.

Closer to home, this kind of scenario is not unfamiliar to our workshop participants from Australian emergencies services and their knowledge of dealing with natural disasters. Their experience in planning and combatting vast storm, flood and fire events involves a substantial component of education and preparation of community resilience. They now rely heavily on online and mobile tools for planning and then communication with the public during large scale emergency events. They rely on multiple channels for communication, including low technical, personal contacts when the technology fails. They also observe how Australian communities in the main have the capability in time and resources to recover from these traumatic events. This is not the case in some other

parts of the world, which have additional challenges such as poverty, poor infrastructure, war and corruption. As a nation we shoulder the responsibility of coming to their aid.

Helping ourselves, let alone those in other countries, would become much more difficult if catastrophic events, natural and man-made, became more frequent and overlapped as may well happen. This would be exacerbated if basic resources became scarcer and the physical environment degraded.

We began to envisage the consequences of such wide spread collapse of civil order. A mild collapse could affect us to the point where we would at the very least lose the trappings of our affluent lifestyle, and our standard of living, substantially decrease. Could we survive and even prosper without reliance on large amounts of cheap energy, global capitalism, centralised national governments, the open Internet, affordable world-wide travel, and mass produced commodities? If the collapse were more severe could it demolish the whole free market economy and our system of democratic government? Even nations themselves could become irrelevant and the world could return to a network of tribes and villages. If there were such an extensive a collapse order could our health, educational and legal systems survive at a more localised level?

Any sort of collapse may, of course, never happen, at least not in the foreseeable future or to such an extreme extent. There is certainly plenty of vested interests among those who currently hold power to prevent it. At the workshop and among participants afterwards, a good deal of discussion addressed the question as to whether our civilisation would soon substantially collapse. We pondered on what could prevent a collapse but if one did occur what would that mean for us and how could be prepare for it.

## **The Big Pictures of Four Future Scenarios**

In this section of the report we endeavour to capture the different perspectives of the participants at the SInet workshop, keeping in mind that the main attractor for those who attended was the objective of taking a bold approach to co- developing possible future scenarios. Participants were not necessarily representative of a wide range of views but, between them, they did have a wide range of relevant expertise and knowledge. Rather than canvassing views of what is most likely to happen, we aimed to look at a wide spectrum of possibilities. While attempting to be open and inclusive, we were each influenced by our own preferences and what we would like to happen.

Since the workshop we have examined and analysed the note and recordings from the workshop and summarise the outcomes into the four quadrants of the collapse v quality of life table. We now present these in order of least popular to most popular option among participants leaving to last the one on which we had most to say.

### **1. A collapse is undesirable so we should work to avoid one.**

We begin with our thoughts on the perspective that any collapse of our civilisation would be a disaster to be avoided. Although this is probably the populist view of society in general, we were mostly in tune with the argument that Bonnie presents in her Collapse Informatics paper.

We discussed ell established ways of identifying and dealing with potential risk. This was Paul's area of expertise and he reminded us that future adverse events could be categorise according to two risk factors, likelihood of its occurrence and the severity of its consequences. These determine how much effort should be expended in mitigation of the risk and are used for planning and decision-making within organisations.

There was much discussion on whether this risk management approach would work at the international level where things are much more complicated there is less agreed authority to act?

We felt that this rational view basically underlies the agenda of international alliances such as NATO, APEC the G20 and of course the agencies of the UN.

The need for change to stronger and more global perspectives rather than competing national and parochial agendas appears to be already underway and is generally supported by social media.

## **2. The pessimistic view of business as usual**

We observed that people, such as environmental activists and those in the Occupy movement, believe that the current prevailing economic and social order is bad for humanity and unsustainable. Most of us hold this view, some very strongly. There is plenty of evidence that our civilisation is destroying the planet physically through pollution and depletion of its resources and socially through inequitable distribution of wealth and opportunity. Despite efforts to address these issues, there is no sign that this will change substantially and it is probable that things will gradually get worse. There was some sympathy for this view among workshop participants although not all. There was a view that this trend is insidious and so rarely grabs the headline. It therefore does not engage enough of the general population to demand concerted action by those would/could make a difference.

The negative impact of power and privilege is making it difficult to get decision makers past protecting the current situation and upholding their entitlements.

## **3. The optimistic view of business as usual**

One participant, Crystal, was of the strong opinion that humanity will continue to innovate and overcome lack of resource on the planet therefore there would not be a collapse

Another, Brian, had strong opinions on the value of peace and that absence of war and conflict would create an environment for progress to a better world order.

## **4. A collapse is inevitable and could be the catalyst for a new world order.**

There was quite an extensive discussion on what is important to us, referring to Maslow's hierarchy of needs, and other similar taxonomies (eg McKay's things that make us tick, ASCOT domains of wellbeing) We recognise the cost of the materialistic focus of current western culture in terms of mental health and increased gaps between the haves and have-nots.

Bonnie's position on collapse starts with the assumption that we have a finite planet and resources will eventually run out and the current economic and social, systems will fail, we will have to learn to live with less. She advocates degrowth and at odds with the tradition economic imperative for growth.

Opinions were divided between positive (Bonnie and most of us) and negative (Paul, Crystal) on the consequences of collapse. On the positive side there could be a better more equitable society with better quality of life with less reliance on things, less conflict (but we now have the knowledge of the pre-collapse situation). On the negative side, as a result of a collapse we could lose the results of centuries of human development.

There are those who anticipate the collapse and welcome a less affluent society. They say we have the capability to survive and benefit from a collapse that would force us to change and feel a duty to spread the word.

This may seem idealistic, and some participants thought so, but many saw this as both practical and sensible promoting resilience and redundancy

Developing more resilience and redundancy among the population would be good whether we collapse or not. Many of us have become soft and reliant on external agents for our way of life, independence, affluence, entertainment etc which eat up the planets natural resource and not be very good for us. We refer to the concept of affluenza where obesity, mental health problems, suicide, domestic violence etc are the result of the affluence of some and the increasing inequality. It may take a collapse to trigger some action and progress along these lines. The latter might come to be recognised as symptoms of the current structure's negative impact and dealing with them might be sufficient reason to make changes towards better wellbeing and more sustainable policies and practices.

Our final debate was about the questions -should we mitigate against, or encourage, collapse and degrowth?



After the workshop, sightseeing in Wollongong at the Nan Ten Temple  
Helen with Cecile, Steve, Bonnie, Louise

## Participants

Prof Bonnie Nardi from UC Irvine Anthropology and HCI

Helen Hasan Uni of Wollongong, IS, KM and HCI

Kate Crawford Eviva (NGO) Psychology and IT Education

Louise Hawkins-Water Central Queensland University, IS

Michael Jones Uni of Wollongong, HR, volunteerism with Emergency Services

Steve Smith Macquarie University IS, former NSW State Govt IT Director, member of the CC working group

Chrystal Woods, NSW Police Intelligence

Andrew Edwards State Emergence Services

Brian Martin Uni of Wollongong, School of Humanities and Social Inquiry

Paul Barnes Queensland University of Tecnology

Cecile Paris CSIRO, HCI, Linguistics and AI

Linda Dawson Uni of Wollongong, Social Science ADR

William Tibben Uni of Wollongong, IS

Andrew Connery Uni of Wollongong, PhD student and local businessman

Corina Ionescu Uni of Wollongong, IS PG student on CC

Shaheena Muniruzzaman Uni of Wollongong, economist

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