Sustainable Communities:
A Strategic Framework for the Digital Age

Rolf von Behrens

Abstract
The speed at which next generation online communities of affinity are implemented will directly affect the innovative capacity, social cohesion and environmental sustainability of a country or community. Such technologies have the potential to transcend institutional, geographic and social boundaries in order to help us move towards a sustainable and participatory society.

This paper discusses key opportunities and leverage points for investment towards an open, innovative, inclusive and sustainable society. It is aimed at governments, businesses, community organisations and concerned individuals.

1. Our Interconnected Fate: The need for whole-of-community engagement

Scientific journals have recently been brimming with urgent and timely reminders of the fragility and interconnectedness of our global life support systems. Interconnectedness via the internet arguably now offers us the only means of coordination, collaboration and knowledge transfer sufficiently rapid to effect meaningful change quickly enough to achieve a sustainable future.

Broad participation is a prerequisite to achieving sustainability. Neither governments, businesses, local communities, nor not-for-profit groups can meet our sustainability challenges on their own: whole-of-community participation is essential.

If we are to avoid excessively punitive rule, where individual and organisational participation is enforced via coercion or financial and legal penalties, we will need open and inclusive mechanisms that foster rapid cultural change toward more sustainable practices. To be trusted, such mechanisms will need to embody values of openness, transparency and inclusion. From the perspective of communities, trust in such mechanisms are also likely to be greatly enhanced by independence from government and business.

Engagement requires involvement in decision-making. People will only engage if they feel that they are being heard and that their opinions are being taken into consideration.

What online tools for engagement might we employ then to enhance trust and participation while harnessing collective wisdom?

2. PILLAR A: e-Neighbourhoods: Catalysts for rural and urban renewal

"It is clear that for the ordinary citizen, social interaction is the ‘killer application’ of the internet.” (Arnold 2003, 83)

e-Neighbourhoods are an emerging category of online communities of place. Their emphasis is on helping people connect and collaborate in their local areas and on encouraging face-to-face interaction.

There is a compelling case emerging for large-scale trials of e-Neighbourhoods:
1. Online communication can strengthen social ties at the local level. (Wellman 2006, 29-40)
2. A lack of social ties can lead to cognitive decline (Zunzunegui 2003) and premature death. (Iwasaki 2002)

3. Reflecting an international trend, antidepressant use in Australia has tripled in the last decade. (Mackay 2005) Spending on mental illness in Australia is currently around $4.9 bn annually. Additionally, there is a low workforce participation of those affected. (29%) (Hickie 2005)

4. There is emerging evidence that social ties, in the forms of levels of trust, belonging to organisations and volunteering are correlated to GDP. (Lynch, 2000)

5. It is widely acknowledged that strong community ties are linked to lower rates of crime.

6. Social disengagement has been seen as a ‘breeding ground for fundamentalism’. (Hugh Mackay, 2005)

7. During 2000 in Australia alone, 4.4 million volunteers contributed 784.1 million hours of labour to non-profit organisations - equivalent to an additional income worth $8.9 billion to the sector. (ABS 2000) Well-structured e-Neighbourhoods would make the matching of local needs with volunteers’ interests significantly easier.

8. A person’s ‘allostatic load’ score is essentially a measure of their cumulative biological risk. A high allostatic load score is associated with cardiovascular disease, declining physical health and cognitive function, learning and memory. Allostatic load scores are found to be lower in people with a social network. (McEwen 1998)

9. Measures to conserve natural resources are more likely to succeed via strong community engagement. (UN 2005)

What form might an active e-neighbourhood take in practice? Imagine discovering a range of individuals who live close to you that share your interests and passions or have complementary work-skills. Imagine them meeting such people face-to-face at regular neighbourhood events - since they would be much easier to organise and RSVP to. Imagine your entire neighbourhood negotiating a large discount on useful products and services, such as water tanks and solar hot water heaters or child minding services. Imagine how engaged you would feel if your local council participated in your e-neighbourhood and regularly sought your opinion on issues that matter to you.

While much effort & funding is needed in this area before it’s true potential is realised, early pioneers paving the way include: i-neighbors.org, wholivesnearyou.com and BBC’s Action Network: “Change the world around you – Start small: share concerns online, Grow roots: find people near you, Branch out: make a difference in your neighbourhood”. e-Neighbourhoods hold the promise of reconnecting the isolated, lowering rates of crime, cognitive decline and other health complaints. In short, they hold the potential of rejuvenating rural and urban communities alike, while saving governments and human service providers time and money.

3. PILLAR B: National Sustainability Networks: Empowering those at the forefront of sustainability science and practice.

Meeting our sustainability challenges requires the kinds of systems innovations and knowledge transfer only likely to result from interdisciplinary collaboration spanning diverse areas such as agriculture to information technology, education to primary research. There is a pressing need for permanent, dedicated and inclusive networks at the national level that make outcome-focused interdisciplinary collaboration simple, fast and effective.

Such networks would be online communities of purpose aimed at enabling collaboration and knowledge transfer between individuals, communities, specialists, researchers, businesses and government. They would act as collaboration hubs - enabling local and regional sustainability related activities as well as providing a mechanism allowing people working toward sustainability to share
experiences, find funding, gain support and avoid duplication of effort - while maximising the effectiveness of existing activities. Such networks would ideally be supported by, yet be independent of governments. They would be national networks, comprised of locally active chapters (i.e., networks of networks). This structure would foster local autonomy and avoid excessive bureaucracies. Importantly, sustainability networks and e-neighbourhoods alike would ideally be based on open standards and open source software in order to adhere to the values discussed earlier and to ensure public spending contributes to the collective public good, rather than helping to perpetuate the digital divide. Sustainability requires low barrier-to-entry communications; therefore open-source is highly preferable. Even IBM in its recent Global Innovation Outlook, has stressed that future innovation capacity will be subject to the emerging trends towards open standards, open IP, open collaboration, social innovation and the power of networks. (GIO, 2006)

4. PILLAR C: e-Infrastructure Advisors: As enablers of e-business, e-neighbourhoods and online community initiatives.

Online communities of interest, purpose and place have very similar needs when it comes to software infrastructure, since they each require effective interpersonal communications as well as group collaboration tools. At the heart of each is the individual, along with their digital profile and the trust relationships that help comprise their online identity. While in many countries significant progress is being made towards the rollout of the necessary hardware infrastructure to help individuals and organisations get online, little thought has been given to what happens once they are online.

Community groups and businesses alike are faced with a bewildering array of overlapping and often incompatible software choices, with nowhere to turn to for objective advice and support. As a result sub-optimal, stopgap compromises are common, and groups that may wish to collaborate often find themselves on technologically divergent paths.

If we consider content management systems (CMSs) alone, we can get an indication of the complexity involved. Choosing a CMS is central to the online success of any organisation – doubly so for an organisation with limited resources. With well over 500 different CMSs internationally and over 50 free and open-source products, what chance does a community based organisation or a small to medium business have of making an informed and future-focused choice? Add to this the fact that there are over 100,000 open source projects listed on sourceforge.net alone and it becomes clear that there is a long overdue need for funding to be made available to not-for-profit organisations focused on filling these knowledge gaps and providing reliable and independent advice, support and software services to both for-profit and not-for-profit organisations. Such needs have begun to be met in a limited capacity in the US and the UK by e-Riders - who are essentially technology consultants focused on the non-profit sector - yet serious funding and more comprehensive structures are needed.

5. Conclusion:

If we are to achieve a sustainable future, we need open and inclusive mechanisms that foster rapid systems innovation, knowledge transfer and cultural change toward more sustainable practices. This paper has proposed three high-leverage infrastructure layers to achieve these aims.
A significant business case exists on the basis of prevention of health and social problems alone for governments to invest in these infrastructure layers. Such investment is essential, however, to speed the world’s transition to an open, innovative, inclusive and sustainable society.

Bibliography:


