Searching for systems: understanding Three Horizons

by Andrew Curry

There was a lively discussion last year about the Three Horizons methodology on the APF's listserv. It made me realise that even futures methods that are in use—as Three Horizons increasingly is—can be misunderstood by people who have only read about them.

To rewind a bit. Three Horizons is a futures method that allows individuals and workshop groups both to assess the current system and a future possible system, and understand the dynamics of the transition between them. For people new to Three Horizons, I've blogged about it, and co-authored a journal article with Tony Hodgson, one of the two co-creators of the method. Bill Sharpe, the other co-creator, has also written a more personal book about using Three Horizons in his visioning work. It's been covered previously in Compass (January 2014).

In the listserv discussion, people who have used the method said they find it an effective way to get groups to structure their thinking about the future in a way that allows them to see multiple models of the future at the same time. This has been my experience as well. The critics said they couldn't see what was distinctive about the model: now, future, some transition between them. There are other models out there which look much the same.

One contributor, trying to be helpful, said that perhaps the difference of opinion was between practitioners (by implication pragmatic about methods) and theorists (by implication more concerned about rigour). I didn't much care for the distinction. As the French are supposed to say, "Yes, I can see that it works in practice. But how does it work in theory?" Good methods and good models should do both.

My purpose here is to try to connect theory and practice. The first thing to say is that the Three Horizons is, at heart, a systems model. Tony Hodgson is a systems practitioner by training and practice, and to the extent that he has engaged in futures work it has been to try to apply systems tools to it. But futures work is also concerned with systems. All good futures projects should start with a question or a statement that frames the "system under scrutiny". Without that, there is no boundary to the work (Hodgson and Midgley, 2014). Of course this is a construct; all models are simplifications. But they are necessary simplifications.

One of the important characteristics of Three Horizons, therefore, is that the horizons are not just lines; they are each a system. And a little more: they are systems with varying degrees of fitness for the existing landscape.

So Horizon One has a present high degree of fitness in the landscape. This includes its underlying assumptions, its institutional arrangements, its infrastructure, its assemblages of actors, its flows of materials, and so on. However, because all systems lose their fitness over time, unless they change, Horizon One becomes less fit for purpose as time goes by.

Horizon Three, in the present moment, is not fit for purpose. It is merely a collection of potential: potential flows, potential actors, potential infrastructure, potential institutions, potential paradigms and potential value sets. These are essentially fragments of potential change, representing multiple possible future configurations, or none.

As Wiebe Bijker reminds us, in the early stages of an emerging technology (and we can take this to include social technologies) there is considerable 'interpretative flexibility' between different groups about an emerging technology. A dominant interpretation "is gradually constructed in the social interventions between and within relevant social groups." (Quoted in Curry and Hodgson, 2008).

The route to Horizon Three from the present is one of alliances and alignments, but also one in which some proposed futures disappear from the discourse. And some H3 ideas remain in hibernation for decades, waiting for the right moment. The Citizen's Income or Basic Income, now at the edge of the mainstream, was proposed by H.G.Wells almost a century ago.

So: in the Third Horizon, we see a set of possible configurations waiting to happen, a set of emergent properties waiting for the right conditions. It is a possible future that for some system actors is also a preferred future. But in its purest sense, the Third Horizon should represent a space where a complete system transformation is proposed. This has implications for the time horizon: for some systems this takes more time than others.

This is why the area of the Second Horizon becomes critical. Yes, it represents a transition, but it also a space of conflict between different models of

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the future. At any one time there are multiple competing Third Horizons, and multiple Third Horizon advocates, competing for the future.

So let's take an example. This is from a project on weak signals on the future of land use, which The Futures Company undertook for the UK Government's Foresight Programme. (Wendy Schultz was one of the project's expert advisers). The report is in the public domain.

From the scan, different groups of emerging issues clustered together, typically because as a group they started to configure a coherent system. (When as futurists we talk about a scenario being "coherent," this is actually what we mean: that it describes, at least implicitly, a system that is coherent).

These clusters were, in summary:

1. "new industrial methods," which covered "new approaches to production, whether of food, energy, or production materials";
2. "planning and housing," about urban infrastructure and the ownership and use of land and housing;
3. "production for resilience," about a shift from a global view of food production and provision to one based on food sovereignty; and
4. "the meaning of land," which captured a group of issues which challenged the way in which land is understood culturally.

The first and fourth of these are summarised in the diagrams below.

These different emerging systems were not equally attractive to all actors. The informal group that has developed Three Horizons has a language about this. "H2-" (minus) refers to a Horizon 2 adaptation in which the interests of the Horizon 1 actors are most represented in Horizon 2, whereas "H2+" (plus) describes a system in which Horizon 2 is most responsive to challengers who advocate more fundamental system change.

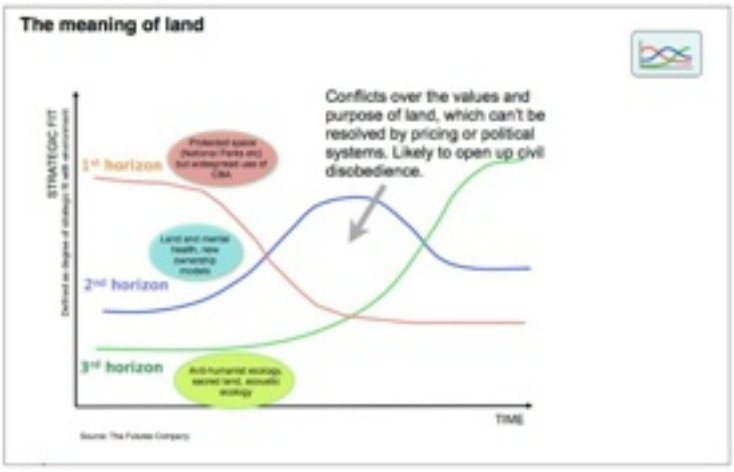
In the present, Horizon Three is only fragments of potential change

Looking at these land use clusters, for which the Three Horizons model was used as a method of analysis, the cluster of emerging issues around "new industrial methods" represented an H1- innovation system, in that it sat comfortably within the current systems configuration around land use, food productrion and food distribution, whereas the clusters around the other three represented an H2+ shift, requiring a radical reconfiguration, including a reconfiguration of values.

In terms of the standard Three Horizons diagram, Horizon 2 can be read as a "transition," but in practice it is rather more than that. It is, at the least, a site of economic, political, social and economic struggle. In terms of complex adaptive systems, it is a zone where a complex system is likely to destabilise into chaos, that also creates the possibility of re-integration into new, vastly different configurations. One of the purposes of the Three Horizons model is to provide a framework which allows discussion and analysis of the contours of such conflicts, which often remain opaque or implicit.

Through this, it effectively provides a tool for interpreting events. So, for example, the lobbying by utilities in many markets for solar producers to pay grid access charges over and above their net electricity tariffs can be read as an H1- intervention that is designed to shore up the existing system. In contrast, the decision by Barclay's Bank to downgrade the credit status of American utilities is an intervention that promotes system transition, and can therefore be read as H2+.

Although the different Horizons are represented by different lines, the story they tell is of one system trying to match its external environment as optimally as



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possible. An ascent is a better fit, a descent is a worse one. But as Richard Pascale reminds us in his populist account of business and emergence, organisations that discover they are losing their fitness with the landscape usually have to go down to go up again; they have to lose fit to reconfigure themselves and move to a new and better niche.

A system that is losing its fitness is, in effect, suffering from entropy: energy, of different kinds, is flowing out of it. To find a new position in another Horizon that is a better fit with its landscape, it needs inputs of energy, in the form of, for example, money, political capital, time, social engagement, or other resources. There is also a direct relationship between the amount of energy required to effect a system change and the economic cost of so doing. In writing this I am reminded of a conversation that I once had with Tony Hodgson about a possible transition path in a set of 2 x 2 scenarios from one scenario to another.

"You have to think of the lines between the scenarios as hills, not as boundary markers," Tony said. They are the Pyrenees, not a county line. Effort is required to cross from one scenario, or one system, to the other. Similarly for the transitions between the different horizons in the Three Horizons model. They involve system shifts, and system shifts require effort.

It is possible to take this further, although it is stretching the Three Horizons model to do it, and possibly in a way that reduces its usability in workshops and other dialogue settings. One can imagine the shift from Horizon 1 to Horizon 3 as a "phase shift" between two systems, similar, say, to the transition from ice to water or water to steam, although this analogy is imprecise. More precisely, the shift is one in which the system unfreezes for long enough to reconfigure itself, before refreezing.

Like all metaphors, this one is incomplete. We can never be sure when or why "heating up" a system will turn it to water or steam; new H3 systems emerge partially, in an irregular fashion, often in niches that are shaped by location, culture, politics, and social structures (Geels, 2002). Sometimes the transition is only clear in hindsight.

One of the important and neglected characteristics of dominant systems is that of "lock-in," or elements of the system that are self-reinforcing and maintain the stability of the dominant system. An example of lock-in: the large scale financing of American political candidates (of both parties) by the finance sector effectively preserves the dominant influence of finance over the outcomes of American legislative and regulatory processes. Typically, during an H2 transition, it should be possible to identify ways in which such a lock-in stops functioning, allowing a new system to emerge and then crystallise.

Finally, one of the other questions that Three Horizons raises is about the behaviour of actors in the system, and of their incentives. In general, this is a neglected area in much futures practice.

Moving to a new position in another Horizon requires inputs of energy

There is some exploratory work that has looked at the connections between futures work and actor network theory (ANT) (Li, 2014, Dudhwala, 2011). It is also an important component in the frames of analysis of *La Prospective*. By sharpening our focus on the nature of systemic change, Three Horizons also requires us to think more clearly about the agents engaged in processes of change. ◀

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