

No Future – how to embrace complexity and win

Riel Miller¹, September 2009, Paris

“It is increasingly clear that the current downturn is fundamentally different from recessions of recent decades. We are experiencing not merely another turn of the business cycle, but a restructuring of the economic order.

For some organizations, near-term survival is the only agenda item. Others are peering through the fog of uncertainty, thinking about how to position themselves once the crisis has passed and things return to normal. The question is, “What will normal look like?” While no one can say how long the crisis will last, what we find on the other side will not look like the normal of recent years. The new normal will be shaped by a confluence of powerful forces—some arising directly from the financial crisis and some that were at work long before it began.”

Ian Davis, McKinsey, Worldwide Managing Director, March 2009

According to the weather service the sun will rise tomorrow at 6:46. There is a fair degree of confidence in this prediction. A meteor might hit the earth between now and then or space aliens might tow the earth to a new location. But these are low probability events when compared to tomorrow’s sunrise. What about the future of the global economy? What can be predicted about economic performance over the next five years?

It is probably safe to say that in one form or another economic activity and the global flows of goods, services, capital, labor, and ideas will continue over the next five years. Productive economic activity and some degree of cross boundary, over the horizon interaction, has characterized human societies for millennia, so it is a safe bet that economic growth and globalization will continue into the future. But the expectation that economic growth might be plus or minus a couple of percentage points and that global flows will continue does not tell us much about what to actually do.

Which sectors will be winners? Where will margins be squeezed by competitors or declining demand? Which technologies will diffuse fastest or change the rules of a specific market (like MP3’s for music or the iphone for smartphones)? How will supply chains change? Where will innovation come from? Without a more precise prediction of what will happen specifically, to your sector, to your products, to your market, to your sources of capital, to your margins – what good is a general forecast that things will muddle on more or perhaps, as Ian Davis of McKinsey prognosticates in the opening quote, much less than is usual? Isn’t there a model that offers safe

¹ riel.miller@gmail.com. Riel Miller is a member of the board of the Association of Professional Futurists, a faculty member at Sciences-Po in Paris, and founder of xperidox: scenarios that change decisions today – www.rielmiller.com.

and accurate predictions of how global flows and prospects will enter into the value-chain that generates revenues and profits for your firm, your region?

The short answer, not a surprise, is no.

Economic change is too open ended. As pragmatists point out and recent cyclical events underscore, things can change quickly and yesterday's anticipatory assumptions – the basis for the predictions used to make decisions – can look fairly foolish only days or months later. The potential for variance is too large and the number of causal factors that might account for such variance greater still. Worse, even if we had perfect information, knew everything about everything, phenomenon like economic change and globalization are fundamentally indeterminate. This compounds the fact that we do not in fact know everything about everything.

Thus when it comes to the future ignorance combines with the creativity of our universe to render prediction either a game of imposing our will on what ever happens or a way to deceive ourselves. The former may be justifiable in circumstances where the ends are so important that the means can be imposed – even if the outcome is often not at all what was intended originally. The latter can be important for our confidence and maybe, at least up until now, psychologically necessary for making the choices and taking the risks that generate change. But fundamentally, the impossibility of prediction is good news for our ability to imagine and exercise freedom.

Either way – because of our ignorance or fundamental indeterminacy – there is **no future**, in the sense of predictability, for complex phenomena.

If there is no future, then what?

Lacking an effective way to predict the future of economic change what options are available if we still want to take the future into account when we make decisions in the present? What is the alternative? Do we give up and let fatalism reign? I don't think so. Like the thinkers obliged to revise their view of the cosmos when Copernicus overthrew Ptolemy, there are new ways of looking at the world based on an acceptance of both ignorance and fundamental indeterminacy or openness. This is what embracing complexity is about.

One way to still exercise our volition, indeed it is a moral obligation to address the flaws in the world around us and pursue our aspirations, is to improve our anticipatory systems in ways that take fundamental openness into account. The alternative to the predictive approach is to construct stories about the future that are inspired by the present and past but do not pretend to offer a probabilistic assessment of how likely any one future may be. This Futures Literacy approach has the virtue of achieving two goals that are critical for decision-making.

First rigorously imagined exploratory scenarios help to reveal the anticipatory assumptions, the images or idea of what the future will be like that people use to make choices. Second these non-predictive stories about how things work in the future can be quite imaginative, painting a radically different picture of the future.

This, in turn, allows a re-evaluation of the way we see the present, what choices are on offer by altering the anticipatory assumptions used to make decisions in the present.

Rigorously imagined exploratory scenarios that are at the core of a Futures Literacy approach are not the same as the typical scenario used by businesses and governments. The more common types of scenario are used to plan, like in a chess game. The purpose of these scenarios is to think through different ways of getting to the same goal using given resources and given rules of the game. Here the different ways, within given constraints, of getting to the predicted objective offer an opportunity to select the best path. These “optimization scenarios” help us to take the optimal route to our planned goal.

Another common type of scenario is the what-if simulation, meant to test and improve the capacity to respond in the face of an external event like a catastrophic flood or an unexpected run of good luck. In playgrounds children rehearse different situations, learning to respond to the actions, good and bad, of their community. Pilots use flight simulators to practice for all sorts of wildcards like freak storms, mechanical failures and even perfect landing conditions in a variety of airports. Getting ready for things that happen using “contingency scenarios” is common for emergency crews, soldiers and good strategic and competitive intelligence teams.

However both optimization and contingency scenarios are limited. Optimization assumes its goal, and to be effective also needs to make assumptions about the means and methods. Planning to build a bridge without funds, engineers or the know-how necessary to organize construction, doesn't make much sense. When you know you want to build a bridge you set out the parameters and then ask about different ways of configuring the rules and resources to get to your goal. This is optimization thinking.

Contingency is similar. Although it is hard to predict exactly what kind of external event will impinge on your daily life, manna from heaven or a bolt of lightning, you can prepare for both and be ready. Such readiness as a mental state and materially in terms of storing or constructing precautionary resources is the basis for survival. We build houses to shelter us from the elements and we simulate disasters to understand how to keep calm and communicate in ways that allow for the coordination of a response that is appropriate to the surprise.

When it comes to complex evolving systems like the future of economic change and globalization, there is little point in developing either planning or contingency scenarios. What you predict and then carefully optimize by looking at a number of scenarios, like a good chess player, ends up being beside the point when the rules of the game, and even the goal, change. Dealing with the indeterminacy of open systems requires a radically different point-of-view – one that does not seek to know or predict what might happen in the future.

Instead the aim is to better understand how our ideas, images, expectations and assumptions about the future enter into our decision making in the present. This

involves two key steps: one is becoming more aware of our typically implicit assumptions about the future; and two is challenging and developing alternatives to how the future shapes our picture of the present. We need to discover the many dimensions of the now that are influenced by the way we imagine the future.

Exploratory scenario exercises still use frames, a few fixed parameters (givens), but they are generally only pre-conditions for action (like the sun will rise) and what is the point (to eat, make a profit, etc.). To some this may seem just like a question of degree or specificity, but there is a decisive difference between seeing a telephone exclusively as a tool for inter-personal communication and seeing it as a computing device that can serve a myriad of functions like music player, geo-locator, payment instrument, etc.. Similarly a company that supplies gasoline is not the same as one that aims to provide energy – in whatever form and organization. Lastly a nation, may embrace the general goal of “life, liberty and the pursuit of happiness” but the meaning of life, liberty and happiness do not stay the same, nor do the ways in which the nation achieves such objectives.

An obvious example of an open ended, exploratory way of thinking about the future is the way we look at ageing. It is commonplace to expect that as a person gets older their tastes, values, and capabilities all change. When recounting the story of a person’s future we naturally take into account the fact that what a child wants to become at 10 is not likely to be what they want at 25. We also know that what our parents or grandparents wanted us to become, or could even imagine us becoming, is too limiting. Not only do vocabularies (what can be articulated as an aspiration) change, but so too do enabling and constraining conditions (like authoritarianism, mass-production, etc.). It is obvious that a European child born to the war torn middle of the 20th century could not tell the same story about their future as one born today (without in any way making a judgment about the superiority or inferiority of their speculations).

Combining the assumption that changing contexts change not only what is possible but what is imaginable with the value statement that it would be wrong to insist that future generations must hold the same values as we do today, eliminates one of the key expectations typically attached to a foresight or scenario exercise. Which is to plan how to get from A to B. The implicit (sometimes explicit) expectation is that scenario exercises can help people to change what they do today by contrasting current choices with either a more desirable future or a more probable future.² The so called normative future offers an “ideal” benchmark, while the probable future (typically based on a predictive model) offers lessons on what to do or not to do if one wants to either accelerate or avoid the scenario that, from today’s perspective is deemed more or less probable. Both are rooted in a planning paradigm that uses scenarios as a way to improve blueprints for the future.

² It is also common to use scenario exercises to build up better communication and a shared understanding of values and expectations. But this type of scenario exercise does not usually target specific policy issues.

An alternative, what I call a Futures Literacy approach, uses scenarios as a tool for calling into question current decisions without any expectation that the scenario used today will correspond to the scenario developed tomorrow. Jettisoning the planning premise may seem like a subtle distinction. For instance critics of foresight in general might point out that in any case, both in practice and in principle, scenarios are usually assigned a low probability and hence are not a dependable planning tool. But by altering the premise that underpins the way decision makers typically use scenarios, particularly by explicitly not accepting the dual planning oriented imperatives of fixing a target³ for the future and seeking the highest probability prediction (despite formal proclamations to the contrary), the scenario method advanced here is at once more modest and less constrained.

It is modest in terms of the imposition of today's values on a long-run future. It is modest in terms of the predictive value of the scenarios. And it is modest in terms of the realization that even if the scenarios are highly imaginative and get "outside-the-box" that so often constrains thinking about the future, there is no way to know if we are inventing the vocabulary of tomorrow or not. Yet, this approach is also less constrained, less modest, when it comes to throwing off the limits imposed by both the search for predictive accuracy and projecting today's values into the future. And it is much more ambitious when it comes to both detecting and acting on the potential of the present – taking off the assumptions about the future that stop us from seeing what is around us right now.

The practical question then is how to apply a non-deterministic, imaginative and exploratory approach to the future for making choices today. Everyone still needs to be able to answer the question – what do I do now?

Applying Futures Literacy to the crisis

Current economic events are frightening and painful for many people and companies. What seemed fairly certain and predictable only a year or two ago now seems uncertain and obscure. It is commonplace to hear that the current crisis makes it impossible to continue with "business-as-usual". Everywhere people are saying it is time to change, time to adapt to a new world, that old solutions will not work.

Yet, almost in the same breath decision makers are demanding that every choice reduce uncertainty. After all the say, everything is so uncertain already, don't add to a bad situation. So the decision-making rule is: "don't do anything that will increase the already excessive uncertainty." Choose initiatives that have a solid track record of working effectively, of being predictable and tested.

³ A single target because even if the scenario process generates multiple scenarios the policy choice is made in terms of avoiding the bad scenario or achieving the good one. Sometimes policies are elaborated or judged in terms of being able to accommodate multiple scenarios and this polyvalence is deemed a useful criterion. However this is still a planning perspective only using a set rather than a single target.

This is today's paradox. In the face of greater uncertainty there is greater insistence on predictable, quantifiable, low risk choices – in order to offset uncertainty. Unfortunately if the first premise is right then looking for “tried and true” solutions is simply a way to make even bigger mistakes. False certainty is worse than no certainty. And yet, if we look around us many of us are convinced that the world is changing. Part of this is, as is only natural, the “hubris of the now”. Our sincere belief that this moment in time is the most _____ (fill in the blank): fastest, biggest, most complicated, most overloaded, most dangerous, the most Madoff, etc..

Still, as the analyses presented by Carlota Perez or Doug Griffin (see this volume) point out, there are significant, historically specific changes taking place that distinguish the current conjuncture from the preceding period. And the financial crisis, rather than being just an aberration of bad morals and bad regulation, is indicative of systemic changes in the underlying structure of our economies and societies. From this perspective we are living a moment when the swirling clouds of evolutionary complexity part, offering a glimpse of a landscape where three features stand out *and* what needs to be done becomes clear. It is time to embrace experimentalism.⁴ To do so requires Futures Literacy, the capacity to look at the present in its full complexity and indeterminacy without losing sight of what to do, which choices make sense now.

To get to a Futures Literate approach to decision-making we need to get past some of the scapegoats and distractions of deterministic thinking. One of the biggest current impediments to more open thinking is a yearning for the certainty of “solutions that work” and the desire to eliminate any sources of uncertainty. A prominent example of a yearning for more certainty/less uncertainty is the desire to “fix the financial system.” This is almost a “shoot the messenger” type reaction.

Certainly the “crisis” and the current collapse in the credibility of people's assumptions about the future is partly due to errors by regulators and investors, including trusting people without scruples. But the real error is the way people think about the future. They wanted to believe that continued globalization and the advent of a “flat world” assured us never-ending prosperity. They wanted to believe in immortality, that systems do not decay, become detached from the conditions for resilience, decline to become marginal or disappear altogether as new emergent systems are born and begin to take pride of place. In our success we came to believe in the possibility and virtues of resilience. That we could ensure eternal life by accurately anticipating the future (prediction) and adapt in advance to any threat or dysfunction, thereby consistently and perpetually avoiding the dangers of “over shooting” or breakdown.

⁴ This text is adapted from an article by the author, published in Optimum Online, <http://www.optimumonline.ca/article.phtml?id=332>, and Ethical Markets, <http://www.ethicalmarkets.com/2009/01/30/to-experiment-or-not-to-experiment---that-is-the-question/>

What is happening at the moment, the very real and painful feeling of abrupt discontinuity, fears of deindustrialization and that somehow the rules of the game are being rewritten, is not because of a conspiracy or incompetence or a sudden increase in the prevalence of turpitude amongst people who happen to be alive at the moment. Such explanations are for people who are looking for scapegoats, someone to blame so that the search for certainty does not have to end just the story that carries the burden. This is not to argue for a view that exonerates individual actors or groups of actors of responsibility, rather it is to reposition responsibility within the more modest confines of the limited power of volition and explicit collective choices.

In other words it turns out that in the kind of hyper-complex evolutionary system we currently are in breakdowns happen. It's normal and actually, looking at the long-run, "healthy" from the point of view of broad system resilience. We live in industrial systems, rooted in private property, market transactions rule of law and modest elite reshuffling through elections – that regularly generate a disconnect between the financial system (playing the Darwinian role of reallocating investment) and the rest of the value creating system (output of utility) (again see Carlotta Perez). Without getting into why this happens, the evidence that it has happened is fairly overwhelming, particularly at the moment.

The key question is how to restore the systemic attributes we care about? Here I don't think it is asking the financial folks to become more self-aware, humble and prescient. Let them continue to be predators, playing their profit hunting role, as aggressively as they can – including going after speculative, tail-chasing bubble activity when they can't find anything else better to eat. This obsessive exuberance serves us well – on the one hand it means that many projects that would never be tried or explored in a more sober, controlled system actually get funding to do wild and experimental things (anyone want to live in a system that can pre-emptively control excess and risk, that doesn't allow evolutionary change?); and on the other hand it sends a signal that the way in which utility and profit were produced in the past no longer interests the carnivores – a critical signal of the need to change the allocation of power.

Not surprisingly such changes in the allocation of power do not happen through benevolent prescience. Those in power cling to it, often viciously. The allocation of power in our societies is not changed consciously by bankers but unconsciously as they seek greener pastures and over-extend their backward looking capabilities to detect and cull in a new and emergent systemic context. The shift to a different way of organizing wealth creation is a broad process, one that has up until now occurred mostly inadvertently and with massive amounts of horrific destruction. I'm not saying that anything is inevitable – the future of hyper-complex evolutionary system is unknowable and fundamentally indeterminate – but don't blame the bankers or ask them to turn into lambs.

Let them continue to hunt, but in new jungles. Simply closing off (regulating) the old hunting grounds such as the legal pyramid scheme they constructed in order to chase securitized-triple A financial instruments just puts them on a diet. The

challenge is bigger and more society wide, how to open up new fields of value creation – along with the rules, institutions, organizations, business models, etc. that go along with this kind of change. That is the challenge to volition. It is a challenge to our imaginations, to discover another future in the present than the future we once saw in the past.

The traces of emergence are around us but blame and nostalgia won't provide us with the insights to act now on the potential of the present. It is a common event in the history of firms and sectors that eventually they get drawn away, initially by innovation and the good profits that go with it, to a point where the core role of what they produce is forgotten. There are famous examples of firms and indeed even whole nations that lose sight of the essential, focusing on doing things that end up being peripheral and ultimately non-resilient. This is the great danger, as IBM's Lou Gerstner explained, of success.

Applying Futures Literacy to the “real economy”

So, now that the financial system is for most people a failure, what about the everyday economic and social realities? When each of us wakes up and starts about our own day, the “real economy” is still there. This is the continuity of human activity that creates wealth in the form of useful output. It is important, very important and not easy in these queasy days at the end of the industrial era, to admit that wealth creating activity includes not just the familiar physical objects that come off automobile assembly lines or the “white collar” services offered by Wall Street brokerages but also the “unique creation” that defines peer production, experience market events, “do-it-yourself” craft, and co-produced relationships arising in fluid networked communities.

What we see in the world around us today is shaped profoundly by what we think will continue to be in the future. Included in our anticipatory assumptions are things we just take for granted as being part of the future, like jobs will be important, companies will be the main way of organizing economic activity, schools and universities will be the key source of knowledge, nations will compete, identity will be given to you, society's values and standards will become more lax because of greater tolerance and diversity, older communities will be poorer communities, and bureaucracy will always be with us.

Now, taking a page out of the foresight methods discussed above, what if we imagine a different future, how does our perspective on the present change? Very briefly here are seven challenges to conventional wisdom if we imagined the future – as a story, not something that is probable or even desirable – in the radically different configuration of what I have called elsewhere the Learning Intensive Society.

First, if “banal creativity” becomes the predominant source of intangible value-added in an economy dominated by “unique creation” then what matters for further productivity gains is not the extent of increases in the technocratic skills of the population but rather their ability (capacity) to refine their own tastes. This implies that the dominant classroom model of teaching, with its industrial era behavioural

patterning (passivity, obedience), needs to be reduced to a minimum – especially for youth. The pre-eminence of the refinement of taste in the context of unique creation also implies that there is no need to continue with the race to push ever more people up the traditional industrial era hierarchy of skills.

Second, following on from the predominance of unique creation, industrial ways of organising production, including the firm, give way to much more spontaneous networks of “pro-sumers”. A collapse of the divide between supply and demand could significantly reduce the organisational advantages of the administrative firm; but only if we can imagine new institutions and cultures that can sustain the necessary transparency, trust, ease-of-payment, diversity of contractual relationships, and new forms of property rights.

Third, the traditional notion of competition that sees multiple suppliers of a fairly similar product vying to sell to a large number of consumers on the basis of quality/price falls by the wayside since unique products no longer fit this model. This also has implications for two related industrial era notions – the GNP definition of wealth which aggregated the transactions across the supply-demand divide and competition between nations (treated in a sense as firms). The shift to an economy dominated by network based co-production and much more direct transaction/cooperation relationships opens up greater scope for mixing of monetary and non-monetary exchange. It also connects up to a much more personal universe of things and services but also, perhaps more importantly, it opens up the potential to organise work for life instead of the industrial era’s adaptation of life for work. Which connects to the next point.

Fourth, one of the basic driving forces of the evolutionary processes (that include failure and extinction) that give rise to transition scale changes is the search for identity in the context of freedom, hence it is not the provision of security but the building of capacity that is crucial for avoiding fundamentalisms. Capacity emerges from experience, by doing rather than being told. Situations where people engage in learning by doing is dominant. But this means that there are a lot of experiments. And if there are experiments there will be failures. Which leads to the next challenge to conventional wisdom.

Fifth, ex-ante industrial planning (administration/bureaucracy) approaches to managing both the perception and probability that a negative risk turns into reality become a source of failure. Just the opposite of what we believe now – that planning is the way to avoid failure and that failure should be avoided at all costs. In the context of much denser, more spontaneous and dynamic networks diversification as well as a general move away from choices that create path dependency are sufficiently risk reducing to allow for reliance on “more risky” just-in-time experimentation. It is more dangerous to avoid experimentation and the failures that come with it than to suppress risk and seek to avoid failure.

Sixth, sustainability depends on improving the capacity for self-organising systems to function. This works because, as already mentioned, we can imagine major breakthroughs in the institutions and cultures that underpin transparency and trust.

Adherence to basic common values is a more stringent requirement, internalized constraint rather than externally imposed (policing). While at the same time new ways of identifying and sharing much more fluid and varied collective realities (network standards) means that governance systems have a greater capacity to clarify the nature and temporality of both conflicts and imaginative solutions. Forms of governance function on the basis of experimentation not administration and rest on a greater underlying capacity throughout society to make decisions; a sort of literacy for the post-industrial world.

Seven, last but not least, taking all of the preceding points together could mean that changes in the overall age profile of a population (typically referred to as aging) is NOT a problem at all. People with more experience of refining their own taste, constructing their own identities, networking their work to fit their lives, will be simply better at creating the kind of wealth that defines a Learning Intensive Society. This means that contrary to today's expectations the richest society are the ones with the highest average age.

The jackpot

Taking this imaginary future as a way to look at the present reveals a third feature of the present (after the disconnect between the financial and real economy, the emergence of a learning intensive society), that there is a jackpot of riches waiting to be created by reconnecting the "real economy" with the financial system. We face a historically rare opportunity. Economic and social change partially depends, at least in the systems we have today, on a financial system that plays its traditional of specializing in both the (re)allocation of capital and the management of liquidity – in ways that correspond to the present nature of what is being produced and accumulated in the form of assets (capital). Without this essential system the new types of output and the new ways of producing this output, including the emergence of new business models on a viable basis, cannot happen.

Time to experiment

In this time of crisis the reflex of retrenchment, consolidation and refuge in familiar routines is understandable. But it should also be self-evident that financial system innovation is essential for developing the potential of the present. History is replete with examples.

The invention during the Renaissance, over four centuries ago, of such primordial ingredients of the financial system as double entry bookkeeping and the then exotic financial instrument called a "bill-of-exchange" were critical to enabling new business models and new markets to emerge. It is easy to forget that instruments and institutions that we take for granted today like bonds, stock markets and even central banks did not always exist but had to be invented and refined through experimentation.

What to experiment on

Past experience shows that finding the right fit between the emergent system of wealth creation and an appropriate financial system requires experimentation in at least four underlying socio-economic sub-systems – identity, property rights, transaction systems, and shared meaning. One take⁵ on today's context suggests that in business and government we need to pursue experimentation along the following lines:

- **Identity.** The emergent “learning intensive society” is characterized by “unique creation” in highly fluid and diverse networks. If there is no easy way to prove and own your identity in a practically useable form then there are very high costs and low incentives to opening an account, making an investment, accumulating assets or taking responsibility (recognizing liability). Citizenship, birth certificates, social security cards and a panoply of rights that we take for granted now need to be extended into cyberspace – it is time to establish the infrastructure of cyber-citizenship.⁶
- **Property rights.** The new relationship between property rights and finance needs to be based on accounting systems that rest on clear and operational property rights systems that validate and valorize two key asset classes: i) creativity in all its cumulative and composite richness (copyleft), and ii) human capital as the verified acquisition of competences – things you know how to do – that can be deposited in a “knowbank”.⁷ A willingness to undertake creative experiments equivalent to those of 19th century, like the daring decision to introduce universal compulsory schooling, could easily establish the accounting and assessment methods needed to bring property rights and accounting systems back into realignment with the emergent systems of wealth creation.
- **Transaction systems.** Composite creative works that are formed from a collage of accumulated inputs and spontaneous teams that coalesce for joint activities/joint production of utility (social, business, personal) can only work if there is an easy way to measure value and make payments. For a variety of reasons, including inadequate identity and property rights systems as noted just above, the development of a state backed token that can be used for peer-to-peer payments has not emerged. The problems are not technological but institutional.⁸ Central banks did not take initiatives in this direction at the time of the dot.com boom for fear of destabilizing financial sector business models. Now that the sector has to be rebuilt anyhow what better moment to experiment with new forms of payment that can help create new valuation markets and facilitate the viability of new business models in a broad, global-local transaction economy.

⁵ Miller, Riel, (2006), “Equity in a 21st Century Learning Intensive Society: Is Schooling Part of the Solution?”, **Foresight**, Emerald, Volume 8, Issue 4. And, Miller, Riel and Tom Bentley, (2003), **Unique Creation**, National College for School Leadership, UK.

⁶ Miller, Riel (1997-99), Rules for Radicals, monthly column for ezine, intellectualcapital.com

⁷ Miller, Riel (1996), Measuring What People Know: Human Capital Accounting for the Knowledge Economy, OECD, Paris.

⁸ Miller, Riel, Wolfgang Michalski and Barrie Stevens, (2002), “The Future of Money”, OECD, Paris.

- **Shared meaning.** Language is an obvious enabler of networking but it is the kind of standard that takes centuries and innovations like nation states and compulsory public schooling to become ubiquitous. The equivalent challenge today is to establish a more rapid, task and context specific ability to arrive at shared meanings. This is a key enabler of a learning intensive networked society. Already much grass roots experimentation is happening with what some are calling the “semantic web”, a glimmer of what might be imagined as Web 3.0. Now is the time to be more explicit in encouraging experiments in achieving transparency (finding what you need not just what you already know).

Resistance to experimentation

Collective action, within a company, a region or globally, to introduce experimentation along these lines provokes resolute and often nasty defensive reactions. This is a normal since the emergence of new systems that function on the basis of different landmarks and logics reshuffles the stocks and flows of capital and power.

A recent rather low key but costly example of this resistance to change happened during the dot.com boom. This explosion of creative and risky ideas both inflated too fast and collapsed because powerful interests not only protected existing systems of property rights, payment, valuation, and accounting – but also, maybe more importantly, stymied experimentation with alternatives. During the dot.com boom experimentation was fenced-in to a narrow range of “wild entrepreneurialism” that left institutions, accounting practices and power untouched.

Some might say that the current context is different. Given the breadth and depth of the failure of the existing systems the choice of experimentalism may seem like a “no brainer”. Turning to experimentalism could even appear like a good way to show some regret over how things turned out and a willingness to try something new. “Hey, let’s run a few pilot projects to see if they work. What have we got to lose?”

Fear of experimentalism

Plenty. Embracing experimentalism, as defined here, means abandoning administration and “all-knowing” power of the CEO and head of state. This is a huge and frightening loss. Administrative systems use simplification in conjunction with command and control to achieve planned outcomes and manage risk. Administration has been brilliantly, wildly successful, but at a price.

But using administrative methods to address the reality of complex evolving systems entails a loss of information and freedom.⁹ By resting on the “Newtonian” world-view (see Doug Griffin’s piece) that the universe can be explained, predicted

⁹ Miller, Riel, (2006), “From Trends to Futures Literacy: Reclaiming the Future”, Centre for Strategic Education, Seminar Series Papers, No. 160, Melbourne, Australia.

and planned, the administrative approach – even in its most reflective mode – contains two insurmountable limitations: first the premise of predictability means that failure is due to inadequate planning and hence logically failure is avoidable, failure is someone's fault, and fear of failure inhibits learning through experimentation¹⁰; and second the presumption that the future of complex systems can be explained undercuts the modesty and imagination needed to question the assumptions that limit our perceptions of the potential of the present.¹¹

To embrace experimentalism is to let go of the organizational forms and practices of planning and administration that are logically at odds with failure and hence, fundamentally at odds with learning. It is to take another, more spontaneous, diversified, fluid and open path to achieving our goals and managing risk.

The courage to do it

Today we look back at the crash of 1929, the immense costs of the Great Depression, and denounce what now seem like pointless political conflicts, obvious policy blunders and the excruciatingly slow pace of institutional innovation.

Will history repeat itself? What will our epitaph be? Will hindsight's verdict in fifty years be that we systematically and purposefully sought out experimentalism and the new capacities like Futures Literacy as a new way to take advantage of the opportunities created by the complex evolutionary processes within which we live? Or will they once again lament our inability to imagine changes in the conditions of change and do something about it?

At least our choice is simple – will we give up on trying to predict the future and embrace experimentalism or not?

¹⁰ In an administrative system the verdict of success or failure, hence the dynamics of experimentation occurs most tellingly through the birth and death of organizations. This is too "lumpy", too limited by the administrative form, for unique, networked, co-creation activities.

¹¹ Miller, Riel (2007), "Futures Literacy: A Hybrid Strategic Scenario Method", *Futures: the journal of policy, planning and future studies*, 39, Elsevier, Pp. 341-362.