October 2012

CONTRIBUTION TO THE EUROPEAN COMMISSION'S CONSULTATION

EFFECTIVE OPEN VOLUNTARISM

GOOD DESIGN PRINCIPLES FOR SELF- & CO-REGULATION & OTHER MULTISTAKEHOLDER ACTIONS

About eBay

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PRELIMINARY CONSIDERATIONS

eBay strongly supports the European Commission's quest for innovative and novel approaches to achieving policy objectives in the 21st century.

We are convinced that a new paradigm for policymaking is required - one that transcends the false choice between more or less regulation and starts from the premise that:

- Increasingly, all markets are underpinned by technology
- Services, products and user behaviour evolve ever more rapidly
- Investment and innovation are key to sustainable growth

We need a framework for smart and flexible policymaking based on:[1]

1. **A consistent methodology**
   - Using one common language when analysing and addressing problems through policy - we recommend Systems Dynamics.
   - Employing effectively both the public and private sectors to solve problems together, taking into account the strengths and weaknesses of, inter alia, experts, wisdom of crowds, software algorithms - we call these "agents".
   - Navigating efficiently and adapting timely to complex and rapidly changing circumstances - we propose cycling the "OODA loop".
2. **A policy mindset** that embraces uncertainty, supports "trial-and-error" techniques, and aims at providing tools that release favourable system behaviours.
3. **A guiding principle** that helps us apply the methodology to specific circumstances.

[1] The considerations presented in this contribution have been developed together with Mark Fell, Carré & Strauss; helpful illustrations can be downloaded here: http://www.ebaymainstreet.com/think3

CONSIDERATIONS FOR A FRAMEWORK FOR SMART & FLEXIBLE POLICYMAKING

The EU is committed to the goal of inclusive, smart and sustainable growth. The Single Market is the key tool to achieve that goal by creating growth, generating jobs and offering opportunities. In order to support its continuous development, policy thinking must incorporate social challenges, new technology and climate change.[2]

The World Economic Forum Annual Meeting 2012 describes our challenges in these terms: "W*e are living in the most complex, interdependent and fast-paced era in recent memory. It is also the new context in which leadership will be exercised for the foreseeable future*."[3]

To ensure we work with and not against this new context, Commissioner Neelie Kroes has stressed in several speeches how we need a "*different mindset*", moving away from an attachment to a "*20th century policy mindset*"; how sometimes "*we need faster, more flexible solutions …* [w]*hether it's industry coalitions or user co-creations*"; and how we need to "*embrace new technology, new legal frameworks and a new way of thinking*".

Against this background, our contribution to the European Commission's consultation on good design principles for self- and co-regulation and other multi-stakeholder actions consists of considerations for a new approach to problem solving through policymaking.

A CONSISTENT METHODOLOGY FOR SOLVING PROBLEMS WITH POLICY

SYSTEM DYNAMICS

We need a common and consistent methodology for analysing and addressing environmental, political, social and economical challenges. Systems Dynamics offers such a tool. It is an approach to understanding (1) the behaviour of complex systems over time and (2) how they can be managed and redesigned to achieve lasting change.

Systems Dynamics can help us define problems and identify the "leverage points", i.e. the places in the system where a small change could lead to a large shift in behaviour. As a rule of thumb, we have at least 12 leverage points to consider when looking for ways to modify or moderate a situation – in order of effectiveness:[4]

1. **Numbers:** Constants and parameters such as subsidies, taxes and standards
2. **Buffers:** The size of stabilizing stocks relative to their flows
3. **Stock and flow structures:** Physical systems and their nodes of intersection

[2] See the Single Market Act II: "*The Single Market must respond to a constantly changing world where social and demographic challenges, new technology and imperatives, and pressure on natural resources and climate change must be incorporated into policy thinking*."

[3] See Executive Summary: http://www3.weforum.org/docs/AM12/WEF_AM12_ExecutiveSummary.pdf

[4] This list was compiled by Donella Meadows, a leading proponent of systems dynamics, see "Thinking in Systems" (edited by Diana Wright). Meadows' work is widely recognized as a formative influence on hundreds of other academic studies, government policy initiatives, and international agreements. In 1972 she was on the MIT team that produced the global computer model "World3" for the Club of Rome and provided the basis for "The Limits to Growth" of which she was the lead author.

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4. **Delays:** The length of time relative to the rate of system changes
5. **Balancing feedback loops:** The strength of the feedbacks relative to the impacts they are trying to correct
6. **Reinforcing feedback loops:** The strength of the gain of driving loops
7. **Information flows:** The structure of who does and does not have access to information
8. **Rules:** Incentives, punishments, constraints
9. **Self organisation:** The power to add, change or evolve system structure
10. **Goals:** The purpose of the system
11. **Paradigms:** The mindset out of which the system – its goals, structures, rules, delays, parameters – arises
12. **Transcending paradigms**

⇒Applying systems analysis to policymaking helps us ask different questions and try out novel solutions. There is much to gain from thinking systematically about what is causing a particular behaviour and being open minded about which leverage point(s) to push. This will prove to us that we have more, and more effective, tools in our tool-box than rules and regulations (leverage point 8).

THE OODA LOOP

As complex systems are inherently unpredictable, the 12 leverage points are no quick fixes. Architectural nonlinearities can flip these systems from one mode of behaviour to another.

For example, software can behave in complex nonlinear ways. It is made up of lots of different "if-then-else" branches in the code and feedback loops. As stocks of data are processed, changing combinations of these branches and feedback loops come to dominate the system at different moments. This can lead to unpredictable results. That is why, even after exhaustive testing, software for any significant undertaking is never entirely bug free. Computer systems cannot be controlled deterministically.

Software developers employ agile programming techniques to navigate this complexity. Simplified, this is about seeking out new ideas, trying new things on a scale where failure is survivable, and learning from mistakes.[5] Technology companies basically operate on a fast "OODA loop"[6] whereby they continuously:

- Gather sensory inputs from the environment - "intelligence gather" (Observe)
- Make sense of this observational data by creating a mental picture - a "model" - of the situational reality (Orient)

[5] See also Tim Harford, "Adapt – Why Success Always Starts With Failure" and the 'Palchinsky principles'.
[6] Observe, Orient, Decide, Act: The OODA loop, or the Boyd loop, was the creation of John Boyd, a military strategist, US Airforce fighter pilot and Colonel. Boyd helped design and champion the F-16 fighter jet. He formulated the OODA loop to enable fighter pilots to quickly assess and adapt to complex and rapidly changing environments - ones that cannot be controlled. In which poor decision-making can be a matter of life and death. Today the loop is written into US Air Force doctrine. See also Ben Hammersley, "64 Things You Need To Know"

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- Use this new "knowledge" as the basis for decisions (Decide)
- Translate this into action (Act)

⇒ The OODA loop is a tool also for policymaking as markets and the society are increasingly complex, interdependent and underpinned by technology. The OODA loop is a continuous four-stage process through which the appropriate "agent" or mix of "agents" (discussed below) can push one or several leverage points, monitor the impact, obtain feedback, and adjust or change course as needed to release desirable behavior – policymaking based on variation, survivability and selection.

"AGENTS"

Technology companies make use of different and often a mix of "agents" for solving problems, such as software and computer algorithms, average person and the wisdom of the crowd (crowd-sourcing), experts and groups of experts. They have learnt that no one "agent" is the panacea – each "agent" has its strengths and weaknesses depending on the specific circumstance.

For example:

- Turning to the "wisdom of crowds" (such as a group of consumers) is sensible when we want to figure out the value of something or choose the right answer from among a small number of possible alternatives.[7]
- If there is an identifiable expert in a group, it may be that the expert will do better than the group average. Experts come into their own when a combination of knowledge and initiative is required.
- In many areas computers are replacing experts when it comes to making rule-based decisions. However, computers lack common sense or sensitivity to context. There are other limits to computing power, such as software, data and cost limitations.

⇒ In the area of policymaking, we also have the division between the public and the private sectors as both sectors can deploy all of these "agents".[8]

[7] See, e.g., Len Fisher (a Physicist at the University of Bristol) "The Perfect Swarm - The Science of Complexity in Everyday Life"

[8] For instance: general elections and referendums are expressions of wisdom of crowds; committees are groups of experts; representatives elected to political office are average persons; computers run online tax forms.

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A NEW APPROACH TO PROBLEM SOLVING

When we use policy to try and solve problems, the processes and solutions should work in harmony with the way the society functions. Today's society is underpinned by technology and made up of networked complex systems.

Years of experimentation has led the digital industries to adopt an iterative and agile approach to problem solving. Also in the policy arena, we now have to abandon the illusion of "predict-and-control". To that end - and as a point of departure for further work - we offer a new approach to policymaking:

1. **A common methodology** for solving problems in a "complex, interdependent and fast-paced era". We believe such a framework should be grounded in System Dynamics, make use of expertise on the 12 leverage points in a system, and be structured around the OODA loop's four processes.

2. **A policy mindset** cogniscient of the fact that "complex systems" are inherently unpredictable and no one "agent", form of action, or more or less regulation is the solution to the challenges we must address. There is no silver bullet. Instead, the right way to frame our task is to try and evolve a solution, not pretend to determine it: frame the question, provide the right tools, strive to *release* desirable behaviour by markets and individuals, correctly structured and the system will. This requires us to address issues such as:
   - Why are we not leaving the system to self-organise, to run itself?
   - Why is a particular "agent" or mix of "agents" appointed as problem solver, why not defer to the actions of another "agent"?
   - Have we properly understood the strengths and weaknesses of the various "agents", their different types and configurations – accepting that nothing is certain in a complex nonlinear systems world?
   - Can the "agent" cycle through the OODA loop at the right tempo? Too fast or too slow action can be detrimental, leading to oscillations in the system's behaviour.
   - What will ensure that the "agent" can be held accountable as it cycles through the OODA loop?
   - How do we avoid silo approaches whereby one "agent's" action undermines those of another? Instead all of these actions need to reinforce one another - they need to act in concert with each other. In other words, the various "agents" need to cycle around the loop as a team.

3. **A new principle** guiding us towards the most probable leverage point(s) and the best placed "agent" or mix of "agents". Such a principle could read:

   "An agent is to act only if, and in so far as, it is reasonably foreseen that the objectives of the proposed action cannot better be achieved by the system running itself or in default of this by another agent"

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