**Pearls of Wisdom**

**Katz-Echo 2012 Global R&D and Collaboration Forum**

You open things up when you detach content from the container. Think about iTunes and the App Store. *Bob Evans SAP*

No matter who you are, most of the smart people work for someone else. (Joy’s Law)

Three out of four solutions to problems solved using crowdsourcing are existing, off-the-shelf solutions that came from disciplines outside the discipline posting the problem. *Karim Lakhani Harvard Business School*

In virtual communities 80% of the participants are floaters (lying around listening and looking) while 10% are swimmers (making some motion and contribution) and 10% or less are the divers who post and keep the dialogs moving.

At Disney we co-located some of the IP lawyers and great things started to happen faster. Several lawyers were even cited as inventors on patents. *Mk Haley, Disney Research Lab, Carnegie Mellon University*

Today most scientist and engineers are problem solvers. Tomorrow they will have to be solution finders. *Alph Bingham, Co-Founder Innocentive*

Open innovation can look like collaboration with competitors.

Focus on the lawyer and not the law. West Coast Lawyers get to know your business and East Coast lawyers tend to tell you the law. *Michael Madison, University of Pittsburgh Law School*

The idea obtained from a crowd is not a sustainable advantage. It is your process for obtaining ideas and using them that creates a sustainable advantage. *Jay Anand Ohio State University*

Knowledge is not individual but collectively embedded. Change team members one at a time and the knowledge stays. *Jane Zhao, University of Kansas*

China’s grew by utilizing the fragmentation of production. This created the first true interdependencies in history. They are actually very fragile and balance between economics and political logic. For example, semiconductors designed in the USA, produced in China and assembled in Korea. *Dan Brenitz, Georgia Institute of Technology*

Niche strategies are helpful on breaking through competitive barriers.  *Mier Zhan, Dalian University of Technology*

Pool #1 from the Affinity Matrix – OI Enabled SPEED is a Function of ?

Question: *How does OI provide leverage points for accelerating R&D?*

Pearls?

* Firms need to innovate *smarter* (make the right bets the first time) to innovate *faster*
* OI enables firms to compress the innovation funnel by combing certain facets of creation and selection, e.g. engaging crowds to vet designs fuses the two activities

Notes:

* Compress the funnel by merging creation and selection
* Cultivate commitment to the outcome during creation – tournaments, crowd sourcing – lead users, gatekeepers, certifiers
* Building commitment accelerates adoption and diffusion… institutional enablers, contractual IP…
* Are you asking the right questions of your user community and keeping them engaged?
* Top down vs. bottom up models of engaging more (intra, inter-firm plus extra-firm) diversity
* Access to a larger and more diverse (disciplinary and geographic and institutional/community norms) pool of talent than can ever have inside one organization, via OI 🡪 increases the odds of finding an extreme solution
* Abstract from the context in which a problem is found to articulate generally enough to make accessible to a large and diverse (multi-disciplinary) pool of potential problem solvers – outside the organization
* Rather than asking people to think outside the box – find people who are experts in their box and ask them what they think – diversity of experts
* Redefining “un-sexy” products like Granola suggests that better mechanisms for exploiting or diffusing probably exist
* Open innovation allows for consideration of extreme value outlier solutions
* To get smarter via crowds…need to find leverage points within the firm for that information gathered to be actionable
* FOCUS ON THE LAWYERS not the law… West Coast vs East Coast lawyers – West Coast lawyers get the business models supported by and supporting OI – and operate with fewer boundaries, so things will likely happen faster – Michael – context for OI matters for speed

Pool #2 – Process Benefits of OI

Question: *Are the changes in R&D process the real value in embracing OI, over the solutions found via open channels?*

Pearls:

* Traditional problem solvers also need to become solution finders
* Firms need to disconnect physical artifacts (e.g. product form, content containers) from their core functions to solicit input, initiate conversations, from customers
* Firms need to cultivate a portfolio of processes for managing innovation – one linear approach won’t sustain creativity or allow for discontinuous innovation

Notes:

* Search for solutions versus generation of ideas – do you make or do you find ideas…2x2 matrix
* Separate containers and contents …find the information shadow of your product
* Engage customers during creation to innovate faster – select the best design at the same time you define it…engage commitment to as a means to accelerate diffusion
* What’s the value of your process – managing a portfolio of processes – the funnel is too long and uni-dimensional
* How you apply these depends on whether you are a maker or a finder of strategies…standards maker… operate in a predefined mkt…
* As a means to develop interpretive flexibility, need a portfolio of innovation practices…crowd source to get around own info filters, exposure to many different ways of viewing things…
* It is not all about picking technologies, it is also about finding new ways to find solutions
* Napping! This is when your brain makes connections - 33% more likely to make connections between distantly related things, ideas Mk

Pool #3 – What Organizational Structures are Needed to Leverage OI

Question: *What organizational structures are needed to leverage OI?*

Pearls:

* Celebrate risk - Reward failure – Think long-term!!! probe deeper – question questionable ideas as they can inspire good ones - Reduce spatial proximity for serendipitous encounters – takes very little space for encounters never to occur….engineer traffic patterns – visual proximity… - Mk
* GENI – exploring - creating alternative futures ….year-long but overlapping spirals within which teams compete to develop the best solutions to particular clusters of issues or themes and competing teams – with discretion to redefine nature of the problem – but the parts have to fit together or work together in some way… Laurie
* Diverse views can trigger conflicts, misunderstandings, and unmet expectations, and uncertainty in end-product highlights need to balance flexibility and discipline in processes…

\*\* also see Connections below \*\*\*

Notes:

* Parallels between InnoCentive and GENI?
* Emergent engagement, commitment to roles, through collaboration
* What needs to change inside a firm to enable fast use of information?
* Acceleration and org structure – if you’re making the org structure more complex is it better?
* Process of innovation can too often end up overly complex and still fail
* Wisdom of crowds – how do we establish control and structure in our org to take advantage of the wisdom of crowds?
* OI to line up knowledge flows
* Mechanisms of knowledge flows
* Key org structure mechanisms define the engine of the type of OI
* OI mechanisms in different network structures?
* Strategy as running shoes… easily copied bad strategy
* Find pieces of the technology can parse – decompose – separate form and function, content and containers, find the info shadow….so can engage in conversation about the core value drivers outside of artifacts that create cognitive boundaries …to engage crowds, lead users, multiple domains, diverse regions,
* Some of the control frameworks are more stable than others
* Very challenging for experimenters to run experiments on infrastructure that is not stable and not well defined –causes frustration and slows progress
* Spiral approaches provide some flexibility in process but also some complexity:
* Laurie

Social network analysis as a way to understd org structure…

* Social network analysis identifies the communication and interaction patterns of individuals in a community
* Identifies the most “central” (e.g. influential) individuals and those who are the information brokers (e.g., boundary spanners).
* Patterns of communication and interaction reflect how information, knowledge and ideas are exchanged in a community
* Social network analysis can identify sub-groups and cliques and signal the potential for conflict
* Patterns of interaction and communication relate to social identity, performance, innovation and other project outcomes

Assess by meeting attendance…

* Goal is to understand participation patterns for individuals, competing clusters, roles, and institutions at Global Engineering Conferences over time.
* what do the patterns mean for the evolution and long-term viability of GENI? Seems like groups evolve around the core engaged people

Pool #4 – Measure of the Benefits of OI

Question: *How can we* *measure the benefits of OI?*

Pearls:

* Measuring the benefits must involve more than the assessing the efficacy of the solutions sourced…process benefits and costs of managing multiple approaches to innovation in the org

Notes:

* Why speed?
* How much?
* How to compare the cost of closed innovation versus open innovation, and quality of solutions?
* Can the rate of innovation exceed the readiness of the customer, or the present infrastructure, and be useful?
* New measures for open innovation to evaluate its performance
* Do ideas move in rhythms – are memes waves or particles?
* Getting at the characteristics of OI firms – who doesn’t do it? bridge builders, public works, pre-crisis organizations, military, construction, retail, hospital, heavy IP rules?
* Are the benefits of OI more in the solutions you get or in how it changes your processes for innovation, for creating and transferring knowledge, selecting and converting inventions? how you articulate problems, how you decompose problems, re-architect tasks, absorb knowledge from outside the firm – by creating different kinds of containers for diff content…. separating form & function,
* Difference between open organizations and open technologies….Michael

Pool #5 – Connections

Value of separation for connection:

Real funnels are far from ideal (Karim)

Regional differences in terms of OI practices

Country level innovation – different locations need different types (levels?) of innovation?

Pearls?:

Firms engage in OI – or do innovation in general - thru different processes in different countries – going global is more about learning different ways to learn to do innovation than what science & techn knowledge you tap into (aside from mkt knowledge diffs) – Dan

Increase proximity (cultural – values, processes, cognitive, spatial) to accelerate R&D

Create competition to reduce proximity – tournaments

Collective knowledge – mutual understanding of interaction/interdependence of language; understanding of expertise, perspectives – knowledge and interest (Jay & Jane)

Floaters, swimmers, divers – law of participation in virtual communities (Mk)

Define the problem broadly to engage a diverse pool (Karim)

Pool #6 - Skills

Managing bridges… facilitate where the experts wanted to live and asked them what collaborative tools they would need 🡪 go where the knowledge is…challenges trying to hire best talent (Mk)

Boundary spanners have limited capacity – to explain, to transfer (Jay & Jane)

ROI for problem solver – enjoyment and creative juice – why do people get involved? Personal satisfaction more than $, Mk, Karim, direct contact – engagement thru meetings, accepting roles - Laurie

No matter who you hire, the best people always work for somebody else – No CEO would ever talk about Joy’s Law to analysts or their employees – Lakhani

Current R&D employees are problem solvers – they need to become solution finders (look outside, share ownership in solution) as well - Alph

How do you retain the R&D employees after knowledge has been transferred? Jay & Jane

Pool #7 – What kinds of Innovation does OI promote?

* Most high impact innovations solve problems backwards… see the tool TRIZ – solving problems backwards
* Can open innovation work for developing visions?
* (How) can OI enable disruptive innovation? Is this more through the selection process than solution finding - Threadless, GENI - collective problem definition, vs InnoCentive model?
* InnoCentive model where source solutions to a known problem – but articulate more broadly – likely to yield component, architectural, sustaining innovation…. Competing diverse teams whose mission is at least in part to define the problem they are working to solve ….what kids of OI lend themselves to reframing the innovation challenge? Selecting on a novel set of criteria?
* But maybe getting a lot of people to solve a known problem could have a side benefit that leads to more disruptive innovation - challenging established cognitive pathways – how to harvest the unanticipated insights, knowledge created?
* Why do firms choose different innovation channels?
* What are the implications of unequal access to information…contractual aspects of OI
* Reason to be in different spaces (places) is to learn how to do R&D differently …does variation in processes matter more than knowledge variation? But how many process variations can one organization support?
* Transferring complex knowledge requires multiple connections between people in both the source and recipient - ties that cross expertise are key

Pool #8 – What Institutional support needs to exist for OI?

* Communities of practice
* How do we manage the tension between competition and collaboration in managing diversity of knowledge from opening up the innovation process
* Mixed design teams could benefit from legal, IT, etc inclusion based on the environment, industry
* Is there any institutional inducement mechanism for open innovation?
* Michael Madison: What I was referring to was the basic framework of the open source license (pick just about any one you want) and the related family of Creative Commons licenses (<http://creativecommons.org/> ). My point was that the current contract and property law frameworks do not make these things clearly enforceable, if anyone wants to go to court and claim that they should be enforced. Lots of businesses and individuals use these licenses and don't give them a second thought, and there is nothing inherently wrong with doing that. But there is a collective assumption as work that these are "ordinary" legal transactions, and they are anything but. A small handful of local trial courts in other countries have enforced flavors of these things, and the one federal appellate court here in the US (the case is Jacobsen v. Katzer).