

Berkeley Innovation Forum

April 10, 2008

SUMMARY

We had a superb meeting in Chicago, thanks to our hosts from Kraft Foods. We spent a day and a half discussing innovation, seeing the Kitchen of the Future, taking in a show by Blue Man Group, and held a workshop on how to use innovation intermediates (such as InnoCentive, Nine Sigma, and Utek).

Here are the participant ratings for the various elements of the meeting:

<u>Item</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Votes</u>	<u>Avg.</u>
Doubletree Hotel			1	4	3	13	2	23	5.5
Kraft facilities			0	0	0	8	16	24	6.7
Food and Service			1	1	4	5	15	26	6.2
Roundtable		2	0	4	6	7	2	21	5.0
Gina O'Conner presentation		1	1	1	1	11	10	25	6.0
Company Presentations		1	3	6	8	7	0	25	4.7
Hank presentation on BIF survey		0		0	5	13	6	24	6.0
Blue Man Group		0	0	0	1	3	21	25	6.8
Speed Dating		1	0	0	2	9	12	24	6.3
Intermediaries workshop				1	4	6	14	25	6.3

Anything 6.0 or higher is considered a success by most conference organizers, and only two of our sessions fell short of that. We need to improve some of the company presentations, and Hank needs to figure out the shuttle situation so that the Roundtable isn't cut short next time! Blue Man Group was almost universally loved, but note how highly the Kraft facilities were rated as well. Based on this feedback, we will try speed dating again, and run another ½ day workshop as well.

Detailed notes on each of the sessions follow below:

ROUND-TABLE

Issues on everyone's mind:

- Sustainability; how do you develop new products
- Rapid micro-investment projects; quick way to decide on a project (rapid prototyping but on the business model)
- IP management in ecosystem

- Organizational culture; right personalities in teams to get results
- Organizational capability/capacity
- Identifying little barriers in applying Open Innovation; dissect pathways to open innovation; barriers to execution; what else do you need in addition to “reading the book”
- How to anticipate needs of next generation users; projecting from today to tomorrow does not always work; need systematic ways to innovate for the next generation; (make users part of the innovation process; eg. kids now have a different idea of what privacy and security is)
- Look on the demand side of innovation; look at the market pull (not just what the company can push)
- Developing countries are more willing to embrace leap-frog technologies because the risk to them is lower; gap in innovation: research happening in the US but the applications are limited whereas abroad they have both the research and the application
- How to efficiently support regional business model for a global company; how to globally expand efficiently, taking into account regional demands; what the Japanese consumer wants in a product is not the same to what a US consumer; demand side is different but also different business models
- How do we replicate and scale Open Innovation
- Crossing boundaries to innovate
- How Venture Capital and Private Equity influence innovation
 - PE works in the later stages of innovation while VC works in the early ages
 - Research shows that PE firms do at least as well as if not better with innovation

OUTSIDE SPEAKER

Gina Colarelli O'Connor

Associate Professor, RPI

Director Radical Innovation Research Program

- New book: Grabbing Lightning
- Study management practices for breakthrough or radical innovation

Phase I of project

- Brief History:
 - Study teams that managers thought could lead to innovation breakthroughs
 - Studied 12 teams for 5 years, going through the project
 - Defined radical innovation as a project that met one of following criteria:
 - New performance features
 - Order of magnitude improvement in performance
 - Order of magnitude reduction in cost
 - At the end some projects survived, set standards, breakthroughs; others failed (people were fired); some kept going
- One project: Biodegradable polymer at Dupont (Biomax)
 - Some years the project had merely lifeline funding, others it was fully funded; it often changed hands; disruptions took place but project managed to go on
 - Mapped all these factors – found that there is technical and market uncertainty but there is also organizational and resource uncertainty from within
- Early vs Mature radical innovation capacity
 - Depending on champions breaking the rules, mavericks
 - Happens based on serendipity, luck and people not giving up
 - How does a company set up a structure to help these people? Radical Innovation Hub!
- Radical Innovation maturity is defined as the degree to which the organization has embedded a system for initiating, supporting and sustaining RI activities

Phase II

- Found companies with the intent of improving their RI
 - Got 12 companies; 10 volunteered, 2 were 3M and Corning and were ‘forced’ to join
 - Talked to them every 6 months

- Management system elements:
 - Mandate/Scope
 - Leadership/Culture
 - Org Structure/Interfaces
 - Governance/Decision Making
 - Metrics/Rewards
 - Skills/Talent
 - Processes/Tools
- Talked to companies about the management system elements: what exists and how they have changed
 - VP or director level interviewee
 - Plus one step up (CEO) and one step down (CTO)
- GE, IBM, Air Products, DuPont, 3M, Albany Intl, Corning, J&J consumer, Kodak, Mead-Westvaco, Sealed Air, Shell Chemicals (with more companies in a committee)

Results

- Not just one competency but 3
 - Discovery > Conceptualization (basic research, internal hunting, external hunting)
 - Incubation > Experimentation (technical, market learning, market creation) – care not to transition to market too quickly; can't invest on a project for too long or it will be killed
 - Acceleration > Commercialization (focus, respond, invest)
 - *Timeline is very technology-dependent*
- The Discovery competency
 - Creation and identification of opportunities that may have major impact in the marketplace
 - Have to set up a discovery capability that can receive ideas from anywhere; start from the inside first and move to the outside next
 - Discovery is not the same as invention; not everything has to come from the bench science

- Discovery is not the same as R&D; it may take a BU to guide the technical side
- Three broad categories:
 - scientific work
 - opportunity articulation (give the correct value proposition)
 - opportunity generation
- Should have a mutually evolve with strategic intent
- The Incubation competency: “a long and winding road”
 - Knock down uncertainties as quickly as possible
 - Allow for failures but expectations of continued pursuit of new frontiers
 - Focus on learning and re-directing
 - Creation an pursuit of options
 - Focus on enriching and extending internal and external networks to enlarge scope of the company’s knowledge base and commercial opportunity space
 - Expectation management; failure is expected but it is still perceived as failure to management
 - Objective:
 - Nurture portfolio of options
 - Develop proposals for new businesses (you can’t call it a business plan yet; too many uncertainties)
 - Link to company’s strategic intent
 - Four activities that need to take place:
 - Coaching: coaching project teams (high failure rate; uncertainty); people don’t know how to deal in an environment like this
 - Brokering: can we provide them assistance in accessing competencies and knowledge within the company and outside the company
 - Nurturing: this can be an emotional roller-coaster; people need to know that what they are doing is valued by the company; provide them with career advise and coaching

- Portfolio: constantly thinning and enriching the portfolio
 - *Career path – we need to develop promotion paths, this needs to be a business unit within a company; what are the metrics for promotion*
- Describing Acceleration
 - Establish market presence
 - Infrastructure
 - Predictability
 - Scalability
- System imbalances between **Discovery, Incubation, Acceleration**
 - A lot of ideas but can't get heard (heavy D)
 - Failure to leverage learning
 - No courage to continue (strong D, some I, no A)
 - Big ideas, open innovation at the extreme (small D, some I, big A)
- RI Portfolio Considerations
 - You're not diversifying on risk – it's all risk
 - Diversification
 - Degree desired?
 - Dimensions?
 - Technology domains
 - Business domains
 - Time horizon
 - Organizational fit
 - Churn rate (viz a viz objectives)
 - Portfolio size objectives
 - Portfolio pacing objectives
 - Cross-portfolio management
- RI system metrics
 - Health of portfolio
 - Interface management
 - Market impact
 - Impact on company

- Model of radical innovation capability
 - Capacity within a company is changing; when capacity is high you can build your DIA capabilities
 - But we want the orchestrator to be able to manage the DIA under a constraint environment
- Innovation as a Business Function
 - Until this happens, sustainable power will be limited

INNOVATION CENTRAL FOR BIF

Use Innovation Central to keep members of BIF connected and to exchange ideas

David Loomis, Innovation Wrangler

<https://bif.imaginatik.com>

Username: firstname.lastname [example: John.Smith]

Password: firstinitiallastname [example: JSmith]

- Information on old BIF meetings
- Good if you upload picture of yourself so it's easier to identify people you have met at the Forum meetings
- *Starbucks idea site – very good example of idea generation; voting on submitted ideas*
- Everyone has the ability to start a new threat
- Posts on upcoming conferences and evaluations on conferences attended
- University/Industry partnerships (IP hurdles, specific university recommendations)
- E-mail notices will go out about new posts

DOW TRANSFORMATION AND EXPERIENCES IN OPEN INNOVATION

Bob Miller, R&D Director, Ventures & Business Development

- Dow undergoing transformation in its Business Model; how is that affecting how Dow innovates
- Transformation from a commodity chemical company to one that is more externally focused

About Dow

- \$54B, customers in 160 countries, diverse portfolio
- Before 2004:
 - Feed Stocks>Basics>Performance>Market Facing>Products, Solutions, Systems
 - Product aligned
 - Cyclical stocks like chemical company
 - Needed change
- After 2004:
 - Retain synergies of integration and diversification
 - Joint ventures for feed stocks and basics
 - Strengthen market-facing and performance businesses
 - New R&D
 - Financial discipline
- Changes:
 - Top down: CEO commitment to change and innovation
 - Venture capital is now connected to corporate development group; bring new ideas (internally ran group)
 - Private equity: entry to new markets
 - Analysis of trends and discontinuities
 - Licensing: licensing in things more than ever
 - University relationships: narrowed it to few strategic universities
 - Collaborative tools: helped break barriers among product groups; problems solved by connecting within the company
 - Use of intermediaries: find solutions to problems they can't solve

Learning Experiences

SiLKnet

- Example of a failure
- Material with low dielectric constant for computer chips (lowest k material out there)
- Dow had no processes, channels to deal with this
- Competitors were incumbent, had product, equipment, know-how
- SiLKnet Alliance: 28 member companies helped customers with the know-how

- In 2001: awarded product of the year award
- Established a product, presence and know-how
- Some integration problems; IBM decided against it – others followed; member companies upset
- Learnings:
 - Manage expectations of alliance partners better, be realistic of chances of success or failure
 - Defining how IP will be handled is critical
 - Having partnerships to mitigate risk is key

High Throughput Research

- Used in Ag and Pharma to do hundreds of experiments each day; rapid experimentation
- Can we apply this to chemicals? Required new workflows and new tools
- Value sharing alliance (uniquely crafted agreements with Symx)
 - Symx built tools and transferred them to Dow
 - Resulting value shared
 - Continues to evolve today
 - Success in specialty liquids, extended to EPT blending, thermoset
- Learnings
 - Joint problem solving is essential to develop capability and manage cost
 - Realistic view of value sharing; beginnings were at arm's length
 - IP rights and ownership must be understood up-front

Dow Automotive

- Market facing business
- Licensing in example
- Moving beyond products offering services
- Moving down the value chain: offering entire products
- Crash durable adhesives: eliminate welding in car bodies – basically glue things together
 - Licensed in technology to help develop crash durable adhesives: lightweight vehicles

- Structural foam: found in building technology business unit!
 - Found using idea central
- Learnings
 - Validated where market facing company is going
 - Looking outside company: promotes speed and success and can find revolutionary products

OPEN INNOVATION AT KRAFT

- Attempts to operationalize Open Innovation at Kraft
- Strong brand portfolios
 - 7 brands over \$1b
 - 50+ brands over \$100m
- The challenge:
 - Create reliable, consistent top tier performance growth
- Kraft has very strong internal innovation capabilities however: Majority of food-related IP is external to Kraft!!!
 - Kraft owns 2.2% of the IP
 - Need to be able to tap in to the other 98%
- Intellectual Assets = Know How + Know Who (Larry Huston)
- Open Innovation approach to growth is not new to Kraft but it was more of an opportunistic approach
 - Now it is IMPERATIVE
- Three Open Innovation streams:
 - Unsolicited Innovation
 - Launched InnovatewithKraft.com in April 06
 - 70-80/month
 - Most ideas on products
 - Learnings: high noise factor, requires well-organized and resourced vetting process, “diamond in the rough” opportunity, <3% warrant due diligence

- How to improve: link submissions to Kraft's non-confidential needs, media strategy to raise awareness, proudly communicate OI successes
- Venture Fund Innovation
- Solicited Innovation
- Unsolicited Innovation
 - Launched InnovatewithKraft.com in April 06
 - 70-80 submissions/month
 - Most ideas on products (60%)
 - Biggest internal problem: legal
 - Zero resulting litigations
 - No commercialized ideas from it yet (some in the pipeline)
 - What do they get:
 - \$5,000 for non-IP protected ideas
 - Negotiate if the idea is protected
 - Learnings:
 - High noise factor
 - Requires well-organized and resourced vetting process
 - "diamond in the rough" opportunity
 - <3% warrant due diligence
 - How to improve:
 - Link submissions to Kraft's non-confidential needs
 - Media strategy to raise awareness
 - Proudly communicate OI successes
 - Change the feel of the website to direct mostly to innovators and entrepreneurs rather than consumers (will re-direct them to different website)
 - Direct what comes from the website to strategic needs
 - Example: Bagel-fuls

- Small company owned the technology; sent out their product to various company
- Someone from Kraft picked it up and moved it forward; there was a pre-existing need so it moved quickly
 - Concept was there – was at the stage where they were looking for execution
 - Unlikely it would have moved forward (especially so quickly) if the need was not there
- IKIWISI moment (I'll know it when I see it)
- Venture Capital
 - Invested in two life science venture funds
 - Benefits:
 - Competitive intelligence
 - Network expansion
 - Diversification
- Solicited Ideas
 - Consumer insight needs identification>Translate to a challenge>Solution
 - Consumer needs list – the “What”
 - Defining the strategic consumer needs is the critical first step in determining what to focus on
 - Solving for real consumer needs
 - Linked to Business Strategic Plan – strategic vs tactical
 - Jointly developed by BU, OI and R&D
 - Shared with proprietary external network
 - The “How”
 - OI and R&D Starpoint team
 - Develops technology search tools, identifies best practices and drives alignment
 - Driving growth from supplier innovations
 - Moving from cost-centric to innovation-centric supplier relationships

- Great success in leveraging suppliers to drive growth (either through co-development or something completely developed by supplied)
- Internal video on Kraft's innovation move to share with suppliers
- Supplier challenges
- Kraft needs list shared with suppliers
- Innovation diagnostic tool
 - Measure innovation potential
- Kraft Innovation day
 - An outlet to employees to create ideas that address key business needs
 - Not expanded to suppliers
- Open Innovation Approaches
 - Looking to evolve to disruptive innovations, alliances and partnerships, in-bounding external innovations to drive growth
- Where is Kraft?
 - Made great progress in short time
 - Put some "runs on the board"
 - Stepped up supplier innovation
 - Established operational framework and tools to lever OI
 - More to achieve...
 - Strengthen governance and align OI goals with BU strategic plans
 - Move to next level of external partnering
 - Build capability
 - Raise external awareness

HENKEL

- \$13bil revenues
- Three areas of competency
 - Laundry and Home Care

- Personal Care
- Adhesives Technologies
- Use both internal and external expertise to threaten product portfolio
- 98,000 ideas submitted in two years
 - Each team handles ideas relevant to their products
- Open Innovation
 - Leverage external skills and capabilities
 - Scientific advisory boards
 - Develop expert networks
 - Broaden directed research at universities/consortia
 - List of professors with research interests and activities

BIF MEMBER SURVEY RESULTS

- Survey Results
 - Five focus areas:
 - How did you find BIF?
 - How do you participate?
 - How do you talk about it to others?
 - What does it give you?
 - What suggestions do you have?
 - Awareness:
 - How did you find out about it?
 - Personal contact with Hank
 - Other people in company
 - Participation
 - What are most valuable take-aways?
 - Helpful to know you're not the only one
 - How other people got management support
 - What is the BIF?
 - Community of interest with accredited members
 - Industrial practitioners studying innovation

- Group of representatives from a group of companies trying to find best ways to innovate
- What makes BIF distinctive?
 - Focus on OI
 - Hank's credibility
 - UC Berkeley research
 - Cross industry
 - High level
 - Non-competitive
 - Intimate size
 - Balanced representation
- How do you benefit?
 - Sharing best practices
 - Stimulates ideas
 - Don't see the benefit
- Future of BIF?
 - More metrics, case studies, blog
- Future Dreams for BIF
 - Practices, benchmarks, data
 - Rolodex to the world
 - Proactive eyes and ears on new methodologies
 - Tangible tools
- Reactions
 - Value in being face-to-face with people doing similar work; different than a conference call or just seeing the slides
 - Follow-up: How do you bring up information to your company?
 - Not very well; need a better way to bring information back; well-written meeting minutes would help
 - Circulating some of the power-points does bring up some interest

- Reports of the meeting do not work since people don't read them
- You get a lot of the tough questions that might come up when you take an idea to top management. Nothing wrong in not knowing and you may even get a good answer by someone else
- Conference calls are difficult to make due to scheduling conflicts. A brief synopsis of the call might be useful.
- A lot of the presentations were moving towards PDMA
- Divide the group into two:
 - the outside-the-box people interested in first principles
 - the reduction to practice people (PDMA)
- Cut-throat research and new things coming out are of interest to both groups of people. If we keep the meetings to that realm it will stay interesting.
- Maybe have a presentation and possibly have break-out sessions to discuss the applications. "Create" new best practices!
- Promote more discussion with the visiting lecturer

April 11, 2008

Next BIF meeting: October 23-24 (Thursday-Friday of non-football Saturday)

Next conference call: April 24, 3PM Pacific Time

SPEED DATING

QUESTION FROM ASHLAND

- What software are you using for MPV/portfolio management?
 - Sophian
 - Imaginatic
 - Gantthead.com
 - Open source to build your own wiki internally
 - Most companies have home-grown software

- IDEO
- Bypass tech, use software as a service
- Plexics – social networking tool for both portfolio and management
- LinkedIn
- Tacit.com – innovation management tool
- Will be hard to find something that combines them all

BIF SURVEY: USE OF INNOVATION INTERMEDIARIES

- Have you used intermediaries:
 - 15 yes, 3 no
 - NineSigma (10), Innocentive (7), Utek (2), Yet2.com (5), Your Encore (3)
 - Others: Innovation Exchange, Technology Catalysts, Gen3, Research Triangle, Iceberg (UK)
 - Accelovation (crawling search tool; more informative search tool) now called NetBase
- How many projects have you used Intermediaries for?
- Why do you use them?
 - Bring external technology in (most common response with 11 companies)
 - Some use it for inside technologies to move outside (4)
 - Some companies use it for Joint Development (3)
 - Use it to find someone; that can lead to JD
 - Explore alternative business models
 - Use intermediaries to access new business model
 - Looking for new business areas to expand to; intermediaries are still young and immature and will accept any job you ask them to do; attempt to find new business areas was unsuccessful
 - Every intermediary that is referred to as “them” fails; successful intermediaries become embedded in the firm and is able to observe the need
 - Other:

- Learn quickly
- Find unique skills
- *Common issues brought up during conversation:*
 - They intermediaries try really hard to help but often don't have the ability or knowledge to help you
 - Members felt that time was spent trying to explore new options but did not get what they were looking for; still learned a lot
 - NineSigma best to find technical connections
 - Will bring prospects
 - You need to do due diligence on the leads that they bring to you
 - Did not find a blockbuster through them
 - You don't find something that is off-the-shelf; it takes work to transfer the raw idea into something of value; they are for "discovery"
 - Close interaction with the inventor!
 - Innocentive
 - They were creating a firewall in the way they operate
 - You never have a dialogue with the connection
 - With NineSigma you get to negotiate with the actual connection
 - Recently expanded their scope and have options similar to NineSigma
 - Your Encore
 - Great access to the expert
 - P&G had success with them
 - Yet2
 - Portfolio of technologies they try to match
 - Started as IP marketplace but became an intermediary through add-on activities they took on while waiting for IP marketplace to take off

- Through NineSigma and Innocentive, you often miss out on the thing you don't know you're looking for!
- Cost vs Benefits
 - Cost >> Benefits (0)
 - Cost>Benefits (8)
 - Benefits>Cost (5)
 - Benefits>>Costs (2)
 - The numbers depend on the intermediary used
 - People using NineSigma were said costs>benefits
 - People that spend the time to do the due diligence and really wanting to find the solution to a specific problem have great success
 - You need to put the work into it to get positive results
 - Other point: It WAS added value to know that there was no better solution than ours out there; offered good confirmation
 - Benefit is limited by the lack of work put in by the client company. You need to have receiving mechanisms to get the value out of it.
 - Accelevation: benefits>costs (but are they truly an intermediary or just a tool?) In any case, members were very positive about them.
 - Innocentive: mixed reviews
- Have you taken any projects to market
 - Yes (3)
 - Very low % of projects explored have made it to market
 - No (12) – in some cases it's in process; other cases, just knowing that there's no better solution was confirmation enough
- What are the benefits?
 - Access to novel technologies
 - Speed
 - Alternative perspectives

- The process of getting serious about what we're looking for
- What are the costs?
 - Out pocket costs
 - Others: very mixed bag
 - Communications to make it work
 - Internal inertia
 - Takes too long
 - Each intermediary does it differently
- Are you satisfied?
 - More satisfaction than dissatisfaction
- Will you use them again?
 - Only 1 said no
 - Most said yes (12)
 - Others didn't know
- Top concerns from BIF members
 - Is it really confidential; can you really protect your know-how?
 - Key reason companies are not using them
 - Cost
 - Picking the right guy
 - Managing the raw ideas, after you've used the intermediaries
 - Legal support
 - This is new for them too
 - Internal staffing

DISCUSSION

- Legal – initial reaction is apprehension. They are a key group that has to buy in for this to be successful.
 - Once they are comfortable with the idea they can be helpful
 - How do you get them on-board then?
 - VP said they will do it with or without them – get a champion
 - Spend time to convince them: 1-2 years

- Sit down with them and iterate the language; build a relationship with legal to establish trust; help them understand there is a benefit for the company
- Once you do it the first time, then it is much easier; it's just start-up cost; leverage previous deals
- Bring up peer companies that are doing it; embarrass legal into helping you do it
- Frame it differently; no need to be in green zone, you just need to stay out of the red zone
- Easier now since intermediary companies have some credibility
- Get them involved really early because by the time you are ready, they are on board; they feel like a team player; may help you by asking questions you never thought about
- Issues with an intermediary leveraging the relationship with the company to speak with the staff to extract information for another company or to get a solver for another company's problem
 - This is an internal problem; needs to be managed within the company
 - May be good to know what kind of solutions competitors are looking for but you don't want your employees solving them
- Does the company have what it takes to accept what's coming in from the outside? Where is the bottleneck? Are there internal processes to get new ideas to the marketplace? The incubation phase may be the issue.
- Survey results heavily depend on people's initial expectation going it
- Will companies re-load?
 - Most say yes
 - A lot have not ran a good enough experiment yet to decide
 - They are just one of my alternatives to my other options: universities etc
- Share spreadsheet on intermediaries with a list on their abilities
 - Which ones are you using, what do you like about them, what do you use them for, vendors/capabilities
 - Don't share information on contract terms and conditions

- Can you give a negative opinion on one?
 - Legal counsel should be consulted before doing so
- Best practices:
 - This is what my area is, this is my IP (nouns); What was powerful was getting some verbs in; what are your intentions; Focus on intentions not inventions; go to your intermediary with intentions.
 - Open ended vs. specific request for a problem
 - NineSigma: best to have something specific since the longer the project the more you are paying
- Costs:
 - Initial cost for posting
 - A success fee at the end for some of them
 - Often you structure milestones: you pay in milestones, not upfront
- Corporate VC
 - Industry-dependent (not much in chemicals)
 - Often not worth the investment
 - What VC's need from large company is the due diligence on technologies for the smaller companies; maybe equity is not all they are looking for
 - Conversation on BIF's Imaginatik on this topic would be useful
 - Lack of NDA's has value for VC's because it creates a network that allows you to gain
 - VC's wouldn't enter into NDA's but generally keep things confidential as business practice
- Intermediaries – useful when you have exhausted all other options
 - Already spent time researching; intermediary was able to confirm there was no solution very quickly; may have been better had we gone to them sooner
- Business model of the intermediary is important. Is it aligned with your own objectives?
- If you could say something to the intermediaries what would it be?
 - Be objective in terms of what you can and cannot do

- Don't oversell
- Set expectations you can fulfill
- You use them to speed things up; negotiation process can take too long (specific to Innocentive)
 - Set negotiation parameters up-front
 - Otherwise solver will try to negotiate more things out of you once they have come up with a solution because they know you want it
 - Verifying IP ownership takes time
- Keep it simple, focus on the value-add
 - Put overhead in line with your value-add
- Be clear about your best practice up-front
 - If it's an experiment for you (intermediary) be up-front and maybe give a lower rate
- Find a way to take you through a sanitized example since that will get to the heart of what they do
 - Or maybe give an example of what doesn't work