Connecting the Dots of Innovation with Professor Jeff DeGraff

When money gets scarce, competition for it increases. Productivity is no longer enough. Researchers are finding that the traditional pathways to funding are becoming more difficult to navigate and seek alternative approaches. Competing demands, restrictive bureaucracies, byzantine systems and a general lack of support from overbooked senior researchers make the road forward problematic. Unfortunately, the technical expertise required to make innovation happen doesn’t always translate into innovative approaches for securing resources and support. The theme of this R01 session is simple: Innovation is produced by syncing up several conflicting approaches to create hybrid solutions. This session is designed to give the researcher and leader alike a simple way to assess their situation and develop alternative approaches to move their work forward.

Jeff DeGraff is Professor of Management and Organizations at the Ross School of Business. Jeff’s research and writing focuses on leading innovation. He is author of several books on the subject as well as a national public television program. Jeff’s opinions on innovation are covered by NPR, Business Week, and the Wall Street Journal to name a few. He writes syndicated columns for Fortune, Psychology Today, and the Huffington Post. He has consulted with hundreds of the world’s most prominent firms (e.g., 3M, Apple, GE, Johnson and Johnson, Microsoft, Sanofi-Aventis) and has developed a broad array of widely used creativity and innovation methodologies and tools. Jeff has been a TED speaker. Dr. DeGraff founded a leading innovation institute, Innovatrium, with labs in Ann Arbor and Atlanta. To learn more about his work please visit www.jeffdegraff.com.
Connecting the Dots of Innovation

Jeff DeGraff, Ross School of Business
When markets are down and resources are scarce, innovation isn’t your best friend…it’s your only friend
Haven't had opportunities to consider alternatives that failure affords

So when they do fail, instead of critically examining their own behavior, they cast blame outward -- on anyone or anything they can

Innovation is about what you don’t know how to do now

Innovation requires accelerating the failure cycle...not avoiding it

The “Hurt, didn’t it” parent
HOW TO THINK ABOUT GROWTH
- Innovators manage in an innovate way
- Money is scarce
- Organizations don’t fund ideas that are too new
- There is a right way and a wrong way
- Incumbents move first
- Breakthroughs happen in up cycles
- Alignment is the key to success
THERE IS NO DATA ON THE FUTURE WHERE GROWTH HAPPENS

“Life can only be understood backwards; but it must be lived forwards.”

— Søren Kierkegaard
CREATIVITY IS THE NUMBER ONE DESIRABLE ATTRIBUTE FOR LEADERS

IBM Global CEO Study 2010
1. Hungry for change
2. Innovative beyond customer imagination
3. Globally integrated
4. Disruptive by nature
5. Genuine, not just generous
So how do we get researchers to be hungry for change, innovative beyond customer imagination and disruptive by nature?
Speed
Magnitude
Incremental
• Continuously improve core offerings
• Process

Breakthrough
• Gain competitive advantage to lead existing industry
• Competency

Radical
• Create new industry and new business model
• Culture
<table>
<thead>
<tr>
<th>Mistake</th>
<th>Correction</th>
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</thead>
<tbody>
<tr>
<td>Believing you can see the future</td>
<td>Make smaller and wider bets</td>
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<tr>
<td>Choosing big over fast</td>
<td>Pick up your pace</td>
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<tr>
<td>Mistaking your managers for innovators</td>
<td>Encourage and support your deviants</td>
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<tr>
<td>Having a more ambition than capability</td>
<td>Base your strategy on your capability</td>
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<tr>
<td>Starting at the center and moving out</td>
<td>Work your innovations from the outside-in</td>
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<tr>
<td>Listening to the wrong customers</td>
<td>Follow the customers that move first</td>
</tr>
<tr>
<td>Failing to connect the dots</td>
<td>Teach your leaders to be free and responsible</td>
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</table>
PRACTICE PRISMATIC THINKING
COLLABORATE
DO THINGS THAT LAST

CREATE
DO NEW THINGS

CONTROL
DO THINGS RIGHT

COMPETE
DO THINGS NOW
CREATE
DO NEW THINGS

INNOVATION
Futuring & scenario planning
Diversified radical experiments

GROWTH
New market speculation
Greenhouse funds
Leaders
- Visionary dreamers
- Clever
- Optimistic
- Enthusiastic
- Quick on their feet
- Expressive
- Big-picture thinkers

Workplace
- Stimulating projects
- Flexible hours
- Free from everyday constraints
- New initiatives
- Independent work streams
- Diverse workforce
CONTROL
DO THINGS RIGHT

EFFICIENCY
Lean manufacturing
Supply chain innovation

QUALITY
Total quality control
End to end IT system
Leaders
- Pragmatic
- Methodical
- Scientific or technical
- By the book
- Problem solver
- Objective
- Persistent

Workplace
- Clear roles and responsibilities
- Logical objectives
- Processes
- Standards and regulations
- Ordered and structured work
COLLABORATE
DO THINGS THAT LAST

COMMUNITY
Collaborative communities of practice
Culture & competency development

KNOWLEDGE
Knowledge management
Search & reapply
Habitat for Humanity

Leaders
- Sees potential
- Builds commitment
- Trustworthy
- Caring
- Patient listeners
- Participative
- Respects differences
- Empowering

Workplace
- Family atmosphere
- Collaborative workplace
- Shared values and vision
- Integrates personal goals
- Informal
- Teaching and coaching
COMPETE
DO THINGS NOW

SPEED
Mergers and acquisitions
Rapid action problem solving teams

PROFIT
Revenue insight processes
Market adjacencies
**Gates Foundation**

**Leaders**
- Goal and action oriented
- Impatient
- Assertive
- Driven
- Decisive
- Challenging
- Competitive

**Workplace**
- Competitive
- High pressure and impact
- Fast moving and high energy
- Image enhancing deal making
- Quantifiable results
- Winners and losers
<table>
<thead>
<tr>
<th>Values</th>
<th>Vision</th>
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<tbody>
<tr>
<td>Processes</td>
<td>Goals</td>
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![Yin Yang Symbol](image)
You are only as strong as your weakest quadrant
  - Partner with the people make you crazy
You have a portfolio life at work
  - Start with the outcome you seek and lead accordingly
How you innovate is what you innovate
  - Use the right tool for the right job
<table>
<thead>
<tr>
<th>COLLABORATE</th>
<th>CREATE</th>
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<tbody>
<tr>
<td>Doesn't</td>
<td>Doesn't</td>
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<tr>
<td>Works</td>
<td>Works</td>
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<tr>
<th>CONTROL</th>
<th>COMPETE</th>
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<tr>
<td>Doesn't</td>
<td>Doesn't</td>
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<tr>
<td>Works</td>
<td>Works</td>
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</table>
The seeds of our undoing are sewn at the pinnacle of our success.

—Joseph Schumpeter
Crisis

Normal

Outstanding

20/80

80/20

20/80
CONNECT THE DOTS
Creativity is just connecting things. When you ask creative people how they did something, they feel a little guilty because they didn't really do it, they just saw something. It seemed obvious to them after a while. That's because they were able to connect experiences they've had and synthesize new things.
Diverging
- Defer judgment
- Look for lots of ideas
- Accept all ideas
- Make yourself “stretch”
- Take time to “simmer”
- Seek combination - be a “hitchhiker”

Converging
- Be deliberate
- Be explicit
- Avoid premature closure
- Look at difficult issues
- Develop a sense of “affirmative judgment”
- Keep your eyes on your objectives
Collaborate

- Ask questions that deepen your understanding of others
- Be a patient listener
- Apprentice yourself to someone you admire
- Sponsor someone’s education
- Mediate to resolve a conflict
- Volunteer for the opportunity to learn
- Be an advocate for the opposition
- Align your actions with your values
- Create a blog to communicate with family or friends
- Find ways to give others a chance to shine

- Empower someone to make their own choices
- Encourage honest feedback
- Celebrate someone’s success to build their confidence
- Hold a retreat to learn and share unique knowledge
- Coach an understudy
- Make time for others in need
- Be a cheerleader for an underdog
- Resolve a conflict
- Recognize the strengths of others
- Cross a boundary to understand the opposition
- Open your books to be fair to others
Create

- Keep a creative ideas journal
- Travel to unfamiliar places
- Hold spontaneous brainstorming sessions
- Ignore rules that inhibit freedom
- Leave room in your schedule for daydreaming
- Draw your vision
- Create a personal soundtrack
- Run a thought experiment
- Pilot a project with the potential to change everything
- Talk with unusual people
- Brag about your failures
- Bootstrap a new venture
- Ask people to bring 100 new ideas to a meeting
- Reserve a quarter of your time for emergent opportunities
- Learn the art of improvisation
- Expand your mind with visualization techniques
- Feed your head with writings and art out of your comfort zone
- Speculate on how the future will be different than today
- Modify a room to be your personal studio
- Join a theatre troop or crafts guild
- Start a revolution
**Compete**

- Set definite short term goals
- Focus on the key success factors
- Reward high performance
- Disengage from people who can’t get things done
- Keep score
- Audit your schedule to remove non-essential tasks
- Make clear and quick decisions
- Use adversity to motivate you
- Discipline yourself to follow a physical fitness routine
- Act immediately on opportunities
- Take ownership for success and failure

- Go the extra mile
- Surround yourself with an elite group of high performers
- Demonstrate responsibility to complete tasks on time
- Partner with people who are best in class
- Find the critical path to improve the speed of execution
- Scout the best performers to adopt their winning ways
- Tough it out
- Confront your fears
- Play to your strengths
- Simplify your routines and practices
Control

- Gather the facts and analyze them objectively
- Organize your resources to do more with less
- Develop procedures for a routine activity
- Use software and technology to create a turnkey solution
- Identify your role and responsibilities
- Set milestones for a project
- Establish quantifiable objectives for a task
- Make a budget and stick to it
- Build systems to do more with less
- Outsource critical tasks to experts
- Keep important records
- Dress the part
- Get properly accredited
- Find the root cause of an ongoing problem
- Routinely review your investments
- Shop for bargains
- Read the fine print
- Troubleshoot problems
- Prioritize expenditures
- Formulate data driven decisions
- Exhibit the appropriate Esprit de corps
• Compatible
• Incredible
• Profitable
• Reliable
| Start/Do More | Start/Do More |
| Stop/Do Less | Stop/Do Less |
| Stay/Do Nothing | Stay/Do Nothing |
| Start/Do More | Start/Do More |
| Stop/Do Less | Stop/Do Less |
| Stay/Do Nothing | Stay/Do Nothing |
MAKE STONE SOUP
<table>
<thead>
<tr>
<th>Teachers</th>
<th>Dreamers and visionaries</th>
</tr>
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<tbody>
<tr>
<td>Communicators</td>
<td>Fashion trend setters</td>
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<tr>
<td>Counselors</td>
<td>Creative actors</td>
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<td>Listeners</td>
<td>Big picture thinkers</td>
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<tr>
<td>Conflict mediators</td>
<td>Experimenters</td>
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<td>Community builders</td>
<td>Energizers</td>
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<td>Planners</td>
<td>Competitors</td>
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<td>Organizers</td>
<td>Decision makers</td>
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<td>Analysts</td>
<td>Goal oriented achievers</td>
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<td>Technicians and scientists</td>
<td>Sprinters</td>
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<td>Methodical problem solvers</td>
<td>Political game masters</td>
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<tr>
<td>Professionals</td>
<td>Deal makers</td>
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<tr>
<td>Interest: Do we care about this idea?</td>
<td>Innovation: Is this idea a breakthrough?</td>
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<tr>
<td>Knowledge: What are we learning from this idea?</td>
<td>Direction: Does this idea move us toward the future?</td>
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<tr>
<td>Beliefs: Does this idea fit with our values?</td>
<td>Emerging opportunity: Will this idea allow us to experiment as we go along?</td>
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<tr>
<td>Cost: Can we afford this idea?</td>
<td>Cash value: Is the pay off for this idea big enough?</td>
</tr>
<tr>
<td>Feasibility: Can we really implement this idea?</td>
<td>Immediacy: Can we get this idea done quickly?</td>
</tr>
<tr>
<td>Standards: Does this idea comply with critical standards?</td>
<td>Leverage: Can this idea be used to create value in other areas?</td>
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<tr>
<td>Group think</td>
<td>Unrealistic vision</td>
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<tr>
<td>Irrational enthusiasm</td>
<td>Poor methodology</td>
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<tr>
<td>Isolation from external</td>
<td>Lack of discipline</td>
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<tr>
<td>pressures</td>
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<tr>
<td>Professionalism and</td>
<td>Over-emphasis on competition</td>
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<tr>
<td>expertise</td>
<td>Short term focus</td>
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<tr>
<td>Scientific thinking</td>
<td>Autocratic decision making</td>
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<td>Right way and wrong way</td>
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<tr>
<td>thinking</td>
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<tr>
<td>Talk about personal experiences</td>
<td>Be enthusiastic and energetic</td>
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<tr>
<td>Tell stories</td>
<td>Look at the big picture</td>
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<tr>
<td>Smile</td>
<td>Expect to be interrupted in mid-sentence</td>
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<tr>
<td>Express emotions</td>
<td>Draw concepts</td>
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<tr>
<td>Put the person at ease</td>
<td>Use metaphors</td>
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<tr>
<td>Think out loud</td>
<td>Look at the future</td>
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<tr>
<td>Use nonverbal gestures</td>
<td>Make it conceptually sound and clear</td>
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<tr>
<td>Acknowledge the role of intuition</td>
<td>Ask open ended questions</td>
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<tr>
<td>Recognize important spiritual symbols</td>
<td>Explore how the pieces fit together</td>
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<thead>
<tr>
<th>Provide details</th>
<th>Get to the point and summarize</th>
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<tbody>
<tr>
<td>Be neat and on-time</td>
<td>Be logical and analytical</td>
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<tr>
<td>Follow the rules</td>
<td>Critically confront the downside</td>
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<tr>
<td>Explain in sequential order</td>
<td>Use quantifiable facts to illustrate points</td>
</tr>
<tr>
<td>Conform to accepted esprit de corps</td>
<td>Be very matter-of-fact</td>
</tr>
<tr>
<td>Ask close ended questions</td>
<td>Don’t get emotional</td>
</tr>
<tr>
<td>Provide detailed data</td>
<td>Show personal ownership</td>
</tr>
<tr>
<td>Demonstrate how it works</td>
<td>Demonstrate a biased towards action</td>
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</table>
HIDE INSIDE TROJAN HORSES
FAIL EARLY AND OFF BROADWAY
SHOW;
DON'T TELL
LEAVE ROOM FOR THE STUFF YOU DON’T KNOW NOW
The DeGraff Hypothesis: The amount of innovation a company produces is inversely related to the number of PowerPoint slides or elaborate process diagrams it makes about innovation.