Anticipating Innovation Processes and Trends

WHITE PAPER

MindSumo

January 2016

Introduction:

The Management Roundtable (MRT) and MindSumo collaborated to launch an innovation challenge for MindSumo's community of over 200,000 Millennial solvers. The goal of the challenge was to uncover ideas for how the digital economy will change the way corporations innovate, and how these innovations will impact both technical and process-related capabilities.

Background:

The challenge was launched on July 15, 2015 and made available to MindSumo's database of solvers until August 31, 2015. Over this six-week period, solvers were asked to create fully formed solutions based on the deliverables requested by MRT. The challenge brief & deliverables are copied below:

"We were very impressed by both the breadth of ideas, and depth of solutions"

Alex Cooper, President, Management Roundtable

Project Brief:

Any good company knows that continuous innovation is essential if you want to stay competitive. This tenet applies to companies that create physical products, services – and the integrators of both. Without a constant focus on innovation, products and offerings become outdated and outmatched by more nimble competitors.

The challenge – and opportunity -- is that the potential of innovation is essentially infinite. Innovations can be made in any domain at any part of the process. It is not just technical innovation to improve the product (faster, better, cheaper), it is process innovation(figuring out better methods for getting something done), experience innovation (delighting customers holistically) and business model innovation (inventing new ways of doing business).

The digital economy adds yet another dimension to this challenge. New, unanticipated competitors can emerge at any time. Common examples of this include the cloud, social networks, and other tools that are available with a few clicks of the mouse. Your answer may focus on those tools, but solutions that address other areas of interest are welcome as well. This is the landscape of

modern competition – it is disrupting innovation like never before (see [No Ordinary Disruption](#)).

How will these forces change the way companies operate in the future? What should those responsible for innovation do to stay competitive, starting now?

Deliverables:
1) How will companies change the way they innovate, collaborate and perform corporate functions in the future? (ex. product development, R&D, project management, marketing, etc.)

Give a specific scenario of how a company could implement your idea(s) to complete these tasks (ex. product development, R&D, marketing, project management, etc.) more effectively than competitors.

2) Please reference any research sources you used in coming up with your solution.

Results:
In 6 weeks, MRT's challenge on MindSumo produced nearly 100 unique solutions. The final engagement metrics were as follows:

5,973
PAGE VIEWS

232
FOLLOWERS

96
SUBMISSIONS
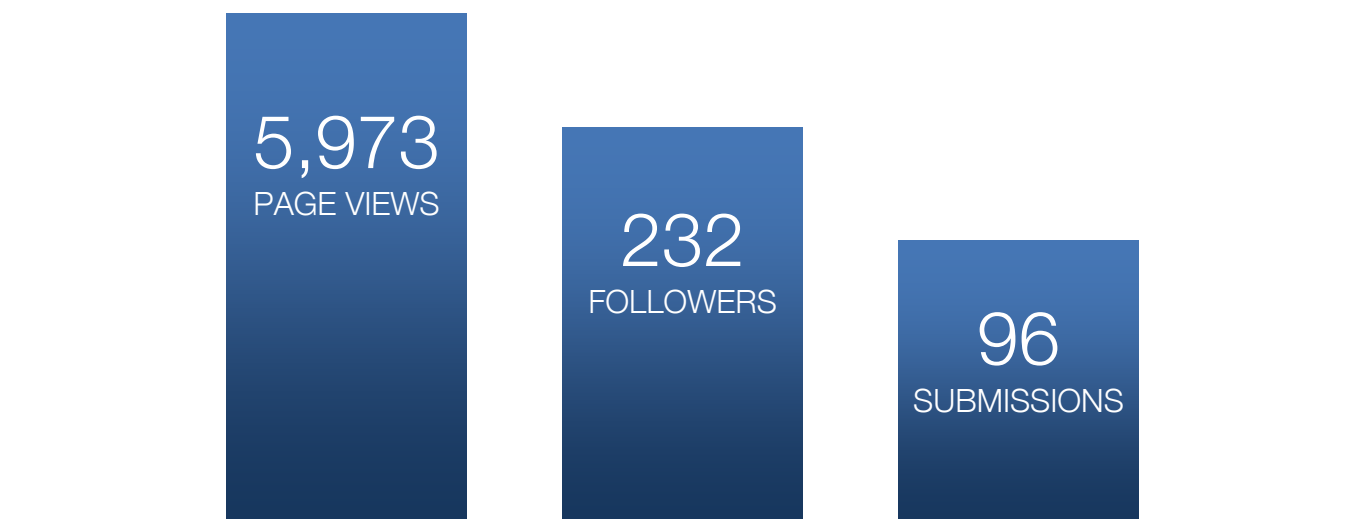
Participants:
Of MindSumo's 200,000+ solvers, the vast majority are enrolled university students of undergrad, masters, or PhD level. This community is spread across North America, giving the Management Roundtable insights from all across the U.S. and Canada. Below is a list of universities with solvers who participated in the challenge.

EAST	SOUTH	CENTRAL	WEST	CANADA
NYU	Virginia Tech	Univ. Colorado	UC Berkeley	Univ. Toronto
Columbia	Florida State	Univ. Wisconsin	UCLA	McGill
Drexel	UNC Chapel Hill	Arizona State	UC Davis	Univ. Waterloo
Penn State	NC State	Univ. Utah	USC	Univ. Victoria
Univ. Maryland	Baylor	Univ. Michigan	Stanford	
MIT	Vanderbilt	Indiana	Univ. Washington	
Georgetown	Duke	Univ. Minnesota	Caltech	
Yale	Univ. Florida	Northwestern	Loyola Marymount	
Dartmouth	Texas A&M	Univ. Illinois	Santa Clara Univ.	
Cornell	UT Austin	Purdue		
Boston College	Wake Forest			
Harvard	Georgia Tech			

Common Themes:

From the 96 solutions that were submitted, several themes emerged most prominently. The chart below shows which themes were most frequently cited in solutions. This information gave MRT an understanding of where the solvers believed the greatest opportunity for corporate innovation exists.

Theme Frequency
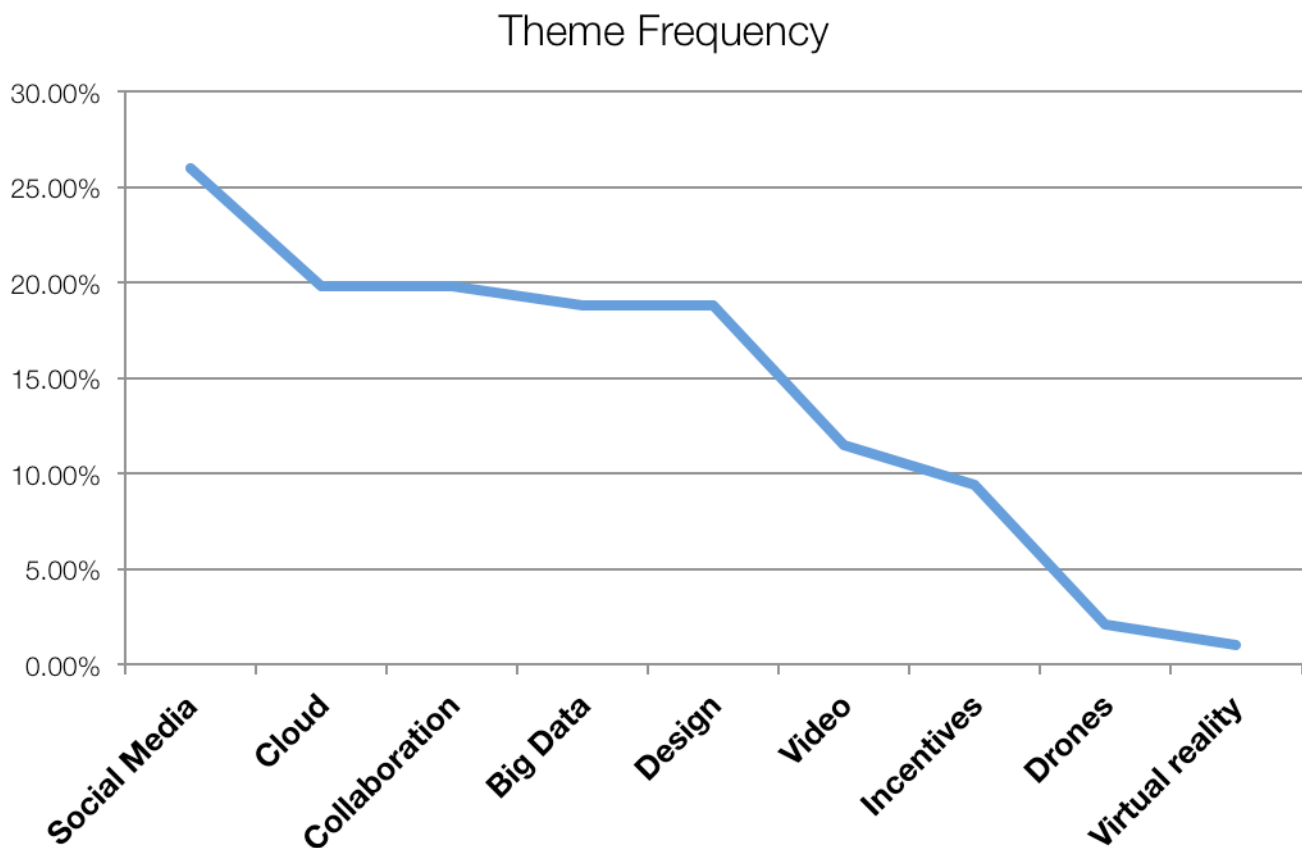
The MRT team expects to use insights and trends from the challenge to benefit its members. "We hope to take these findings and explore how they can be used to advance corporate innovation within our community," said Alex Cooper, President of The Management Roundtable.

Solution Highlights:

Several solutions addressed these themes in creative and powerful ways.

Theme – Big Data

"An example of the importance of using big data can be seen in the story of an African gold mine that found ways to capture more data from its sensors. New data showed some unsuspected fluctuations in oxygen levels during leaching, a key process. Fixing this increased yield by 3.7 percent, worth up to $20 million annually."

- Rochelle Purdy, Business at Southern New Hampshire University

Theme – Social Media

"Before starting to innovate you need to know what exactly you want to innovate. Here, social media platforms and crowdsourcing come in handy for *testing*. You start some campaigns to test what your end-user, your present and/or potential customer likes and doesn't like about your product, package, delivery, or even marketing tools.

The positive, and especially the negative feedback, serve you as a source for this invaluable routine innovation, which the R&D Department is in charge of. The R&D Department is taking its data not only from these campaigns - they are systematically gathering the data about the product from all the other departments at the same time, analyzing them and drawing the appropriate conclusions. They are comparing the sales data with the data from the users saying they like your 2 liter 1% package of milk, in order to see how close to the reality these affirmations are. This way you are constantly improving your product."

- Victor Barbaros, Software Engineering at McGill University

Theme – Incentives: "If incentive structures were combined with a forum setting (possibly with voting tools), then employees could vote on posts to help determine which submissions get a bonus. Challenges could even be submitted by management, whereby management could direct posts to focus on a single topic (i.e. "How can we make system X more efficient? – $100 prize to top 3 posts!"). This type of "intra-department" incentive structure would allow those that are most aware and cognizant of the existing methodologies to provide solutions."

- Matthew Phillips, Electrical Engineering at Colorado University at Boulder

Theme - Cloud

"In my opinion, the full potential of cloud storage is only unlocked when it is integrated with other new technology (such as 3D printing and collaboration services). However, that is not to say it does not have its own benefits:

Reduced cost of maintaining cloud server space: The cost of renting cloud server space from a third party is much lower than the cost of maintaining your own server (because cloud service providers benefit from larger economies of scale).

Better usability and more services: Because cloud service companies cater to many users, they have professional server architecture is that is easy to use and is often accompanied with a wide range of services that users can choose from.

Allows for leaner business models: Lower costs allow leaner business models that can devote more resources to primary business functions. This means removing the need to create a large IT department to maintain and troubleshoot servers. Further, using cloud servers allows the flexibility of not employing the use of fixed office space, further saving on costs."

- Utkarsh Gupta, Mechanical Engineering at UCLA

Theme - Design

"Design thinking relies on our ability to be intuitive, to recognize patterns, to construct ideas that are emotionally meaningful as well as functional, and to express ourselves through means beyond words or symbols

The design consulting company, Jump Associates, crafted a design thinking challenge to demonstrate the process behind crafting a solution to a problem. They asked participants to try to design a better ladder, and after five minutes, the participants came up with examples of ladders that are compressible, have a seat for luxury, and a wide variety of different improvements to the ladder. However, the Jump Associates employees asked what the real purpose of a ladder is. The answer was essentially: to reach higher than you can currently reach. As such, the participants were now asked to design a product that can be used to reach higher than you can currently reach, and the results were extremely different. Rather than designing ladders, participants experimented with trampolines, jet packs, and mechanical arms. Rather than trying to reinvent something that already exists, design thinking is about finding that core need and solving problems from there. With this process, individuals are able to innovate more effectively and come up with drastically new solutions to problems that we encounter every day."

- Michael Ligier, Finance at New York University

Theme - Collaboration

"Within the revolutionary power of internet-based collaboration lies the opportunity for companies to acquire the unique experiences and capabilities of highly specialized workers, whose inputs are much needed – yet often non-existent – in the innovation process.

The Harvard Business Review emphasizes the importance of such an approach: 'This approach has greatest value to projects that require specific skills or expertise, and to

tackling problems that require a fresh perspective. If you're trying to reach a customer base that's previously eluded you, or aiming to introduce a product that represents a major departure from your past offerings, you'll benefit from a team that represents your target buyer or that can think about your … products in new ways. If you're working on a deliverable or innovation that requires highly specialized skills – skills that don't exist in your own company – *the ability to diversify your product team will pay off with a better outcome or product*. By tapping into a more diverse range of skills and expertise in a global labor marketplace, you'll be able to get a better outcome by working virtually than you could hope to achieve by working within your own team or organization.' (Samuel, 2015).

By utilizing internet-based collaboration in this manner, companies will increase the perspectives available during the innovation process, thus greatly improving the quality and impact of their new products and/or services."

- Elorm Yevudza, Undeclared at Amherst College

Learn More:
If you are interested in learning more about corporate innovation, or using MindSumo to create your own innovation challenge, please visit www.mindsumo.com/innovate, or email keaton@mindsumo.com for business and partnership inquiries.

About The Management Roundtable:
The Management Roundtable (MRT) is the leading content and networking resource for product developers and innovation leaders. Practitioner-oriented and unbiased, our focus is on providing actionable insights about new strategies and processes that enable corporate growth, agility, resilience, and overall competitive advantage.

Founded in 1980, Management Roundtable is the producer of CoDev, the premier industry forum on Open Innovation, and numerous networking events, workshops, webcasts, in-house training and online reports to accelerate time to market and time to profit.

About MindSumo:
MindSumo connects companies to college students through real-world projects called "challenges." With over 200,000 solvers on the platform, MindSumo has completed over 750 challenges across industries like tech, food manufacturing, CPG, automotive, and others. Past customers include PepsiCo, General Motors, Facebook, Google, General Mills, and others.