

Open Innovation: Case Not Quite Closed



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DATA MINING FOR...MORE MINING



- Goldcorp **publicly shared 52 years of geological data** from its Red Lake mine
 - **1400 entries were received** from individuals, businesses and universities in 50 countries
 - **In year 2000, Goldcorp offered \$575K in prizes** to identify where the next 6 million ounces of gold could be found*
- Three of the finalists identified more **than 100 exploration targets**, half of them new to GoldCorp
 - As a result, the **Red Lake mine is now yielding 10 times more gold at 1/6th the cost** of production in 1989, when the company acquired the site
 - The winners, Fractal Graphics (of West Perth, Australia) **never set foot in the mine**

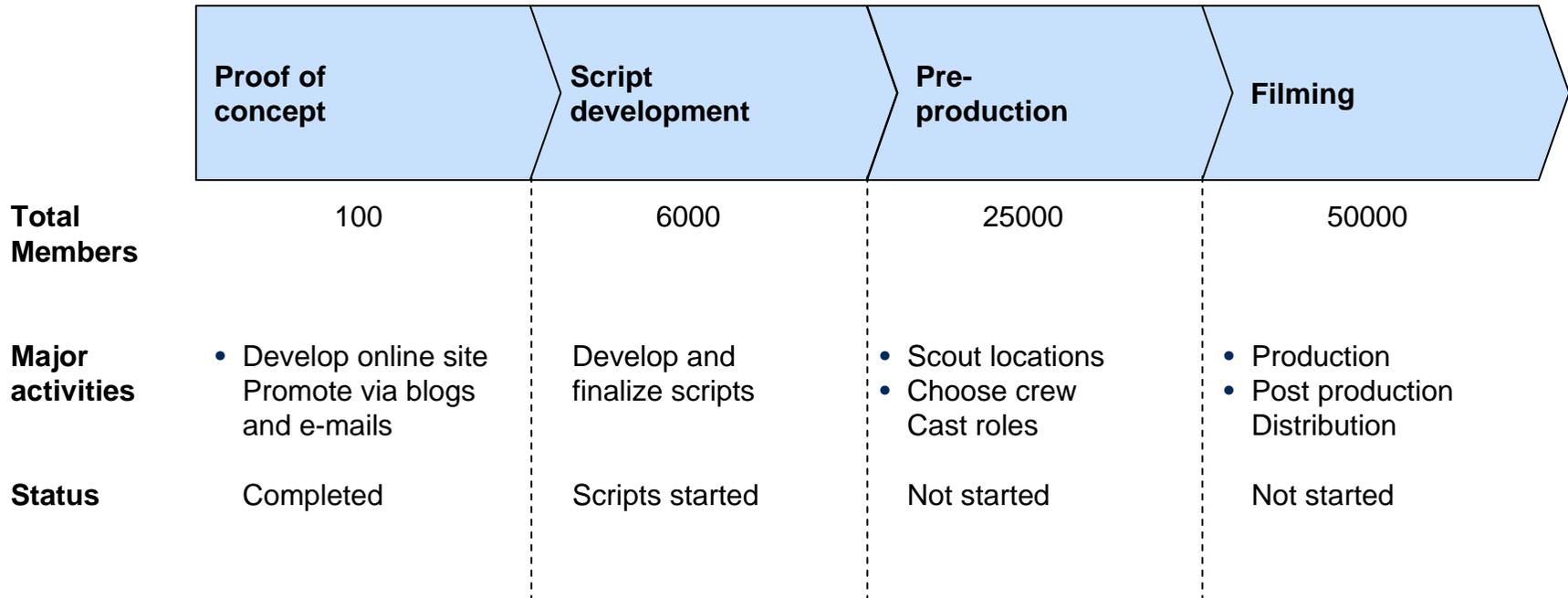
* Similarly, Barrick Gold is offering a 10 million USD US prize in 2007 to anyone who can figure out how to extract the silver from the ore at its Veladero gold mine in Argentina

A SWARM OF ANGELS COLLABORATING TO WRITE, PRODUCE, DISTRIBUTE AND FUND A FEATURE-LENGTH FILM

Founded in 2006, A Swarm of Angles (ASOA) is an open source film project that engages its members to contribute in various aspects of the movie development process

- Over 2200* members have helped fund the project by donating \$47 each
- Members have generated music and computer generated animation for a teaser and publicity poster
- Members were collaborating on two scripts and will vote on which one is ultimately produced

Members make decisions by voting in online polls



* Current as of February 2008

Source: A Swarm of Angels website, Press search

PROCTER AND GAMBLE's GAMBLE: FROM "R&D" TO "C&D"

Overview

- Taps global talent by enabling inventors to submit product ideas or seek solutions for P&G via "connect + develop" platform
- Invite talents to use partner networks to provide solutions
- Uses platform for enlarging idea pipeline, and killing unsuitable ideas

Web 2.0 applications in business processes

- Allows researchers to submit unstructured documents, give them descriptive tags, and share them as PDFs with all "Electronic Lab Notebook" users
- Uses Web services to link up existing system, making lab notebooks searchable/accessible in read-only format to downstream engineers, vendors, and patent lawyers

Novelty

- Leverages and collects innovations effectively
- Search function increases productivity by preventing repeat work

"Win-win" value

- Scientists earn money for their contributions
- Enterprise efficiently obtains desired solutions

WHEN DONE RIGHT, THE STRATEGY CAN DELIVER IMPRESSIVE PAYOFFS

A.G. Lafley
Chairman, CEO and President

Priorities:

1. Grow the core through innovation
2. Shift P&G's business mix towards beauty and health-care categories
3. Focus on developing markets as another disproportionate engine of growth
- 4. Source 50% of innovations from the outside**

ONE OF THE OPEN INNOVATION SYSTEMS THAT P&G USES WAS SPUN-OFF FROM ELI LILLY

INNOCENTIVE

Key elements

- Business venture of Eli Lilly & Co. and spun-off
- Used by companies like Dow, BASF, P&G, Boeing, Nestle (including 50 blue-chip companies) to speed up their innovation process
- Over 95,000 registered scientists from 175 countries from which to source ideas
- Nearly 40 “seeker” companies
- Up to \$100,000 awards for solutions
- Has awarded 250 solutions a total of \$1.5M
- Higher success rate (35%) for solving problems than internal R&D and cost is 1/6 that of internal R&D

ENTHUSIASM FOR OPEN INNOVATION IS DRIVEN BY MULTIPLE FACTORS

Productivity + Cost Advantages

When companies look outside their own boundaries, they may gain better access to ideas, knowledge, talent, technology or marketing capabilities than they would have if they relied solely on their own resources. This can potentially enhance productivity or lower costs

Added Benefits

Openness confers other benefits, e.g. faster time-to-market, hedging risk, motivating and developing internal resources, sending a signal to the market, brand-building, building stakeholder support, etc.

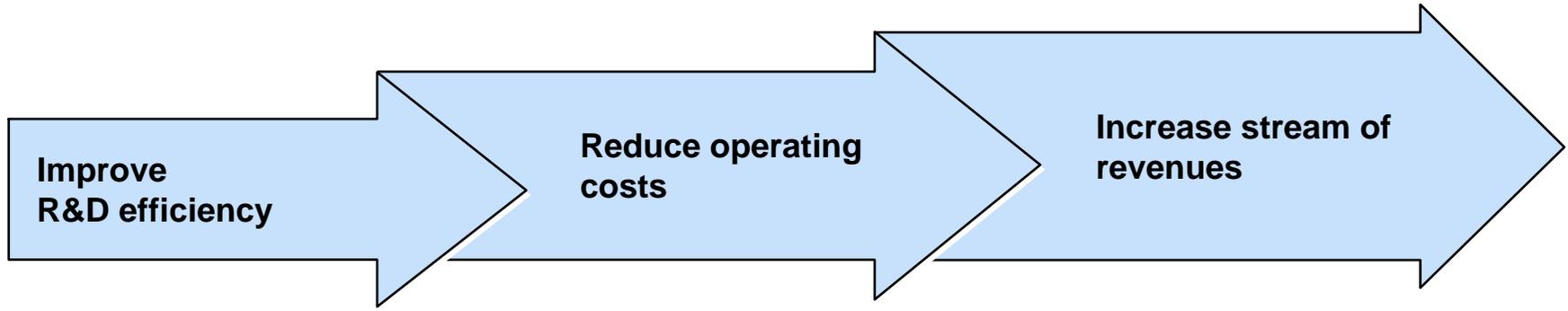
Leveraging Macro- Trends

Several macro-trends provide added impetus: challenges to centralized decision-making in companies with complex and globally dispersed operations; new technologies and new community behaviors favor co-creation mindsets; success of platform-oriented business models have shown companies how to profit from the creativity and entrepreneurship of others.

Opportunity Created by the Crisis

As established companies freeze or cut their internal R&D, product development and marketing budgets and as the IPO market remains virtually dormant, open innovation provides opportunities for established players to leverage free-standing entrepreneurs and other external parties and for the latter to get funding and explore exit opportunities

ENABLING TECHNOLOGIES AND BEHAVIORS, SUCH AS WEB 2.0, CAN BE POWERFUL ACCELERATORS OF VALUE



- Start from existing, proven material
- Leverage cheap contributions from external parties
- Focus development on what matters most to users
- Inject external expert knowledge
- Accelerate process through shorter feedback loops
- Identify and internalize high-potential talent

- Reduce cost of business processes
- Streamline supply chain
- Improve customer relationship and communication

- Improve service levels and product quality
- Generate higher customer fidelity through client involvement
- Use customers to push additional sales
- Extend beyond target market
- Generate new revenue streams
- Increase ability to develop breakthrough products

INNOVATIVE USE OF SUCH ENABLERS CAN IMPROVE R&D THROUGHPUT, ...

1 Start from existing material

2 Leverage cheap contributions

3 Focus on user needs

4 Inject external expert knowledge

5 Accelerate process

6 Identify talent

Example



- IBM leveraged outside resources like Open Source Software to speed up development of an internal community Website



- The Humane Society used a Youtube video contest to create spots against animal fights



- Sports wear company Decathlon launched many products in co-creation with key sport people to create consumer oriented products



- Flexifoil, a kite producer, launched community web sites where enthusiasts could meet and exchange ideas for new products



- Nokia Beta Labs launched to leverage users to test latest smartphone software, rate applications



- FogBugz launched a software project for summer interns over their blog, asking for applications. The whole project was published on the company blog where readers could offer comments and advice

Impact

- Using only existing free software, the group managed to very quickly go from sketches to a working site and provide a demonstration site

- The campaign generated 22 submissions, over 18.000 votes and the winning spot was viewed 90.000 times

- One example of user generated products is the water sports t-shirt Tribord which keeps its solar protection even when wet

- The company managed to lead its niche and generated 4M€ revenues in 2007

- Beta Labs generate 1 M page views/month
- Sports Tracker application had 1+ million downloads

- Over 800 applications were received, 4 interns hired
- Project became a successful commercial project: "Copilot"

... IMPROVE COST LEADERSHIP ...

1

Reduce business costs

Example



- The Apache web server leverages free community contribution to support users and maintain the code



- Amazon Mechanical Turk brings together businesses and workers to complete small tasks against payment



- Dell created a wiki for its call centers, where the operators could themselves post solutions to common problems

Impact

- Apache is currently the leading web server with market share of 49% in June 2008
- Several companies have created automated workflows using the site to reduce cost by 90% compared to internal treatment
- The number of clicks to obtain requested information dropped from 20 to 4 and average call duration decreased 10-20%

2

Improve supply chain



- Digital Cinema Initiatives was launched by the major motion picture studios to establish to promote digital movie distribution



- Kroger linked product delivery to real-time sales data to improve inventory management

- Moving movie distribution to theaters from prints to digital could reduce total production costs by 10%
- Real-time ordering and better forecasting reduced spoilage by 1% of sales

3

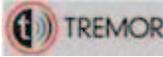
Customer relationship



- Scion is marketed to young drivers through viral marketing, like a dealership in Second Life, Scion-branded community sites and YouTube videos

- Average age of Scion drivers is 39, making it the youngest car brand in the US

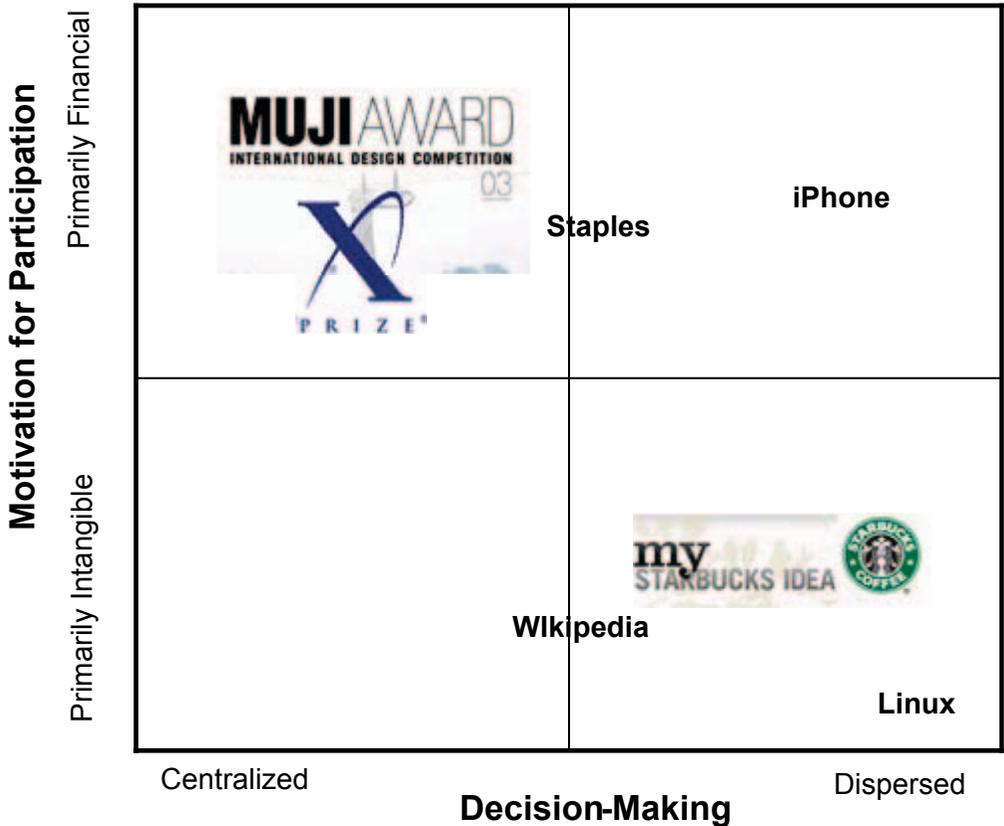
... AND INCREASE REVENUES...

	Example	Impact
1 Improve product and image quality	 <ul style="list-style-type: none"> Dell launched IdeaStorm, a community website where users can post and rate complaints and ideas to improve service quality 	<ul style="list-style-type: none"> Over one year negative online coverage decreased from 50% to 23%
2 Increase fidelity through client involvement	 <ul style="list-style-type: none"> P&G involves customers in its business processes through the Tremor network, where they can rate marketing and product ideas 	<ul style="list-style-type: none"> Customer involvement has been found to increase sales by 10-30% through advocacy and loyalty effect
3 Use customers to push sales	 <ul style="list-style-type: none"> KarmaLoop online clothes retailer uses existing customers for making additional sales 	<ul style="list-style-type: none"> "Reps" make up 1% of customers and their referrals account for 15% of total sales
4 Extend target market	 <ul style="list-style-type: none"> Hallmark Idea Exchange is a private social network of mothers who offer new ideas for greeting cards 	<ul style="list-style-type: none"> Based on contributions, Hallmark recognized Grandparents and Latina women as additional promising target markets
5 Generate new revenue streams	 <ul style="list-style-type: none"> To complement traditional sales, Kodak offers web galleries to store, share and order photos online 	<ul style="list-style-type: none"> Kodak Galleries had over 50 million users in 2007 and was chosen as partner by leading companies like Amazon, Adobe and Apple
6 Boost innovation capacity	 <ul style="list-style-type: none"> 3M uses Lead User in its R&D projects to improve the degree of innovation of new products 	<ul style="list-style-type: none"> 3M projects with Lead User involvement were significantly more likely to produce breakthrough products than traditional development

“PLATFORM” ORIENTED BUSINESS MODELS SUGGEST A HIGHLY PROMISING TREND IN OPEN MECHANISM DESIGN

Image of iPhone removed due to copyright restrictions.

BUT PLATFORMS ARE ONLY ONE OF SEVERAL DESIGN POSSIBILITIES



GETTING THE DESIGN RIGHT INVOLVES CONSIDERING SOME KEY TRADE-OFFS

<i>Benefits</i>	<i>Risks</i>
<ul style="list-style-type: none"> •<u>To Participant</u>: Financial gain; opportunities for recognition and fame •<u>To Company</u>: Potential to draw large numbers of participants; alignment of the stakeholder’s incentives with that of the firm’s; increase in creativity due to the incentives to win a prize in a “race” or “contest” 	<ul style="list-style-type: none"> •Collaboration benefits could get compromised by excessive competitiveness •Potentially brings concerns about intellectual property rights, fairness, etc. to the forefront •Less engagement with the brand •Diminished focus on broader objectives e.g. social, environmental and political issues

<i>Benefits</i>	<i>Risks</i>
<ul style="list-style-type: none"> •<u>To Participants</u>: Satisfaction that voice is heard; opportunities for self expression, recognition and fame; sense of community and altruism; engagement with community •<u>To Company</u>: Engagement with the brand; potential to attract a diverse group of participants 	<ul style="list-style-type: none"> •Hard to sustain interest and momentum •With potential thinning of the network could lead to diminished value and manipulation •Many commercially valuable ideas may not be offered



GETTING THE DESIGN RIGHT INVOLVES CONSIDERING SOME KEY TRADE-OFFS

<i>Benefits</i>	<i>Risks</i>
<ul style="list-style-type: none"> •Limit intellectual property leakage and potential for erosion of competitive advantage by controlling the amount of information in the public domain •Better management of manipulation risk 	<ul style="list-style-type: none"> •Decision may not represent most compelling value propositions •Participants lose interest because they feel disengaged from the brand; de-motivated stakeholders may leave the network

<i>Benefits</i>	<i>Risks</i>
<ul style="list-style-type: none"> •Shift the costs of making a decision to external parties; decision represents democratic choice by the stakeholders •Provides a rationale for balancing interests of different stakeholders •Could engender more engagement and greater participation •Could generate more creative ideas as participants build on ideas of others 	<ul style="list-style-type: none"> •Potential for leakage of intellectual property and for competitors to benefit from openly accessible data •Potential for manipulation of the decision process

Centralized

Dispersed



Decision-Making

KEY MESSAGES

1

There are multiple drivers behind open innovation and, if done right, it has high potential to create value

2

Designing an optimal mechanism for open innovation requires a consideration of multiple trade-offs – prizes may or may not play a critical role depending on objectives

3

Successful open innovators take a systemic view of the “opening” decision and make an integrated set of choices; it is important to figure out how the approach can scale

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