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Innovation in the Age of Mass Collaboration

The co-authors of the recent bestseller *Wikinomics* explain how businesses across the board can spur innovation by going Wiki

by [Don Tapscott](#) and [Anthony D. Williams](#)

A few years back, Toronto-based gold mining company Goldcorp ([GG](#)) was in trouble. Besieged by strikes, lingering debts, and an exceedingly high cost of production, the company had terminated mining operations. Conditions in the marketplace were hardly favorable. The gold market was contracting, and most analysts assumed that the company's fifty-year old mine in Red Lake, Ontario, was dying. Without evidence of substantial new gold deposits, Goldcorp was likely to fold.

Chief Executive Officer Rob McEwen needed a miracle. Frustrated that his in-house geologists couldn't reliably estimate the value and location of the gold on his property, McEwen did something unheard of in his industry: He published his geological data on the Web for all to see and challenged the world to do the prospecting. The "Goldcorp Challenge" made a total of \$575,000 in prize money available to participants who submitted the best methods and estimates.

Every scrap of information (some 400 megabytes worth) about the 55,000 acre property was revealed on Goldcorp's Web site. News of the contest spread quickly around the Internet and more than 1,000 virtual prospectors from 50 countries got busy crunching the data.

NEW LESSONS FOR OLD SECTORS

Goldcorp was hardly the first company to go open-source. Ever since a loose network of dedicated software programmers built Linux—one of the most widely used operating systems in the world—a growing number of companies have adopted their own open-source strategies. We've all heard about how Amazon opened up its e-commerce infrastructure to build an active developer community of some 150,000 third-party programmers. Companies such as Google ([GOOG](#)), eBay ([EBAY](#)), and Red Hat ([RHAT](#)) have also built businesses on a foundation of mass collaboration.

But Goldcorp isn't a dot-com kind of company. Mining is one of the world's oldest industries, and it's governed by some pretty conventional thinking. Take Industry Rule No. 1: Don't share your proprietary data. The fact that McEwen went open-source was a stunning gamble. And even McEwen was surprised by how handsomely the gamble paid off.

Within weeks, submissions from around the world were flooding into Goldcorp headquarters. There were entries from graduate students, management consultants, mathematicians, military officers, and a virtual army of geologists. "We had applied math, advanced physics, intelligent systems, computer graphics, and organic solutions to inorganic problems. There were capabilities I had never seen before in the industry," says McEwen. "When I saw the computer graphics, I almost fell out of my chair."

ADVANCING THE TECHNOLOGY

The contestants identified 110 targets on the Red Lake property, more than 80% of which yielded substantial quantities of gold. In fact, since the challenge was initiated, an astounding 8 million ounces of gold have been found—worth well over

\$3 billion. Not a bad return on a half million dollar investment.

Today, Goldcorp is reaping the fruits of its radical approach to exploration. McEwen's willingness to open-source the prospecting process not only yielded copious quantities of gold, it introduced Goldcorp to state-of-the-art technologies and exploration methodologies, including new drilling techniques, and data collection procedures, and more advanced approaches to geological modeling. This catapulted his under-performing \$100 million company into a \$9 billion juggernaut while transforming a backwards mining site in Northern Ontario into one of the most innovative and profitable properties in the industry.

Needless to say, McEwen is one happy camper. As are his shareholders. One hundred dollars invested in the company in 1993 is worth more than \$3,000 today.

HARNESSING EXTERNAL KNOWLEDGE

Despite its clear success, the Goldcorp story still flies in the face of much conventional wisdom about how to run a business. Conventional wisdom says companies innovate, differentiate, and compete by doing certain things right. They hire and retain the "best people" to generate new ideas, make new discoveries, compete, and expand their business lines. They "listen" to their customers and protect their intellectual property fiercely. They think globally but act locally, and they execute well (they have good management and controls).

McEwen realized the uniquely qualified minds to make new discoveries were probably outside the boundaries of his organization, and by sharing some intellectual property he could harness a powerful new force—mass collaboration. In doing so, he stumbled, successfully, into the future of innovation, business, and how wealth and just about everything else will be created.

Today, thanks largely to the Internet, the kind of creativity and innovation that used to take place primarily within corporate walls, increasingly takes place over large amorphous networks of peers. Millions of people already join forces in self-organized collaborations such as Linux and Wikipedia that produce dynamic new goods and services that rival those of the world's largest and best-financed enterprises.

THE OLD HIERARCHY IS DEAD

And if the masses can peer-produce an operating system, an encyclopedia, the media, a mutual fund, and even physical things like a motorcycle, one should carefully consider what might come next. You could argue that we're becoming an economy unto ourselves—a vast global network of specialized producers that swap and exchange services for entertainment, sustenance, and learning.

The lesson for business leaders is that the old monolithic multinational that creates value in a closed hierarchical fashion is dead. Winning companies today have open and porous boundaries and compete by reaching outside their walls to harness external knowledge, resources, and capabilities. Rather than do everything internally, these companies set a context for innovation and then invite their customers, partners, and other third parties to co-create their products and services.

Take YouTube, the world's most popular video sharing site. Rather than buy up a video library to stream over the Web, the founders Steve Chen and Chad Hurley made it easy for visitors to share, rate, and comment on short clips that users upload themselves. In effect, YouTube created a powerful engine for community-building and let its customers self-organize. With some 65,000 new clips uploaded daily and over 100 million videos served per day, YouTube is now a formidable force in the next generation of online video.

PROMISE AND PERIL

Second Life, a thriving virtual community, is another entity that takes the mass-collaboration model to the extreme. It produces less than 1% of its game content, and instead gives powerful scripting tools to its customers. Virtually every character, object, and experience in Second Life is created by thousands of enterprising residents who exploit the intellectual-property rights in their creations to participate in a thriving virtual economy with a \$100 million turnover.

Even mature businesses are getting in on the action. Companies like Boeing ([BA](#)), BMW, IBM ([IBM](#)), and Procter &

Gamble ([PG](#)) may have been around for the better part of a century, yet these organizations and their leaders have seized on collaboration and self-organization as powerful new levers to cut costs, innovate faster, co-create with customers and partners, and generally do whatever it takes to usher their organizations into a 21st century business environment.

Business leaders could be excused for finding this new cornucopia of participation and collaboration both exhilarating and alarming. Some critics look at successful "open-source" projects such as Linux and Wikipedia and assume they're an attack on the legitimate right and need of companies to make a profit. Not so. IBM decided to support rather than fight Linux, and today its Linux-related services and hardware represent billions of dollars in revenue. The company estimates it saves nearly a billion dollars per year over what it would cost to develop a Linux-like operating system on its own.

FOUR BIG IDEAS

A new breed of 21st-century enterprise is emerging—one that opens its doors to the world; co-innovates with everyone, especially customers; shares resources that were previously closely guarded; harnesses the power of mass collaboration; and behaves not as a multi-national, but as something new: a truly global business. These new modus operandi revolve around four powerful new ideas: openness, "peering," sharing, and acting globally.

In this series, we build on the lessons from our book, *Wikinomics: How Mass Collaboration Changes Everything*, to show how leaders are harnessing these new principles to drive important changes in their industries and even rewrite the rules of competition.

Don Tapscott is chief executive of New Paradigm, a technology and business think tank, and the author of 11 books about information technology in business and society, including Paradigm Shift, The Digital Economy, and Growing Up Digital. His recent book Wikinomics: How Mass Collaboration Changes Everything is a New York Times bestseller. Anthony D. Williams is an author, researcher and former lecturer at the London School of Economics. He is vice-president and executive editor at New Paradigm and co-author of Wikinomics.

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