Innovation for Innovators

an occasional column exploring principles, models, and theories of innovation in business and management

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Google Means *Every*

I was teaching an undergraduate math class in 1985 and decided to give the students a fun extra credit assignment. "Find out what a googol is", I told them. This was a time before the Internet and locating such information required a little bit of research in the library. Most chose not to do the research, but a few came back with the correct answer – a googol is the number 10^{100} or a one followed by 100 zeroes.

The original googol term was actually coined by a 9 year-old boy in 1938 and then popularized by his uncle, mathematician Milton Sirotta in his book *Mathematics and the Imagination* in 1940. The number has no real significance in mathematics or the sciences. But it is a useful shorthand notation for the idea of a very, very large number. Math and science teachers sometimes use the googol to give some perspective to the size of the universe or the size of infinity. A googol is larger than the number of atoms in the observable universe, which is estimated at between 10^{79} and 10^{81} atoms, assuming one still believes in the existence of atoms.

The googol has appeared in popular entertainment on-and-off for decades. Charles Schultz used it in a 1963 *Peanuts* comic strip; Steve Martin used it in a 1979 comedy album; it appeared in an episode of the *Teenage Mutant Ninja Turtles*, and was the one million-pound question on the British version of *Who Wants to be a Millionaire*. (Wikipedia, 2009)

But then in 1998, two Stanford graduate students changed the spelling of the word and launched Google, making the obscure mathematics term a household name. The googol was an unknown curiosity for the first 60 years of its life, before getting a makeover and becoming the most widely recognized company brand in the entire world (Jarvis, 2009).

So if googol means a one followed by one hundred zeroes, what does Google mean? Like its namesake, Google means a very, very large number … of web pages, documents, customers, advertisers, and dollars. Like googol, it falls short of being infinite, but it is difficult to imagine anything else that is quite as big as a googol or a Google.

The company started with a new idea for ranking page searches on the Internet. Instead of giving a high rank to pages on which the search term occurs the most frequently, they ranked a page highly based on how many other outside pages linked to it. This led searchers to the most prominent pages, rather than those engineered with many keywords. The result has been one of the fastest growing companies ever and the expansion of their product line into dozens of information niches. But what do all of the company's niche

products have to do with Google's core business, their strategy for the future, and what does this mean to people interested in understanding technology innovation and management?

In short, the mission and strategy of Google is all summed up in the origins of its name – googol. The company is positioning itself to deliver all of the information that goes through everyone's hands, eyes, networks, and hard drives in the future. This kind of universal mission is not new from companies in Silicon Valley. There have been many before Google that have made similar claims. But none of those have had the revenue generation engine to make it happen and none of them have expanded into as many products as Google has.

Google's products are becoming ubiquitous to Internet users. They go far beyond the search service. In fact, the company is really based on advertising today, more than search. Google is using their advertising revenue to create a googol's worth of tools, to reach a googol's worth of users who are performing a googol of different activities.

It is important to look at the tools that Google offers and understand what each of these means in terms of exposure.

Leading Google products and their objectives:
- Search – indexing and delivering **every** web site
- AdWords – used by **every** company to promote **every** product
- Desktop Search – find **every** personal document on your computer
- Images – a doorway to **every** picture on the Internet
- Reader – handling **every** blogged communication thread
- YouTube – streaming **every** video to **every** viewer
- Gmail – delivering **every** email
- Toolbar – presenting Google in **every** browser experience
- Maps – providing directions for **every** trip in **every** city
- Earth – providing a 3D window into **every** part of the globe
- Books – providing access to **every** book
- Picassa – managing **every** digital picture that you take
- Blogger – publishing **every** blog that is written
- Docs – editing and sharing **every** business document
- AppEngine – providing the computer platform for **every** web-based computer program
- Android – initiating **every** cell phone call
- Voice – providing a permanent phone number for **every** telephone customer
- Chrome Browser – becoming the browser for **every** Internet user
- Native Client – running **every** desktop program that you already have
- Chrome O/S – serving as the software foundation for **every** computer

There have been dozens of companies that have attempted to handle everything you do in one niche. But no company has ever delivered every application you will need for everything you do on the Internet. Google is the first to even try.

Google recognizes something that few others seem to understand – everything is a commodity except the information. The computer, its chips, user interfaces, Internet service, and everything else can be copied by a competitor. Given advances in technology, there is always a disruptive innovator around the corner who will be able to build a better product. They are not limited by their investments in old products or their ties to old customers. These disruptive innovators will arise and take the market away from any company that is tied to the past in handling its products and customers. So far, only Microsoft has shown any resilience in holding onto its position. Almost every other company has been seriously challenged or beaten by a smart, disruptive innovator.

Given this environment, the only thing that is not commoditized is the information. Google has set its sights on managing the delivery of all of the information that you see when you are working in the digital world. Every search, every document, every task that you need to do will be handled by Google and one of its ubiquitous and freely provided tools. No other company is operating on this scale. No other company is attempting to have this kind of universal relationship with the world's data and the world's users.

What About Your Company?

Google is moving to the position that every company aspires to – a relationship with every customer in the world. But, how do other companies create a similar information advantage in their industry? If *your* company manufactures industrial tools, how can you create an information rich connection to all possible buyers of those tools? Customers for *your* tools collect data on a number of competitive products and release bids to a number of competitors. How do you insure that they collect the data about *your* tools and invite *your* company to bid?

One way to do this is to become the hub for all information about all products in your market space. Your company web site could collect and distribute all of the information about all of the products that any customer might want. Serious buyers would soon learn that they cannot afford *not* to visit your site. Though they may still collect data from a number of vendor web sites, they would *have to* visit your site because of its reputation for providing all of the data that is available in this area. This is a Google-flavored approach.

Your information hub may provide links to all product specs posted on the Internet. It may host discussion forums open to customers. It may pull in research papers that have been done in universities. It may have comparison tools that allow a visitor to enter the characteristics that they are looking for in a tool and your web site will provide a side-by-side comparison of the specs and costs for all that meet their needs.

Creating such a resource is not really an option open to every company in the industry. Those who already dominate the space are typically large and secure in their position. Their leaders are unlikely to see an advantage in showing all of this competitive data to their customers. Potential customers probably already invite them to every bid and are well educated on the capabilities of their products. Conversely, a company that sells low quality or inferior products is not likely to be interested in highlighting their weaknesses in a side-by-side comparison or publicly accessible customer forum.

Becoming an information hub for the entire industry is really only beneficial to a smaller, up-and-coming company that does not have the attention of all of its potential customers; and whose products can stand-up favorably to comparisons with those of the industry leaders.

Such a web site would potentially rise quickly to the top of the Google search results for relevant terms in your industry. The site would become known around the world, and do so with little investment in advertising and marketing. Once Google finds, ranks, and elevates your information hub, the world will find it. Actions like this could make your company an "every" company for customers in your market. It could insure that you are a "must see" site for any customer who is considering a purchase.

Google means "Every". But it operates in a very universal space. It is not trying to sell to your customers. It is trying to send your customers to the most important web sites based on their queries. If you offer more information than any other company, then you are exactly the kind of site that Google wants to send people too. Their reputation is built on how well they match searchers with the information they are looking for. You can join Google in improving their own reputation by giving Google a genuinely great place to send customers.

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