

# Deloitte Review

ISSUE 9 | 2011

---

Complimentary article reprint

---



## GOLD RUSH

The scramble to claim and protect value in the digital world

BY THOMAS GALIZIA, TREVOR GEE  
AND KEN LANDIS  
> ILLUSTRATION BY RIZON PAREIN

---

## Deloitte.

This publication contains general information only, and none of Deloitte Touche Tohmatsu, its member firms, or its and their affiliates are, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your finances or your business. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

None of Deloitte Touche Tohmatsu, its member firms, or its and their respective affiliates shall be responsible for any loss whatsoever sustained by any person who relies on this publication.

About Deloitte Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see [www.deloitte.com/about](http://www.deloitte.com/about) for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries.

Copyright © 2011 Deloitte Development LLC. All rights reserved.  
Member of Deloitte Touche Tohmatsu Limited

# GOLD RUSH

## The scramble to claim and protect value in the digital world

BY THOMAS GALIZIA, TREVOR GEE AND KEN LANDIS  
> ILLUSTRATION BY RIZON PAREIN

On January 24, 1848, a gold nugget was discovered in the river that powered a lumber mill near Coloma, California. The property owner, John Sutter, tried to keep the news quiet, knowing his plans for developing an agricultural empire could be crushed by an onslaught of fortune hunters. He was right. Word got out almost immediately, and northern California would never be the same.



The Internet gold rush began 165 miles southwest of Sutter's Mill in Mountain View, where Netscape was formed and its browser opened the Internet to mainstream consumers. On August 9, 1995, the company launched a public offering that generated almost \$2.9 billion.<sup>1</sup> The previous year, *Time* magazine had predicted the Internet would not reach mainstream consumers: "It was not designed for doing commerce, and it does not gracefully accommodate new arrivals."<sup>2</sup> Of course, with nearly 2 billion people using the Internet, the world today is forever changed.<sup>3</sup>

Like millions of consumers around the globe, you have probably purchased an item online, entered a social media site, or used an Internet browser to search for information. Each of your seemingly private acts was converted into bits of data that were recorded, sorted, aggregated and possibly sold. Your bits and bytes—along with uncountable others—are contributing to the explosion of information that is sometimes called "big data." In 2010, the digital universe of data reached 1.2 million petabytes; it's predicted to balloon to 35 zettabytes by 2020.<sup>4</sup>

Ten years ago, a gigabyte seemed like a lot of data to many people. It's a mere drop in the bucket in today's digital universe. In August 2010, former Google CEO and current Chairman Eric Schmidt provided the following perspective: "There was 5 exabytes ( $10^{18}$  bytes) of information created between the dawn of civilization through 2003, but that much information is now created every 2 days, and the pace is increasing."<sup>5</sup>

Buried beneath these billions of bytes is a gold mine of personal information about individuals' identities, lifestyles, preferences and behaviors. But unlike the goldfields of the 1850s, which were soon exhausted, these vast quantities of data are growing exponentially each year. With this growth comes opportunity and potential risk for consumers who supply the data, companies that collect it, and legislators and agencies who are taking steps toward regulating it. Consider the unheralded settlements and disclosures concerning some of the most respected technology companies in the world. Before events of the past year, most of these issues were primarily debated by academics, civil libertarians and rights organizations. Now they are discussed in boardrooms and courtrooms.

#### IN TECHNOLOGY WE TRUST

**P**ersonal information stored in your home or office exists in the physical world. If a document is private—and you want it to stay that way—most likely you feed it through the shredder or store it under lock and key. In the U.S. and many other democratic societies, interactions in the physical world are governed by laws and regulations created by lawmakers to support cultural norms that place high value on personal privacy and property rights.

## WINNERS AND LOSERS: THE CALIFORNIA GOLD RUSH (1848-1855)



The discovery of gold in 1848 triggered the migration of some 300,000 people to northern California – many from Latin America, Europe, Australia and China. At that time, California was not yet a state, and there was no legislative or judicial body for the region. In the absence of formal property rights, gold was free for the taking at the beginning of the rush. Disputes were resolved through negotiation, arbitration or, more often, violence.

The possibility of vast wealth spurred technology innovation, shifting power from individuals who panned the streams to mining companies who cut through the hillsides, diverting large amounts of gravel, silt and other pollutants into the rivers. The U.S. Geological Survey estimates that 12 million ounces of gold were removed during the first five years of the gold rush (2011 estimated value: \$18 billion).<sup>6</sup> Some scholars believe that entrepreneurs who sold goods and services to the fortune-seekers profited more from the Gold Rush than did individual miners. The big losers were the local Native Americans who lost their way of life, with tens of thousands dying from disease, starvation or violence.

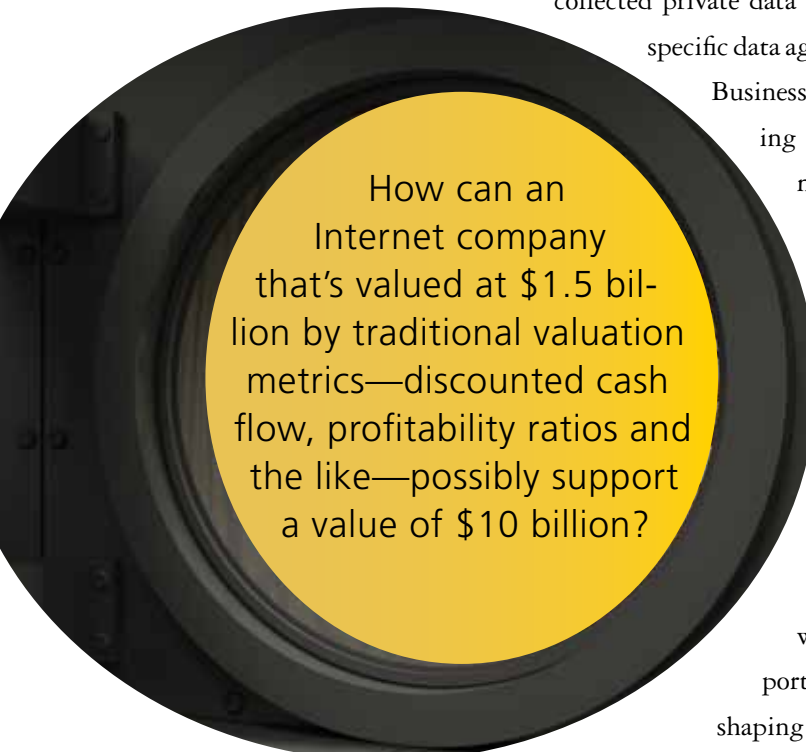
With the press of a key, touch of a screen or swipe of a credit card, personal information moves from the physical to the digital world, where expectations of ownership and the use of these data—particularly data (or a combination of data elements) that previously did not exist or that have not historically been recognized as having value—are not always well defined. Broadly speaking, there are limited parameters or precedents for how an organization can use the information it collects. What's more, this personal information is often irretrievable and can easily survive beyond an individual's life. The question of how we as business leaders and citizens treat the ownership and use of this expanding ocean of data generated by our personal and commercial activities is an important issue now and is likely to be increasingly center stage.

Moreover, it is unclear whether consumers understand how information

generated from their activities is being used. Before using some online applications, users may be asked to click their approval of the company's terms and conditions. This is a ubiquitous facet of online life. But how many people actually read, much less understand, how they're allowing their personal information to be tracked? A *Wall Street Journal* investigation found that one free Internet radio application

collected private data that was sent to eight specific data aggregation companies.<sup>7</sup>

Businesses may be complying with current requirements, but as consumers collectively learn more about the detailed portraits of their lives becoming available it seems likely that the issues of data ownership, use and regulation will emerge as important considerations in shaping a company's information strategy.



How can an Internet company that's valued at \$1.5 billion by traditional valuation metrics—discounted cash flow, profitability ratios and the like—possibly support a value of \$10 billion?

The trend of individuals creating online personal data that can be readily used by companies seems inexorable, in some measure because so many people are hungry for “Free.” Software and Web-based companies were among the first to tap this almost insatiable appetite.<sup>8</sup> Convenient online shopping, helpful free applications and social connections, combined with the proliferation of personal digital devices, have given rise to a new breed of constantly connected consumers who expect an “anytime, anywhere, any way” experience. In 2011, approximately 9 percent of mobile phone users worldwide have smartphones that allow easy Internet connections. In the United States and western Europe, 90 percent of mobile phones are Internet-ready.<sup>9</sup> It's easy for any connected consumer to check pricing and availability from competing companies, search for product reviews and solicit recommendations from online peers. The Internet is more pervasive each day and a part of almost everything we do – a remarkable 41.7 percent of all global Internet users visit Facebook daily.<sup>10</sup>

Meanwhile, innovative marketing companies are developing and implementing strategies that aim to collect individual consumers' personal information,



including real time GPS location data and past buying behaviors to suggest other items an individual may be interested in purchasing – right at the moment he or she is most likely to want or need the item. A website suggests a car seat to go with the crib you just purchased. The browser guesses the right search term from only a few keystrokes. You find yourself reconnecting with your best friend from high school.

On the whole, this is good news – relevant product and service information is more effective than random product messages. But the potentially all-knowing capabilities of companies and organizations that collect data also raise questions. What are an individual's privacy rights given the particular and dynamic dimensions of the digital world: the amount of data, the real time processing of and actions taken based on the data? Should there be limits as to how data can be collected or used? Important questions follow: Who owns the data? Who should benefit from the value it generates? How can personal information be reclaimed by the individual once it's dispersed?

How these questions will be answered requires further debate. But as the universe of personal data and the possibilities for its profitable use become a topic for public discussion, the implications for emerging business models—and the value of anticipating the direction of social sentiment and potential regulation—loom large.

#### BIG DATA OR BIG BROTHER?

**A**mong those of us old enough to remember what a modem sounded like when it welcomed you to the Internet with its signature tortured screech, few had the vision to imagine the vast wealth that's being generated from the collection and aggregation of personal data or the massive land grab for personal information now underway.

A growing number of companies have created business models built on buying, collecting and aggregating huge amounts of personal data that they can sell to other companies. Many other companies mine their own databases for insights into their customers' behaviors, with the goal of increasing sales, improving retention or driving innovation. For some companies, these databases may well be their most valuable asset.

Organizations that collect and analyze individuals' information and their behaviors fall into two categories: open aggregators and closed aggregators. In the open model, much of the information collected is publicly available at no charge to the user. Social media sites, Internet browsers and other open aggregators typically monetize their wealth of data through ad sales. Organizations with closed

operating models collect data to create competitive advantage. An online retailer may track a consumer’s book purchases as well as those the individual has browsed. In turn, this information can be used to recommend other books to you, with the goal of increasing sales.

Today, aggregators hold most of the cards when it comes to capturing the value of personal data. But that could change with the stroke of a legislator’s pen. Or with the click of a hacker’s mouse. If consumers lose trust in a company’s brand, they can use their own social media power to strike back, which could instigate a customer and revenue exodus.

### MEASURING VALUE: OLD MARKET POWER AND NEW ORDER MIGHT



#### MEASURING VALUE IN THE DIGITAL WORLD

How can an Internet company that’s valued at \$1.5 billion by traditional valuation metrics—discounted cash flow, profitability ratios and the like—possibly support a value of \$10 billion? Such figures are based on the market’s perception that these companies are creating new sources of value that may not be



captured by traditional metrics. Much of this value is generated by the ability of corporate aggregators to capture individual users' personal information – which raises social, ethical and even moral questions that should be asked and answered.

### *Value created by 1st choice*

More than 970 million people “Google.”<sup>11</sup> Tweeters and their followers number over 200 million.<sup>12</sup> And a whopping 62 percent of U.S. Internet users can be found on Facebook.<sup>13</sup> The usefulness, familiarity, convenience and network effects offered by these sites make it easy for users to return to each again and again. They have become the “go-to” options for the core services they provide, vying to hold their valuable position in the hearts and minds of their users from new competitors and each other.

The vast numbers of users point to how deep into our societies these companies reach and to the potential insights they can hold within their databases. In the digital world, information about a person's identity, contact information and behaviors is valuable property that, by default, is likely now owned by the company that collected or purchased the information.

This raises several questions. Should companies compensate individuals for their data? Or, does the value of the data exist solely because it has found a use in the context of a company's online platform? If not compensating individuals initially, perhaps sharing in economic rent of using the data? If so, what would that look like?

### *Value created by dominion*

In general, the market expects Internet-based companies to offer a constant stream of innovative new products, services and capabilities, often with the goal of becoming the user's primary gateway to the Internet. If these new products or services increase gravity, anchoring the user in a way that makes it harder to abandon a company's offerings, so much the better. Even Internet-based companies that could easily create new services themselves often buy the latest trends and innovative capabilities by acquiring smaller competitors to maintain that anchoring effect.

The creation of value through dominion is far from a “lock” on the market. Dominion can be fleeting. In the search and social media space, for example, we have already seen sizable shifts in user statistics over the years as newcomers have displaced rivals formerly viewed as the de facto destination. While dominion is a valid and potent path to value creation, it raises the issue of unprecedented quantities of personal information being concentrated within the repositories of a private company. This can be uncharted territory even for modern society.

*Value created by depth perception*

Companies build digital tools that can distill and clarify vast amounts of data – tools that attempt to create value by giving users the ability to easily and quickly understand, access and absorb vast amounts of information. This ease of access to information can also provide individuals the ability to obtain information that others would prefer to keep private. Anyone can access Google Maps with your address and see where you live – hugely useful if someone is trying to make it to your house for a party, for example, but also a capability that was once reserved for the military. In the physical world, we can request that our phone number be unlisted. In the digital world, it is unclear how that will work. If a person wants to keep his digital information private, how might companies address that need? Or, potentially, if governments determine that this is a privacy concern that should be regulated, how can a company structure its business model in a way that can support that imperative?

*Value created by social paths*

Social media have created an unprecedented level of communication in our society. Their importance is not just a function of being real time. It is not just size, scale or their instantaneous nature. Many of these factors can come together to give individuals the ability to communicate faster and to a broader audience than ever before.

These private conversations can be overheard and can be a boon to companies that are monitoring their brands. For example, Salesforce.com purchased Radian6, which has technology that can allow companies to capture conversations across social network sites, blogs and online communities. In the physical world, it is illegal to record phone conversations or intercept another person's mail. Should it be different in the digital world? How will the “do not track” movement be enforced? How can companies assure users that they are not being monitored or create an environment where this monitoring happens more transparently?

*Value created by mass movement*

In our society, freedom of speech is a cherished right. Yet in the physical world, broadcast media are subject to standards that provide guidance about what society generally considers appropriate for broad public distribution. Even movies are rated. The world of social media, on the other hand, resembles the lawless Gold Rush town. The digital world has its own A-list – prolific, often provocative, reviewers, bloggers and influencers who use social platforms as their soapbox. They have the ability to pull in new users who are interested in following their commentary. This capability has played a role in sparking revolutions in the Middle East and public

## COMPETITIVE ADVANTAGE IN THE DIGITAL WORLD: SETTING STANDARDS FOR THE NEW CONSUMERISM

Real opportunity exists to create differentiation and set new “community standards” in honoring the spirit of personal privacy and property rights while enhancing and protecting the value of a brand and enterprise. Some policy questions to be considered:

### 1. Transparency

- Do customers understand how our company uses the data gathered from their interactions and transactions?
- If customers knew the full extent of its use, would they agree to it?
- Does our enterprise have the capability to remove customer data if requested or required?

### 2. Enterprise Risk

- Has our enterprise assessed the potential consequences of pending data usage regulations, legislation and lawsuits? Are the potential franchise or reputation risks mitigated? Does the board of directors agree with our assessment?
- Are controls in place that increase the likelihood that data collection platforms are used appropriately? Are metrics gathered and shared with our executives and board of directors that confirm that we are not impairing our brand or franchise? Is our enterprise empowered to enforce appropriate usage?
- Does our organization use external data, and do we have the actual usage rights? Are we infringing on personal property rights in any direct or indirect way?
- Do we monitor our site to prevent outside companies from tracking customers without our knowledge?
- What exposure do we have to inaccurate data regarding individual subscribers?

### 3. Operations and Compliance

- If customers chose to opt out, or if we are required to offer this option, how will it impact our franchise? Do we have the capability to remove their information from our databases?
- If we were forced to compensate customers for the data we gather or have gathered from them, how would this impact our business model?
- Does our compliance function appropriately address data rights, or is it narrowly focused on data security and data privacy, such as personally identifiable information (PII)? When can data be subpoenaed if stored in country X while reflecting actions in country Y?
- Does our organization monitor for direct and indirect misuse of our data and data platform?
- For each country the company operates in, do I understand and follow the societal norms of property and privacy rights? Do we understand and are we responsible for where data end up being used?

outrage against injustices, but it can just as easily lead to dire outcomes. Should the platform provider share accountability for an individual’s ability to influence masses of people?

*The sum value of the New Order*

The economic winners of the California Gold Rush were the technologically advanced mining companies and entrepreneurs who saw an opportunity to serve—or exploit—thousands of fortune-hunters. The losers were the miners who left empty-handed and indigenous people who forever lost their way of life.

Although much wealth has been created by the digital gold rush, it's too soon to know who will be the real winners or losers in today's scramble for value. There are two likely developments:

- There could be substantial regulation. Recent landmark settlements related to privacy violations are clear evidence of this as is newsbreaking discoveries of data records that are stored on tens of millions of smartphones or the applications that we download on to them. As this article is being written in the spring of 2011, Senators John McCain and John Kerry have introduced a broad bipartisan online privacy bill that could more effectively protect consumers, which gives the ability to both the U.S. Federal Trade Commission and state attorneys to pursue businesses that violate the new law and seek civil damages.<sup>14</sup>
- As consumers become more aware of how their information and activity is being captured, monitored, mined and monetized, we can expect the public to join in the consumer protection groundswell. Eye-opening tests on your own machine can be performed through consumer sites such as [www.bluekai.com](http://www.bluekai.com) to show a sample set of your data that's been captured for use by others without your knowledge.

As media, legislative and individual awareness increases, companies aggregating personal information—whatever their size and core business—should address the social, ethical and moral questions raised (see Competitive Advantage in the Digital World: Setting Standards for the New Consumerism on page 23 as a guide). Companies that recognize these issues and anticipate market demands and consumer perceptions while setting new standards for ease of use, transparency and individual protections may be the winners of the digital gold rush era. **DR**

---

*Thomas Galizia, Trevor Gee and Ken Landis are principals with Deloitte Consulting LLP.*

*The authors would like to acknowledge **John Seely Brown, David Bollier and Linda Holland**, as well as **Jonathan Copulsky and Travis Lebman** of Deloitte Consulting LLP for their contributions to this article.*

## Endnotes

1. Rosemary Metzler Lavan, "Netscape IPO Wows Wall St. Hot Start, But Some See It Cooling Off," *New York Daily News* <[http://www.nydailynews.com/archives/money/1995/08/10/1995-08-10\\_netscape\\_ipo\\_wows\\_wall\\_st\\_ho.html](http://www.nydailynews.com/archives/money/1995/08/10/1995-08-10_netscape_ipo_wows_wall_st_ho.html)> August 10, 1995 (accessed April 12, 2011)
2. <http://www.wired.com/wired/archive/13.08/tech.html>
3. <http://www.internetworldstats.com/stats.htm> Internet Usage Statistics are for June 30, 2010 and come from data published by Nielsen Online, by the International Telecommunications Union, by GfK, local Regulators and other reliable sources.
4. John Gantz and David Reinsel, "The Digital Universe Decade – Are You Ready?," IDC – IVIEW (sponsored by EMC Corporation) < <http://idcdocserv.com/925> > (accessed February 10th, 2011).
5. "Google CEO Eric Schmidt: 'People Aren't Ready for the Technology Revolution'," *The Huffington Post* < [http://www.huffingtonpost.com/2010/08/05/google-ceo-eric-schmidt-p\\_n\\_671513.html](http://www.huffingtonpost.com/2010/08/05/google-ceo-eric-schmidt-p_n_671513.html) > (accessed February 14th, 2011).
6. Precious Metals calculator <<http://www.goldprice.org>> (accessed April 14, 2011)
7. Scott Thurm and Yukari Iwatani Kane, "Your Apps are Watching You," *Wall Street Journal* Online < [http://online.wsj.com/article/SB10001424052748704694004576020083703574602.html?mod=WSJ\\_article\\_RecentColumns\\_What-TheyKnow](http://online.wsj.com/article/SB10001424052748704694004576020083703574602.html?mod=WSJ_article_RecentColumns_What-TheyKnow) >, December 17, 2010 (accessed February 11, 2011)
8. Simonetto, Laird, and Aguirrebeitia, "Did You Say Free?" *Deloitte Review*, Issue 8, January 2011.
9. "Global Mobile Statistics 2011", mobiThinking, March 2011 <<http://mobithinking.com/stats-corner/global-mobile-statistics-2011-all-quality-mobile-marketing-research-mobile-web-stats-su#subscribers>>
10. [www.alexa.com](http://www.alexa.com), a web information company, statistics as of April 17, 2011
11. Matt Murphy and Mary Meeker, "Top Mobile Internet Trends," Kleiner Perkins Presentation, February 10, 2011 at Google Think Mobile Conference <<http://www.slideshare.net/kleinerperkins/kpcb-top-10-mobile-trends-feb-2011>> (accessed April 14, 2011)
12. Maggie Shiels, "Twitter co-founder Jack Dorsey Rejoins Company," *BBC News*, March 28, 2011 <<http://www.bbc.co.uk/news/business-12889048>> (accessed April 11, 2011)
13. Lee Rainie, Kristen Purcell and Aaron Smith, "The Social Side of the Internet," Pew Internet, January 18, 2011 <[http://www.pewinternet.org/~media/Files/Reports/2011/PIP\\_Social\\_Side\\_of\\_the\\_Internet.pdf](http://www.pewinternet.org/~media/Files/Reports/2011/PIP_Social_Side_of_the_Internet.pdf)> (accessed April 11, 2011)
14. "Kerry, McCain, and Your Online Privacy" April 13, 2011, *The Huffington Post* <[http://www.huffingtonpost.com/ioanarusu/kerry-mccain-and-your-onl\\_b\\_848407.html](http://www.huffingtonpost.com/ioanarusu/kerry-mccain-and-your-onl_b_848407.html)>