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**Web 2.0: Hype or Reality... and
how will it play out?**

A Strategic Analysis

By Brian Skiba, Alexander Tamas and Keith Robinson

White Paper

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1. Executive Summary – Web 2.0

The Internet is currently in a “Back to the future” phase. Occasionally we have to pinch ourselves to make sure we’re not reliving a dream from 1999. Today, Internet companies are cropping up again by the thousands; numerous companies are being bought out by high-flyers and bricks-and-mortar companies. Even the VCs are muscling back into the risk game.

Despite the renewed confidence and interest in the sector, there is a growing divergence between the Internet world of the past and the dynamically evolving “Web 2.0” world, with changing usage patterns, expectations and functionality. We continue to believe the Internet is changing everything everywhere, but that the time frame is always the hardest to call.

We view **Web 2.0** as part hype, part marketing jargon, and part reality, not unlike late-night wrestling. As with any topic concerning the Internet, the debate over definition and existence will go on forever. When the bubble burst in 2000, a lot of energy and brain cells were expended debating whether the Internet was “just fashion?” Yet \$250bn of value has been created by four winners in the space alone (Google, eBay, Yahoo, and Amazon).

Rather than trying to present yet another unique definition for Web 2.0, we rely on some popular ones already in place. Using these accepted definitions, key characteristics for Web 2.0 include interest-based communities, self-expression (including user-created content), a platform environment which can also host third parties, interaction between users and social networking, often combining to drive very high user loyalty. Web 2.0 is also generally built on open, not proprietary software standards. The business model of Web 2.0 companies is typically built around advertising, some subscriptions and some transaction-related or cross-selling revenues driven indirectly, often by third parties, off the site.

This paper looks at:

- the current state of the Internet
- some of the driving forces behind it, including technology, socio-cultural forces and economic changes
- the implications of technology standards, such as RSS/Atom, AJAX and SOAP
- the long-term potential of these technologies on content creation, distribution and aggregation.
- the global geographies, which represent dramatically different penetration and adoption rates, income levels and demographics.

We look at whether there is a particular role that Europe will play in Web 2.0’s development. Historically, the US provided the leadership in the Internet arena, but European companies, such as Skype, have successfully capitalised on Web 2.0, at least in

terms of exit value. We believe that much of the Web 2.0 innovations will be driven by unfulfilled needs, some of which are outside the US and its economy.

Barriers to entry for Web 2.0 companies are lower, yet obstacles to success remain remarkably high. Whereas superior (and often expensive) technology often played a key role in the success of companies born pre-1999, the ubiquity and low cost of today's technology solutions, driven down by ever falling hardware costs and open source software solutions, has created a technology "level playing field". It is no longer technology, but rapid concept traction with users and swift segment dominance, which is the key differentiator, accentuated by the "winner takes all" competitive environment of the Internet.

As they seek to identify and supply community user needs, we expect to see a wave of new companies developing new products and services on the Internet. As the race for users and segment dominance intensifies and spreads, the pace of consolidation is likely step up. We expect companies to be acquired at earlier stages, in many cases instead of further venture funding, as they seek acquirers' user traffic to help them accelerate the path to segment dominance. A few (perhaps a dozen) companies will likely emerge with the critical mass and scale to stand on their own. And we expect many tears to be shed in segments where there are simply way too many competitors.

Looking past the "Web 2.0" name, the movement is very important to monitor. It represents a new phase of value creation and destruction, economic growth, and consolidation that will leave a lasting impact. We believe this wave will be larger than the last, that its impact will be even more substantial, and that the impact is likely to be spread among a broader spectrum of companies. With more than \$5bn worth of acquisitions last year alone, the likes of Yahoo, eBay, Google, Microsoft, AOL and News Corp clearly have this movement at the centre of their radar screen.

2. The Internet: Alive and Well, Growing and Changing

The Internet, over-hyped in the late 1990's, has continued to experience strong growth globally, and is likely to prove more disruptive and dynamic than the post-bubble consensus. We are living through a classic example: overly-optimistic in the near-term and overly-pessimistic in the longer term.

The Internet continues to grow ...

Gian Fulgoni, chairman and co-founder of comScore Networks recently cited a few statistics that put today's Internet world in perspective:

- The US has c. 160m people using the Internet, of which about half have broadband at home. The average narrowband household spends over \$200 per quarter online; the average broadband household spends over \$300 per quarter. While an average person who has been using the Internet for more than ten years spends c. \$700 online per quarter
- This year Americans are expected to spend c. \$148bn online; \$35bn of which will be spent on eBay. \$1bn a year is now being spent on online content. Currently, c. 20% of Americans pay some of their bills online
- For the first time ever, US Internet users will carry out more than 50bn web searches, with the top 20% of searchers undertaking c. 68% of the searching. The average web searcher does c. 34 searches a month
- There are currently c. 87m Internet users in China, making it number 2 in the world in terms of number of Internet users. China is expected to surpass the US in terms of users in the next 5 years. Today, c. 70% of Internet users in China are under 30, compared with c. 30% in the US. There are estimated to be c. 200,000 Internet cafes in China
- A new blog is created somewhere in the world every 7.4 seconds, or c. 12,000 new blogs created every day. Over 400,000 blog posts are posted every day around the world. This implies a blog posting rate of more than 4 per second

Mark Kvamme, a partner at the venture capital firm Sequoia Capital, still sees opportunities in E-Commerce as nascent and large. According to Mark, Korea represents the most advanced country for both broadband penetration and E-Commerce. The Korean government estimates that E-Commerce penetration rate across most business sectors will reach at least 30% by 2006. The US pales in comparison; the penetration rate remains in single-digits. "If we were to see about 10% of the US economy shift to E-Commerce, that's \$1trillion, which can be seen as creating 1,000 \$1 billion companies". While the scenario is unlikely to play out exactly as expected, the belief that the Internet can provide an avenue for growth even in "mature" markets like the US remains high.

Ironically, this wave of Internet growth is in many ways a direct result of the bubble bursting, following the exuberance of the 1990's. This scenario is not without historical precedents. In the mid 1800's, the invention of the telegraph allowed the transmission of words. As a result, 23,000 miles of telegraph cable was laid. A competitive bloodbath ensued, resulting in the price of a transmitted word dropping exponentially to a penny. This helped global and national businesses to flourish, with affordable new communications infrastructure. A quarter of a century later, vast lengths of railroad were laid across the US, and the boom-to-bust cycle left overcapacity. This resulted in radical reduction of transportation costs, in turn contributing strongly to the emergence of coast-to-coast businesses with unparalleled scale. Fast forward another hundred years to the 1990's: we saw some \$30bn of fibre optics spanning 90m miles (equivalent to a ball of yarn wrapped 3,600 times around the earth) being laid. Yet by 2001, a mere single-digit % of this infrastructure was utilised. Of course, broadband has since become ubiquitous and inexpensive (as did storage, computing power and software), and thus the foundation for Web 2.0 began to gel.

Viewing the Internet as some static set of core standards, technology and businesses would be wrong. Some significant changes that will have a lasting impact on the type of applications emerging on the web are underway. In addition, as Internet adoption among the younger generation accelerates, the socio-economic base and interest of use continues to shift, leading to the creation of new businesses by ambitious entrepreneurs. Finally, as Internet usage migrates towards developing countries, innovative new applications and business models are beginning to appear. This is likely to have significant implications for the developed world.

Internet usage continues to evolve ...

Internet usage continues to increase partly because more users are connecting to the Internet, particularly in countries where development is still relatively early stage. But usage by existing users has also managed to climb steadily, demonstrated by a recent Gallop Poll. In general, there is an upward migration of users towards higher usage levels and the number of "casual" users is declining in developed markets.

Gallup Survey on Internet Usage

How much time, if at all, do you personally spend using the Internet – more than an hour a day, up to one hour a day, a few times a week, a few times a month or less, or never?

	More than an hour	Up to one hour	A few times a week	A few times a month or less	No opinion
2005 December	33%	18%	13%	9%	N/A
2004 December	32%	16%	19%	8%	N/A
2003 December	27%	20%	15%	10%	1%
2002 December	26%	16%	18%	12%	N/A

Source: Gallup

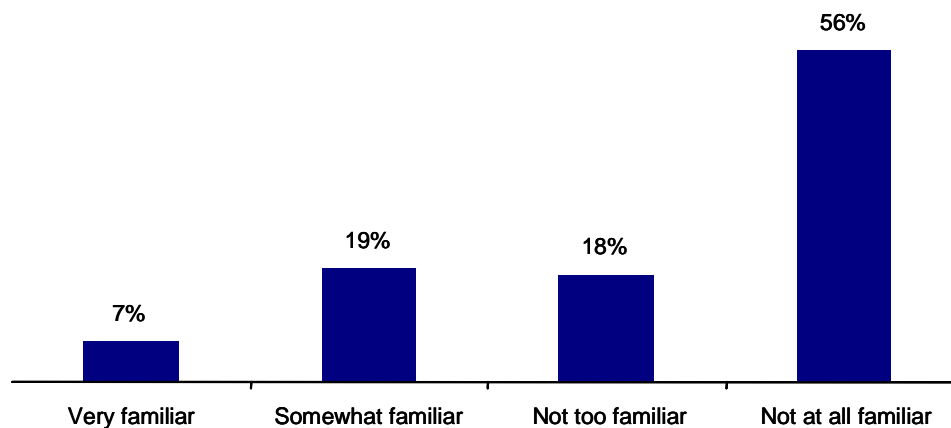
Today things are different for both companies and users

There are many differences between the development of the Internet in 1995 and today. One significant difference is the existence of very large, cash-rich and cash-generative aggregators such as Yahoo, Google, eBay, Microsoft and AOL. These companies have the ability to take-out rapidly growing companies, such as Skype or Flickr, rather than let them grow unfettered to become a large and viable competitor. Though that opportunity was perhaps there in 1995 for traditional media companies, few had the currency, insights or vision to acquire the fledging start-ups. Moreover, the IPO market was vibrant, receptive and generous with valuations, so the preferred exit path was the public currency. Consequently, one of the considerations today, is the creation of what is known in Silicon Valley as the “Bio Wells” (well-funded start-ups with deep management and extremely high velocity growth). These companies are effectively “built for acquisition”, rather than being built to be stand-alone, which often involve long-term brand-building exercise (e.g. Yahoo!)

Internet usage patterns have been shifting dramatically since the Internet began its rapid adoption curve in the mid-1990’s. In a recent survey by Forester Research of 5,000 American and Canadian youths between 12 and 21, this age group spends an average of 11 hours per week on the Internet. As you move down to the lower half of this age group (12 to 17), one in five spends more than 20 hours per week on the Internet. In the mobility area, the survey found 83% of this youthful group uses instant messaging services versus only 32% of the online adults. We see Internet usage shifting to the younger age group, from the US to rest-of-world, from narrow to broadband, and over time from fixed to mobile broadband.

Familiarity with Blogs

“As you may know, there are Web sites known as “blogs” or “Web logs”, where people sometimes post their thoughts. How familiar are you with “blogs”?”



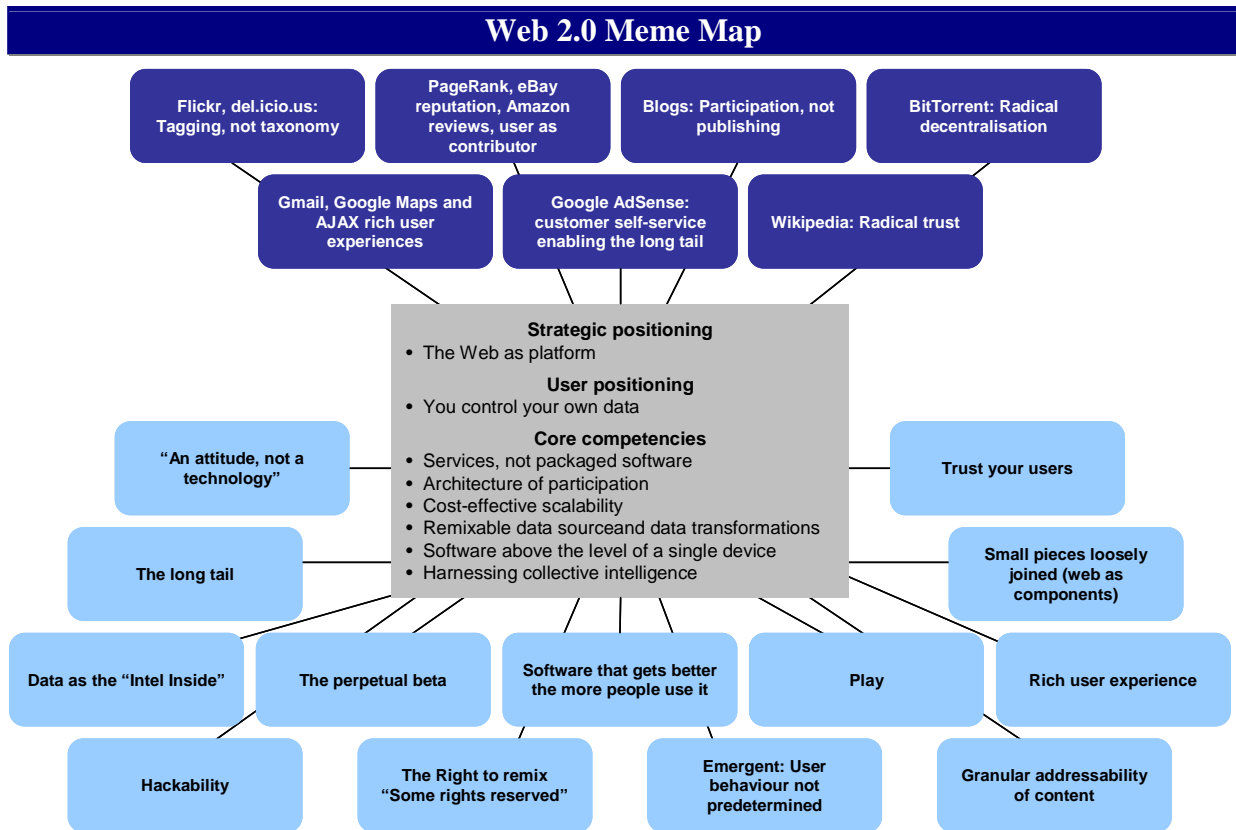
Source: Gallup

Another key difference is the overall cost of developing a website today. Back in the mid-1990s, the combination of proprietary server hardware (usually Sun or HP), custom-developed software, and licensed commercial software (such as an Oracle database) cost hundreds of thousands of dollars to millions of dollars depending on the complexity of the site. Today, commoditised hardware has made sub \$5,000 servers a reality, architectures now enables more efficient implementation of multiple processors, storage is measured in terabytes as opposed to gigabytes. The LAMP package (Linux, Apache, MySQL and PHP) are all open source, and provides a very robust platform for deploying additional software. Frameworks such as Ruby on Rails (RoR), which provide highly, advanced functionality based on the AJAX (Asynchronous JavaScript and XML) standard, are also available free-of-charge. Microsoft alternatives are inexpensive, and offer powerful functions for quick-to-market solutions. Tens of thousands of ready-made libraries of code now are available either free or at extremely low-cost. Finally, Indian programmers are readily available and capable of developing code for complex applications at a fraction of the price their counterparts in the US.

3. Web 2.0 – What is it?

The moniker “Web 2.0” was created during a conference brainstorming session between Tim O’Reilly, founder & CEO of O’Reilly Media and Dale Dougherty, VP of O’Reilly Media. The name is an unfortunate choice. It denotes a “next version” image, when in fact the web remains highly dynamic and evolutionary. It is far less structured than Microsoft-like release dates and fixed functionality.

Jared Spool, founder of User Interface Engineering, notes that “Web 2.0 isn't a 'thing', but rather a collection of approaches, which are all converging on the development world at a rapid pace. These approaches include APIs, RSS, Folksonomies, and Social Networking. These suddenly give application developers a new way to approach hard problems with surprisingly effective results.”



Source: Tim O’Reilly

As technology building blocks move to the forefront of new web site development, more powerful capabilities become available to users with moderate efforts. For instance, a resourceful programmer can quickly marry real estate listing information from Craigslist.com to Google Maps to create an interactive housing viewer. Another example is where a user creates a link between an Amazon book listing and the local public library to determine availability. While these specific examples may sound trivial, they

underline a specific aspect of Web 2.0 programming, i.e. the ability to treat programs in a services architecture model and link discrete and autonomous “components” together to achieve user benefits.

Standards & Technology Building Blocks

The fundamental infrastructure of the Web has certainly not changed, nor have there been any major shifts in the capabilities of operating systems or web browsers for a long period of time. Were all the necessary technologies for Web 2.0 in place earlier? Did people simply not have the vision to recognise the full potential of the Internet as a medium for social networking / collaboration?

This does not seem to be the case. Some high profile Web 2.0 companies were formed long before the term emerged. Had eBay been founded today, it would certainly be classified as a Web 2.0 company. Why weren't more companies like eBay formed? What changed? The answer is not revolution, but evolution of the technologies being used.

Web 2.0 is not tied to any specific standards, software applications, or transmission technologies. Yet the evolution of technology is at the heart of the movement. No major breakthrough in software technology, or the emergence of a new standard can claim to have been the dawn of Web 2.0. Unlike HTML or XML, there is no such thing as a Web 2.0 standard. This makes a precise technical definition difficult.

However, there are certain acronyms that are often connected to Web 2.0, such as AJAX, Atom / RSS, SOAP, REST, LAMP, FOAF, XFN and others – with XML typically being at the core. Some of these standards are quite new and often not well defined. Others, such as SOAP and XML, have been around for much longer. Some of these standards work well hand-in-hand, others are competing and incompatible. This does not sound like a solid foundation for something labelled Web 2.0, and it is not meant to be.

AJAX (**A**synchronous **J**avaScript **a**nd **X**ML) represents a group of standards rather than a new technology in itself. The standards are meant to help with the introduction of a richer user experience, whereby AJAX applications are executed within the client browser environment, which enables user experiences that are similar to using desktop applications (drag & drop, auto-complete, clipboard, menus etc) without having to rely on the availability of high bandwidth. People sometimes mistake AJAX sites for Web 2.0 sites. Gmail, Google Maps and Microsoft's outlook web access all rely on AJAX but do not have the character of the collaborative networking structure associated with Web 2.0. However, AJAX can often be part or be a core component of such sites.

Much simpler than AJAX, but very closely associated to Web 2.0, are the RSS 2.0 (Real Simple Syndication) and the Atom project (IETF standard). These projects are relatively small technology advances, but with wide implications. They enable blogs and other regularly updated websites to be shared easily across different sites. Simple syndication is indeed simple: Atom 1.0 had 21 elements (such as feed, title, link, and author), while

RSS 2.0 had 30. But with these standards, user-created content has a free distribution channel to very wide audiences. Rather than having to check numerous websites, Internet users can follow these sites through aggregators, such as my.yahoo.com, which can incorporate these updates easily. As a result, the attractiveness of Blogging (a key Web 2.0 activity) increased.

LAMP does not refer to anything Web 2.0-specific, but to a software bundle consisting of **L**inux, **A**pache, **M**ySQL and **P**erl/PHP/Python. What makes this “bundle” special is delivery of high quality, reliable and sophisticated open source software to run dynamic WebPages for no or very low license fees. For example, Wikipedia, the largest web-based free-content encyclopedia, runs entirely in a free LAMP environment (the site is available in over 100 different languages; there are more than 500,000 entries for twelve of these languages; several thousand new articles are created each day and the website records more than 1,000 page views per second.) The free software approach allowed Wikipedia to scale with minimal cost. The site is largely paid for by user donations.

The Competitive Implications for Web 2.0

Launching a professional, scalable and dynamic webpage has been possible for a long time. Large amounts of venture funding or profitable business models were crucial for professionally-designed and managed websites to be launched successfully. Proprietary systems were a key competitive advantage and some of these technologies were quickly patented, such as Amazon’s “1-Click” patent or Yahoo’s / Overture’s “Bid-for-placement” patent.

However, over the last four years, the trend of using proprietary systems has faded away. There is a movement towards more open standards that can easily interoperate. Sophisticated programs like “Google Maps” or “Flickr images” can be incorporated into an online offering, without much effort, by using their open APIs. Technologies such as AJAX are relatively easy to learn / implement for anyone who knows XML and JavaScript. To use RSS and Atom, only the most basic HTML knowledge is required. Differentiation by means of technology innovation is becoming increasingly difficult.

In addition, Open Source offerings are slowly turning into highly sophisticated, scalable and reliable software programs, with almost unbeatable price / performance ratios. The cost of deployment for a LAMP environment is a fraction of its commercial alternative.

The implications of a standards-based architecture in low-cost IT ecosystems are significant for understanding the Web 2.0 movement. In this environment, the time to profitability can accelerate quickly. Large rounds of financing, and high cash burn rates are easily avoidable. But there is a flip-side to the coin, as barriers to entry are thus very low and differentiation is hard to achieve. If simply having “the better mousetrap” cannot get the job done, how can companies be successful in this environment?

Since the focus of these networks is user-created content (files, pictures, videos, music, thoughts, knowledge, etc), the underlying technology has the mere purpose of facilitating the sharing of this content with the widest audience possible.

It would be highly inefficient to have incompatible networks addressing the same user base with a similar offering. In the mid- to long-term, we expect to see one or two clear leaders in each of the Web 2.0 subcategories (e.g.. picture sharing, video sharing, social networking, bookmark sharing, professional networking etc), with the exception of regional or very specialised offerings and multiplayer gaming. Gaming is by no means only dependent on its user base. It is positioned at the crossroads between Web 2.0 dynamics and the game publishing environment.

While we do not believe that companies with the most funding or the best technology solution will dominate the Web 2.0 landscape, it is important to point out that “size does matter”. Large content aggregators have the eyeballs that can be converted to members of Web 2.0 platforms. Companies like Yahoo understand the dynamics, and have already bought a number of the early Web 2.0 leaders, such as Flickr and Del.icio.us.

In Web 2.0, network size and activity are the differentiators, not technology.

4. Business Models for Web 2.0 Companies

As with the start of the Internet boom in the mid 1990's, concerns around business models and the ultimate profitability of these Web 2.0 companies comes to the surface.

Some key building blocks for Web 2.0 business models are:

- Commodity hardware, software and broadband to host the business
- Low-cost viral marketing to promote the business
- Powerful network-benefits for all from increasing membership
- Shared, free user-generated content
- Scaleable to hundreds of millions of page hits/subscribers per month

From a cost perspective, most Web 2.0 companies have substantially lower startup costs and monthly operating costs. Few are likely to advertise on the Superbowl. Most Web 2.0 companies use one or more types of revenue streams – advertising, subscriptions, or eCommerce/transactional. In many cases, a blend of two or more of these revenue streams is used. The key to the Web 2.0 business model, like all intellectual property businesses, is the fixed-cost, infinite scalability growth and near-infinite returns above the fixed cost structure. eCommerce-related revenues provide the least amount of scalable returns.

Three revenue examples are:

Advertising: Companies like YouTube.Com are highly profitable after less than a year in operation through highly targeted web advertising. YouTube.Com provides hosting and playback of digital video. As a user searches for, or selects a particular video, the site uses that search/selection as a means to bring up very targeted advertising links. For instance, if you were to retrieve a video on China, you are likely to get travel-related ads for packages to China.

Subscription: Subscription charges have become a small but increasing part of the Internet landscape over the past several years. Despite the perception that all internet sites are “free”, many have developed a hybrid models with some free basic membership and some paid premium capabilities. OpenBC is an good example of this. It provides free membership for “basic” service and more limited capabilities but a monthly subscription charge for its “premium” membership which provides substantially more value and services. The business currently grows subscriptions at about 15% per month and we estimate that a third of subscribers are likely to shift over to premium services.

eCommerce: Companies such as CafePress, Zazzle or ShutterFly are built more around a transactional model for revenue. As you move a digital image to a physical item (a photograph, a coffee mug or a shower curtain), there is a cost associated with that and a portion is shared with the Web 2.0 business. These companies probably focus more on operational excellence on the back-end to achieve their margin structure with modest scale benefits. Craigslist generates its revenue from job listings from employers and supports the rest of the services from this singular source of revenue.

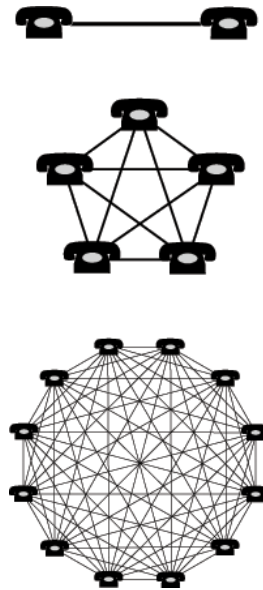
5. Factors Driving the Success of Web 2.0 Businesses

The factors that appear to make Web 2.0 companies succeed are elusive. We've spoken with highly successful companies that have tried and failed to achieve critical mass when trying to develop communities. We see at least five distinct success factors that can play a role in Web 2.0 companies:

1. Early entry / first mover

Being the first website around a community-centric theme is advantageous (providing, of course, that the site offers compelling value to its subscribers). The least common denominator among the successful Web 2.0 sites seems to be the ability to generate a meaningful user base quickly. The sites are generally free of charge and have well thought out graphical user interfaces. Being a first mover helps as it often brings along free word of mouth marketing, and media attention. Once a network increases in size, its value equals approximately the square of the number of users of the system (assuming all users are connected to each other - Metcalfe's law). In reality, not all members are connected with each other and only a small portion of users are directly relevant to a specific user, but the principle remains: *A successful Web 2.0 company is characterised by being able to bring together a large number of users / subscribers and facilitating and encouraging interaction between them.* Skype probably best displayed these phenomena. One of the other factors playing into the "early to market" success factor is the notion of social capital. This represents a commitment on the part of the new community member to develop and establish their presence and to develop their network of inter-relationships. Once this social capital has been committed to a particular network, the barrier to joining the next website becomes greater.

Metcalfe's law



2. Constant improvement, innovation and value

While this may sound trite, a web 2.0 site - whether it is a social or business network, a massive multi-player gaming application, or an interesting blog - must constantly provide new and fresh reasons for members of the community to engage. Lars Hinrichs, founder and CEO of OpenBC refers to this as "refreshing the core". This is achieved by providing reasons for the community members to re-engage in the community on a regular basis. With newly accepted technology standards like AJAX, applications that are both intuitive and powerful can be introduced. Moreover, new features must be added to communities as the subscriber base shifts from the early adapters to the critical mainstream users. With high levels of efficiency in well-connected applications shared by millions, continuous innovation costs can be easily spread out amongst the user base.

3. Local and Global Support

While social and business networks can reach across the vast corners of the planet, most communities tend to be far more local than global. There are a number of reasons for this including language, culture and economics. So while the global economy is at the forefront of everyone's mind, the reality is that the majority of business and social networking is intra-national and often geographically focused (such as a city or metropolitan area). These sites can provide global reach, global scale, but local presence and benefits are also competitively advantageous.

4. A platform for others

Sites that allow others to establish and develop businesses on top of it, serving as a platform for communication and commerce have often distanced themselves from their competitors. Undoubtedly the \$35bn annual "eBay economy" has spawned tens of thousands of small businesses built around the platform and network. Café Press, a click-to-order printing site has built a platform for thousands of businesses to open up virtual stores to offer innovative products.

5. User content as an attraction

Not unlike the shift in television towards "reality-based" programming, the Internet users are finding user-driven content, whether it's Wikipedia, highly visited blogs or shared photos and videos as compelling as, and perhaps even more refreshing than traditional content from magazines, TV networks and film studios. Moreover, the "democratisation of content" becomes almost intoxicating to many, as blogging has to a degree "leveled the playing field" with traditional media sources. These sites can garnish interesting, compelling, provocative and intriguing content and tend to develop extremely high loyalty and usage amongst their network base.

So, while the above critical success factors should be considered, picking the Web 2.0 companies, which will succeed, remains, at best, an art. Web 2.0 success is driven much more by establishing an early presence, building key features and capabilities into the sites, providing contemporary integration capabilities based on industry standards (such as publicly-documented APIs or standards like RSS) and achieving the marketing and viral adoption. It is driven much less by differentiated technology. While this may not be much different from the origins of the current powerhouses of the Internet (Yahoo, Amazon, Google, eBay, AOL, MSN), our belief is that these factors even more acute today, given the reduced barriers to entry.

6. Role of Venture Capital Funding

Web 2.0 companies are less reliant on venture capital funds than their predecessors in the 1.0 phase. There are many factors; among them are limited infrastructure requirements, commoditised pricing on hardware products, rise of non-traditional advertising, and Web 1.0 entrepreneurs with cash.

However, venture capitalists have always provided value in addition to their cash contribution to portfolio companies. Consequently we see extensive investments, particularly by the US West Coast VC community.

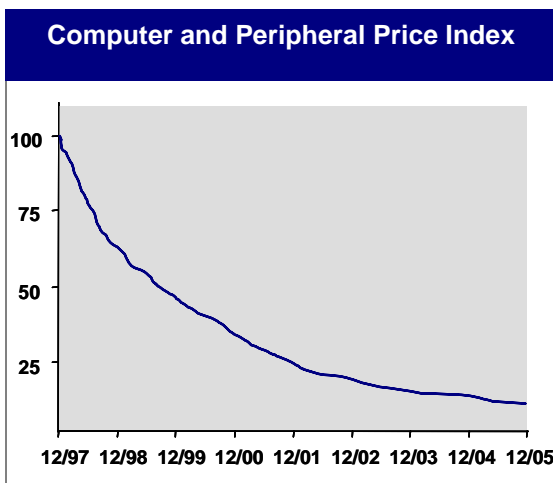
Success will not be determined by capital access or the sheer amount of capital. Web 2.0 will be less capital intensive, more scaleable, and potentially more profitable than its predecessor generation of Internet companies. For large, entrenched companies like Microsoft or Oracle, or a heavily funded VC, this poses a challenge.

Limited Infrastructure

The limited infrastructure needed to start a Web 2.0 company requires minimal capital investment. Countless sites fitting the Web 2.0 profile were established out of the founder's home. For example, Craigslist has only 19 employees and is operated out of a small home in San Francisco. It is one of the more visited sites with over 10 million visitors a month. The small infrastructure requirement, allowed Craigslist to fund most of its operation itself, while the company has grown exponentially. In addition, collaborative efforts in open sourcing projects (like Wikipedia) also require limited corporate infrastructure. The users provide the content on the site. As the site grows in popularity, so does the quantity of information. Once sites attract a large number of subscribers, they will generally have to expand infrastructure as they focus their business model to include various revenue streams.

Commoditised Pricing on Hardware

Along with the small infrastructure requirements, inexpensive pricing on hardware and software allowed Web 2.0 companies to develop with very little capital. During the Web 1.0 phase of the cycle, pricing on items such as servers, computers, and broadband access were expensive. Very few players offered manufacturing or provided service. With the explosion of personal computer usage in the late 1990's, downward pressure has been felt in the pricing of computer hardware, particularly for commodity-based Pentium servers running the Linux operating system. The figure on the left illustrates this as the downward sloping pricing index for computers and peripherals. Commoditised pricing is going to be further felt as emerging



Source: US Bureau of Labour Statistics
Note: Indexed to December 1997 = 100

economies like India and China become players in the world economy. An Indian company, Novatium, plans to offer a low-end PC for \$75. This is part of an increasing trend as more manufacturers offer low-end PC products to the emerging economies. This is likely to result in Web 2.0 startups becoming even cheaper to establish and maintain.

Rise of Unconventional Advertising

Web 2.0 companies have taken on an unconventional advertising strategy. Unlike firms that raised cash through IPO's in the 1990's, Web 2.0 companies have limited budgets to attract subscribers. As a result, creative strategies have been used to attract members. Social network sites such as Friendster and MySpace developed a huge following by allowing subscribers to invite other friends through emails into joining the network. Some Web 2.0 companies get their message out through blogs. Openomy, a file sharing service, has a blog devoted to its service and a community of users can promote the benefits they leverage from the service. Word of mouth is also advantageous for Web 2.0 companies, for example for Lime Wire, one of the more popular file sharing sites. In some cases, a unique site generates a buzz through the media. This was the case for PodDater as it was the first site to combine on-line dating and the popular Apple iPod. These unconventional strategies have enabled Web 2.0 companies to attract the masses without relying on large advertising budgets. Undoubtedly some of the websites we have mentioned will fall by the wayside over the next decade, but unconventional means of driving subscriber acquisition will likely remain pervasive.

Web 1.0 Entrepreneurs with Cash

The tech boom in the last part of the 20th century created a vast number of wealthy young millionaires. It was estimated that during the height of the tech boom a new millionaire was created every 60 seconds. Some of these millionaires cashed out and have started Web 2.0 companies. Max Levchin (Co-Founder PayPal) is a perfect example . He recently started Slide.com. In addition Jim Clark (Co-Founder Netscape) obtained limited funding from a venture capital firm when he started Shutterfly. While not everyone cashed out during the height of the NASDAQ, many young individuals realised significant gains and experienced what a good vision and a unique idea can translate into.

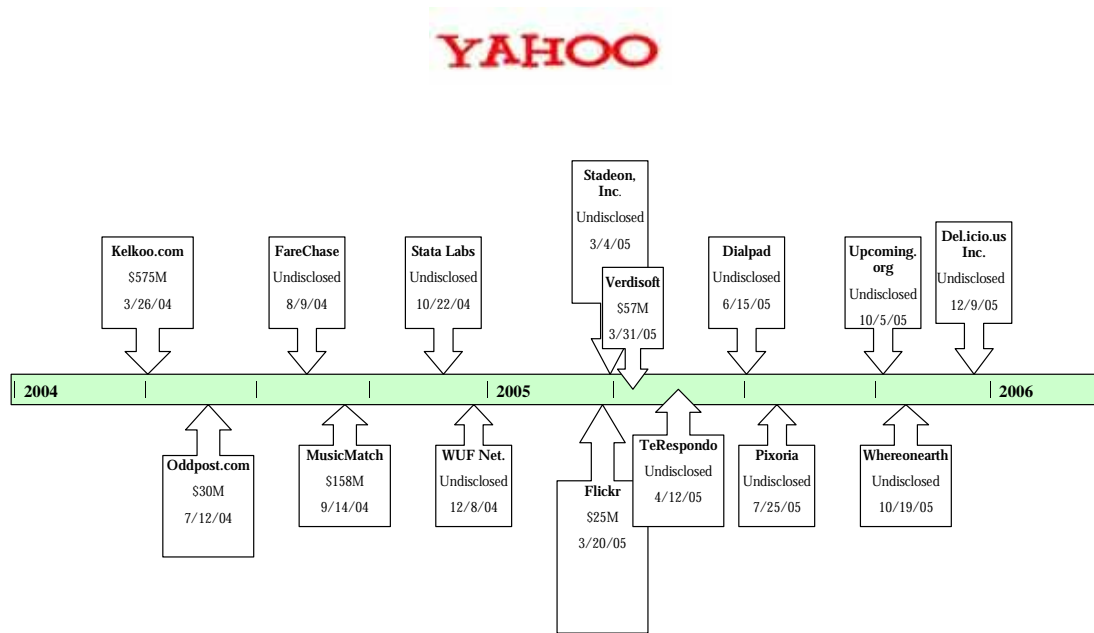
The Aggregators will continue to be busy

We have already seen substantial consolidation between Web 2.0 companies and their suitors. Large, well-capitalised Internet companies (such as Yahoo – see example timeline of activity below) as well as more traditional media companies, such as NewsCorp, are active. We expect the trend to continue and potentially accelerate over the next few years for several reasons:

- (1) Top-line growth has become a focus for US companies again after years of cost-containment and bottom-line earnings focus
- (2) Many Web 2.0 companies can grow to critical mass and be highly profitable very quickly. Timing is important for the buyer, as a single year can mean a 5x difference in price given the velocity of many of these companies.

- (3) Traditional industries, from telecommunications, through magazines, to television are facing huge disruptive effects of the Internet and are truly threatened with extinction this time around

Yahoo Acquisition – 24 month timeline



The IPO Market Needs to Recover in the US – While we see a functioning and perhaps even speculative market in the UK (AIM market) and in Germany, the US IPO market remains largely inaccessible for the smaller growth companies in the technology and Internet sectors. Regulatory burdens (like SOX) have changed the rules for issuers and investment banks alike (including the dismantling of the equities research function, among other effects) and overlay limited investor appetite. This is compounded by the fact that real-estate returns were in triple-digits over the last 3-years. These factors have all collided to make an IPO exit difficult and unattractive for emerging Internet companies in the US. The notable exceptions are Google and the Chinese Internet companies listed on NASDAQ (such as Baidu, Shanda Interactive, Jobs 51 or others). Until we see a signs of a recovery in the IPO market, VCs’ “big play” exits remain at bay. While this clearly is not a show-stopper for VC investment, returns will be skewed to those that can build large companies over time with a public exit.

7. European Web 2.0 Evolution

Skype, whose sale to eBay in September 2005 represented one of the most successful exits of a venture-backed company in history, has gone a long way towards establishing the potential value creation offered by leading European Web 2.0 companies. However, should each of these companies expect to garner a \$4 billion purchase price upon exit? Hardly. Skype was a stand-out in many ways, even amongst an impressive crowd. So what was it, exactly, that drove eBay to spend so much?

eBay has stated that they acquired Skype in order to “remove a key friction”, thereby “accelerating E-Commerce” while also enabling eBay to better address certain markets (e.g. automobiles, industrial machinery, collectibles, etc). Although public opinion casts shadows over whether eBay will ever be able to generate enough value through the integration of Skype into their broader offering to warrant the astronomical price paid, there is no arguing with Skype’s meteoric rise and the statistics that it can tout, including:

- A user base covering over 225 countries and territories
- Availability in 27 languages
- Over 182 million downloads
- 59 million registered users, with membership currently expanding at a rate of c. 67% per quarter
- More than 3 million users using Skype at any one time

Skype, as a functionally rich, user-friendly and massively scalable peer-to-peer network, is perhaps the clearest example of the leverage Web 2.0 companies can achieve. In sharp contrast to the Web 1.0 pattern of raising millions of dollars of venture capital to build proprietary systems, throw extravagant launch parties, and fuel national and/or global marketing campaigns, Skype spent minimally on its technology and, perhaps more importantly, grew virally – with one user inviting new users, and new users inviting more. At the time of its acquisition, Skype was adding upwards of 150,000 new users every day, with customer acquisition costs at a fraction of Web 1.0 levels.

Today, Skype is so pervasive that it has even become its own verb – “to Skype”. There are, however, competing VoIP services offering similar functionality (albeit, perhaps at lower quality), so why was it that Skype exploded as it did while others waffled? One reason is first-mover advantage. Being first to market seemed to be all that mattered during the boom-days, only to be reclassified as “hog-wash” during the downturn. We would argue that, within a rapidly changing environment such as the Internet, being first to market with a great idea does, in fact, offer significant value. However, with all things “Internet”, it isn’t as valuable a concept as it had been portrayed as in 1999, nor is it as evil as thought in 2001. Somewhere in the middle lies the truth.

The second reason is that Skype understands that to encourage the development of a global community means empowering local ones. Web 2.0 ventures that operate on a global level are actually few and far between. Skype, Wikipedia and a handful of others have managed to achieve such scale. They have done this, however, by using country-

specific / language-specific offerings to build a collection of local or regional networks tied together by one over-arching community.

Thinking tactically, perhaps the primary barrier to the development of a global community is language. Furthermore, as Internet usage / adoption continues to grow and as computing / networking costs continue to decrease, the demographic make-up of the global Internet user base is morphing. More and more, it includes the young, the less affluent, and the less-educated. It becomes an “every man’s tool”, moving away from its original intention (for physics researchers to collaborate on PhD projects). Realistically, are these people more or less likely to speak a language other than their own? We believe that, in this construct, regional communities become more powerful, acting as the building blocks to global communities.

The next big thing in Europe?

As we search the European landscape for the next Skype, we notice that many of the current Web 2.0 efforts are regional in nature, adhering to natural borders based on culture and/or language. There are, however, a handful of early leaders in Europe that, having broken through these regional boundaries, are quickly developing user bases in the millions.

Open Business Community (OpenBC), headquartered in Hamburg and founded in 2003, is a global professional networking community which is available in 16 languages (e.g. English, Spanish, French, Dutch, Russian, Japanese and Chinese), and a user base of more than 1m in over 200 countries, growing at 15% per month. More importantly, it achieved all of this BEFORE it raised any institutional venture funding. In an effort to push even deeper into international markets and more aggressively accelerate its growth, the company waited until November 2005 before raising its first institutional funding, amounting to €5.7 million, from Wellington Partners Venture Capital GmbH. OpenBC proved that a paid subscription model can be developed, particularly if the value being added is significant.

Finnish gaming company Sulake is another of Europe’s leading Web 2.0 ventures. Sulake specialises in developing, publishing and distributing multiplayer online communities and games, with primary focus on the Habbo community (Habbo Hotel), an online game environment designed for teens. Since being founded in 2000, Sulake’s Habbo game platform is rapidly become one of the most popular and fastest growing teen websites in the world (40+ million Habbo characters created, 5.4 million unique users each month).

Sulake tapped the private equity markets at a much earlier stage relative to OpenBC, yet it only raised a total of approximately \$7.7 million over four rounds, spanning from April 2001 through November 2003. It wasn’t until the company’s fifth funding round in January 2005 that it raised any serious money – \$23.4 million – led by Benchmark, who was joined by previous investors Elisa Ventures and 3i. This money has been earmarked for the further development of the Habbo Hotel brand, particularly in Asian markets,

including the extension of the concept into mobile games and content, animation series and merchandising products.

Enter the European Venture Capitalists...

With the funding needs of Web 2.0 ventures substantially lower than their first generation predecessors, has the role of venture capitalists been minimised in this new evolution of the Internet? Doubtful. Venture capitalists are, and will remain, a valuable link in the value-chain of the global technology landscape, and Web 2.0 companies, although capable of launching with little money, will need external funding at some point to become global players.

But how will this market play out in the European landscape? Total venture capital investments in Europe historically have been approximately 25% of the US total. To date, Web 2.0 companies have raised a total of c. \$350 million in the US, yet only c. \$40 million in Europe – representing only 12%. This is not surprising given that European VCs tend to lag the US in terms of investment themes by 3-12 months. As a result, we would expect an acceleration of European investing in Web 2.0 companies over the coming months – bringing many more funds into the Web 2.0 game to join the likes of Wellington, Benchmark, Index and Accel, who have already engaged.

Both OpenBC and Sulake raised Series A money that acted more like Series B or C growth-stage rounds. Both of these companies could already demonstrate proof of concept, both already had significant user bases, and both were generating significant revenues. The funding that each company raised was designed to drive further international growth, not merely to get the companies off the ground. By extrapolating from these data points, we would expect most of the early “winners” in Europe to attract venture capital, albeit it at later stages of development, allowing the VCs to wait longer before placing their bets. This does, however, mean that as VCs are likely to come in late, they will buy in at relatively rich valuations.

As we all know, venture capitalists are only as good as their last exit. So with this end game in mind, how should VCs begin looking at this sector in terms of exits? During the Web 1.0 stage, you weren't a player unless you were on track for an IPO. However, the last several years have seen a dramatic shift towards M&A-driven exits motivated by the immediate post-bubble cooling off of the global equity markets.

The European equity markets are, however, regaining some of the momentum lost in 2001. At the same time, European exchanges are becoming more and more attractive relative to the NASDAQ for new foreign listings due to the costs involved with meeting requirements to strengthen corporate governance and financial disclosure brought about by Sarbanes-Oxley. In fact, The Wall Street Journal reported in January 2006 that 90% of money raised by foreign companies occurred on exchanges in London and Luxembourg in 2005, whereas New York held this honor in 2000.

We would, however, argue that M&A will retain its role as THE exit path of choice for the foreseeable future since low liquidity for small-cap stocks do not provide a clean exit for VCs, relegating markets such as London's AIM to being effectively a small-round fundraising forum, not a full exit opportunity. Perhaps the most important factor that will likely sway venture capitalists towards the M&A markets is the fact that, assuming VCs continue to invest in Web 2.0 companies at later stages of their development and therefore at presumably high initial valuations, even higher exit valuations will be necessary to generate meaningful returns for their investors. Although in the current environment IPOs are being priced at substantial valuations, will there be adequate public market appetite to support such rich valuations specifically for Web 2.0 stocks, given how badly we all got burned the last time around? Uncertainty, fear and doubt may mean that the high valuation expectations of VCs will likely only be met by a strategic premium being placed on the business, thereby effectively ruling out the public market as a buyer.

8. Conclusion

We believe the Internet will continue to serve as the basis and catalyst for restructuring of virtually all industries, and be responsible for the creation and destruction of trillions of dollars of wealth over the next decade. Web 2.0, while being part-marketing and part-hype, still represents a class of applications that are real and are likely to dominate usage patterns in the years to come. These applications based on open technology standards drives changes in Internet usage, and will provide higher levels of interoperability.

The Internet is a global phenomenon, and the balance of ideas and power, will still be driven from the US for the foreseeable future. But there will be shifts to Europe and Asia (including China and India) driven primarily by the unique characteristics of these regions (e.g. languages, laws, culture etc).

There are tremendous opportunities for “local” Web 2.0 businesses, particularly in the area of social-networking to be developed in countries and regions as the Internet provides a global platform for local interaction. While the ownership of these Web 2.0 companies may concentrate with large, entrenched US Internet aggregators or global media companies, in our opinion there remain plenty of opportunities to service the local community, while still delivering some of the global benefits. Much like in the real economy, which has local hair stylists, bakeries, florists, health clubs and auto repair shops, the Web 2.0 economy will have thousands of smaller sites that add value and differentiation at a community level. With advanced searching and innovative advertising, these companies will build successful, profitable businesses that may take years to consolidate.

Technology will not be the differentiator or deciding factor in most Web 2.0 businesses. Factors such as marketing, positioning, first-to-market and critical mass are likely to be the main drivers of Web 2.0 businesses. Features and quality will matter (for instance, Skype’s user friendly interface and superior voice quality), and these models will gain significant value through the addition of users, and will likely gain sustainable leading market shares early. Unlike its predecessor, most Web 2.0 sites will be built on readily available technology standards, commoditised hardware / software, and using relatively modest amounts of capital.

Barriers to entry for Web 2.0 companies are likely to remain relatively low. From our studies of economics, we expect to see many of these businesses failing, or surviving but earning only a marginal return. To the victor go the spoils in these highly leverageable businesses. Consequently we will see a few companies in each category achieving the critical mass and scale which allows them to separate themselves from the crowded field and creating substantial and sustainable value. While the potential for value creation far exceeds that of the first wave of the Internet, we expect Web 2.0 to be more geographically diverse. We believe that much of the value creation will come at the expense of the traditional industries, which will face unprecedented challenges. Telecommunications is an obvious and noteworthy example. We believe that few, if any industries will escape unchanged.

Appendix A: Web 2.0 Companies US

<i>Basecamp</i>	25
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Description:

Basecamp is web-based project management application. The service allows employees to collaborate on various tasks including (1) post messages and gather feedback (2) share calendars, (3) file sharing internally and externally, (4) track employee's time on competing projects. Over 100,000 people and small businesses from various professions use Basecamp for their project management solutions. Basecamp has received various accolades including articles in the Wall Street Journal, New York Times and Business Week.

Category:

Project Management & Team Collaboration

Founders:

Basecamp is a subsidiary of 37 Signals which produces various web based applications. Basecamp was founded in Feb. 2004 by Jason Fried, Ernest Kim, and Carlos Segura.

Funding:

The company has no outside partnerships.

Business Statistics:

There are five plans that the company offers to users. The free plan is targeted towards consumers and only allows one project to be managed. The most popular plans tailored for businesses range from \$24mo-\$99mo. The major difference in the plans is the storage space included. The majority of the 100,000 people using Basecamp are consumers who subscribe to the free plan. The company is debt free and advertising expenses are virtually nonexistent as marketing is done through weblogs.



Description:

Started in 1999, Cafepress allows people to create customized merchandise (T-Shirts, Bumper Stickers, Mugs, Calendars) on-line. The creators of the merchandise can simply purchase the customized products or sell them in an on-line store where they receive royalties for sales of the items. The marketplace has offered over 20m unique designs, available in more than different 80 customisable products.

Category:

Customised Marketplace

Founders:

Founded in 1999 by Fred Durham and Maheesh Jain

Funding:

August Capital, Sequoia Capital, PacRim Venture Partners (lead investor), New Millennium Partners, Staenberg Private Capital LLC

Business Statistics:

Cafepress has over 2.5M members worldwide and employs over 200 people. The site averages 6M unique visitors a month, with 25,000 items added to the marketplace a day. With nearly half a million t-shirts sold in the first five years of operation they are the most popular product sold. The company is profitable.



www.calendarhub.com

Description:

CalendarHub is a free service that allows subscribers to access a secure web based calendar. One of the valuable options of the service is alerts for upcoming events via email/cell phone for upcoming events on a user's schedule. Access to view the calendar can be set so (1) the creator of the calendar is the only one to view (2) calendar sharing is set up so where the creator of the calendar provides emails of people to have access and CalendarHub sends email invites to these people (3) the calendar is openly published on the web for anyone to view. CalendarHub supports synchronization with other calendar programs such as Outlook, Yahoo Calendar, iCal, and many others using. Users can also export calendars into Excel or Word. Currently CalendarHub is released as a Beta version.

Category:

Online Calendars

Business Statistics:

CalendarHub was recently released and is still in Beta testing. No business statistics are available at this time.



www.clipmarks.com

Description:

Clipmarks is a free service that allows users to clip pieces of information from the web and store the information in a database. Rather than bookmarking the webpage Clipmarks is convenient because it allows members to only clip a portion of an article. Clipmarks offers free memberships and users can also search what other users are clipping by searching the public clips tab. Clippings can be organized through tags or in folders and can be shared with the on-line members or kept private. Currently, video files can't be clipped, but the company plans to offer this service in 2006.

Category:

Social Bookmarking

Founders:

Eric Goldstein (Co-Founder), Derek Krzanowski (Co-Founder) in Sept. 2005

Funding:

Not Available

Business Statistics:

The business model is still evolving, but will be based on an advertising model.

[craigslist](http://www.craigslist.com)

online community www.craigslist.com

Description:

Craigslist is an online community bulletin board where people can post or view listings for jobs, housing, companionship and dating, furniture and other used items, events, and additional community information. The site is free except businesses posting help wanted ads in SF (\$75), NYC (\$25), and LA (\$25) where Craigslist charges a fee that is nominal fee compared to the other on-line job search sites. The on-line community of craigslist users is worldwide and is primarily in metropolitan areas.

Category:

On-Line Classified

Founders:

Founded by Craig Newmark in 1995

Funding:

Ebay purchased 5% in Aug. 2004 from a private investor. There are no Venture Capitalists invested in Craigslist.

Business Statistics:

According to the Craigslist website facts sheet there over 10M people that use the site a month and view over 3 billion pages. The company is believed to be profitable with all revenues generated from the fees charged to business for advertising job openings. Additionally, revenue was estimated at \$10M in 2004.



www.dogster.com

Description:

Dogster.com and its sister site Catster.com is one of the fastest growing pet sharing sites on the web. Subscribers can upload pictures of their pets and share them with the online community. The site also offers other various services centered around pet care including classified ads and products for pets. In 2005, dogster was awarded a webby award for best community web site and the SXSW People's Choice Award.

Category:

Social Networking/Pets

Founders:

Founded by Ted Rheingold in 2004

Funding:

The firm did not seek venture capital backing.

Business Statistics:

According to dogster's homepage there are over 500,000 monthly visitors to the site and 125,000+ members. Additionally, according to founder Ted Rheingold the company is profitable.



www.facebook.com

Description:

Similar to MySpace, Facebook is a social networking site specifically targeted towards students. Users create on-line profiles and can upload photos and videos. The site allows students to limit the viewing access to restricted groups. Originally, Facebook was geared towards universities in the United States; however they have expanded to high schools and universities worldwide.

Category:

Social Networking

Founders:

Founded by Mark Zuckerberg, Chris Hughes, Dustin Moskovitz in 2004

Funding:

Accel Partners Series A (\$12.7M), Peter Thiel (\$.5M),

Business Statistics:

In a recent seminar on Oct 5 at the Stanford Entrepreneurial Thought Leaders Seminar Mark Zuckerberg disclosed that Facebook has (1) 5M+ registered users (2) 45% coverage

of U.S college campuses, (3) 80% penetration among students that are on the platform, (4) 20,000 new registered users a day, (5) revenue from ads and sponsored sites rakes in the bucks -- upward of six figures a month, Zuckerberg said.



Description:

Friendster is a free site that allows members to self express themselves through their own webpage. Every user creates an online identity by filling out a questionnaire profile and uploading a user picture, and then defines a gallery of friends, and the service then integrates these galleries, allowing a user to search through a list of their friends, their friends' friends, and so on. This service makes it possible to expand friendships as friends of friends can now meet online. The company's competitor is MySpace which was recently bought out by News Corp.

Category:

Social Networking

Founders:

Founded by Jonathan Abrams in 2002

Funding:

Battery Ventures, Benchmark Capital (co-lead investor), Kleiner Perkins Caufield & Byers (co-lead investor)

Business Statistics

According to Friendster's homepage there are over 21 million members worldwide. Additionally, the company has 50 employees.



Description:

Homestore operates realtor.com which profiles over 1.2 million homes for sale throughout the United States and is the largest publisher of real-estate in the world. Homestore also offers profiles for home and apartment rentals as well as short term corporate apartment rentals. Profiles include virtual tours and pictures, brief descriptions of the property, as well as contact information for the broker selling the home. The company has key relationships with industry players including the National Association of REALTORS (NAR) and the National Association of Home Builders. The majority of revenue comes from agents that list property on the site, but a portion is derived from advertisement banners.

Category:

Interactive Home-Buying

Founders:
Stuart Wolff

Funding:

Homestore completed a \$140M IPO on 8/4/99 and is listed on the NASDAQ (HOMS). In Nov. the company sold \$100M in preferred stock to Elevation Partners L.P.

Business Statistics:

Homestore has a market cap of \$916.24M. The company has yet to report 2005 earnings, but in 2004 revenue was down 1.8M to \$216.9M. Net Income in 2004 was (7.9M) vs. (47.2M) in 2003. The company's business model is based on collecting fees from brokers for listing homes on the site.

HousingMaps



www.housingmaps.com

Description:

HousingMaps is a free service that combines postings from Craigslist with Google Maps to show a map with houses and apartments for sale or rent. Users click on a balloon from Google Maps and instead of just the usual address info you normally get on Google Maps, you get the basic info on the property including the price, complete with thumbnail images. The balloons are link to Craigslist links and users can also get the contact info to inquire about the property. The company has received various accolades praise from a number of media organizations including the New York Times and the Economist.

Category:

Home/Apartment Searching

Founders:

Founded by Paul Rademacher in April 2005

Business Statistics:

In Sept. 05 it was estimated that the site had been visited by more than 850,000 people. Currently, the site has about 40 cities to search in the U.S and Canada with more expected.



www.limewire.com

Description:

LimeWire is one of the world's fastest growing free open source file sharing program. LimeWire allows users to share movies, pictures, games, music, and text. Recent upgrades to the LimeWire software guarantee no adware or spyware and faster download speeds. Additionally, LimeWire was the first file sharing program to support fire-wall-to-firewall file transfers.

Category:

File Sharing

Founder:

Mark Gorton

Funding:

Lime Group

Business Statistics:

Limewire offers free service to members as well an enhanced version for a one time subscription fee of \$18.88. Currently, the company does not offer advertising on the Limewire site, but may in the future. It is one of the fastest growing file with over 2M members.

openomy

www.openomy.com

Description:

Openomy is a free online service that allows members to store up to 1 GB of data on the web. The site also allows users to organize their files in a user friendly manner using tagging and is secure so outside parties can't view unauthorized files. In addition, users can share files with other parties through the openomy website.

Category:

3rd Party Online File Sharing

Founders:

Founded by Ian Sefferman in November 2005

Business Statistics:

According to an interview given by Ian Sefferman he believes the business model will probably be subscription-based, supporting smaller, free accounts with a little bit of ads. He envisions the business model being analogous with Flickr. Sefferman also disclosed that openomy gets about 2,000 visitors a day to the site and growing.



Description:

A free dating service that distinguishes itself from other services by allowing members to add a video profile that can be downloaded to an ipod. The videos can be uploaded to the site by several cell phones with video capability, digital cameras, and mini-DV cameras. Free memberships allow users to vote and make comments on videos, tag profiles, and syndicate your search preferences.

Category:

Dating

Founders:

Founded by Roopan Dey and David Hunegnaw in November 2005

Business Statistics:

There is limited information on the number of users as the website was recently launched (Nov. 16, 2005).



Description:

PubSub is a free service that allows subscribers to monitor the web for particular subjects they find of interest. For example, if a person is interested in the Olympics they can enter the phrase in the search field and the proprietary search engine will constantly search over 21M source for articles or weblogs pertaining to the Olympics. PubSub will alert the user anytime articles are found using RSS (Really Simple Syndication) or through the IM based PubSub Sidebar, now available as a plug-in for the Firefox and Internet Explorer.

Category:

Rolling Search Engine

Founders:

Founded by Bob Wyman (CTO) and Salim Ismail (CEO) in 2002

Funding:

Business Statistics

According to ComputerWorld there are over 200,000 subscribers. The search engine tracks over 14 mill blogs.



THE ONLINE LEADER IN COLLEGE SPORTS www.rivals.com

Description:

Rivals.com is a subsidiary of Jabez Networks. and is an online service dedicated to college athletics. The site offers both free content and paid subscription access and is mainly dedicated to college football and basketball. Some of the many services the site offers are videos and interviews of athletes, message boards where fans can interact with one another, real-time broadcasting of athletic events, rankings by the rival's editors on various universities recruiting classes, and a stock exchange a service where the editors analyze the stock of the various college players. In 2001 Rivals.com was sold in a liquidation sale to Jabez Networks and has since turned the company profitable. Rivals.com competitor is Scout.com which was bought by News Corp. for an undisclosed amount in Aug. of 2005.

Category:

Information Source/Blogging

Founders:

Jim Heckman

Funding:

Company was sold in a liquidation sale to Jabez Networks

Business Statistics:

According to the Rivals website there are 180,000 subscribers and 1.7M registered members. Subscription fees are \$9.95 a month or \$99.95 annually and the Washington Post reported that the average user of the Rivals site spends nearly an hour at a time on the site. In addition, Rivals became profitable in 2003 and many large companies like Pepsi, Volvo and Maxim started to advertise on their website.



Description:

Shutterfly is an e-commerce service that allows consumers the ability to share, edit, and store digital photos through its Web site. In addition, the site also allows consumers to put digital photos on mugs, T-shirts, mouse pads, or customized greeting cards and calendars. The photo editing service allows pictures to be modified for red-eye as well as contrast.

Category:

Photo-Sharing

Founders:

Jim Clark and institutional investors listed below.

Funding:

Adobe Systems, Big Basin Partners / Timark, Comdisco Ventures (co-lead investor), Epoch Partners, Granite Ventures, Mitsubishi Electronics America, Mohr Davidow Ventures, Monaco Partners (co-lead investor), Silicon Valley Bank, Sutter Hill Ventures (co-lead investor), Texas Instruments

Business Statistics:

According to Nov. 21 edition of Red Herring Shutterfly has 3.5 million users and has been profitable for the last three years.



www.slide.com

Description:

While currently in Beta testing, Slide allows photos to be organized by members and groups in slide shows that stream continually across the site. Additionally, the slide player can be downloaded to a desktop and viewed. Slides can be augmented from photo services like Flickr or social networking sites like MySpace, Orkut, and Friendster.

Category:

Social Networking/Photo Sharing

Founders:

Founded by Max Levchin in 2004

Funding:

N/A

Business Statistics:

Currently, only the Beta version is released and no subscriber information is available.



www.technorati.com

Description:

Technorati is a unique search engine that allows users to search blogs by key words. In addition, Technorati also displays the most discussed blogs on the web to give searchers an idea of what's popular amongst webbloggers. The site includes tabs that narrow blogging down to news, books, and the top 100 blogs.

Category:

Blog Search Engine

Founders:

Dave Sifry (CEO) founded Technorati in 2002.

Funding:

Draper Fisher Jurvetson (\$6.5M est.),

Business Statistics

According to Technorati, there are 700,000 Weblog posts daily.

43 Things www.43things.com

Description:

43 Things is a free social networking site that is built on the principles of tagging, rather than creating explicit interpersonal links (as seen in Friendster and Orkut). Users list 43 goals they want to accomplish in their lives. Some goals include traveling to a foreign country or losing weight. Once these goals are established 43 Things pair's members with similar goals together and members communicate and encourage other members to meet their goals. In 2005, 43 Things won the Webby Award for the best Social Networking site. Additionally, the site also has two sister sites in 43 Places and 43 People.

Category:

Social Networking

Founders:

Founded by Erik Benson, Daniel Spils, and Josh Petersen in 2005.

Funding:

Amazon

Business Statistics:

According to the 43 Things website there are 188,568 subscribers in 4,454 cities around the world.



www.videoegg.com

Description:

Video Egg is a fee based video publishing service that allows users to upload videos from various devices including cell phones, video cameras/digital cameras, and web cam's. It's very convenient to publish video on the site as a drag and drop feature allows the user to effortlessly publish video. Additionally, the site is compatible with hundreds of different video formats. Users typically utilize the service to publish video for online auctions, dating, and blogging.

Category:

On-line Video Sharing

Founders:

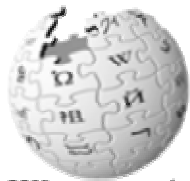
Founded by Kevin Sladek, Matt Sanchez, and David Lerman in September 2005

Funding:

Series A: First Round Capital, Jack Rivkin and private investors

Business Statistics:

Monthly packages run from as low as \$4.95 a month to \$14.95 for the service. They offer yearly packages for a slight discount.



WIKIPEDIA
The Free Encyclopedia

www.wikipedia.org

Description:

Wikipedia is an open-source web based encyclopedia with more than 3,100,000 articles that allows users to create and edit entries. To safeguard the integrity of information a committee of Wikipedia members monitors new entries and updates. The Wikimedia Foundation also offers various other open-source sites include a dictionary/thesaurus service (Wiktionary) and a text sharing site (Wikibooks).

Category:

Open Source Information

Founders:

Founded by Jim Wales (Chairman) and Larry Sanger in 2001

Funding:

The site is funding by donations and no venture capital firms are included.

Business Statistics

According to Alexa Internet in PC World Magazine Wikipedia receives approximately 50 million hits every day and ranks number 63 among the most visited English-language websites.



Description:

Founded in Feb 2005, YouTube is a consumer media company for people to watch and share original videos worldwide through the web. Members can upload videos up to 100 MB in size and is compatible with various media formats (AVI, MOV, and MPG). Users can search for videos by entering common search terms, or they can browse through videos based on channels of interest, popularity, user rankings, most recently viewed videos and featured videos selected by community recommendations. Additionally, users also can register for a YouTube account and create a personal network of videos. Once completing a simple registration process, they are able to save their favorite videos creating play lists of videos and connect with other users to watch personal videos.

Category:

Video Sharing

Founders:

Founded in Feb. 2005 by Chad Hurley and Steve Chen

Funding:

Sequoia Capital (\$3.5M)

Business Statistics:

YouTube has over 3M videos on the site and move the equivalent of two Blockbuster stores everyday over the internet. Additionally, the site has over 8,000 videos uploaded a day. Currently, the site is free, but there is a possibility that short advertisements will be added at the begging of the video clips to generate revenue.



www.zazzle.com

Description:

Zazzle allows consumers to create customised products including t-shirts, posters, cards, and stamps on-line. Examples include JPEG images and text being added to a t-shirt or mug and being purchased on the site. Additionally, the newly created item can be added to the Zazzle gallery where the creator of the product receives a 10% of the item sales as a royalty fee. The gallery includes thousands of products created by customers. Many large corporations have licensed images to Zazzle users including Disney and Marvel Comics.

Category:

Customized Marketplace

Founders:

Founded in 1999 by Robert Beaver, Jeff Beaver, Bobby Beaver, and Matt Wilsey

Funding:

Kleiner Perkins Caufield & Byers (lead investor), Sheralo Ventures

Business Statistics:

Zazzle business model is based on revenue from visitors creating customized t-shirts, posters, cards, and postage for a fee. A tee-shirt can be purchased for \$14.95 and includes a JPEG image as well as some text. In addition, the t-shirt can be included in the Zazzle catalog and the designer will receive a 10% royalty fee from the sale of the t-shirt. The company has 100 employees based in Palo Alto. The company competes with CafePress.com.

Appendix B: Web 2.0 Companies Europe

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www.asmallworld.net

Description:

aSmallWorld, headquartered in the UK, is an invitation-only online community which is not open to the public and is exclusively designed for those with existing strong connections with one another. The network allows its members to connect, reconnect and interact with like minded individuals who share the same circle of friends and interests.

Other features include a forum of diverse topics, groups for those with common interests, listings of events around the world, a personal messaging service, suggestions and ratings for travel and restaurants, and city-based resources.

Category:

Business Networking

Founders:

Erik Wachtmeister (CEO) founded aSmallWorld in 2004

Funding:

Membership is free. The company charges for advertising within its community



www.busythumbs.com

Description:

BusyThumbs.com, headquartered in the UK, gives registered users the ability to create multiple moblogs (mobile phone web logs), which can be updated either via the website or via their MMS enabled mobile phone. BusyThumbs is a free service with the exception of fees set by the mobile phone provider for sending an MMS

Category:

Mobile Social Software



connecting business people

www.ecademy.com

Description:

Ecademy, headquartered in the UK, provides business introductions, referrals and trading, advertising for businesses and admission to networking events around the world. The company's website provides tools to build and manage networks and businesses and facilitates the sharing of help, knowledge and advice from professional business brains

Category:

Business Networking

Founders:

Penny Power founded Ecademy in 1998

Funding:

The company charges for advertising and has membership fees ranging from \$25-\$6,200 per year dependent on the network services required

Business Statistics

- The company has c.70,000 members
- Ecademy has an existing presence within the US, Asia-Pacific, India, Benelux, Scandinavia and Japan



www.everyonesconnected.com

Description:

Everyones Connected is a free networking and photo sharing community for friends and family. This network allows users to chat online with other users and to post photos that can be viewed by other users from within their particular network

Category:

Friend Networking

Founders:

Founded in 2002

Funding:

Membership is free. Information on the company's funding is not available



www.fotothing.com

Description:

Fotothing, headquartered in the UK, allows you to share photos with your friends, family and the rest of the world. Other users can post comments on your photos, and the most recently updated Fotothings appear on the home page

Category:

Photo Sharing

Founders:

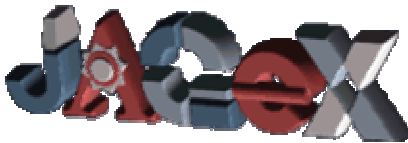
Dom Ramsey (year founded unknown)

Funding:

Membership is free. Information on the funding of the company is not available

Business Statistics:

- In July 2005, Fotothing was acquired by ADVFN plc, a european stocks and shares website. ADVFN also owns the free dating site CupidBay



www.jagex.com

Description:

Jagex, headquartered in the UK, is a provider of multiplayer online games. The company's offerings range from smaller, free-to-play, mini-games to its flagship online 3D adventure game. The game is played primarily via the company's web site, or via partner sites, allowing members to play anywhere

Category:

e-gaming

Funding:

To date the company has had one round of financing on the 25th October 2005. The amount raised was withheld. The financing was provided by Insight Venture Partners

Business Statistics:

- The company was founded in 2001
- 140 employees

- Jagex has over 3.5 million active players and 500,000 paying subscribers



www.kickstart-connect.com

Description:

Kickstart Connect, headquartered in the UK, provides email groups with ongoing interaction with other members of a similar position. It facilitates bulletin boards which allow users to turn virtual discussions into “real world” face to face interactions, expanding networks of friends and associates. These bulletin boards can be used for posting and finding opportunities for skill swaps, freelance projects and job opportunities. The UK wide networking calendar allows users to choose between various events on offer in different areas as well as contribute details of groups that the user is a member of

Category:

Business Networking

Founders:

Lois Dunn and Bill Morrow founded Kickstart Connect in 2004

Funding:

Membership is free. Information on the company’s funding is not available



www.mamjam.com

Description:

Mamjam, based in the UK, is a location-based instant messaging platform for mobile phones. Mamjam provides a system that references a user’s location in real time and alerts users via a text message when they are both in the same location. That is, when two or more members happen to be within a certain distance of each other Mamjam will send the profiles of each member to the others alerting them that they are in the same location. The service is network-independent and works on all existing GSM mobile handsets

Category:

Mobile Social Software

Founders:

Founded in 2002

Funding:

The company charges £1.50 for 3 chat messages, plus the normal network charges for sending messages (system messages are c.5p).



www.mediabuddies.com

Description:

Headquartered in the UK, Mediabuddies.com is a reunion and networking club for the exclusive use of those working in or retired from the international media industry. Membership is free and also includes access to exclusive services such as jobs, freelance work, and future events

Category:

Business Networking

Founders:

David Davis

Funding:

Membership is free. Information on the company's funding is not available

Business Statistics:

- 1,500 members



www.mobiluck.com

Description:

MobiLuck, headquartered in France, provides a service that detects all nearby Bluetooth devices allowing cell phones to ring or vibrate when it finds one. This enables users to send messages and photos for free to friends or strangers with no need for phone numbers.

Mobiluck also lets users send and receive profiles from other Mobiluckers including their photo

Category:

Mobile Social Software

Founders:

Officially founded in 2003

Funding:

MobiLuck is a joint-stock company with a Management Board and a Supervisory Board, with stated capital of €16,800 and is hosted by Télécom Paris



www.mooble.com

Description:

Mooble, headquartered in Ireland, enables users to chat online, through video or through audio with friends without the need for downloading. The free networking service, allows members to join an interest group or announce an event as well as sharing pictures with friends or the world. Other features include blogging, personal voice greeting and speed dating

Category:

Friend Networking

Founders:

Information not available

Funding:

Membership is free. Information on the company's funding is not available



www.openbc.com

Description:

OpenBC, headquartered in Hamburg, Germany, is a subscription-based e-business networking platform for professional and secure contact management and networking in Europe and Asia. The company offers search engines, telephone conferences, event management, a database of information on business managers, along with language translations for English, Spanish, French, Dutch, Chinese, Finnish, Hungarian and Japanese. It's Premium Membership enables members to access advanced search options to find international business contacts, contact other members via a private messaging board and invite an unlimited amount of members to private and business events. Interestingly, the OpenBC members sponsor over 100 physical events globally each month. We estimate the company to have over 150 million page views per month putting

it amongst the most trafficked websites in Europe. We also estimate that over 15 million searches on members are performed each month.

Category:

Social networking

Founders:

Lars Hinrichs (CEO) founded OpenBC in 2003

Funding:

To date, there has been one round of financing totaling c.€5.7 million. Investors include Wellington Partners Venture Capital and (unknown) individual investors. The company is profitable and cash-flow positive.

Business Statistics:

- The service is offered in 16 languages
- Growing membership of 15% per month
- The company has more than 1 million users

Senior Management Network

www.senior-management-network.co.uk

Description:

The Senior Management Network, headquartered in the UK, enables members to find expertise, knowledge and advise to help with business problems from various business minds throughout the world. This service lets users expand their network, meeting like minded people in order to bounce ideas off, share business knowledge and be exposed to potential career opportunities

Category:

Business Networking

Founders:

Information not available

Funding:

Membership of the Senior Management Network costs £15.00 per year



www.sulake.com

Description:

Sulake, headquartered in Helsinki, Finland, is an interactive entertainment company specializing in developing, publishing and distributing multiplayer online communities and games for teenagers. The company's flagship product, Habbo Hotel, is a virtual hotel chat room allowing visitors to enter and chat online for free, but must pay for virtual furniture and other items either by using SMS, credit cards, interactive voice response (IVR) or prepaid cards.

Category:

Gaming community

Founders:

Sampo Karjalainen (CCO), Jussi Nurmio (Chairman) founded Sulake in 2000

Funding:

To date, there have been 5 rounds of financing totaling c. €25.7 million. Investors include 3i Group, Benchmark Capital, Elisa Ventures, Fifty Fifty and Tavius Group

Business Statistics:

- According to Sulake, the company operates in 16 countries with nearly 4.5 million visitors monthly. A total of 30.5 million users were registered in 2005
- 218 employees
- Office locations include Australia, Canada, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Singapore, Spain, Sweden, UK, Switzerland, US
- Revenue grew from c.€4.9 million in 2003 to c.€13.8 million in 2004
- The company has experienced 8,173% growth in revenue over the last 5 years (according to Deloitte Tech Fast 500 EMEA)



www.txtparty.com

Description:

Txtparty, headquartered in the UK, enables photosharing and online chat with other users within a live chatroom. The network allows users to play free interactive photo games in order to win prizes. It also provides a world ranking system for photos, along with a service whereby members can send text messages to friends, find new friends as well as potential dating partners that live nearby

Category:

Mobile Social Software

Founders:

Information not available

Funding:

TxtParty is a free 24 hour online party site. Information on the company's funding is not available



www.zopa.com

Description:

Headquartered in the UK, Zopa is a provider of an online personal finance exchange. Zopa provides a web site which enables users to lend or borrow money from each other. The company's technology allows the pooling of lenders and borrowers in order to reduce risk. Zopa also acts as the agency of repayment for the lenders, and derives its revenue from borrower fees and from commissions received on borrower repayment protection insurance

Category:

eCommerce

Founders:

Richard Duvall (CEO) founded Zopa in 2004















Funding:

To date there has been one round of funding headed by Benchmark Capital and Wellington Partners Venture Capital. Amount invested was withheld.

Business Statistics

- The company charges borrowers an exchange fee of 1% and offers a repayment protection insurance from which they receive commission
- 24 employees

Arma Partners Announced Transactions

<p>January 17, 2006</p> <p>Undisclosed</p>  <p>has been acquired by</p>  <p>Arma Partners acted as exclusive financial advisor to KreateL Communications AB</p> <p>Armapartners</p>	<p>June 2, 2005</p> <p>\$55,000,000</p>  <p>has been acquired by</p>  <p>Arma Partners acted as exclusive financial advisor to Inca Digital Printers Ltd</p> <p>Armapartners</p>	<p>April 21, 2005</p> <p>Undisclosed</p>  <p>has been acquired by</p>  <p>Arma Partners acted as exclusive financial advisor to Cirpack S.A.S.</p> <p>Armapartners</p>	<p>December 20, 2004</p> <p>\$94,000,000</p> <p>SESA</p> <p>has been acquired by</p> <p>TietoEnator^{IE}</p> <p>Arma Partners acted as exclusive financial advisor to S.E.S.A. AG</p> <p>Armapartners</p>
<p>December 2, 2004</p> <p>Undisclosed</p>  <p>has been acquired by</p>  <p>Arma Partners acted as exclusive financial advisor to Ubitrade SA</p> <p>Armapartners</p>	<p>November 8, 2004</p> <p>\$52,000,000</p>  <p>has been acquired by</p>  <p>Arma Partners acted as exclusive financial advisor to Mosaic Software Holdings Ltd</p> <p>Armapartners</p>	<p>October 4, 2004</p> <p>\$112,000,000</p>  <p>has been acquired by</p>  <p>Arma Partners acted as exclusive financial advisor to Dione Plc</p> <p>Armapartners</p>	<p>April 27, 2005 February 8, 2005 August 3, 2004</p> <p>\$45,000,000 (agg.)</p> <p>Anite Group's disposal of:</p> <p> to </p> <p> to </p> <p> to </p> <p>Arma Partners acted as exclusive financial advisor to Anite Group plc</p> <p>Armapartners</p>
<p>January 26, 2004</p> <p>\$44,000,000</p>  <p>has been acquired by</p> <p>Avid</p> <p>Arma Partners acted as exclusive financial advisor to NXN Software AG</p> <p>Armapartners</p>	<p>December 23, 2003</p> <p>Undisclosed</p> <p>Apax PARTNERS</p> <p>And other investors have acquired</p> <p>CARTESIS[®]</p> <p>Arma Partners acted as exclusive financial advisor to Apax Partners</p> <p>Armapartners</p>	<p>November 4, 2003</p> <p>\$210,000,000</p>  <p>has been acquired by</p> <p>Novell</p> <p>Arma Partners acted as exclusive financial advisor to SUSE Linux AG</p> <p>Armapartners</p>	



About Arma Partners

Arma Partners is an independent investment banking firm focused exclusively on providing corporate finance advisory services to technology companies. We provide our clients with advice on public and private mergers and acquisitions, financial restructuring, equity capital raising, as well as a range of other advisory services.

Arma Partners is dedicated to helping our clients achieve their financial and strategic objectives. Our sole focus on the technology sector gives us an unparalleled understanding of, and experience in, global transactions within this industry.

Our team of professionals is among the most seasoned in the technology sector, having advised on dozens of international landscape-changing transactions, and our approach is always to dedicate the necessary senior-level attention to deliver superior value to our clients. Arma Partners has offices in London and Palo Alto.

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Europe

Arma Partners
11 Berkeley Street
London W1J 8DS
United Kingdom

+44 (0)20 7290 8100

www.armapartners.com

Americas

Arma Partners
101 University Avenue, Suite 111
Palo Alto, California 94301
United States

+1 (650) 861-4561