March 2014

Supplement to the Treatise

WOLFGANG RUNGE: TECHNOLOGY ENTREPRENEURSHIP

How to access the treatise is given at the end of this document.

Reference to this treatise will be made in the following form:
[Runge:page number(s), chapters (A.1.1) or other chunks, such as tables or figures].

To compare the businesses of professional social networks in the US and Germany to a certain degree references often address the case of the German firm Xing AG.

Wolfgang Runge

LinkedIn Corp.

Table of Content

LinkedIn Corp. is a US social networking site. Founded in December 2002 by a team led by Reid G. Hoffman and officially launched in May 2003, it is used primarily for business connections and job searching. Its services are used by professionals seeking jobs or contacts and companies hoping to fill vacancies.

The Entrepreneur(s) and Foundation Process

According to Rusli [2011b] Reid Hoffman is “the start-up whisperer of Silicon Valley” and “king of connections.” He is not the richest investor in Silicon Valley, but for sure the one with the most influence. No one is more networked and knows the startup scene better than Hoffman does [Postinett 2011]. He has been involved as an investor in or advisor of more than sixty startup companies, including such social media superstars as Facebook, Zynga, Flickr, among others.

"Want to brainstorm about new technology? Build a business? Raise a cool million — or billion? Mr. Hoffman is a man to see. If he can’t help, he probably knows someone who can. He is, as you might expect, a seriously linked-in guy." [Rusli 2011b]

With regard to a focus on networking and *being himself heavily interconnected* Reid Hoffman exhibits a personality comparable with that of Lars Hinrichs, the founder of Xing AG (B.2). Further he shares also an early attitude as a child and teenager towards computers and their emerging significance for human activities and behavior.

Long before LinkedIn, as a child Reid Hoffman (born in1967 in Stanford, California) was obsessed with playing games. When he was 12, Reid Hoffman arrived unannounced one Friday at offices of Chaosium, the game maker behind RuneQuest, the fantasy role-playing game first published in 1978. He thrust a manual, marked with his suggestions, into the hands of a game developer. The man leafed through the pages and asked Reid if he wanted something else to do. He nodded – and reported to work that Monday. A few weeks later, he received his first paycheck, for $127 [Rusli 2011b].

Reid Hoffman was basically indulging his obsession for games or, more specifically, his fascination with multiplayer game mechanics, and the way that social systems come together. The question of what brings people together still fascinates him [Rusli 2011b] (cf. Klaas Kersting, co-founder of German Gameforge, B.2).

Hoffman pursued a career in business and entrepreneurship according to plan he elaborated and materialized. According to Burchill [2011] he is “Entrepreneur of the Decade” “This, in the end, is what makes Hoffman a great entrepreneur. Not only did he get the right idea at about the right time, but he put everything behind it and, even when it wasn't sexy or a big payoff, he kept at it.”

Reid Hoffman is an entrepreneur, angel investor and partner of the investment firm Greylock Partners which he joined in 2010 to run their $20 million Discovery Fund. He is viewed as "arguably the most successful angel investor in the past decade [Wikipedia 2].

Hoffman is best known as the co-founder of LinkedIn. Hoffman co-founded LinkedIn in December 2002. It was one of the first business-oriented online social networks. He was LinkedIn’s founding CEO for the first four years before becoming Chairman and President, Products in February 2007. Then he became Executive Chairman of LinkedIn. With the IPO of LinkedIn on May 19, 2011, Hoffman owned a stake of ca. 21 percent worth an estimated $2.34 billion dollars, not including any potential benefits from Greylock Partners [Wikipedia 1].

In 1985, Hoffman enrolled at Stanford, where he majored in symbolic systems .He soon befriended a fellow student, Peter Thiel. Thiel recalled. “Reid was always interested in creating communities.” [Rusli 2011b]

Hoffman said he saw academia as an opportunity to make an "impact." "When I graduated from Stanford my plan was to become a professor and public intellectual [Wikipedia 2]. Hoffman invested alongside Thiel in Facebook's very first financing round. Hoffman personally invested and joined the board of directors in Zynga's first round of funding. Hoffman and Zynga CEO Mark Pincus co-own the Six Degrees Patent (Zynga Inc., B.2; [Runge:A.1.7]).

He graduated from Stanford University in 1990 (where he won both a Marshall Scholarship and a Dinkelspiel Award to go to Oxford) with a BS in Symbolic Systems and Cognitive Science [Wikipedia 2]. Symbolic systems is a combination of artificial intelligence and cognitive science. That got him deeply involved in technology. As cognitive science and artificial intelligence are about understanding people he was driven toward how do we structure our thoughts and how do we communicate [Hoffman 2009].

In 1990, Hoffman went to Oxford University to pursue a master’s degree in philosophy in 1993. His thesis explored the limitations of thought experiments. He seemed headed toward a career in academia. By his winter term, he realized that life as a professor would, in many ways, feel restricted [Rusli 2011b]. But “I realized academics write books that 50 or 60 people read and I wanted more impact." [Wikipedia 2]

“This is one of the things I love about entrepreneurship. You're encountering new challenges, and you have to learn at a very fast rate.” [Hoffman 2009]

With some ideas in mind to start a company, such as a better PIM (personal information manager for hand-held devices), he contacted some venture capitalists, but all this ideas were turned down advising him to ship a product and then come back. Hence, he took a job at Apple Computer in 1993 and after that at Fujitsu Software.

He followed a plan with a check-off list relating to the *minimum amount of time to work for companies before starting out on his own*. This list assumed to cover learning everything he needed included, for instance, need experience in designing, need experience in product management, need experience in shipping a product and need experience in building a team. [Hoffman 2009]. Hoffman worked in human interface design at Apple Computer and worked in product development for Fujitsu.

When Netscape went public in 1995, in a defining event for the Web, Hoffman and Thiel were watching. Hoffman had a gut feeling that the *social media* were going to be huge, along with *gaming companies that had social media embedded* [Rusli 2011b]. His gut was right, but his first foray into social media flopped.

> Netscape, the Internet browser company with its public debut, cleared the way for dot-com IPOs.

In the summer of 1997, Hoffman started SocialNet, one of the first networks of its kind. He took the hard lessons from what was a mostly failed exercise and put them to good use, helping to create nearly every significant social network since [Perlroth 2011].

While at SocialNet, Hoffman was a member of the board of directors at the founding of PayPal, an electronic money transmission service, and later joined the firm as a full-time employee. Frustrated, he left SocialNet in 1999 and joined Peter Thiel at PayPal. As an executive vice president, it was up to Hoffman to manage external relations. “He was the firefighter in chief at PayPal,” Thiel said. Hoffman emerged as a connector and high-level strategist. But Hoffman remained decidedly unglamorous [Rusli 2011b].

At the time of PayPal's acquisition by eBay in 2002, he was Executive Vice President of PayPal. Being responsible for all external relationships for PayPal meant also Payments Infrastructure (VISA, MasterCard, ACH, and WellsFargo), Business Development (eBay, Intuit, others), Government (Regulatory, Judicial), and Legal [Runge:A.1.7; Wikipedia 1; Wikipedia 2]. When PayPal went public Hoffman and many of his colleagues became multimillionaires.

After the PayPal sale to eBay, Hoffman became one of Silicon Valley's most prolific and successful angel investors. According to venture capitalist David Sze, Hoffman "is arguably the most successful angel investor in the past decade." He made 80 angel investments in technology companies. In 2010 Hoffman joined Greylock Partners to run their $20 million Discovery Fund [Wikipedia 1].

Awards and Publicity

LinkedIn won two Webby awards in 2007 for services and social networking [CrunchBase].

But awards for LinkedIn are mostly intrinsically connected associated with its co-founder Reid Hoffman. Reid Hoffman did not have a lot of publicity in the media and universities, but received much attention by numerous awards.

For instance, Reid Hoffman received the Difference Maker Award at the 2012 American Business Awards Ceremony. The Honor recognizes LinkedIn co-founder’s entrepreneurial leadership. Reid Hoffman was just the second recipient of this honorary *Stevie Award*, which was presented in recognition of his role in shaping social networking and entrepreneurship in the US [PRWeb 2012].

Ernst & Young named LinkedIn's Reid Hoffman and Jeff Weiner as its 2011 national Entrepreneurs of the Year [Fass 2011]

Another prestigious award is the “Entrepreneur of the Decade” of Inc. Magazine which, for instance, for the decade 2000-2009 Peter Thiel of PayPal, won. And Burchill [2011] argued that Reid Hoffman should also be viewed as an “Entrepreneur of the Decade” – also as a role model for great entrepreneurship. Burchill referred to the initial public offering (IPO) that blasted onto the market with a blitz so staggering it outranked, for instance, Google and all the other hot stocks of the past decade.

Contrary to college dropout in his 20s who suddenly made it big with an idea Hoffman is of middle-age. He swims in ideas and has been an angel investor behind some of the biggest startups in the past fifteen years or so. As a conclusion of what makes Hoffman a great entrepreneur [Burchill 2011] not only did he get the right idea at about the right time, but he put everything behind it and he kept at it.

According to Burchill [2011] serial entrepreneur Hoffman had invested in a lot of startups, but he put all of his energy into the new idea of LinkedIn serving a special customer segment the other existing social networks did not: professionals.

LinkedIn began to see something different: not just recurring users who continued to come back, but users who carefully, craftily put time and effort into building their networks and profiles to be “just so.” For its resume-like quality LinkedIn has users who are not only more professional, but who are much more concerned about the perception they give others online.

The Business Idea and Opportunity

Hoffman [2009] and Kaiser [2004] provided Hoffman’s story involving idea generation, founder team building and necessary Internet context for firm foundation, and exploiting the opportunity, but ultimately failure with SocialNet, then learning from previous failures and networking with people to found LinkedIn. These references will be referred to broadly below.

SocialNet was *based on the theory* that you have a new medium in which everyone is a publisher. And people can live quality lives and have particular kinds of relationships. They are looking to be dating somebody, a roommate or tennis partners. The idea was that you can actually be put electronically nearby to the people you would be interested in. And concerning distances they may be in the next building over, but you would never know it.

To put theory into practice Hoffman *just started*. In July 1997, he quit his job at Fujitsu, started *seeking financing*, and by November it was OK, and he looked to *find the people to start the company with him* [Hoffman 2009].

Fundamental for such an approach is to *be in a place where people are saying*, “Hey, that's a crazy idea.” *If you're right*, there is the opportunity to produce something really big. With your idea you would *be one to three years early*. You want to start before others think it is an easy idea, as it is much harder to be successful when 10 similar things are all being financed.

At first, Hoffman thought all you had to do was build a high-quality product. Who has the best matching algorithm to enable the right kind of people to find the right kind of other people? That would be the inference from theory, but *the valuable thing is getting it in front of millions of people*. Hence, the strategy at SocialNet had been to *partner with magazines and newspapers*, but that *did not work at all*. Hofmann had a difference of opinion with the board, which could not be resolved. Hence, in such a situation it is generally better if you leave [Hoffman 2009].

SocialNet partnered with an Arizona newspaper to lure users. The partnership yielded two customers in the first month. “We had it completely wrong,” Hoffman said. The ability for a product or service to go viral, he learned, must be built into the way that the product or service works [Rusli 2011b].

SocialNet was a *dating, professional networking activity and roommate service* before Hofmann went to PayPal. And additionally, while at PayPal, he had been thinking about why SocialNet’s *professional networking feature had not really worked*. All three of the other features had worked out really well, while the professional did not. *The identified key was to get the haves and the have-nots into the system.* In professional networking, the “haves” are the individuals who have a job, who have money to invest, someone who can commit their company to a deal, etc. They have the resources available to help the “have-nots” who do not, but do have the talent, the idea, and the energy [Kaiser 2004].

While Hoffman was thinking about this at PayPal they were trying to hire a flash designer at PayPal. And Hoffman realized that the *key issue that brings the haves and the have-nots together is personal recommendations*. When someone approaches a have he/she may be recommended.

The *problem with being a have* is that tons and tons of people want you to invest with them. They get overwhelmed with the noise and the question is how to sort through the noise to find the signals. This is similar for jobs. Companies such as eBay, Google, Apple, etc. are all inundated with job applicants. They are trying to identify which resumes they should pay more attention to. The tried and true answer is to look at those resumes that come *recommended by people that the hiring individual knows and trusts*. [Kaiser 2004]. Thus LinkedIn’s focus on acting as a mediator for business relationships and “hiring solutions” emerged.

While on the board of PayPal in November 1999 Hoffman told Peter Thiel (the co-founder and CEO of PayPal) that he was leaving SocialNet and wanted to do another startup. Peter said do not do another startup, come join us. Therefore, he resigned from SocialNet and started at PayPal the next day. “*I was in charge of external relations: corporate development, banking, international*.”[Hoffman 2009].

During that time he “*realized that the world was transforming every individual into a small business*. But how do you positively influence your brand on the Net? How do you assemble a team fast? Who has the expertise to guide you? *The power of the Internet is to accelerate the way you do business*. I was very interested in this whole notion of each of us as individual professionals who are on the Internet and how that changes the way we do business, our careers, our brand identity. You have to think of yourself as an organism competing with other organisms in an ecosystem. It is about how you fit into the world around you. The modern world is moving fast, and you have to move at that speed. It is also accelerating for individuals and their careers, and in that acceleration, how do you adapt quickly? [Hofmann 2009]

It was not until PayPal was sold to eBay that *Hoffman and some friends with whom he had worked before decided to pursue these ideas, which turned into LinkedIn.* This was in late November 2002, when most venture capital guys thought the consumer Internet was dead. But this was just the beginning. *Raising the early money was easy, because it was my own* [Hofmann 2009]. The founding team members were from PayPal or SocialNet (underlined = key people of LinkedIn): Allen Blue, Eric Ly, Jean-Luc Vaillant, Lee Hower, Konstantin Guericke, Stephen Beitzel, David Eves, Ian McNish, Yan Pujante, and Chris Saccheri [Wikipedia 1].

The company started in the living room of Reid Hoffman and was officially launched in May 2003. Hoffman bootstrapped with $700,000 [Kaiser 2004] and took the CEO job. According to the LinkedIn Web site, at the end of the first month in operation, LinkedIn had a total of 4,500 members in the network LinkedIn 2011].

Sequoia Capital invested $4.7M in November 2003 in series A funding (Table 2) [Alarm:Clock 2004]. Venture founding by Sequoia did not mean changing strategy or focus. The focus of the funding was to accelerate the business, in particular, *building out the team* and the features available. The decision at the time was directed towards taking advantage of the interest in offering and instead of gradually growing the company to *focus on launching a new feature release every two weeks or so*, which this funding allowed to do, but going to pick up the speed and *get a lot of new features out much quicker* than the startup would have otherwise [Kaiser 2004].

In September 2004 LinkedIn began generating revenue on its Web site through its marketing solutions [LinkedIn 2011].

Despite euphoria, it was not always clear that LinkedIn would survive. The first year was the darkest. ”At the time, Friendster was the most popular social network, and by comparison, LinkedIn, a platform built on business connections, seemed dull. Hoffman was a relentless evangelist, but he had his doubt." "One of the things I thought of every week was, 'what happens if we don't make this? How do we die gracefully?' " he said. [Rusli 2011b].

By the end of 2004 LinkedIn's position concerning online networking was described by Hoffman [Kaiser 2004] as follows.

"We are just beginning to get interesting. Four or five months ago people wouldn't necessarily find value on the site. *When you get enough people in the system and have enough features for people to use it gets interesting*. We are at the size now that the value of the network effect is really starting to take off. Searching our site for random professions now yields useful results, whereas in the past that likely wasn't true. We are at the cusp or no more than three months away from being at a critical mass.

"One thing we have learned at LinkedIn is that managing your social capital, this means, your network is that people are just beginning to learn the process and protocol for how to message successfully. This led us to upgrade our capabilities to facilitate this for our users, and to be more responsive to their needs."

"We need to become more business focused. We need to continue to add new features that allow individuals to truly present their credentials and backgrounds. One feature is to update the system to include education history into their profile. People want to make more and more *resume information available on the network*. This is relevant to how people hire, find jobs, make deals, etc. Forming a bridge between two people is a key to networking, and especially so online. If two people are from Stanford, Wharton, Yale, etc. then that provides another means of connecting." [Kaiser 2004]

By 2004 LinkedIn was free, but anticipated a *hybrid model of subscriptions and advertisements*. The company was positioned as the leading site for business networking – focused on individual users. While users can create personal profiles for free, LinkedIn introduced paid subscriptions in 2005 [Alarm:Clock 2004].

It took five years for the company to turn its first profit. Hoffman struggled to steer his own company even as he mentored others. In 2003, the early backing by Sequoia Capital meant one of its partners, Mark Kvamme, joined LinkedIn's board. The relationship was strained at times, according to several people close to Hoffman. And during the early years, he and Mr. Kvamme occasionally locked horns [Rusli 2011b].

While Kvamme's advice to LinkedIn during his long tenure on the board helped shape the success of the company, Sequoia's achievement stemmed from its ability to identify, and support, a visionary entrepreneur in the person of LinkedIn co-founder Reid Hoffman [De Senerpont Domis 2011].

Hoffman was LinkedIn's founding CEO for the first four years before becoming Chairman and President, Products in February 2007 [Wikipedia 2] and former Intuit executive Dan Nye became CEO.

During 2007 and 2008, Hoffman and Nye teamed to grow the site from 8 million to 33 million members. The company had five different revenue streams: Advertising, online subscriptions, job postings, corporate sales and surveys [Guynn 2008].

Though rumors about internal tensions were already in the air for some time only by December 2008 Hoffman, who had briefly ceded his role as chief executive to Dan Nye, retook the CEO role, with the intent of finding another CEO. Within months he hired Jeff Weiner, a Yahoo veteran [Rusli 2011b]. To take over Hoffman's role as head of the products group at LinkedIn the company hired a Google executive, Dipchand "Deep" Nishar.

When Hoffman stepped down as CEO in 2007 he said the company needed a different leader to grow it further. Then he said Nye has done his job and it is time for him to take back the reins. The addition of Weiner explained the changes. Weiner was likely expecting a CEO role as his next job. He entered as second to Hoffman. Perhaps the company was using the interim period to see how he can handle himself leading the company [Arrington 2008]. "I am here to help Reid make [his] vision a reality, execute it and scale it," Weiner said in a joint interview with Hoffman and Nye [Guynn 2008]. Arrington suspected to see Weiner take the CEO job at LinkedIn sometime in 2009, or else leave the company [Arrington 2008] – which eventually happened.

Founder Reid Hoffman, previously CEO of LinkedIn, became Chairman of the Board.

The LinkedIn shuffle was triggered by the high-profile hire earlier of Dipchand "Deep" Nishar, the Google Inc. executive behind the search giant's mobile business and other products. Nishar was leading LinkedIn's efforts to develop new products and services. That was a post held by Hoffman, who has shifted his focus to directing strategy and vision for LinkedIn [Guynn 2008].

"*I've never really aspired to be an operational executive*. With Deep's (Dipchand Nishar's) hire, I'm freed up from the day-to-day operations of the product team. I felt like the time was right to *drive the vision from the CEO's chair.* I want to be able to sink my mind around a couple of problems and work through them. For example, *many professionals still don't understand how LinkedIn can be valuable on a daily or weekly basis."* [Hoffman 2009].

In June 2008, Sequoia Capital, Greylock Partners, and other venture capital firms purchased a 5 percent stake in the company for $53 million (Table 2), giving the company a post-money valuation of approximately $1 billion [Wikipedia 1].

By the end of 2008 LinkedIn had raised $103 million in venture capital (Table 2) and had 11.2 million monthly worldwide visitors according to Comscore (October 2008). LinkedIn said their revenues continued to grow dramatically – up 900 percent over the last two years (although they did not say what their actual revenue was) [Arrington 2008].

LinkedIn had not gone untouched in the sharp economic downturn that had roiled Silicon Valley and cost the regions tens of thousands of jobs. The company laid off 36 people, about 10 percent of its staff. But Hoffman said LinkedIn has not seen a dip in advertising, which accounted for about 20 percent of its revenue. Page views have skyrocketed as workers worry about their jobs or seek new ones [Guynn 2008].

Distinct growth of members occurred as the economy deteriorated in 2008 (the Great Recession); more people joined LinkedIn for its premium job and recruiting services. With the economy in a recession and rising unemployment, this was an opportunity for Linkedin to establish its credibility as the premier networking site for laid off job seekers looking to network for job opportunities [Rusli 2011b].

According to Hoffman [2009] for the first three quarters of 2008, LinkedIn was hiring with the thought that it would be doubling the staff in 2009. It hired a bit too much on some projects and decided to cut the staff late in the year. Essentially, it was kind of rebalancing the organization.

Corporate Culture

Since its blockbuster debut on May 19, 2011 when its stock more than doubled on its first day of trading, LinkedIn has been under considerable pressure to live up to its price tag.

LinkedIn was under heavy pressure to perform. Though its membership has roughly doubled annually for each of the last seven years, many wondered if the company can possibly sustain its momentum. LinkedIn cannot afford a bad quarter: One miss could hobble the company, analysts said, by slamming its share price and encouraging its best engineers to jump to the Next Hot Thing [Rusli 2011b].

In Silicon Valley, it is often said that the founder is the startup. The relevant co-founder Reid Hoffman loved PayPal's *meritocracy*. "The group was very analytical," said Hoffman. "It was all about, 'Here are my arguments; here's my perspective.' You could never say, 'In my experience,' because experience wasn't there as a variable."[O'Brien 2007]

For LinkedIn's (current) corporate culture integrity and results are key features [LinkedIn 2011]:

- Integrity. We don't believe the ends justify the means. Rather, we expect employees to do the right thing no matter what.

- Results. We set clear, actionable goals, and have high expectation for our performance. We count on our employees to consistently deliver excellent results, seek leverage through greater efficiency and effectiveness, and demonstrate leadership at all levels throughout the organization.

The company obviously follows a ceremony of celebrating success or win.

There is “mandatory tech startup wackiness,” eccentric behavior: “CEO Jeff Weiner installed a ‘high five zone’ in front of his office – a giant square of red tape on the floor and a sign on the wall that instructs people how and when to give high fives. If employees walk through the square, they must high five people around them.” [Ovide 2011].

(The high five, often seen with team competitions, is a celebratory hand gesture that occurs when two people simultaneously raise one hand, about head high, and push, slide or slap the flat of their palm and hand against the palm and flat hand of their partner.)

Though only nine years old by 2012 LinkedIn left the phase of a startup with Silicon Valley’s type of operations. Its corporate culture of “Results” seems to reflect the culture of an innovative large technical firm driven by a management which itself is under tremendous pressure typical for a US publicly traded company associated with high expectations of shareholders.

However, Bach [2012] reported that “they’ve created an almost ideal workplace.” The 2012 Top Tech Employer Comparison by PayScale and based on those LinkedIn employees who completed PayScale's survey provides some insights into LinkedIn’s corporate culture. In particular, it is reported that LinkedIn dominate several of the categories, notably its reported 100 percent job satisfaction rate.

Running through the data in PayScale's Top Tech Employer Comparison provided some more details of LinkedIn [Bach 2012].

- They only rank 13th for *starting pay*, at $66,100 per year.
- They rank 4th for mid-career pay (employees who have 10 years of experience). Typical earnings are a whopping $137,000 per year mid-career.

The increase in pay seems to indicate that LinkedIn provides motivated techies fertile grounds for career development and growth.

Concerning work environment Bach [2012] reports:

- 69 percent of LinkedIn employees reported feeling extremely or highly stressed at work.
- 92 percent of LinkedIn respondents reported having extremely or fairly flexible schedules and job meaning (85 percent reported finding their job extremely or fairly meaningful – making LinkedIn the winner in this category as well).

Hence, there seems to be a balance between stresses at work by high marks for job schedule flexibility.

Concerning innovativeness “LinkedIn’s corporate culture puts a lot of emphasis on keeping employees motivated and engaged. They regularly host 'inDays' where meetings are banned and employees are encouraged to participate in hackdays, where they get to work on fun side projects, listen to world-class speakers in sessions styled after Ted Talks and dive deep into exciting charitable endeavors.” “This combination of career growth, competitive pay and a corporate culture that keeps the emphasis on fun and learning seems to be the secret behind why LinkedIn employees report being excited to come to work every day.” [Bach 2012]

Market Entry and Expansion

There are three main ideas which drive a successful social networking company. They are: Building a business profile, having a network for search and building an application on top of it. The glue is creating attention, trusted relationships, searching, reaching, and filtering. Such a concept does not only help employers to reference check prospective employees, but the other way as well [Hoffman 2007].

To have a search function and wanting to have advertisement as a revenue stream it makes sense to have a function like Google's AdWords [Runge:Box I.24]. A LinkedIn version of Google AdWords would be that if you type "employment lawyer" into the search bar there will be boxes on the right that provide information on that type of service.

> With the main revenue streams of job postings, advertising, and online (freemium) subscriptions the further organized and very fast growth of LinkedIn was led by a management team comprised of seasoned executives from companies like Yahoo, Google, Microsoft, TiVo, PayPal and Electronic Arts and Jeff Weiner being the CEO of LinkedIn.

Growth was achieved by non-organic growth (acquisitions), hiring and international orientation. For instance, in Table 1 selected acquisitions are given which were targeted at firms providing add-on applications.

Table 1: Selected acquisitions of LinkedIn [CrunchBase].

SlideShare, 5/2012	$119M
Rapportive, 2/2012	$15M
IndexTank, 10/2011	?
Connected, 10/2011	?
CardMunch, 1/2011	?
ChoiceVendor, 9/2010	$4.99M
mSpoke, 8/2010	?
TOTAL	**$139M**

For instance, in August 2010 LinkedIn announced the acquisition of Mspoke. It was the company's first acquisition for an undisclosed amount. This acquisition aimed to help LinkedIn users *do more than just find a job, increase users' activity and improve its 1 percent premium subscription ratio*. In May 2012, LinkedIn acquired SlideShare, deemed "the YouTube of slide shows" for $119 million. It was stated that the purchase was done to give LinkedIn members a way to *discover people through content*. At the time of acquisition Slideshare attracted 29 million monthly visitors [Wikipedia 1].

To expand abroad as a strategy LinkedIn looked for other local players as a key success factor for reaching scale – as also did its German "competitor" Xing AG (B.2).

Headquartered in Mountain View, Calif., LinkedIn has US offices in Chicago, Los Angeles, New York, Omaha and San Francisco. By 2012 LinkedIn's international approach is reflected by offices located in Amsterdam, Bangalore, Delhi, Dubai, Dublin, Hong Kong, London, Madrid, Melbourne, Milan, Mumbai, Munich, Paris, Perth, São Paulo, Singapore, Stockholm, Sydney, Tokyo and Toronto. A European headquarter in Dublin, Ireland, was opened in June 2010 [Wikipedia 1]. LinkedIn is currently available in nineteen languages.

A timeline May 2002 – April 2010 of LinkedIn's key development steps is given by e-Buzz Edge [2010].

Targeting the German-speaking DACH region (Germany, Austria, Switzerland) already in 2009, LinkedIn introduced a German version of its platform. In 2011 LinkedIn opened an office in Munich which meant attacking a related perceived main competitor Xing in its homeland [DPA 2011]. But Xing does not regard LinkedIn as its competitor in its turf (B.2).

Intellectual Property

LinkedIn protects its intellectual property rights by common law rights as well as contractual restrictions. Access to proprietary technology is protected, in part, by entering into *confidentiality and invention assignment agreements* with its employees and contractors, and confidentiality agreements with third parties. In addition to these contractual arrangements, LinkedIn uses a combination of *trade secret, copyright, trademark*, trade dress, *domain name and patents* to protect intellectual property. Registration of its domain names, trademarks, and service marks is in the US and in certain locations outside the US [LinkedIn 2012].

LinkedIn's IPO

LinkedIn's initial public offering (IPO) was not just an event for the firm, its founders and (early) investors. LinkedIn Corp.'s IPO became a spectacle for Silicon Valley startups and investors. Its IPO was viewed as a litmus test for Wall Street's appetite for future offerings, in particular, the online group deal company Groupon Inc. [Runge:ch. 3.4].

LinkedIn's shares were traded on a private market. In July 2010, Tiger Global Management LLC purchased a 1 percent stake in LinkedIn for $20 million meaning a valuation of approximately $2 billion [Wikipedia 1].

It provided the first test of whether the public markets can sustain the soaring private-market valuations of social-media companies. Silicon Valley entrepreneurs were also following LinkedIn's fortunes for a signal as to how well investors will receive future IPOs of Internet consumer services.

In Table 2 the steps of early private venture funding is listed [Crunch Base]. By the end of 2008 LinkedIn received $103 million. Assessment of investing more in LinkedIn could rely to a certain degree to the successful IPO of Xing (B.2) in Germany.

Table 2: Venture funding of LinkedIn until 2008 [CrunchBase].

Series A, 11/2003 Sequoia Capital Josh Kopelman	$4.7M
Series B, 10/2004 Greylock Partners	$10M
Series C, 1/2007 Bessemer Venture Partners European Founders Fund	$12.8M
Series D, 6/2008 Sequoia Capital Greylock Partners Bain Capital Ventures Bessemer Venture Partners	$53M
Series E, 10/2008 Bessemer Venture Partners SAP Ventures Goldman Sachs McGraw-Hill Companies	$22.7M
TOTAL	**$103M**

LinkedIn said it has been operating cash flow positive for the last couple of years, and has not even needed to use money it raised in 2008 [Ovide 2011].

In Jan. 27, 2011 LinkedIn filed to go public [LinkedIn 2011]. For the IPO LinkedIn was priced at $45 a share by Morgan Stanley, Bank of America Merrill Lynch and JPMorgan Chase, raising $352 million for the company. Though LinkedIn warned that revenue will slow and it will be unprofitable in 2011, the stock leapt more than 100 percent in its first day of trading, generating hundreds of millions of dollars for special clients of the underwriting banks.

Shares of LinkedIn opened at $83 on the New York Stock Exchange, up 84 percent from its initial public offering price of $45. By the market's 4 p.m. close, the stock had soared 109 percent to $94.25. *At the end of the day, LinkedIn was worth $8.9 billion*. It was the biggest Internet IPO since Google Inc.'s debut in 2004 [Woo et al. 2011].

> LinkedIn's offering marked the first time a company that has been actively traded on a private market will go public. The public-market investors had little data about the company, obviously a case of *information asymmetry*.

Sequoia, the earliest institutional investor in LinkedIn in 2003 (Table 1) owned 18.7 percent before its holdings were watered down to 17.8% post-IPO and generally the view of the early investors was: "The investors in LinkedIn did their jobs." "They took some risk in investments that weren't popular at the time, and now they are getting compensated for that." [De Senerpont Domis 2011].

The largest windfall went to the company's executive chairman Hoffman and his wife, Michelle Yee. They sold 155,335 shares in the offering and reaped $5.2 million. They owned 18.95 million shares, or 20.1 percent [De Senerpont Domis 2011]. At the end of trading his stake was worth $1.8 billion [Woo et al. 2011].

Some investors who had bought shares of LinkedIn in the private market, meanwhile, were ecstatic. David Williams, a San Francisco-based startup investor who had purchased 20,000 LinkedIn shares in private transactions in 2010 for $18 and $21 apiece calculated he had made around five times his money in just over a year of holding the stock [De Senerpont Domis 2011].

Sequoia Capital, which led the investment in 2003 with 17.8 percent of the company, owned a stake worth about $1.6 billion. Greylock Partners, which led a funding in 2004, had a stake worth around $1.3 billion. Bessemer Venture Partners owns a 4.8 percent stake after it led the investment in 2007; that was worth $430 million [Woo et al. 2011].

Despite the lofty valuations of LinkedIn and others, veterans of Silicon Valley's first Internet boom saw major differences in the frenzy. For one thing, relatively few companies were able to go public these days, and those that do seemingly tend to have a track record of revenue growth and profitability. Many companies that went public in the late 1990s dot-com boom did not [Woo et al. 2011]. For some more details of the related situation referring, for instance, to Groupon, LivingSocial and Zynga confer Runge’s book (ch. 3.4, p. 528-531).

In an interview, LinkedIn Chief Executive Jeff Weiner played down the significance of the IPO’s surge. “This isn’t necessarily indicative of anything,” he said. “The market will do what it will do.” [Runge:p. 135, B.2]

What did the IPO meant for LinkedIn and how did it see what happened in the market? In its CEO’s own words: “For us, first and foremost, it’s about our mission, which is to connect the world’s professionals,” Weiner said in August 2011. “An IPO, being public, raising money, that’s really a tactic that helps us ultimately achieve that long term objective.” [Ovide 2011]

According to Yahoo LinkedIn’s stock price (at close) were $123.79 (Jan. 2, 2013), and $153.47 (April 1, 2014).

LinkedIn was launched before MySpace (2003), Facebook (2004), YouTube (2005) and Twitter (20060 [e-Buzz Edge 2010].

Vision/Mission, Business Model and Risks

LinkedIn's slogan is *Relationships Matter*. LinkedIn's *vision* is to create economic opportunity for every professional in the world. The vision does not only apply to each of its employees, but every LinkedIn member, each of whom has the ability to create opportunities for others. This is the believe to be the power of LinkedIn's network [LinkedIn 2011].

Its current mission is "Connect the world's professionals to make them more productive and successful."

The focus of personal networking should be about an exchange of value and not simply using someone as a resource. It is most valuable as a means to facilitate long term interactions between two individuals in which both benefit.

The primary locus of each professional network is the member. They are the ones that own and control the network. Therefore, LinkedIn was providing services to individuals, and individuals may use their network to help their organization. It does not want to have any conflict with which customer it is serving. In the network *employers have very different interests than the individual* [Kaiser 2004].

LinkedIn started offering users to create user profiles totally free, but in 2005 LinkedIn introduced paid subscriptions and a "*freemium model*" [Runge:ch.3.4.1].

The freemium business model is popular for companies just starting out as they try to lure users to their software or service by providing basic services for *free*, but requires them to pay for any service deemed to be *premium*. Examples of a freemium business model are found with online game companies, such as Xing (B.2) or Zynga (B.2). Their basic access to games is free, but for more advanced services and features you have to pay a premium [Runge:ch. 3.4].

LinkedIn's premium level referred essentially to search functionalities and access to profiles.

Hoffman was aware of the issues of a transition from a free to pay service. But he could refer to experience he gained when he was with PayPal. It was free and then transitioned to charging sellers for the payment transaction. The key for such a transition is people to perceive value for them. "People will not leave LinkedIn if they are finding value in the service when we begin charging. If they are finding clients, qualified new hires, or business contacts, then the value of the network outweighs the cost. The real question is whether or not you are providing something that has value." [Kaiser 2004]

Moreover, subscription would allow individuals to connect. According to Hoffman the endorsement process is serious, it takes people's time. Often people are happy to forward on worthwhile endorsements. This provides a value to the end recipient as well as increases the reputation of the person acting as an intermediary. The fundamental criterion is whether or not it makes that person look good by doing the forwarding. Am I bringing opportunity to the people downstream from me? Ultimately, if you are not willing to pay some low amount to send requests then you should not send the requests in the first place. Requests should have inherent value to all recipients; network contacts as well as the end target [Kaiser 2004].

LinkedIn's *revenue model* to make money comprises essentially [Ovide 2011]:

1. LinkedIn users can sign up for subscriptions for extra services;
2. LinkedIn sells software as a service called "LinkedIn Recruiter," to help businesses target and find appropriate job candidates among LinkedIn members;
3. Selling online ads pitched to LinkedIn's professional audience.

According to Hoffman [Kaiser 2004] "With Venture Funding you need to be able to provide a likelihood of monetizing at a rate of 10 times the initial investment. It is not so much whether you can monetize the model, but whether you can monetize at a significant level."

The *types of members* ("customers") targeted by LinkedIn were "established professionals, people who are CEOs, Venture Capitalists, and Directors at leading companies, etc." Reasons for this target included that these understand what they are signing up for, and that people are recommended to them through other established members [Kaiser 2004].

By July 2011 the distribution of user types of LinkedIn was [Verde 2011]:

CXO	3.5%
Vice President (VP)	4.0%
Director	7.5%
Owner	10.3%
Manager	15.9%
Individual Contributor	58.8%

A one-sentence demographic of LinkedIn for advertisers provide a focus on professionals in their mid-30s, with money [De Senerpont Domis 2011]. In a survey in 2008, "Nearly 60 percent of users have incomes of $93,000 or more. Executives with an average income of $104,000 make up 28 percent of the 2,000 random users polled for the study. Another 30 percent are self-identified 'consultants' with an average income of $93,000." [Sauter2010] A detailed insight into job function and the industry segments are given by Verde [2011] published in July 2011. As a note, 11.7 percent of the users see themselves or their job as "Entrepreneur."

A large part of professionals of the "consultant segment" obviously use LinkedIn as a mean to deliver their services.

Concerning recruiting and "*hiring solutions*" LinkedIn focuses on the relevance of contacts. According to Hoffman in the US over 50 percent of job placements within its targeted group of addressees happen through *word of mouth through networks*.

The *perceived opportunity* was that there has not been any central IT to help facilitate the process in a targeted and expeditious way. "LinkedIn allows people to connect on a case-by-case basis within their network. People can recommend their connections to other people as they see fit and provide an online means for doing what people have historically done offline. When one person approaches another for a job or deal a *trusted intermediary* recommends them." (Emphases added) [Kaiser 2004]

Moreover, a further basis for LinkedIn's revenue model is that people (particularly in the US) change jobs much more frequently than they did and are more likely to have multiple careers. As people change jobs every two to three years they will need to continue networking in order to find those new opportunities. Not only is it important to have the right skills, but people also need to *know the right people*. To be a senior professional people need to be able to bring a team together to get the job done [Kaiser 2004].

With regard to dependence on economic cycles in a boom employers will be hunting for a good person, and they can use LinkedIn. And during a bust, people on the other side are looking for a good job opportunity. Part of the way you stay current as a professional is sharing information and tips on what is going on in your industry, current best practices [Hofmann 2009].

Principal free and monetized solutions of LinkedIn are described in details in its IPO prospectus [LinkedIn 2011:76]. Descriptions of key features and usages of LinkedIn are found in several sources [Wikipedia 1; Sauter 2010].

Sauter [2010] provides a condensed list of LinkedIn's key features and why people use LinkedIn (Table 3). It provides the value proposition to LinkedIn's customers.

Confer also to LinkedIn's prospectus "key benefits for our users" and "key benefits to enterprises and professional organizations" [LinkedIn 2011:72-73, 73-74], "Free Solutions" and "Monetized Solutions" [LinkedIn 2011:77-79, 79-82].

Table 3: Key features of LinkedIn (by 2010) and why people use it [Sauter 2010].

Features	Why People Use It
Connections: To allow registered users to maintain a list of contact details of people they know and trust in business. The people in the list are called Connections. Users can invite anyone (whether a site user or not) to become a connection.	Boost professional reputation
The list of connections can then be used in various ways:	Develop a personal brand
A contact network is built up consisting of their direct connections, the connections of each of their connections (second-degree connections) and also the connections of second-degree connections (third-degree connections). This can be used to gain an introduction to someone a person wishes to know through a mutual, trusted contact.	Search for potential clients
It can then be used to find jobs, people and business opportunities recommended by someone in one's contact network.	To network for opportunities for employment
Employers can list jobs and search for potential candidates.	To develop a presence to be found by recruiters
Job seekers can review the profile of hiring managers and discover which of their existing contacts can introduce them.	To investigate a company
The "gated-access approach": Is intended to build trust among the service's users (contact with any professional requires either a preexisting relationship or the intervention of a contact of theirs).	To find prospects for open positions or to extend the list of prospective candidates
Search: Allows users to search for companies with which they may be interested in working. When typing the name of a given company in the search box, statistics about the company are provided (for instance, the ratio of female to male employees, the percentage of the most common titles/positions held within the company, the location of the company's headquarters and offices, or a list of present, past, and former employees).	To develop an online presence of a new venture
Request information: The feature, LinkedIn Answers, allows users to ask questions for the community to answer. This feature is free and the main differences from the latter two services are that questions are potentially more business-oriented, and the identity of the people asking and answering questions is known.	To build a team of potential partners

LinkedIn Groups: Allows users to establish new business relationships by joining alumni, industry, or professional and other relevant groups. LinkedIn groups can be created in any subjects and by any member of LinkedIn. Some groups are specialized groups dealing with a narrow domain or industry whereas others are very broad and generic in nature. The groups also allow for professionals to post job openings or answer questions concerning a professional hardship. The connections made through LinkedIn Groups may be more beneficial than an unknown connection.	To do market research
	To advertise

To achieve effectively and efficiently what users are aiming at LinkedIn requires considerable education and training. And, therefore, it is not astonishing that the LinkedIn platform and the Internet are full of articles addressing the “how to” of LinkedIn and the “what” of making attention generating input by users, for instance,

- How to – LinkedIn: Lets you create a detailed professional profile others can search [Duffy 2011].
- LinkedIn's top 10 overused résumé phrases, CNN, December 14, 2010
- The secrets to getting good references, FINS, January 27, 2011
- Making LinkedIn Work for You, The Wall Street Journal, May 18, 2011
- 10 More Things You Never Knew You Could Do On LinkedIn, Business Insider, May 18, 2011
- Etc.

Benefits of LinkedIn are summarized by Sauter [2010] as follows:

- Ability to be known: If you use the tools, follow good netiquette and provide intelligent and useful information (on blogs and LinkedIn Answers) you can make yourself known and promote yourself)
- Ability to be found: Recruiters can find you. Recruiters spend a lot of time on LinkedIn.
- Ability to find others: Find people who are at companies or who have specific skills
- Opportunity to learn and share: LinkedIn Answers allows you to get expert advice fast.
- Ability to connect with group members: In this way you may connect with other group members whom you might not otherwise "meet".
- Opportunity to show you are plugged into the current technology

Organizational risks of LinkedIn required attention concerning the issue: How to scale a company from 10 to 200 to 1,000+ employees.

Not succeeding in managing the tremendous growth of LinkedIn effectively and efficiently represented a considerable risk for the firm. The *rapid growth* in headcount (Table 4) and operations and operational infrastructure, integration of acquired firms with communication and coordination problems, and internationalization represented significant challenges for management.

At the end of 2010 ca. 57 percent of its employees had been with LinkedIn for less than one year and ca. 74 percent for less than two years [LinkedIn 2011]. Hence, issues with employees to adapt to the firm and its “way how we do it here” (“firm culture”) and issues of effectiveness efficiencies and retaining talent will show up.

Furthermore, LinkedIn’s early strong growth falls into a period when there was *heavy competition for talent needed for growth* – a “war” for talent. For instance, LinkedIn recruited 184 people in 2009, with most of that hiring done in the fourth quarter, and hired an additional 154 people by

April 2010. It targeted an additional 300 hires for 2010. But in and around Silicon Valley "it's a very competitive job market," said LinkedIn's vice president of people operations. The demand has turned some hires into all-out bidding wars [Tuna et al. 2010].

In this context Tuna et al. [2010] report an illustrating case of a 30 years old San Francisco resident and computer science PhD, Sam Shah. He began job-hunting in February 2010 after the Silicon Valley startup he was working for hit some bumps. Within a week he had job offers from five Internet companies including LinkedIn. "I interviewed on a Friday and had an offer by Tuesday," Shah said. When he accepted LinkedIn's offer to become a senior software engineer, he said the other companies "called me again and offered more money." "They all tried to compete with one another." Mr. Shah, who said he makes more than $120,000 a year, started with LinkedIn in late March.

Apart from the *common risks of currency exchange and running software systems and their operations* notable *business-related risks* of LinkedIn comprise [LinkedIn 2011:13]:

- Issues of quality of input of users and issues of retrieval affecting user satisfaction and expectation.
- Usual risks with subscriptions which is renewal, the level of non-renewals that must be retained or better increased (this depends largely on sales and marketing)
- An increasing shift of access to LinkedIn from mobile devices may affect ways of advertising on the LinkedIn platform and, hence, may affect the revenue stream from marketing solutions
- Processing, storing and using personal data must be in compliance with governmental regulations and other legal obligations related to privacy – particularly, not just in the US, but also in many other countries (the business is subject to a large variety of US and foreign laws)
- It must successfully respond to competition with other companies that are currently in, or may in the future enter, the online professional network space (social networking sites and Internet search companies), such as, Google or Microsoft could develop competing solutions; it views the German Xing and Viadeo in France as competitors in Europe.

Mobile advertising through all kinds of social media is still small but growing fast due to rapid take-up of smartphones. It was predicted to reach $3.3 billion in 2011 but grow to $20.6 billion by 2015, according to online consultancy Gartner [Waters 2011].

Key Metrics

LinkedIn can be accessed via networked computers and mobile devices. As of September 30, 2011, mobile page views accounted for more than 11 percent of total member visits to LinkedIn.

Typical metrics to reflect growth of a company refer to yearly numbers of employees and revenue. Back in May 2003, the LinkedIn network started with just 10 people [Carlson 2010]. The development of employees' numbers is given in Table 4.

Table 4: Numbers of employees of LinkedIn.

2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
14	33	~45	70	197	338	480	990	2,116 a)
[e-Buzz Edge 2010]		[Arrington 2007]		[LinkedIn 2011]				a)

a) From LinkedIn's Web site.

By the end of November 2008 LinkedIn was cutting 36 of 370 employees, or around 10 percent of the company. It is likely that the cuts were prompted by investors like Sequoia pushing for cost cutting (in light of the economic crisis) [Kinsaid 2008].

In Table 5 the total numbers of employees is split according to major functions. Whereas the proportion of “General and Administrative” remained rather constant over the period 2007-2009, “Sales and Marketing” personnel increased at the expense of “Product Development.”

Table 5: Headcount of LinkedIn by major functions [LinkedIn 2011].

	Year		
Function	**2007**	**2008**	**2009**
Product Development	99 (50%)	155 (46%)	207 (43%)
Sales and Marketing	31 (16%)	68 (20%)	125 (26%)
General and Administrative	23 (12%)	42 (12%)	62 (13%)
Subtotal	153	265	394
Other	44	73	86
TOTAL	197	338	480

LinkedIn had something north of $10 million in revenue in 2006 [Arrungton 2007]. Developments of revenues and profits are shown in Table 6. Over the period 2007-2012 revenue approximately doubled yearly. LinkedIn’s profit of $15.4 million came in 2010 after two years of losses and doubled in 2012.

Table 6: Development of LinkedIn’s revenues and net income or loss ($, mil.) [LinkedIn 2011; LinkedIn 2012; LinkedIn 2013].

	2012	**2011**	**2010**	**2009**	**2008**	**2007**
Net revenue	972.3	522.2	243.1	120.1	78.77	32.49
Net income (loss)	31.62	11.91	15.39	(3.97)	(4.52)	0.33

While the growth was encouraging, LinkedIn has seen a significant increase in its marketing costs in 2011. Its Sales, General and Administration costs jumped in 2011 due to its aggressive business development initiatives. For Sales and Marketing cost and expenses in 2011 (2010) of $164.7 mil. ($58.99 mil.) exceeded all other items of “Costs and expenses” – exceeding also “Product development.”

Revenue by offering is given in Table 7. Here it is seen that as a source “Hiring Solutions” increased over time markedly at the expense of “Premium Subscription”. Premium Subscriptions were an early cash cow.

Table 7: Revenue (by December 31) by offering ($. Mil.) [LinkedIn 2012; LinkedIn 2013].

	2012	**2011**	**2010**	**2009**
Hiring Solutions *)	523.6 (54%)	260.9 (50%)	101.9 (42%)	36.1 (30%)
Marketing Solutions	258.3 (27%)	155.9 (30%)	79.3 (33%)	38.3 (32%)
Premium Subscription	190.5 (20%)	105.5 (20%)	61.9 (25%)	45.7 (38%)

*) Now called Talent Solutions.

Revenue from enterprises and professional organizations are generated by selling hiring and marketing solutions through a *field sales organization or online on LinkedIn’s Web*. Contributions from the field versus the Web remained almost constant over time, the field exceed the Web by a factor of ca. 1.2 (Table 8).

LinkedIn was seeing two members join each second, and had over 135 million members in 2011/2012, so it is a popular place for advertisers to reach consumers.

Table 8: Net revenue by field sales and online sales December 31 ($. Mil.) [LinkedIn 2012].

Type of Sales	2011	2010	2009
Field sales	287.6	135.7	64.0
Online sales	234.6	107.4	56.1

LinkedIn's increasing international orientation according to revenue is reflected in Table 9. An overview of the distribution of LinkedIn members restricted to English-speaking and German speaking countries is given in Table 10.

Table 9: The US versus non-US countries as the origins of revenue ($ Mil.) [LinkedIn 2012].

	2011	2010	2009
United States	353.8 (68%)	177.0 (73%)	88.5 (74%)
International	168.4 (32%)	66.1 (27%)	31.6 (26%)

Other indicators for the development of LinkedIn refer to the numbers of its members. Furthermore, when other sources of revenue, particularly advertising and hiring, become significant, data on customers and their access to LinkedIn are important. Metrics, hence, include correspondingly:

- Number of registered members,
- Number of paying members (premium members, subscribers),
- Unique Visitors,
- Page Impressions (for instance, being relevant for revenues by advertisements via the "cost per thousand impressions" (CPM) mode).

Data on the last two categories are often provided by digital marketing intelligence services to assess potential impact for advertising, such as the US firm comScore, Inc. comScore's digital marketing intelligence platform comprises proprietary databases and a computational infrastructure that measures, analyzes and reports on digital activity. The platform is founded on data collected from a comScore panel of more than two million Internet users worldwide who have granted the firm explicit permission to confidentially measure their Internet usage patterns, online and certain offline buying behavior and other activities.

In Germany there is, for instance, the IVW organization (Informationsgemeinschaft zur Feststellung der Verbreitung von Werbeträgern e.V.) which usually certifies corresponding figures of Web sites of print media, such as business newspapers or magazines (like Financial Times Deutschland, Handelsblatt,. Wirtschaftswoche or Manager Magazin).

Page Impression refers to the number of pages on the Web site that users view during the measurement period.

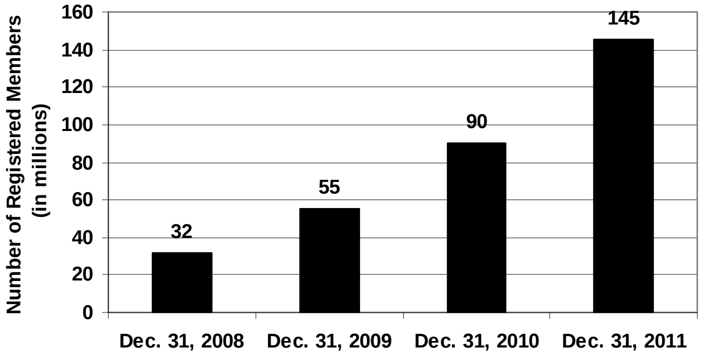
Unique Visitors are users who have visited a particular Web site al least once during a month regardless of whether they are a member, if applies. Usually a 30 or 60 minutes period is blocked for measurement; a user coming back to the Web site after ten minutes will not be counted.

Finally, it is interesting to know how often a particular user comes back to a site. Identification of such *Visits*, however, is technically and legally difficult.

Such indicators are assumed to provide insight whether the site is increasing member engagement and whether members are deriving value from the offerings (applications, tools, information, interconnections, etc.). Correspondingly, higher level member engagement is assumed to increase sales of premium subscriptions, e-recruiting, marketing (advertisement) and event solutions. To target advertisements, not only the sheer bulk of addressees is important, but also the demographics of the addressees.

In Figure 1 the number of registered users, unique users to LinkedIn's Web site and number of page views on its Web site are displayed illustrating continued growth over time. Growth is believed to be attributable to the network effects of LinkedIn's business model, the strength of its brand, and the value of its solutions [LinkedIn 2011].

Apart from issues how comScore measures corresponding indicators, issues of such metrics have been raised recently for LinkedIn under the heading "How LinkedIn Turns a Profit when 'Users' Don't Use the Site." [Sherman 2011].



Unique Visitors (in millions):

Dec. 31, 2010 52

Dec. 31, 2011 84

Page Views (in billions):

Dec. 31, 2010 18.1

Dec. 31, 2011 29.4

In August 2009 comScore changed its method to count traffic. This makes previous data of unique visitors not meaningful for comparisons.

Figure 1: Number of registered members, unique visitors to LinkedIn's Web site and number of page views on its Web [LinkedIn 2011; LinkedIn 2012].

As of November 3, 2011, LinkedIn operates the world's largest professional network on the Internet with more than 135 million members in over 200 countries and territories. In the top 10 countries there are 80 percent of all LinkedIn members [Verde 2011].

Table 10: Members of LinkedIn by English-speaking and German-speaking countries (as of November 3, 2011).

Worldwide Membership: 135m+ professionals around the world (Nov. 2011), including executives from every US Fortune 500 company	
55m+ members in USA	26m+ members in Europe
English-Speaking Countries:	2m+ members in the *DACH region* *)
4m+ members in Canada	1.5m members in Germany
2m+ members in Australia	
6m+ members in the UK	1m+ members in Spain
11m+ members in India	1m+ members in Turkey (Feb. 10, 2012)

*) DACH region: Germany, Austria and Switzerland

LinkedIn does not provide the number of members with premium subscriptions which, for 2010, contributed with $62 million to LinkedIn's revenue (Table 7) which was "translated" to be 245,000 premium subscribers in 2010 on the basis of an average of $20/month for subscribers [Woirhaye 2011]. However, concerning the average amount paying users contribute to LinkedIn's revenue Woirhaye [2011] does not take the distribution of LinkedIn's paying members with different premium price levels into account.

Based on a back-of-the-envelope calculation one can arrive at a similar number of premium subscribers by a different approach starting from LinkedIn to have a total of ca 100 million registered members at end of 2010/early 2011. According to Table 11 (bottom) 39 percent of the members pay for their premium LinkedIn account leading to revenue of $62 million in 2010 (Table 7). Taking the distribution among different price levels for premium members into account will give a number of ca. 205,000 premium subscribers. Hence, the number of paying users of LinkedIn of 0.2-0.3 percent of all users is distincly below the "1% premium subscription ratio" estimated in Wikipdia [Wikipedia 1].

Only 20 percent say they click often advertisements. That figure would affect the various types of pay-for-performance advertising, whereby payment is only triggered by a mutually agreed upon activity, such as "pay-per-click" (PPC).

How are people really using LinkedIn's service? Researchers at Lab 42 asked 500 LinkedIn users that question. Some of the answers of the sample providing rough insights are summarized below [White 2011]. According to this study, two thirds of the members access LinkedIn few times a week, irregularly or few times a month or less than that. Ads get rarely attention. Most members (58 percent) care little about updating their profile and the majority of members does not pay for a premium LinkedIn account.

Only 20 percent say they click often advertisements. That figure would affect the various types of pay-for-performance advertising, whereby payment is only triggered by a mutually agreed upon activity, such as "pay-per-click" (PPC).

Table 11: Selected use patterns of LinkedIn [White 2011].

How often do you access LinkedIn?	
Daily	35%
A few times a week	32%
A few times a month	16%
Whenever I get an email from LinkedIn	8%
Monthly	2%
Less than once a month	6%
Never	1%
Have you ever clicked on ads?	
Yes, often	20%
Yes, rarely	40%
No	40%

Among 500 people	
Update their LinkedIn profile information regularly	42%
Change it every now and then	38^
Have profiles that are a little outdated	13%
Haven't updated their profile since they joined LInkedIn	7%
Do you pay for a premium LinkedIn account?	
No	61%
Yes ($19.95/month; Business)	26%
Yes ($39.95/month; Business Plus)	8%
Yes ($74.95/month; Executive)	5%

Competition

In its IPO prospectus LinkedIn expected "to face increasing competition in the market for online professional networks from social networking sites and Internet search companies, among others, as well as continued competition for customers of its hiring and marketing solutions." [LinkedIn 2011:18].

In its IPO prospectus it expected "to face significant competition in all aspects of its {our} business." Specifically it will compete for members, enterprises and professional organizations. The basis upon which LinkedIn will compete in a market for online professional networks being new and rapidly evolving differ among the areas outlined below. [LinkedIn 2011:84].

> *Members – Professional Networks*. "Other companies such as Facebook, Google, Microsoft and Twitter could develop competing solutions or partner with third parties to offer such products. We face competition from a number of smaller companies in international markets, such as Xing (B.2) in Germany and Viadeo in France, that provide online professional networking solutions, as well as Internet companies in the customer relationship management market, such as Salesforce.com (Chatter and Jigsaw)."
>
> Membership on its Web site is available at no cost. LinkedIn aims not to compete for members on the basis of price. Instead, its focuses primarily on addressing the value and relevance of the products for professionals, ease of use and availability of its Web site and products and solutions as well as the total number of professional members, and relevant data available.
>
> *Enterprises Professional Organizations – Recruiting*. With respect to hiring solutions, competition in the US is with established online recruiting companies such as Monster-Hot Jobs and CareerBuilder [Rusli 2011a], talent management companies, such as Taleo, and traditional recruiting firms.
>
> Competition is primarily on the basis of the efficiency and usefulness of the solutions for enterprises and professional organizations, which are assumed to be influenced by the number and engagement of the members.
>
> *Enterprises Professional Organizations – Advertising and Marketing.* With respect to marketing solutions, LinkedIn competes with online and offline outlets that generate revenue from advertisers and marketers. In this area, LinkedIn competes to attract and retain advertisers by giving them access to a relevant and targeted audience for their products or services.

LinkedIn versus XING – Are they comparable?

LinkedIn mentioned explicitly the German firm Xing AG to be a competitor. Recently Woirhaye [2011] of the social sales intelligence service IKO System presented a comparison of these two firms (including also LinkedIn's French competitor Viadeo).

Notably the comparison of Woirhaye [2011] indicates that more members would not mean more subscribers.

Woirhaye asked "Can we really compare LinkedIn to Viadeo and Xing?" and gave the answer "Yes we can." Major arguments of Woirhaye refer to the following arguments which restrict the focus on only LinkedIn and Xing for details.

- All the professional social networks have essentially the same sources of revenue (cf. also Table 7; Xing – B.2) – but contributing differently to the overall revenue.
- Their systems are complex to allow scaling; companies have invested massively to reach a high level of quality during the previous years.
- LinkedIn has (much) more members but is much less efficient in driving subscription revenues from its members.
- All of them have experienced disappointment on audience: Most of the members do create their profile but only 35-40 percent of members visit the Web site each month and spend very few time on it (7 to 9 minutes), which is bad news for advertising.
- Time spent per visits is equal for LinkedIn and Xing (ca. 9.3 minutes).

Major differences between the firms cited by Woirhaye [2011] comprise:

- While LinkedIn topped 110 million registered members around 2011, Xing has about 10 millions, Viadeo claimed 35 million.
- LinkedIn acts as an international service (with 60 percent of its members abroad) whereas Xing and Viadeo are mostly European pure-players with local or multi-local strategies. After 3 years of intense energy towards such an approach, Xing has abandoned its broad international strategy. 96 percent of Xing's revenue is due to its "home market", the DACH region.
- US users typically pay to see profiles and get search results (a proactive approach) while the main driver for European users is the ability to check who visits your page (a passive approach).
- Contrary to Xing (and Viadeo) LinkedIn put a strong focus on advertising with its contribution to revenue increasing markedly over the last years (cf. also Table 7).
- Regarding the revenue model, LinkedIn sells hiring and advertising not only online, but also offline by a field sales organization (cf. Table 8). This switch from a pure Web-based customer acquisition model is associated with tough down-the-street expenses.

The author thinks that LinkedIn and Xing as new technology-based firms (NTBFs) during their first nine years of existence reveal more differences than similarities, in particular, emphasizing competition between the two firms. LinkedIn is more of a competitor for Xing than Xing is for LinkedIn. The German Xing is not an appropriate proxy for a business-focused social network operating in LinkedIn's turfs. But as a case study the comparison between the two firms can provide significant insights into entrepreneurship in the US versus entrepreneurship in Germany, at least for the considered business area.

As Xing and LinkedIn were founded at almost the same time looking at Xing's IPO in Germany and its situation in 2008 and 2010 and comparing this with LinkedIn's valuation at $2 billion (2010) obviously can provide some lucid differences between company as well as leadership and management developments in Germany and the US as well as the roles of private venture capital, the (US) financial system and the stock market.

Basically, growth potential is higher by the magnitudes of the different markets: Xing's German-speaking DACH region provides approximately a sixth of the English-speaking markets of the USA, UK, Canada, and Australia, disregarding India (!). But 96 percent of Xing's revenue is due and remains essentially to its "home market" (Xing, B.2).

Fundamentally, there are notable cultural and operational differences.

Consequently, with regard to business models and approaches to internationalization a “one fits all”, the “American way” of LinkedIn, will not work everywhere – even if the tremendous international success of Facebook suggests that social media seem to be largely “culture-independent.”

Professional social networks will be affected by national cultural differences and particularly by the “business culture” [Runge:ch. 3.4.2]. Another cultural effect that has to be considered for comparisons between LinkedIn and Xing refers to the frequency of changing job or “job hopping”, respectively, in the US and Germany. This will affect “hiring solutions” (e-recruiting) as an offering.

According to an online-survey of the career-portal Monster in Germany obviously the number of people who want to accelerate their career by frequent job changes, increase their salary or change jobs because of dissatisfaction are rather low. According to Davide Villa, CEO of Monster Worldwide Deutschland GmbH, “what is normal in the US, is still viewed with skepticism in this country.” Frequent job changes are seen still as critical by HR managers [Schreier 2007].

Furthermore, concerning payment and premium subscriptions, the readiness to pay for Internet services exhibits a relationship to culture. For instance, most of the developing countries (especially in Asia) still have a use-for-free culture when it comes to the Internet [Woirhaye 2011].

The revenue and business models of LinkedIn and Xing overlap only formally concerning the streams of revenue. The relevance of each of the components of the networks has different origins and, by the quantity of the contribution to the overall revenue (Table 12), will lead to different dependencies of the two firms upon external effects.

For instance, as mobile ads cost less than online ads viewed on desktop computers, declining prices for the ads by a shift of advertisers toward mobile ads may affect LinkedIn more than Xing (Table 12).

Through acquisition of the firm Amiando by the end of 2010 Xing opened “events” as a further source of revenue. Amiando is an event management unit and ticket service and provides a new function of Xing, the registration for events and provision of tickets. In 2011 revenues from Events, which were reported for the first time in Xing’s history, totaled €2.5 million (3.8 percent of total revenue).

Using the above data of LinkedIn and those given for Xing (B.2; Table 5) differences between the firms show up lucidly if one looks at the proportions of key metrics of the firms for 2010 (Table 12).

Table 12: Comparing selected quantitative characteristics of LinkedIn and Xing in 2010.

LinkedIn	Xing	Proportion
90 million registered members	10 million	9
52 million unique visitors	2.1 million	24.8
ca. 200,000 premium subscribers	718,000 (first half of 2010); premium members do not see ads	Premium subscribers/registered members = 0.3% for LinkedIn, for Xing: 7.2%
990 employees	306	3.24

Table 12, continued.

Revenue $243 mil.	€54.3 mil. ($73.3)	3.32
Net Income $15.4 mil.	€7.2 mil. ($9.7)	1.59
Net income/Revenue = 6.3%	13.3%	Though LinkedIn is larger by factor of ca. 3.3 than XING in terms of employees and revenue, in relation to profit Xing's performance is twice that of LinkedIn's performance.
LinkedIn		**Xing**
Market Capitalization		
$8.9 bil. (IPO May 2011), is 578 times 2010 profit; $1 billion in 2008 of a private market $2 billion in 2010 of a private market		€157 mil. (IPO, Dec. 2006), is 22 times 2010 profit; ca. €210 mil. (2010; ca. $270 mol.) [Groß-Selbeck and Chu 2011] Average share prices: €36,35 (2010), €41,05 (2011); valuation 2011: ca. €.249 ($300 million)
Raised $352.8 million capital with the IPO		Raised €35.7 million capital with the IPO
Sources of Revenue:		
$61.9 mil. (25%) Premium (paying) members		€42.4 mil. (78%) Premium (paying) members
$79.3 mil. (33%) Advertisements, marketing		€3.9 mil. (7%) Advertisements, marketing
$101.8 mil. (42%) E-recruiting, hiring solutions		€7.1 mil. (13%) E-recruiting, hiring solutions
Market Focus by Country		
US (ca. 68% of revenues), India, UK, Brazil, Canada, France, Australia;		DACH region (ca. 80% of revenue), Turkey, Spain, South America and Latin America *)
Ca. 40 mil. members in the US		Ca. 3 mil. members in Germany
2 mil. registered members in the DACH region including 1.5 mil. in Germany		4.1 mil. in the DACH region, ca. 1.4 mil. in Turkey

*) DACH region = Germany, Austria, Switzerland (German-speaking countries); in Germany ca. 3 million people of Turkish origin live and Germany is the biggest trading partner of Turkey.

Whereas LinkedIn as a professional social network has "*hybrid features*" in that it acquires revenue distinctly by online and offline approaches to non-individual users Xing facilitates (and further develops) online and face-to-face interconnections of individual users.

Furthermore, putting the emphasis of valuing the offerings on *individual users* for numbers of *paying users* Xing is far ahead of LinkedIn (Table 12). LinkedIn's value is seen more by firms which are interested in the *demographics of the individuals for advertisement or hiring*.

The most perplexing difference between LinkedIn and Xing concerns the valuations of the firms, particularly after Xing's IPO in December 2006 after three years of existence and LinkedIn's lofty $8.9 billion IPO valuation.

By the end of 2007/January 2008 LinkedIn closed a $13 million funding round (Table 2) at a $250 million valuation with around 8 million registered members and comparable with Xing's valuation of ca. $200 million through its IPO with around 2 million registered members in April 2007. At that time both firms were characterized as “LinkedIn is almost certainly the leading business social network in the US, while Xing is a big player in Europe.” [Cashmore 2006] But in 2010 Xing had a valuation of ca. $300 million versus $2 billion of LinkedIn.

LinkedIn’s IPO occurred on May 19, 2011. Shares of LinkedIn opened at $83 on the New York Stock Exchange, up 84 percent from its *initial public offering price of $45*. By the public market's close, the stock had soared 109 percent to $94.25 [Woo et al. 2011].

The $45 initial public offering price would have put LinkedIn’s valuation at $4.25 billion.

Providing promotion in the context of individual career development or future developments of a firm, there is a tendency in Germany as a *cultural feature* for *assessing performance* of people or firms to focus more on *past achievements*, whereas in the US there is more emphasis on *expectations of a future potential of achieving*.

We shall proceed with a simplified back-of-the-envelope approach to valuation of LinkedIn in 2010 (Table 12) to tackle the disconnect between stock price and the firm’s fundamentals. We assume simply that “everything” in the US – population, GDP or markets, opportunities or investment funds etc. – is bigger than in Germany by a factor of four to five.

Based on Xing’s valuation (*ascribed value* [Runge:ch. 1.2.5.2]) in 2010 to be at ca. $270 million a valuation of. $1.1 - $1.3 billion for LinkedIn could be a rough estimate. Furthermore, as LinkedIn had ca. 90 million members in 2010 and added fast new ones, it is a popular place for advertisers to reach consumers and organizations looking to fill jobs.

The perceived *potential* future revenue from advertisement and hiring solutions could drive the valuation to ca. $1.7 million, not too far of from its value in 2010 (Table 12).

Cited by Rao [2011] ad revenue from social networks worldwide was expected to reach $5.54 billion in 2011 according to eMarketer estimates, and will double by 2013. Half of the 2011 ad spent on social networks, $2.74 billion, is coming from the US market. Cashmore [2008] reported social networking ads to be worth $2 billion by 2010.

The question a prototypical German would have, hence, concerns the context and the mechanism how to fix the $45 IPO price which would put LinkedIn’s valuation at $4.25 billion and what was behind its final $8.9 valuation. And also in the US this valuation was discussed very controversial, LinkedIn's valuation being perceived as "obviously insane." [Blodget 2011]

Looking at the revenue of LinkedIn in 2010 (Table 12) which is larger that of Xing by a factor of 3.3 the comparisons of net income of the two firms raises a question about performance of LinkedIn.

A discussion whether LinkedIn's valuation is outrageous referring to comparisons with other firms’ IPOs in the US also did not resolve the question [Blodget 2011]. “The stock was trading at about 20-times this year's *expected revenue* of ~$500 million. Some companies do trade at ~20-times revenue, but *only extraordinarily profitable companies* that are *growing extremely quickly*. LinkedIn is growing very quickly, and some smart investors believe that LinkedIn will eventually have super-high profit margins, but the company has yet to demonstrate this yet.” (Emphases added) Blodget’s conclusion:” I would not touch LinkedIn's stock at this level, because I think the risk is too high. The potential upside, in my opinion, just isn't compelling enough to offset the potential downside.”

In an interview, LinkedIn Chief Executive Jeff Weiner played down the significance of the IPO's surge. "This isn't necessarily indicative of anything," he said. "The market will do what it will do." [Woo et al. 2011]

The discussions of the dramatic and disastrous decline of stock prices of the US firms Groupon and Zynga (B.2) after their IPOs and reasons for the high flying valuations including suspected roles of underwriters are presented by Runge [ch. 3.4, at the end]. For LinkedIn reports of analysts of the underwriters were even related to the IPO, also cited by Runge. But, contrary to Groupon and Zynga over the year 2012 LinkedIn’s share price showed considerable fluctuation, climbing up to ca. $120 - $150 ($109 at October 19, 2012, $123.8 on Jan. 2, 2013, $215.2 on Jan. 2, 2014 and $153.47 on April 1, 2014).

Underwriting means the process by which investment bankers raise investment capital from investors on behalf of corporations (here, for IPOs) and governments that are issuing securities (both equity and debt). According to Investopedia, “the word "underwriter" is said to have come from the practice of having each risk-taker write his or her name under the total amount of risk that he or she was willing to accept at a specified premium. In a way, this is still true today, as new issues are usually brought to market by an underwriting syndicate in which each firm takes the responsibility (and risk) of selling its specific allotment.”

A different question is in how far the availability of “cheap money” in the US provided by the Federal Reserve System, "The Fed," (the central bank of the US) which flooded the financial system with money at negligible interest rates has facilitated skyrocketing valuation of LinkedIn and other firms (like Groupon or Zynga).

References

Admin (2011): *You are in LinkedIn – But Have You Heard of XING and VIADEO*? Design & Technology Blog, April 18, 2011. http://www.interaria.com/dallaswebdesignblog/2011/04/18/xing-viadeo-social-networking-sites/ (last access 10/27/2011).

Alarm:Clock (2004): *Linked-In – Profile*. Social Networking, Aug. 6, 2004. http://www.thealarmclock.com/mt/archives/2004/08/linkedin_hq_mou.html (last access 9/18/2011).

Aristotle, R. (2011): *Read This Before You Buy LinkedIn*. The Motley Fool, May 19, 2011. http://www.fool.com/investing/general/2011/05/19/read-this-before-you-buy-linkedin.aspx (last access 5/20/2011).

Arrington, J. (2008): *Management Shakeup At LinkedIn: Reid Hoffman Takes Back CEO Role, Jeff Weiner As Interim President*. Tech Crunch, Dec. 17, 2008. http://techcrunch.com/2008/12/17/management-shakeup-at-linkedin-reid-hoffman-takes-back-ceo-role-jeff-weiner-as-interim-president/ (last access 11/26/2011).

Arrington, M. (2007): *LinkedIn Raises Nearly $13 Million More*. TechCrunch, Jan. 28, 2007. http://techcrunch.com/2007/01/28/linkedin-raises-nearly-13-million-more/ (last access 11/11/2011).

Bach, A. (2012): *LinkedIn: A Tech Employee’s Promise Land?* The Salary Reporter, Jun. 26, 2012. http://blogs.payscale.com/salary_report_kris_cowan/2012/06/linkedin-a-tech-employees-promise-land.html (last access 7/1/2012).

Blodget, H. (2011): *The Truth About Linkedin.* Business Insider, May 20, 2011. http://www.businessinsider.com/the-truth-about-linkedin-2011-5 (last access 10/9/2011).

Burchill, J. (2011): *Why Reid Hoffman Is Entrepreneur of the Decade*. Technokrati, May 23, 2011. http://technorati.com/business/article/why-reid-hoffman-is-entrepreneur-of/ (last access 10/27/20110.

Cashmore, P. (2006): *LinkedIn Worth $250 Million?* Mashable, Dec. 21, 2006. http://mashable.com/2006/12/21/linkedin-worth-250-million/ (last access 4/21/2010).

De Senerpont Domis, O. (2011): *Social graces: Sequoia, Reid Hoffman net on LinkedIn*. The Deal, Jun. 24, 2011. http://www.thedeal.com/content/tmt/social-graces-sequoia-reid-hoffman-net-on-linkedin.php (last access 11/20/2011).

DPA (2011): *LinkedIn greift Xing auf Heimatmarkt an (LinkedIn attacks Xing on its home market*). Süddeutsche Zeitung, Aug. 26, 2011). http://newsticker.sueddeutsche.de/list/id/1197310 (last access 8/26/2011).

Duffy, J. (2011): *How to – LinkedIn: Lets you create a detailed professional profile others can search*. PC Magazine, May 19, 2011. http://www.pcmag.com/article2/0,2817,2120736,00.asp (last access 9/19/2011).

e-Buzz Edge (2010): *LinkedIn turns seven! Slideshare*. CTN Consulting, May 13, 2010. http://www.slideshare.net/ctnconsulting/linkedins-history-present-and-recent-features (last access 11/11/2011).

Fass, A. (2011): *LinkedIn Wins Entrepreneur of the Year*. Inc. Magazine, Nov. 14, 2011. http://www.inc.com/articles/201111/linkedin-reid-hoffman-jeff-weiner-wins-entrepreneur-of-the-year-award.html (last access 12/11/2011).

Guynn, J. (2008): Major *leadership shakeup at LinkedIn: Nye leaves, Hoffman back at the helm*. Los Angeles Times, Dec. 17, 2008. http://latimesblogs.latimes.com/technology/2008/12/major-leadershi.html (last access 11/26/2011).

Hoffman, R. (2009): *How I Did It: Reid Hoffman of LinkedIn*. Inc. Magazine, May 1, 2009. http://www.inc.com/magazine/20090501/how-i-did-it-reid-hoffman-of-linkedin.html (last access 11/20/2011).

Hoffman, R. (2007): *Core Ideas for a Social Networking Company*. Stanford Technology Ventures Program, Entrepreneurial Thought Leaders Lecture, Feb. 7, 2007. http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1689 (last access 9/19/2011).

Kaiser, N. (2004): *Interview with Reid Hoffman, CEO of LinkedIn*. Npost, Mar. 17, 2004. http://www.npost.com/?s=hoffman (last access 11/20/2011).

Kinsaid, J. (2008): *LinkedIn Cuts 10% Of Staff*. TechCrunch, Nov. 5, 2008. http://techcrunch.com/2008/11/05/linkedin-cuts-10-of-staff/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Techcrunch+%28TechCrunch%29 (last access 11/4/2011).

LinkedIn (2011): *IPO Prospectus – Form S-1, LinkedIn Corp*. Morningstar Document Research, Filed Jan. 27, 2011. To be accessed through the SEC's website at edgar.sec.gov, downloaded 10/26/2011.

LinkedIn (2012): *Annual Report 2011*. LinkedIn, April 2012. http://files.shareholder.com/downloads/ABEA-69T44N/2102149345x0x564410/1B57384D-43E3-4A15-9334-D879A2F77314/2011_Annual_Report_4-27-12.pdf.

LinkedIn (2013): *Annual Report 2012*. April 2013. http://files.shareholder.com/downloads/ABEA-69T44N/2988160719x0x665814/6F886EB6-2C01-4284-B43D-8684D46046FE/LinkedIn_2012_10-K_Annual_Report_bannerless_PDF_for_posting_.PDF; cf. also http://www.slideshare.net/linkedin/2014-linkedin-company-presentation.

O'Brien, J. M. (2007): *Meet the PayPal Mafia*. Forbes Magazine, Nov. 26 2007. http://money.cnn.com/2007/11/13/magazines/fortune/paypal_mafia.fortune/index.htm (last access 7/1/2011).

Ovide, S. (2011): *LinkedIn IPO: 5 Things You Didn't Know About the Company*. Wall Street Journal, Jan. 6, 2011. http://blogs.wsj.com/deals/2011/01/06/linkedin-ipo-5-things-you-didnt-know-about-the-company/.

Perlroth, N. (2011): *Reid Hoffman: Social Media's 7 Most Powerful People*. Forbes, Nov. 2, 2011. http://www.forbes.com/sites/nicoleperlroth/2011/11/02/reid-hoffman-social-medias-7-most-powerful-people/ (last access 11/20/2011).

Postinett, A. (2011): *Reid Hoffman - Linkedin-Gründer wird zum Internet-Milliardär (LinkedIn founder becomes an Internet-billionair*). Handelsblatt, May 20, 2011. http://www.handelsblatt.com/unternehmen/management/koepfe/linkedin-gruender-wird-zum-internet-milliardaer/4198402.html (last access 5/20/2011).

PRWeb (2012): *Reid Hoffman to Receive Difference Maker Award at 2012 American Business Awards Ceremony*. PRWeb, Aug. 13, 2012. http://www.prweb.com/releases/2012/8/prweb9789297.htm (last access 9/4/2012).

Rao, L. (2011): *Global Ad Revenues From Social Networks To Reach $5.4B In 2011; $10B In 2013*. TechCrunch, Oct. 5, 2011. http://techcrunch.com/2011/10/05/global-ad-revenues-from-social-networks-to-reach-5-4b-in-2011-10b-in-2013/ (last access 10/23/2011).

Rusli, E. M. (2011): *LinkedIn Ekes Out a Profit, as Sales Surge*. The New York Times, Aug. 4, 2011. http://dealbook.nytimes.com/2011/08/04/linkedin-ekes-out-a-profit-as-sales-surge/ (last access 8/5/2011).

Rusli, E. M. (2011b): *A King of Connections Is Tech's Go-To Guy*. The New Yotk Times, Nov. 5, 2011. http://www.nytimes.com/2011/11/06/business/reid-hoffman-of-linkedin-has-become-the-go-to-guy-of-tech.html?pagewanted=1&_r=0&hpw (last access 11/6/2011).

Sauter , V. (2010): *Social Networking 101: The Fundamentals of Facebook, LinkedIn and Twitter: LinkedIn*. Web page was last modified on: 04/16/2010. http://www.umsl.edu/~sauterv/alumniweekend/linkedin.html (last access 5/19/2011).

Schreier, J. (2007): *Deutsche Arbeitnehmer sind (noch) keine Jobhopper (German employees are (still) no job hoppers*). MM Das Industrie Portal, Feb. 27, 2007. http://www.maschinenmarkt.vogel.de/themenkanaele/managementundit/recht/articles/59357/ (last access 10/14/2012).

Sherman, E. (2011): *How LinkedIn Turns a Profit when "Users" Don't Use the Site*. CBS Money Watch, Aug. 5, 2011. http://www.cbsnews.com/8301-505124_162-43452177/how-linkedin-turns-a-profit-when-users-dont-use-the-site/?tag=bnetdomain (last access 8/12/2011).

Tuna, C.; Vascellaro, J. E.; Tam, P.-W. (2010): *Tech Sector in Hiring Drive.* Wall Street Journal, April 15, 2010. http://online.wsj.com/article/SB10001424052702304628704575186362957042220.html?mod=WSJ_hpp_sections_tech (last access 4/17/2010).

Verde, A. (2011): *LinkedIn – Demographics & Statistics. Jul. 2011*. Amodiovalerio Verde, http://aboutme/amodiovalerio.verde, compiled Jul. 13, 2011. http://www.slideshare.net/amover/linked-in-demographics-statistics-july-2011 (last access 1/11/2011).

Waters, R. (2011): *Technology: the Internet bubble*. Financial Times, Jun. 20 2011. http://www.ft.com/intl/cms/s/0/6fd71904-9b69-11e0-bbc6-00144feabdc0.html (last access 6/21/2011).

Wikipedia 1: *LinkedIn*: http://en.wikipedia.org/wiki/LinkedIn.

Wikipedia 2: *Reid G. Hoffman*: http://en.wikipedia.org/wiki/Reid_Hoffman

White, C. (2011): *How Are People Really Using LinkedIn*? Mashable Social Media, Jul. 9, 2011. http://mashable.com/2011/07/09/linkedin-infographic/ (last access 9/23/2011).

Woirhaye, N. (2011): *LinkedIn against its European competitors (A comparative study of LinkedIn vs Viadeo vs Xing)*. IKO System, Jun. 2011. http://www.iko-system.com/wp-content/uploads/2011/06/LinkedIn-vs-competitors.pdf (last access 11/11/2011).

Woo, S.; Cowan, L..; Tam, L.-W. (2011): *LinkedIn IPO Soars, Feeding Web Boom*. Wall Street Journal, May 20, 2011. http://online.wsj.com/article/SB10001424052748704816604576333132239509622.html (last access 5/19/2011).

Access to the Treatise:

Volume 1 and 2 - ISBN 978-3-7315-0107-7 (Set): DOI
http://dx.doi.org/10.5445/KSP/1000036457.

Volume 1 - ISBN 978-3-7315-0108-4: DOI http://dx.doi.org/10.5445/KSP/1000036459.

Volume 2 - ISBN 978-3-7315-0109-1: http://dx.doi.org/10.5445/KSP/1000036460.