W7.1

EXHIBIT W7.1.1

Any industry making a huge profit margin off its customers is a good candidate for disruption. Banking is a classic case—just think of the 19 percent interest you pay on credit cards and the 2 percent you earn on your savings account.

In this section, we will introduce two Web 2.0 companies that are trying to disrupt the banking industry—Zopa in the United Kingdom and Prosper in the United States.

**The Innovation: Person-to-Person Lending**

Individuals who want to borrow money may be required to pay 10 to 20 percent interest if they use their revolving credit cards. At the same time, they receive 2 percent to 5.5 percent interest on their savings. The banks take the difference, but they also take the risk from being the lenders. Now assume that an individual lender can negotiate directly with an individual borrower. It is likely that each can be better off than with the bank. Suppose they agree on 8 percent interest. The lender will get much more. The borrower will pay much less. The problem is how do they find each other and negotiate and secure loans? This is where innovative sites such as Zopa enter the picture. The basic idea is that of person-to-person lending, meaning you lend money directly to a consumer rather than “selling” your money to the bank, which the banks then loan to consumers.

**The Zone of Possible Agreements in Negotiation**

Exhibit W7.2.1 illustrates a typical negotiation situation. Suppose you want to sell your used car. Usually, you have some range of expectation within which you are willing to settle. You know that you will never get more than $10,000 for your car, but in the worst case, you will accept $6,000 (these numbers may be changed with the time and the experience of offers). The buyer also has a settlement range, for example, $5,000 to $7,000.

Notice that in such a case there is an overlap between the ranges, which means that a deal is possible. The seller will start with $10,000 and reduce the price slowly, and the buyer will start with $5,000 and increase it slowly. If the ranges do not overlap, there will be no deal. Otherwise, you will sell your car with a price in the overlapping zone. This overlapping range is called the “Zone of Possible Agreements” (Zopa), and this is also the name of the pioneering company. Agreement in this zone must also be more beneficial to both sides than what they can get in the bank. Note that Zopa has a lower limit, which signifies the seller’s walkaway position ($6,000 in our example). If an offer is less than $6,000, the seller will not entertain it. Similarly, the buyer’s walkaway point is $7,000; therefore, he or she will not consider any higher price.

The same idea applies to lending. However, this time you need intermediation, and this is where Zopa and Prosper enter the picture. These (and similar companies) are using the Web to allow personal lending on a massive scale. Zopa was the first company to introduce such peer-to-peer lending. What Skype did to telecoms and Amazon.com did to retailers is being done here to traditional banks, namely—disintermediation.

**Zopa Ltd.**

Zopa (zopa.com) was founded in London in March 2005, and by January 2007 it had 40 employees and 105,000
registered member users (lenders and borrowers). Zopa arranges for more than $100,000 worth of loans every day. In 2009, Zopa expanded to include other countries including the United States, Italy, and Japan.

**Securing the Loans**

Zopa tries to check the background of the borrowers in the following ways:

- Conducting a credit rating investigation at Experion, Equifax, or a similar company
- Checking people’s eBay rating (if available)
- Checking the borrower’s profile (if available online)
- Permitting only one account for each borrower
- Checking the possibility of identity theft by a borrower by asking questions about past borrowing, demographics, etc.

In addition, Zopa advises lenders to spread out the risk by lending from one individual to several borrowers. In addition, if you like to sleep better, you can get insurance (for a fee) on the amount you lend. The risk, however, is not large; the actual bad debt rate is less than 0.05 percent. A possible explanation of the low default rate is that borrowers are more likely to pay back real people than a faceless bank. The unlucky lenders can use a collection agency as in any other unpaid debt.

Finally, Zopa covers any damage from fraud done to your Zopa account by intruders, provided you have kept your personal account details secure.

**The Revenue Model**

Zopa takes 0.5 percent of the loan amount from both the lender and the borrower. There are no hidden fees, and the only other (optional) cost to the lender is the insurance (plus the fees that Zopa takes for arranging the insurance). At the moment, there are no advertisements on the site. But it is likely that in the future vendors will try to sell related products or services to either the lenders or the buyers.

**The Lending Process**

**Step 1.** Let’s say that a lender has $20,000. She transferred it to her Zopa account stating her willingness to get a 7.5 percent interest rate from borrowers of top credit rating, for two years.

**Step 2.** Zopa organizes a pool of, for example, 40 borrowers with a similar creditworthiness of top rating, one that meets the lender’s requirement. Each will get $20,000 divided by 40 = $500.

**Step 3.** The lender can read the profile of the prospective borrowers and the intended use of the money. The borrowers can read the lender’s profile as well. This fosters a personal relationship between borrowers and lenders and helps in reducing default(s).

**Step 4.** Zopa arranges the contracts.

**Step 5.** Zopa collects interest payments and mails the lender a monthly check.

**Step 6.** Zopa arranges repayment of the loan after two years.

**Prosper**

Prosper (prosper.com) is the first U.S. P2P lender. Started in February 2006, it was created to make consumer lending more financially and socially rewarding for everybody. In January 2009, Prosper reported 830,000 members and outstanding loans of $178 million. It operates somewhat similar to Zopa, but its revenue model is different. Prosper collects a 1 to 2 percent fee of the funded loan from the borrowers. In addition, lenders pay .5 percent loan servicing fees annually. Because of the higher fees, the company can assume more risk. Thus, they check only credit scores and borrowers’ group affiliation.

The way Prosper works is intuitive to people who have used eBay. However, instead of listing (by sellers) and bidding (by buyers) on items, lenders here bid and borrowers list needs using Prosper’s online auction platform. For details see Steiner (2007). Here are the major steps of the process:

**Step 1.** Borrowers create a loan listing on Prosper, specifying the amount needed, the purpose of the loan, and the interest rate they are willing to pay.

**Step 2.** Prosper displays borrower credit grade (from AA to higher risk).

**Step 3.** Borrowers provide photos of themselves, their children, and even their pets. They also provide the purpose of the required money and how they plan to pay it back.

**Step 4.** Lenders review loan listings and bid to fund only the ones they choose using a bidding process.

**Step 5.** Group leaders manage borrower groups and use their reputation to get great rates for borrowers.

**Step 6.** When a match is found, Prosper arranges for the money transfer and then manages the loan.

Groups on Prosper are formed to bring people together for the common goal of borrowing at better rates. Groups earn reputations according to their members’ repayment records. Borrowers that organize groups earn rewards.

(continued)
ONLINE FILE W7.2 (continued)

**Competition**

P2P lending competes both with traditional banks and with online banking. Online banking is especially attractive to small investors, with some banks offering online savings accounts of 5 to 6 percent in 2006 through 2007. Other competitors in 2009 included Lending Club (lendingclub.com), Fynanz (fynanz.com), and Loanio (loanio.com).

**Questions**

1. Define P2P lending.
2. Define the zone of possible agreements.
3. Describe how Zopa arranges loans.
4. Describe security measures for lenders.
5. Describe Prosper.

REFERENCES FOR ONLINE FILE W7.2


Online File W7.3 Major Types of Online Communities

- **Associations.** Many associations have a Web presence. These range from Parent-Teacher Associations (PTAs) to professional associations. An example of this type of community is the Australian Record Industry Association (aria.com.au).

- **Affinity portals.** These are communities organized by interest, such as hobbies, vocations, political parties, unions (e.g., oficio.org/siteguides/workingfamilies.cfm), and many more. Many communities are organized around a technical topic (e.g., a database) or a product (e.g., Lotus Notes).

- **Ethnic communities.** Many communities are country or language specific. An example of such a site is elsitio.com, which provides content for the Spanish- and Portuguese-speaking audiences in Latin America and the United States. A number of sites, including china.com, hongkong.com, sina.com, and sohu.com, cater to the world’s large Chinese-speaking community.

- **Gender communities.** Wwwwomen.com and ivillage.com, the two largest female-oriented community sites, merged in 2001 in an effort to cut losses and become profitable.

- **Catering to young people (teens and people in their early twenties).** Many companies see unusual opportunities here. Three examples are Alloy.com (alloy.com), Bolt (bolt.com), and BlueSkyFrog (blueskyfrog.com). Alloy.com is based in the United Kingdom and claims to have over 10 million members and reach 17 million more through teen.com, which the company launched in December 2007. Bolt, which operates from the United States, claims to have 12 million members. BlueSkyFrog, which operates from Australia, concentrates on cell phone users and claims to have more than 7 million devoted members.

- **Communities of practice.** These can be physical or virtual. Members are professionals and practitioners that share an area of practice (e.g., professors, dentists). Members also share knowledge in discussion groups. An example is...
Online File W7.3 (continued)

Linux Online ([linux.org]), whose members develop code for the Linux operating system. Learning is an important element of these communities. The community-of-practice concept has become associated with knowledge management, as people have begun to view these communities as a way to develop social capital, nurture new knowledge, stimulate innovation, and share existing knowledge.

- **Neighborhood communities.** Some associations and newspapers have created Web sites for local communities. For example, at [myadvertiser.com](http://myadvertiser.com) users can check out community events, share photos, and read local news and blogs about seven communities near Honolulu, Hawaii.

- **Social networking sites.** These are megacommunities, such as MySpace, Facebook, and Bebo, in which millions of members can express themselves, find friends, exchange photos, view videos, and more. In addition to general-interest communities such as MySpace, interest-based communities have also emerged, such as communities for dog lovers (e.g., [doggyspace.com](http://doggyspace.com) and [dogster.com](http://dogster.com)) and cat lovers ([catster.com](http://catster.com)).

- **Virtual worlds.** These 3D communities (Chapter 2) are adding many capabilities of social networks (e.g., discussion groups).

ONLINE FILE W7.4 Application Case

**YOUTUBE AND COMPANY—A WHOLE NEW WORLD**

Free video-sharing Web sites (where users can upload, view, and share video clips) became very popular after the inception of YouTube in February 2005. Many start-ups try to compete with YouTube, which was named by *Time* magazine as the “Invention of the Year 2006.” In this section, we will present the company and some of its competitors.

**YouTube: The Essentials**

YouTube is a consumer media company where people can watch and share original videos worldwide through a Web experience. People can see firsthand accounts of current events, find videos about their hobbies and interests, and discover the quirky and unusual. As more people capture special moments on video, YouTube is empowering them to become the broadcasters of tomorrow. Users can rate videos; the site shows the average rating and the number of times users have watched a video. For details see Sahlin and Botello (2007).

**What Is YouTube?**

YouTube is a place for people to engage in new ways by sharing videos and commenting on them. YouTube originally started as a personal video-sharing service and has grown into an entertainment destination where around 70 million people viewed more than 2.5 billion videos in September 2007 alone ([comScore](http://comScore) 2007). It is a prime example of a social network. With YouTube, people can:

- Upload, tag, and share videos worldwide.
- Browse millions of original videos uploaded by community members.
- Find, join, and create video groups to connect with people who have similar interests.
- Customize the experience by subscribing to member videos, saving favorites, and creating play lists.
- Integrate YouTube videos on Web sites using video embeds or APIs.
- Make videos public or private—users can elect to broadcast their videos publicly or share them privately with specified friends and family upon upload.

YouTube is building a community that is highly motivated to watch and share videos. The service is free for everyone. The company always encourages users to contact YouTube with thoughts, suggestions, feedback, or otherwise random ramblings. The site advises users to check out YouTube’s blog in order to keep up-to-date on all the latest developments.

(continued)
### Brief History and Technology

YouTube’s video playback technology is based on Macromedia’s (an Adobe company) Flash Player 7 (or newer) and uses the Sorenson Spark H.263 video codec. This technology allows users to display videos (including movies, TV clips, music videos, video blogging, etc.) with quality comparable to more established video playback technologies that generally require their users to download and install a small piece of software called a browser plug-in in order to watch video. Flash itself requires a plug-in, but the Flash 7 (or newer) plug-in is generally considered to be present on approximately 90 percent of Internet-connected computers. Alternatively, users can use a number of Web sites to download the videos to their own computers. The use of Flash video was most likely a key component of YouTube’s success, allowing viewers to watch video instantly without installing software or dealing with a common problem experienced with other Web video technologies—inevitable or varying versions of video players.

YouTube was one of the fastest-growing Web sites on the Internet during January 2008 and was ranked as the third most popular Web site on Alexa (a popular rating company), far outpacing even MySpace’s growth rate. YouTube’s preeminence in the online video market is staggering. By July 2006, 100 million clips were viewed daily on YouTube, with an additional 65,000 new videos uploaded each day ([en.wikipedia.org/wiki/YouTube](en.wikipedia.org/wiki/YouTube)). The site has about 20 million visitors per month.

Google purchased YouTube for US$1.65 billion in stock on October 9, 2006. The purchase agreement between Google and YouTube came after YouTube presented three agreements with media companies in an attempt to escape the threat of copyright-infringement lawsuits. YouTube continues to operate independently.

Like many start-ups, YouTube began as an angel-funded enterprise in a small office in San Mateo, California. Later on, Sequoia Capital, a venture capital firm, invested more money. It is interesting to note that much of the early publicity for the site has come from the frequent demands to remove material from the site. Also, NBC, which initially demanded the removal of copyrighted material, created a strategic alliance with YouTube. An official NBC channel on YouTube now showcases promotional clips of its videos.

### Social Impact of YouTube

#### The Celebrities

YouTube’s popularity has led to the creation of many YouTube Internet celebrities, popular individuals who have attracted significant publicity in their home countries through their videos. The most subscribed YouTube member, in fall 2006, was Geriatric 1927, an 80-year-old pensioner from England who gained widespread recognition within a week of making his debut on the site. He is still on the top-subscribed list ([see en.wikipedia.org/wiki/Peter_Oakley](en.wikipedia.org/wiki/Peter_Oakley)). For these users, Internet fame has had various unexpected effects. As an example, a YouTube user and former receptionist, Brooke Brodack, from Massachusetts has been signed by NBC’s Carson Daly for an eight-month development contract. Another example is the blogger known as lonelygirl15, who ended up being the fictitious character created by New Zealand actress Jessica Rose and some film directors. In 2007, a Dutch vocalist and songwriter named Esmée Denters announced that she would be traveling to the United States for professional recording sessions on the strength of her YouTube appearances. For a representative list of others who became Internet phenomena, see [en.wikipedia.org/wiki/YouTube](en.wikipedia.org/wiki/YouTube).

### Band and Music Promotion

YouTube has also become a means of promoting bands and their music. One such example is OK Go, whose treadmill video for “Here It Goes Again” led to a huge radio hit and an MTV Video Music Awards performance. In the same light, a video broadcasting the Free Hugs Campaign with accompanying music by the Sick Puppies led to instant fame for both the band and the campaign. The main character of the video, Juan Mann, who also achieved fame, is now being interviewed on Australian news programs and even has appeared on The Oprah Winfrey Show.

### Education

UC Berkeley is the first university to make videos of full courses available through YouTube ([youtube.com/user/ucberkeley](youtube.com/user/ucberkeley)). Over 300 hours of videotaped courses and special events are available on YouTube. The university attempts to provide a public window into university life, as well as open educational content for the larger community.

### The Business and Revenue Models

Before being bought by Google, YouTube had an advertising-based business model. Some industry commentators speculated that YouTube’s running costs—specifically the bandwidth required—might be as high as US$1 million per month, thereby fueling criticisms that, like many Internet start-ups, it did not have a viably implemented business model ([see en.wikipedia.org/wiki/YouTube](en.wikipedia.org/wiki/YouTube)).

The site launched advertisements in March 2006. In April 2006, YouTube started using Google AdSense. Given its traffic levels, video streams, and page views, some have calculated YouTube’s potential revenues could be in the millions per month.

(continued)
Strategic Advantages of the Business Model
The growth of YouTube has been extremely rapid, depending largely on referrals from users who alert their friends and family to a favorite video. Many of the viewers who discovered the site and then decided to share their own videos are a factor that continually expands YouTube's pool of content. A steady increase in high-speed Internet connections at home has propelled YouTube's success, making the distribution and consumption of online video more effective. Typical applications of YouTube are provided next.

Typical Applications on YouTube
Here are some examples of how YouTube collaborates with both advertisers and media companies:

- The Sundance Channel announced a strategic alliance with YouTube on January 17, 2007 (YouTube 2007), for coverage of the 2007 Sundance Film Festival, including a video blog on YouTube. YouTube showed special clips from the festival throughout 2007 (see youtube.com/user/sundancechannell). Also, it showed profiles of competing filmmakers, clips from past festivals, and in-depth daily coverage by YouTube users Arin Crumley and Susan Buice. The partnership also provided advertising for YouTube partners including Sundance.

- The Sundance Channel syndicated a video blog created by Crumley and Buice exclusively for YouTube. Crumley and Buice served as Sundance Channel correspondents during the 2007 Sundance Film Festival and documented their daily experiences from a festival-attendee and independent filmmaker perspective. They pioneered new strategies for independent film distribution through digital technology including podcasts, custom Google maps, and a 2007 screening of their film Four Eyed Monsters in Second Life.

- YouTube and Coca-Cola introduced video cards for the 2006 and 2007 holiday seasons (YouTube 2006a). People were able to send their own personal videos as a holiday greeting card online. Visitors were also able to share their holiday spirit by uploading their own videos, customizing video greetings created by popular YouTube personalities including Geriatric 1927, Boh3m3, TerraNaomi, Renetto, TheWineKone, and LisaNova. Holiday-themed videos were also available to share from Coca-Cola including clips from vintage Coke advertisements. Selected videos greetings that users chose to share with the world were featured as part of a video playlist on Coca-Cola.com called the Holiday WishCast and were seen by people around the world.

- The Coca-Cola Holiday WishCast gave friends and families a new way to communicate during the 2006 and 2007 holiday seasons. WishCast was a unique way for people to connect, whether it was helping loved ones keep in touch, creating a last-minute holiday card, or allowing bands to send personalized greetings to their fans. It was the latest evolution in the development of Coca-Cola.com following the relaunch of the site in July 2006 that included user-generated content and the addition of digital music downloads in August 2006.

- The partnership with Coca-Cola gave the YouTube community the ability to send holiday wishes in a way that truly harnesses the creativity of the users. To send a holiday video greeting, people visited either youtube.com/user/wishcast or coca-cola.com/wishcast.

- According to YouTube (2006b), the YouTube community and Warner Music Group (WMG) artists created “Special New Year’s Messages to Share with the World” (sponsored by Chevrolet). The first-ever YouTube New Year’s Eve Countdown celebrated New Year’s as it happened around the world with new videos featured every hour from dozens of locations worldwide.

- Starting January 31, 2007, Plaxo, RockYou.com, Technorati, and three other small companies are putting their versions of Super Bowl–style ads on the Web. The companies have bundled their ads together in a YouTube channel called SuperDotComAdsXLI; they hope to use their various social networks and corporate blogs to generate audiences for all the commercials.

- YouTube provides a platform for companies to launch contests at youtube.com/contests. For examples, in 2007, McDonald’s launched an ad contest called “It’s Your Break,” which asked users to submit ads for their new Honey Mustard Snack Wrap. Swiffer launched a contest with an award of US$15,000 and invited users to film videos about how they use Swiffer to clean.

- Users may submit videos in several common file formats. YouTube automatically converts them to the H.263 variant of Flash Video and makes them available for online viewing. Flash Video is a popular video format among large hosting sites due to its wide compatibility.

- Each video is accompanied by the full HTML markup for linking to it or embedding it within another page; a small addition to the markup for the latter will make the video play automatically when the page is accessed. These simple cut-and-paste options are popular particularly with users of social or networking sites. However, (continued)
members of such sites have cited poor experiences where autoplaying embedded YouTube videos has slowed down a page’s loading time or even caused browsers to crash.  

YouTube does not make it easy to download and save videos for offline viewing or editing, but several third-party applications, browser extensions, and Web sites exist for that purpose.

As of 2006, many sites started to bloom while offering an index service, which arranges the content on YouTube through links arranged by order of seasons and episodes of a certain show. Some of the sites, such as TV Links, NetworkOne Australia, and WikiRemote, gather around them a rather large community of users. These users make requests and report bad links.

YouTube’s voter education initiative YouTube You Choose ’08 was designed to allow political candidates to communicate with voters about their campaigns. It featured campaign videos, speeches, informal chats and behind-the-scenes footage. The platform allowed potential voters to participate in dialogue with candidates using video responses, text comments, and ratings (Sachoff 2007).

The various start-ups involved began kicking the idea around January 15, 2007. Plaxo is home to some budding filmmakers, so McCrea (vice president of marketing at Plaxo) let a small team of employees put something together. He was so impressed with the results that he decided to use the spot to launch Plaxo’s new logo and tagline. Now he’s considering doing even more video ads solely for the online medium. Because these ads are inexpensive to produce, it makes sense that Web-based companies use that platform to promote themselves.

Sundance Institute collaborated with YouTube as a commitment to growing audiences for independent films. The institute made three world-premiere films from the 2010 Sundance Film Festival available for rent. Beginning January 21, 2010, films were spotlighted on the YouTube homepage, after which they were available until January 31 at YouTube Movies (youtube.com/movies). Two audience favorites from the 2009 Festival were made available for rental (Sundance.org 2010).

Sources: Compiled from YouTube (2007), YouTube (2006a), YouTube (2006b), Sachoff (2007), and Sundance.org (2010).

Implementation Difficulties: The Copyright Problem

YouTube policy does not allow content to be uploaded by anyone not permitted by U.S. copyright law to do so, and the company frequently removes uploaded infringing content. Nonetheless, a large amount of copyrighted videos continues to be uploaded. Generally, YouTube only discovers these videos via indications within its community through self-policing. The service offers a flagging feature, intended as a means for reporting questionable content, including that which might constitute copyright infringement. However, the feature can be susceptible to abuse; for a time, some users were flagging other users’ original content for copyright violations purely out of spite. It proceeded to remove copyright infringement from the list of offenses that members could flag. The primary way in which a user identifies the content of a video is through the search terms that uploaders associate with clips. However, some users have created alternative words as search terms when uploading copyrighted types of files. This makes it difficult to find them.

TV journalist Robert Tur filed the first lawsuit against YouTube in summer 2006, alleging copyright infringement for hosting a number of famous news clips without permission. In August 2007, Tur dropped his individual suit and joined a class action suit that is led by England’s Premier Soccer League and a number of new members. That suit is unresolved as of January 2008 (Baage 2007).

The Brazilian Court Case

Here is an example of how complex the legal issue faced by YouTube can be. In early January 2007, a Brazilian court ordered (for the second time) YouTube to block footage of supermodel Daniela Cicarelli and her boyfriend in intimate scenes along a beach in Spain. YouTube removed the clip in September 2006, but the clip still appears periodically on YouTube under different titles. The judge said YouTube must find a way to use filters so the clip stops popping up in Brazil on the Web site. Lawyer Rubens Decousseau Tilkian, who represents Cicarelli’s boyfriend, said YouTube had not gone far enough to prevent access to the clip because people succeeded in posting it using different names for the video. Can YouTube comply with the court order? And at what cost? The Brazilian court has the authority to fine YouTube about $120,000 for each day the video is viewable.

In 2007, big media, such as Viacom, NBC, and News Corp., have all taken shots at YouTube (see La Monica 2007).

The Competition

The success of YouTube drove a large number of companies to compete with it. On one hand, there were several startups completely dedicated to video sharing. On the other hand, several social networks (e.g., MySpace) added video sharing as one of their offerings. A comparison of the following 10 companies: eyespot, Google Video, Grouper,
Jumpcut, Ourmedia, Rever, Video Egg, Vimeo, vSocial, and YouTube is available at dvguru.com (posting by Bilsborrow-Koo 2006). Other competitors are: blip.tv, veoh.com, videojug.com, flurl.com, Yahoo! Video (video.yahoo.com), and Metacafe. Metacafe (metacafe.com), a rival of YouTube, launched a new forum of online video content by putting amateur contributors together with professional filmmakers in 2007. Known as Café Confidential, the new channel is an attempt to introduce higher standards to the often chaotic user-generated content. Metacafe also rewards amateurs who use this channel. According to Media Metrix market news, in September 2006, MySpace accounted for 20 percent of the 7.2 billion video streams across the Web (comScore, 2007). So MySpace may be YouTube's major competitor. Five major media companies who offer free legitimate videos joined MySpace in 2007 (see Lashinsky 2007) to “kill” YouTube.

Questions

1. Define video sharing and describe how it is done on YouTube.
2. What can people do on YouTube?
3. How can YouTube create Internet celebrities?
4. How can YouTube promote music and artists?
5. What are YouTube’s revenue sources? How are these revenue models related to Google?

REFERENCES FOR ONLINE FILE W7.4


La Monica, P. R. “Big Media Beats Up on YouTube.” CNNMoney.com, February 9, 2007.


Orkut (or.com) was the brainchild of a Turkish Google programmer of the same name. Orkut was to be Google’s home-grown answer to MySpace and Facebook. Orkut follows a format similar to that of other major social networking sites—a homepage where users can display every facet of their personal life they desire using various multimedia applications.

A major highlight of Orkut is the individual power afforded to those who create their own groups and forums, which are called “communities.” Who can join and how posts are edited and controlled lies solely in the hands of the creator of each community. Moderating an Orkut community is comparable to moderating one’s own Web site, given the authority the creator possesses with regard to design and control of content. Orkut users gain substantial experience with Web 2.0 tools, creating an enormous wave of online proficiency, which is sure to contribute to the development of the online environment.

A number of cultural objections to social networking sites have created controversy for Orkut in various parts of the world, forcing it to make decisions about what the social networking site’s rights and responsibilities are, both legally and morally. The nature of the Web allows for freedom of expression; however, some foreign governments and cultures do not cherish this value. Freedom of expression allows people to convey negative comments about governments and to commit what some view as blasphemy. This has caused a number of incidents in India, where local governments have called for the banning of social networking sites, specifically Orkut, which does contain hate groups that are difficult to control due to freedom of speech. The Iranian government has banned the use of Orkut, citing national security worries and the dangers of online matchmaking. In response to this state censorship, proxy Orkut sites have emerged in the Middle East, proving that the will of the users ultimately determines how and where online networking takes place. That is the power of the Web.

Orkut recognizes that the users dictate the content of their chosen social networking site. Given this, Orkut has adapted in a number of interesting ways. First, it is adding more languages, expanding the Hindi, Bengali, Marathi, Tamil, and Telugu sites, which expands the popularity of the site and improves the user control over the site. Second, Orkut greets its users on their national and religious holidays with fun features. For example, it wished Indian users a Happy Diwali (en.wikipedia.org/wiki/Diwali) by providing a feature that allowed users to redesign their personal site with Diwali-themed colors and decorations.

Orkut is especially popular in Brazil, where about 30 million members (approximately 67 percent of all Orkut members) participate in Portuguese (Brazil’s official language). Having such a large Brazilian user base has caused legal problems. In 2006, a Brazilian judge ordered Google (the owner of Orkut) to release the user information of more than 20 Brazilians who were suspected of distributing drugs or child pornography or having links to hate speech. The judge ordered that Google be fined $23,000 for every day that the information was not divulged. However, because Google’s servers are in the United States and not Brazil, the low court in Brazil agreed that Google is not subject to Brazilian law. Later that same year, Google decided to cooperate with the Brazilian government if allowed to do so under the terms of U.S. law. The company has and will continue to provide Brazilian authorities with information on users who abuse the Orkut service, if their requests are reasonable and follow an appropriate legal process. The dispute reflects Google’s policy of keeping data about its users in the United States to protect it from disclosure to foreign governments. Although initially targeted at the U.S. market, Orkut has flourished in some unlikely parts of the world. In addition to Brazil, Orkut receives a large amount of traffic from India, where 15.4 percent of its traffic originates. Orkut also has a strong following in the Middle East (see mobiopen.org/index.php/2008/04/18/101-google-s-orkut-goes-mobile-in-stealth-mode).
Chapter Seven: The Web 2.0 Environment and Social Networks

ONLINE FILE W7.6 Application Case

USING INTELLIGENT SOFTWARE AND SOCIAL NETWORKING TO IMPROVE RECRUITING PROCESSES

The Internet has made advertising and applying for jobs online a much simpler process. However, sometimes with simplicity comes complexity. The challenge now for some large companies is how to cost-effectively manage the online recruiting process, because online ads are attracting large numbers of applicants. For example, Infosys now receives in excess of 1 million job applications each year to fill about 9,000 positions. It might sound like a good problem to have too many applicants, but companies are finding that there is often a poor match between the skills and attributes they require and the many hundreds of applications received. Thus, despite attracting a lot of applicants, they often still suffer from a shortage of good applications. Furthermore, how can a company be sure it is accessing and attracting the very best talent in a particular field? Some interesting new developments are changing the way companies may address these issues.

Trovix (a Monster.com company) offers a service to companies based on its award-winning HR software, which uses embedded intelligence to help manage the entire recruitment process. Trovix argues that its tools Trovix Recruit and Trovix Intelligent Search can emulate human decision makers and assess a candidate’s amount, depth, relevance and recency of work experience, education, and the like. The software presents in rank order the best candidates to fit an advertised position. Other features enable tracking of applicants, reporting, and communications. A number of institutions are using this service, including Stanford University, which needs to fill thousands of positions each year. Trend Micro adopted Trovix and was able to screen 700 applicants and list the top 10 in about 20 minutes. The accuracy is probably no better than manual processing, but the software can screen applicants in a much shorter period of time.

A slightly more personal approach is available through some of the social networking sites, which offer support for companies to locate the best talent for a particular position. Sites such as Jobster (jobster.com) and LinkedIn (linkedin.com) rely more on a networking approach. Jobs posted on Jobster, for example, are linked to other job sites, to blogs, to user groups, to university alumni sites, and so on. People who are part of the social network are encouraged to recommend others who might be suited to a particular job, irrespective of whether they are actively seeking new work. In this way, a company looking to recruit the best talent has its job advertised much more widely and may benefit from word-of-mouth recommendations and referrals. For example, LinkedIn offers prospective employers a network of more than 8 million people across 130 industries, meaning much larger exposure for job vacancies and a much larger talent pool to seek referrals from. Sites such as Jobster can also track where applicants come from, helping companies adopt better recruitment strategies and thus achieve better returns from their investments in seeking the best staff.

Questions

1. What are some of the challenges of online recruitment?
2. How can intelligent recruitment software and Internet technologies support and improve an organization’s search for new talent?
3. What role can social networking approaches to recruitment play? Are there any disadvantages or risks involved in such approaches?

REFERENCES FOR ONLINE FILE W7.6


jobster.com (accessed November 2009).
linkedin.com (accessed March 2010).


Online File W7.7 How Wikis Are Used

Start-ups such as JotSpot ([jot.com; now part of Google (google.wikia.com/wiki/Google_Web_Toolkit)]) are out to harness the power of wikis for businesses. JotSpot’s wiki-based software lets companies create wikis for business processes. Here are some end-user developments utilized by JotSpot’s customers:

- **Create an intranet.** Publish company information, such as news or employee guidelines [Sundai (watermelonworks.com)].
- **Project management.** Schedule project deadlines, assign tasks, and define product specifications [Roxor Games (roxorgames.com)].
- **Document collaboration.** Multiple users author documents with the aid of version history and MS Word integration [Symantec (symantec.com), Inside Pages (insiderpages.com)].
- **Collaborate with virtual teams.** Communicate with remote contractors or clients [Wingate Studios (wingatestudios.com), Unimedia (unimedia.org)].
- **Track software bugs.** Log defects and build custom queries [AL Technology (altechnology.com)].
- **Call center support.** Access case histories and increase customer support [Your Privacy Info (yourprivacy.info)].

Opsware [opsware.com; now part of Hewlett Packard’s BTO services (h10078.www1.hp.com/cda/hpms/display/main/hpms_content.jsp?zn=bto&cp=1-10^36656_4000_100)] is a data center automation software vendor, has used JotSpot to create in a few hours applications that might have cost $50,000 to $100,000 to develop in Java. Opsware’s technical sales team uses one JotSpot wiki to manage information such as proposals and status reports associated with pilot projects for prospective customers. “It’s a very rich document management system,” says Jason Rosenthal, vice president of client services at Opsware. “It’s so quick and easy that a new user can learn to use it in 10 to 15 minutes.” The software also reduced the time it took the company to prepare for a proof of concept from five days to three, Rosenthal claims, adding that wikis will revolutionize how companies share information internally. Says Rosenthal, “it’s easier for new users to do what it used to take a webmaster to do.”

**Questions**

1. What is the difference between a traditional Web site and a wiki?
2. How do wiki tools make end-user development more efficient and effective?
3. Should end users be encouraged to develop their own applications? What are the advantages and disadvantages of end-user development?

**REFERENCES FOR ONLINE FILE W7.7**


Legal risks. Legal risks—especially those resulting from content contributed in blogs, wikis, etc., by employees, sometimes at top levels—could be significantly more serious compared to posting content by customers on the company blogs or in discussion forums. Legal risks are a possible liability of the company. For example, information such as race, ethnicity, or medical problems collected from external social networks may be used improperly or illegally in recruiting employees, resulting in discrimination liabilities.

Security and privacy. Activities such as disclosing confidential and sensitive information on publicly accessible or internally shared workspaces, and introducing malicious code by hackers to information flow on the unprotected Internet, contribute to security and privacy risks. Mechanisms used to implement social networking applications open more avenues for attackers. In addition, new types of threats such as the creation of fake profiles by hackers, or even ex-employees, have been observed.

Intellectual property and copyright. Violations due to unauthorized postings (e.g., unauthorized video clips placed on YouTube), or not getting permissions from individuals and organizations while creating content about them, can become a significant legal risk. Quality of content contributions is also a risk that should be handled appropriately. Otherwise, biased, inaccurate, and/or obsolete information may limit the benefits of the network.

Employees resistance. Risks associated with usage of internally implemented corporate social networks also exist. Employee resistance to use the social networks and Web 2.0 tools can be a serious problem given the fact that their participation in public social networks such as Facebook and LinkedIn does not imply voluntarily participation in corporate networks (Bennett 2007). In certain cases, employees simply do not use the corporate networks.

Misuse and wastage of time and other resources. Encouraging employee participation may lead to misuse and/or abuse of social networking (e.g., wasting productive time). Several other areas of misuse or waste were cited by companies, such as waste of money, small attendance of sites, harassment of fellow employees, and inexperienced community management.

Finally, by embarking on social networking, companies may lose control of data, information, and content. This makes it difficult to reduce risk. However, there are several approaches that companies can undertake to mitigate risk (see DeBarros 2010).

REFERENCES FOR ONLINE FILE W7.8

**Application Program Interface (API) Services.** API services are the hosted services that have powered Web 2.0 and will become the engines of Web 3.0. Google’s search and AdWords APIs, Amazon.com’s affiliate APIs, a large number of RSS feeds, and a multitude of functional services, such as those included in the StrikeIron Web Services Marketplace (strikeiron.com), are just some examples (Wainewright 2005). One of the most significant characteristics of this foundation layer is that it is a commodity layer. As Web 3.0 matures, an almost perfect market will emerge and squeeze out virtually all the profit margin from the highest-volume services.

**Aggregation Services.** These services are the intermediaries that take some of the hassle out of locating all those raw API services by bundling them together in useful ways. Representative examples are the various RSS aggregators and emerging Web Services marketplaces like the StrikeIron service.

**Application Services.** This layer is where the biggest, most durable profits should be found. These services will not be like the established enterprise application categories, such as CRM or ERP, but a new class of composite applications that bring together functionality from multiple services to help users achieve their objectives in a flexible, intuitive way. An example of an area that is expected to grow is voice commerce (v-commerce), which is an umbrella term for the use of speech recognition to allow voice-activated services including Internet browsing and e-mail retrieval. It includes novel ways of building applications.

**Serviced Clients.** There is a role for client-side logic in the Web 3.0 landscape, but users will expect it to be maintained and managed for them.

From the billions of documents that form the Web and the links that weave them together, computer scientists and a growing number of start-up companies are finding new ways to mine human intelligence. Their goal is to add a layer of meaning on top of the existing Web that will make it less of a catalog and more of a guide—and even provide the foundation for systems that can reason in a human fashion. That level of artificial intelligence, with machines doing the thinking instead of simply following commands, has eluded researchers for more than half a century.

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**REFERENCE FOR ONLINE FILE W7.9**

Chapter Seven: The Web 2.0 Environment and Social Networks

Online File W7.10 Evolution from Web 1.0 to Web 4.0

EXHIBIT W7.10.1