EXAM ELECTRONIC COMMERCE (232050) April 16, 2009

***Instructions:** This is an open book exam – it is allowed to consult any reading material provided by the teachers. Be sure to switch mobile phones off and store them in a closed bag. Be sure to indicate name, program and student number on each sheet. Grade for the exam is Round (Sum of Points / 10). Concise yet complete answers are better than long-winded answers. Success!!*

Question 1 *(40 points)*

To answer the questions use Papazoglou and Ribbers (2006) and/or the corresponding slides of the lecture.

About Netflix:

Netflix (NASDAQ: NFLX) is an online DVD and Blu-ray Disc rental service, offering flat rate rental-by-mail and online streaming to customers in the United States. Established in 1997 and headquartered in Los Gatos, California, it has amassed a collection of 100,000 titles and approximately 10 million subscribers. The company has more than 55 million discs and, on average, ships 1.9 million DVDs to customers each day. Netflix previously claimed to spend about $300 million a year on postage. On February 25, 2007, Netflix announced the billionth DVD delivery. 2 years later, on April 2, 2009, the company announced that it had mailed its 2 billionth DVD, and awarded the recipient with a complimentary lifetime membership.

Services

The company provides a monthly flat-fee service for the rental of DVD and Blu-ray movies. A subscriber creates an ordered list, called a rental queue, of DVDs to rent. The DVDs are delivered individually via the United States Postal Service from an array of regional warehouses. Currently, there are more than 100 shipping points located throughout the United States. The subscriber can keep the rented DVD as long as desired, but there is a limit on the number of DVDs (determined by subscription level) that each subscriber can have on loan simultaneously. To rent a new DVD, the subscriber must mail a previous one back to Netflix in a prepaid mailing envelope. Upon receipt of the disc, Netflix ships the next available disc in the subscriber's rental queue. A new Netflix security prepaid mailing envelope, designed to prevent tearing or unauthorized access

As of July 24, 2007, Netflix's most popular plan cost US $16.99 (plus tax) per month, allowing a subscriber to rent up to three DVDs at a time, with unlimited exchanges. Other monthly plans range from US $4.99, for one disc at a time and a limit of two per month, to US $47.99 for eight with unlimited exchanges. For the three-out and eight-out plans, each rental slot costs the subscriber approximately US $6 a month. Netflix also sells gift subscriptions for various renting intervals, although the recipient must register using a major credit or debit card.

Netflix offers their subscribers access to Blu-ray Discs for an additional fee depending on subscription package citing the additional cost of Blu-ray titles as the reason for the fee. This is a change from the original Blu-Ray fee implemented November 21, 2008. The new Blu-Ray pricing scheme came into effect for billing cycles ending April 27, 2009.

In addition to its movie rental service, Netflix formerly sold used DVDs to its subscribers. The purchase was delivered via the same system and billed using the same payment method as the subscriber's rentals. This service was discontinued at the end of November 2008.

Watch Instantly

Netflix has a "Watch Instantly" feature available to eligible subscribers. The feature enables subscribers, at no additional cost, to stream near-DVD quality movies and recorded television shows instantly, depending on the subscriber's internet connectivity. Initially, the feature offered subscribers one hour of media for approximately every dollar they spent on their subscription. (A $16.99 plan, for example, entitled the subscriber to 17 hours of streaming media.) In January 2008, however, Netflix lifted this restriction. Virtually all subscribers now are entitled to unlimited hours of streaming media at no additional cost. Only subscribers with a plan of $4.99/two DVDs per month, one DVD at a time, aren't provided unlimited access to the streaming service. (They are allowed two hours). The new terms of the service are a response to the introduction of Apple's new video rental services.

Currently the Watch Instantly service features more than 12,000 movies and recorded television shows available. Major studios including NBC Universal, MGM, 20th Century Fox, CBS/Paramount, ABC-Disney, Warner Brothers, Lions Gate Entertainment and New Line Cinema are all distributing films and television shows via the service. On October 1, 2008 Netflix announced a partnership with Starz

Entertainment to bring 2,500+ new movies and television shows to Watch Instantly in what is being called Starz Play.

Profiles

On June 19, 2008, Netflix announced plans to eliminate its online subscriber profile feature on September 1, 2008. Profiles allow one subscriber account to contain multiple users (e.g. husband and wife, or two roommates) with separate DVD queues, ratings, recommendations, friend lists, reviews, and intra-site communications for each. Netflix contended that elimination of profiles would improve customer experience. However, likely as a result of negative reviews and reaction by Netflix users, Netflix reversed its decision to remove profiles eleven days after its announcement. In announcing the reinstatement of profiles, Netflix defended its original decision, "Because of an ongoing desire to make our website easier to use, we believed taking a feature away that is only used by a very small minority would help us improve the site for everyone." Then explained its reversal, "Listening to our members, we realized that users of this feature often describe it as an essential part of their Netflix experience. Simplicity is only one virtue and it can certainly be outweighed by utility."

Competitive environment

Netflix's success has inspired a number of other DVD rental companies both in the United States and abroad, but none of the purely online companies appear to approach Netflix in terms of market share or revenues. Wal-Mart began an online rental service in October 2002, but left the market in May 2005 and now has a cross-promotional arrangement with Netflix. Netflix has also cited Amazon.com as a potential competitor, which until 2008 offered online video rentals in the UK and Germany (now sold to Lovefilm), but has remained coy about any similar intentions for the North American market.

Netflix had preliminary plans to expand to Canada and the UK in 2005, but the expansion appears to have been postponed or cancelled as Netflix concentrates its services on the U.S. market. Zip.ca currently serves as a Canadian equivalent to Netflix. Posren and Tsutaya discas would be Japanese equivalents.

Blockbuster Video, the world's largest in-store video rental chain, entered the U.S. online market in August 2004 with a US$19.95 monthly subscription service. This sparked a price war; Netflix had raised its popular three-disc plan from US$19.95 to US$21.99 just prior to Blockbuster's launch, but by October Netflix reduced this fee to US$17.99. Blockbuster responded with rates as low as US$14.99 for a time, but by August 2005, both companies settled at the (identical) current rates. On July 22, 2007, Netflix announced that it would drop the prices of its two most popular plans by US$1.00 in an effort to better compete with Blockbuster's online-only offerings. Blockbuster's subscriber base after one year was roughly a third of Netflix's size and growing, including promotions such as the option to swap DVDs rented online at neighbourhood stores and the simultaneous elimination of late fees altogether. Netflix founder Reed Hastings commented in a January 2005 interview that rival Blockbuster threw "everything but the kitchen sink at us."

Many in-store video rental chains now have unlimited rental plans similar to those of Netflix. Hollywood Video started its Movie Value Pass (MVP) service in late 2004, which enables customers to rent up to three movies at a time (due in five days) for US$15 a month. New releases, however, are typically excluded from the service for two to six weeks in the MVP "Basic" plan. Blockbuster started Movie Pass in 2004, which lets customers keep two to three DVDs at a time for US$25–30 a month, all without restrictions or due dates. Hollywood's MVP "Premium" plan offers the same benefits for a comparable price. Both services still require the customer to travel to the store to rent and return the movies, and their respective selections are not as diverse as that offered by Netflix.

The domain netflix.com attracted at least 194 million visitors annually by 2008, according to a Compete.com survey. This is about five times the number of visitors to blockbuster.com.

On April 4, 2006, Netflix filed a patent infringement lawsuit in which it demanded a jury trial in the United States District Court for the Northern District of California, alleging that Blockbuster's online DVD rental subscription program violated two patents held by Netflix. The first cause of action alleged Blockbuster's infringement of U.S. Patent No. 7,024,381 (issued April 4, 2006; only hours before the lawsuit was filed) by copying the "dynamic queue" of DVDs available for each customer, Netflix's method of using the ranked preferences in the queue to send DVDs to subscribers, and Netflix's method permitting the queue to be updated and reordered. The second cause of action alleged infringement of Patent No. 6,584,450 (issued June 24, 2003), which covers in less detail the subscription rental service as well as Netflix's methods of communication and delivery. The dispute was ended a year later, on June 25, 2007, with both companies declining to disclose the terms of their legal settlement, except for a statement by Blockbuster that it wouldn't have a major impact on its future financial performance. Blockbuster also said that the company planned to close 282 stores that year to shift focus to its online service. The company already had closed 290 stores in 2006.

In Fall 2006, Blockbuster signed a deal with The Weinstein Company, that gave it the exclusive rental rights to the studio's films beginning January 1, 2007. This agreement forced Netflix to obtain copies from mass merchants or retailers, instead of directly from the studio. Netflix has speculated that the effect of the Blockbuster-Weinstein agreement could result in higher rental costs and/or fewer copies of the studio's movies, which would limit the number of each movie's DVDs that would be available to subscribers at any one time. As of June 2007, Netflix continues to make available Weinstein movies, including Unknown, School For Scoundrels and Harsh Times, among others. The First Sale Doctrine allows Netflix and other video rental businesses to offer movies released by the Weinstein Company, but the long-term effects of the Blockbuster-Weinstein deal remain uncertain. The first-sale doctrine is a limitation on copyright that was recognized by the U.S. Supreme Court in 1908 and subsequently codified in the Copyright Act of 1976, 17 U.S.C. § 109. The doctrine allows the purchaser to transfer (i.e., sell or give away) a particular lawfully made copy of the copyrighted work without permission once it has been obtained. That means that copyright holder's rights to control the change of ownership of a particular copy end once that copy is sold, as long as no additional copies are made. This doctrine is also referred to as the "first sale rule" or "exhaustion rule".

Questions:

1.1 Based on Porter's Five Forces Model, analyze the industry profitability of the video rental service sector. *(10 points)*

1.2 Why does Netflix, as an intermediary, exist at all? Explain from a theoretical perspective. Describe the value adding services of Netflix. *(10 points)*

1.3 What are the competitive advantages of Netflix? Discuss critically if they are economies of scale, economies of scope, or network effects present. Explain. *(10 points)*

1.4 Discuss how Netflix profits from the "Long Tail" in demand. Explain the concept. *(5 points)*

1.5 What kind of problems do the buyers of Netflix face in regard to asymmetric information of quality? How could Netflix mitigate these problems? Explain and give examples. *(5 points)*

Question 2 *(10 points)*

2 What are the possible purposes of creating a prototype? Discuss the pro and contra arguments for doing a paper prototype (behaves-like) vs. a working prototype (works-like).

Question 3 *(16 points)*

3.1 In this course, we referred to the statement *"In some situations, acquiring free customers in the early stages of an online business is crucial".*
Give an example of an online business for which this statement holds. Explain how you conclude that this statement holds in your example. (4 points)

3.2 Suppose you have an e-3-value model describing how a charity organization receives money from citizens and brings help to those who needed it. Suppose you (as a citizen) give money to this charity organization. What is the reciprocal value object you obtain? (3 points)

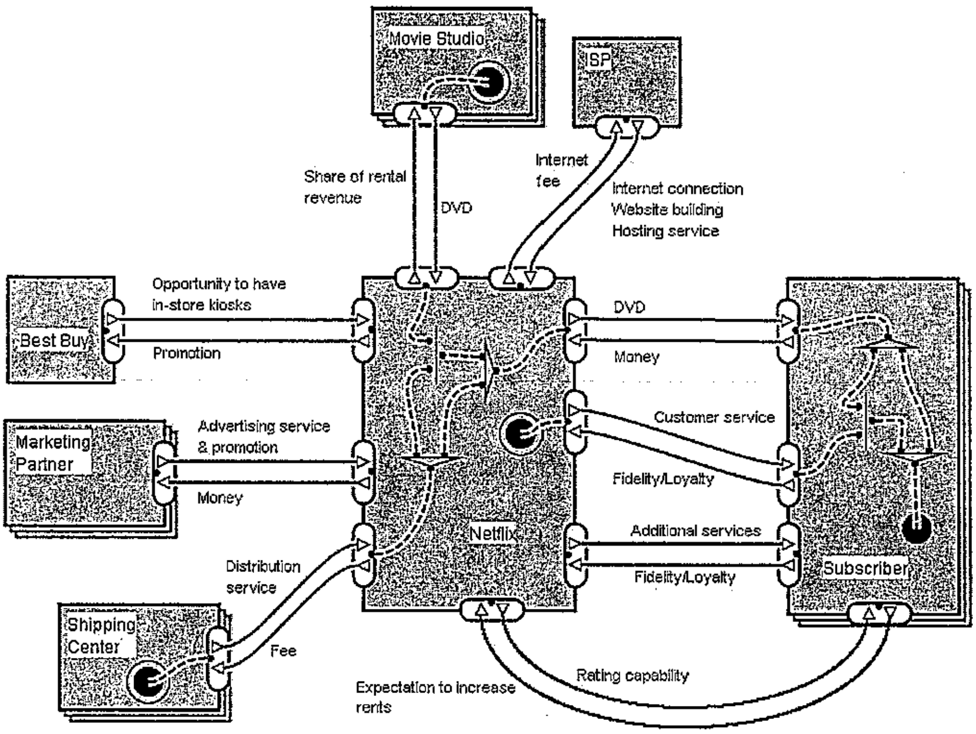
3.3 Suppose two actors in an e-3-value model are part of a partnership. Is it possible that the partnership owns the two actors? Explain your answer by using an example. (5 points)

3.4 Suppose a Netflix-subscriber writes a recommendation of a movie. Identify two actors for whom this recommendation is a value object. Motivate your answer. (4 points)

Question 4 *(17 points)*

4 Consider the model in Figure 4.1. It presents the e-3-value model of the Netflix case (from the lecture on e-3-value modeling on March 20).

Figure 4.1



The description below is about a social networking feature offered by Netflix.

> *Although Netflix has long posted film reviews written by customers, in November 2005 it launched a social networking service, called "Friends," which lets customers share movie preferences and reviews with a community. This service organizes reviews and other personal information related to individual subscribers. A subscriber can: (i) view other subscribers' rental queues (the queues of the so-called 'friends'), (ii) compare his/her ratings with the rating of the 'friends', and (iii) exchange comments and suggestions with 'friends'.*
>
> *After the launch of this service, Netflix observed a quick increase of the number of new subscribers. More people are becoming Netflix-subscribers as a consequence of that the existing subscribers start using the Friends-service and invite others into their personal network, including some people who are already Netflix-subscribers and some who aren't. Netflix also found that their subscribers liked much better the recommendations by their friends than their own selections (which they did without using reviews and recommendations). Netflix-subscribers did love to browse through their friends' rental queues to see what was keeping their friends entertained.*

4.1 The Friends service is an example of value co-creation. Explain how value is co-created in this case. (5 points)

4.2 The Friends-service is not presented in the e-3 value model in Fig 4.1. Add to this model a value exchange to present the Friends-service. (2 points)

Note: please re-draw only those actors who are engaged in the new value exchange. There is no need to re-draw the whole model (from Fig 4.1).

4.3 Consider the following situation:

Suppose Netflix decides to move next year from the online DVD rental business to an online video-streaming business. This means that an online user can connect to the Netflix web site and watch a movie online (without downloading it on her/his computer). Suppose, for the movie-watching, the user will pay a fee on per-movie-basis. (That is, the user pays as many times, as movies he/she watches).

Look at Fig 4.1, which presents the online DVD rental business. Identify those actors and value exchanges which will disappear or change, when Netflix moves from the online DVD rental business to the new business model, namely the online video-streaming business. Motivate your answers. Write your assumptions, if you have any. (10 points)

Question 5 *(17 points)*

On March 24, 2009 the following news appeared in the International Business Tribune (the text is adapted for the purpose of this exam):

Netflix is making its movie watching experience even more social. The Netflix site, which already lets consumers create profiles and share movies with friends' profiles, has now integrated with Facebook Connect. This new partnership will let Netflix members integrate their Netflix accounts with their Facebook accounts extending a member's movie ratings from the Netflix community to Facebook.

"Movies make for great conversations," said Gibson Biddle, product management VP for Netflix, in a statement. "By integrating with Facebook Connect, Netflix members can now share their movie-watching experiences even more easily than before, allowing for greater exchange of movie recommendations with their friends. Netflix has more than 2 billion movie ratings from its 10 million members meaning the average Netflix user has rated about 200 movies. That's a lot of cinema to talk about, and I'm sure the topic of movies will get some chatter on Facebook. For example, when *The Watchmen* comes to DVD I have no doubt that arguments will break out on Facebook between those who loved the movie and those who hated it."

Netflix members can choose to use the Facebook Connect feature or not. For those who choose it, each time they rate a movie, that rating of one to five stars will show up on their Facebook profile and will be shared with the members' 'friends' on Facebook. Friends can comment on Facebook and click back to Netflix to add the movie to their own queue. A Netflix member can choose to push all his/her ratings onto Facebook or share them on a case-by-case basis.

"We think the social features in Facebook Connect provide a tremendous opportunity for Netflix subscribers to share their thoughts and feelings on movies with their friends in the Netflix community and with Facebook's more than 175 million active users," said Ethan Beard, director of Connect platform marketing, Facebook.

Early in 2008, Facebook started a partnership build-up initiative named Facebook Connect. It targets primarily those online media companies whose web sites do not have sophisticated social features. For example, ABC-Disney and Joost became Connect partners. To partners, Facebook offers the Connect platform, which makes it easier for the consumers of the partners' services to share data about themselves between all the partner sites they use. In return, Facebook gets lots of users/consumers data and strengthens its position as the owner of user profiles (meaning real users, real data) and their friend list.

The key driving factor behind the Connect initiative is for Facebook to create an ongoing revenue stream by means of a 'socially-targeted' advertising model. To make this happen, Facebook wants to turn the Connect partnerships into a social ad network. Through Facebook Connect, it will be possible for Facebook to target ads to Facebook members on third party sites. For Facebook, this is the powerful revenue generator in the coming years because it will also multiply Facebook's available advertising inventory beyond the Facebook own site. It will create revenue by letting Facebook place highly targeted ads in different contexts where people may be more receptive to them. How it would work? Imagine, Facebook Connect gets a group of users to navigate over to a site that sparks their interest. If, for example, Netflix is part of Facebook Connect and users are clicking over to watch and download movies, chances are much better that the ads on the Netflix site will create revenue. That revenue money can then be shared or split between Facebook and its Facebook Connect partner. And advertisers are now just waiting for someone – just like Facebook, to offer them more efficient approaches to 'socially-targeted ads'.

Questions:

5.1 Draw an e-3 value model, which presents the revenue-sharing model of Facebook Connect, and which reflects the information in the news of March 24, 2009. Motivate your modeling choices. When writing the motivation, please use maximum of two sentences per choice. (12 points)

Hint: Motivate, for example (among other choices) the specific actor's perspective which you take (the one of Facebook or of Netflix).

5.2. In the paper "Which form of collaboration is right for you?" by Pisano and Verganty, the authors present four basic modes of collaboration: elite circle, innovation mall, innovation community and consortium. Which of these four modes will work best for the Facebook Connect initiative? Motivate your answer. (5 points)