swapr

EBUSINESS ASSIGNMENT

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INTRODUCTION

Online business can be started rapidly, implemented without the constraints of bricks-and-mortar and can react to environmental changes quickly and with ease.

Swapr is a alternative to traditional eAuction businesses. Following the recent recession and warnings of a possible double dip, in these cash strapped times customers may be reluctant to embark on a monetary transaction, as such, Swapr offers a traditional eAuction service, without the cash requirement.

Swapr provides people with a forum whereby they can trade ethical surplus; the value added to a product by the owner that increases the value over and above the cost of the product itself. For example, I have an old computer that i don't need and so to me the item is worthless. However, to another user interested in hardware computing this item is of greater value. Swapr helps people to garner the highest return for their unwanted items by facilitating a trade in this ethical surplus.

Swapr will also look to build a trusted swapping community, as trust is vital in customer to customer transactions. Swapr will look to be a completely reliable business that guarantees swaps between consumers, which is a common problem for similar businesses.

While competitors offer a similar service, their business plan relies on the adoption of a proprietary currency, which was felt to simply be an analogue for real-world currency and therefore defeated the object of our business plan.

PROPOSED BUSINESS MODEL

SIMILAR BUSINESSES

founded in September 1995

ebay.com

The obvious choice. The online giant will be of particular importance in developing Swapr; especially in its ability to create a smooth bidding experience. Key areas to research will also include the reasons for why users seem to unconditionally trust eBay, and where the majority of the powerhouse's income derives from.
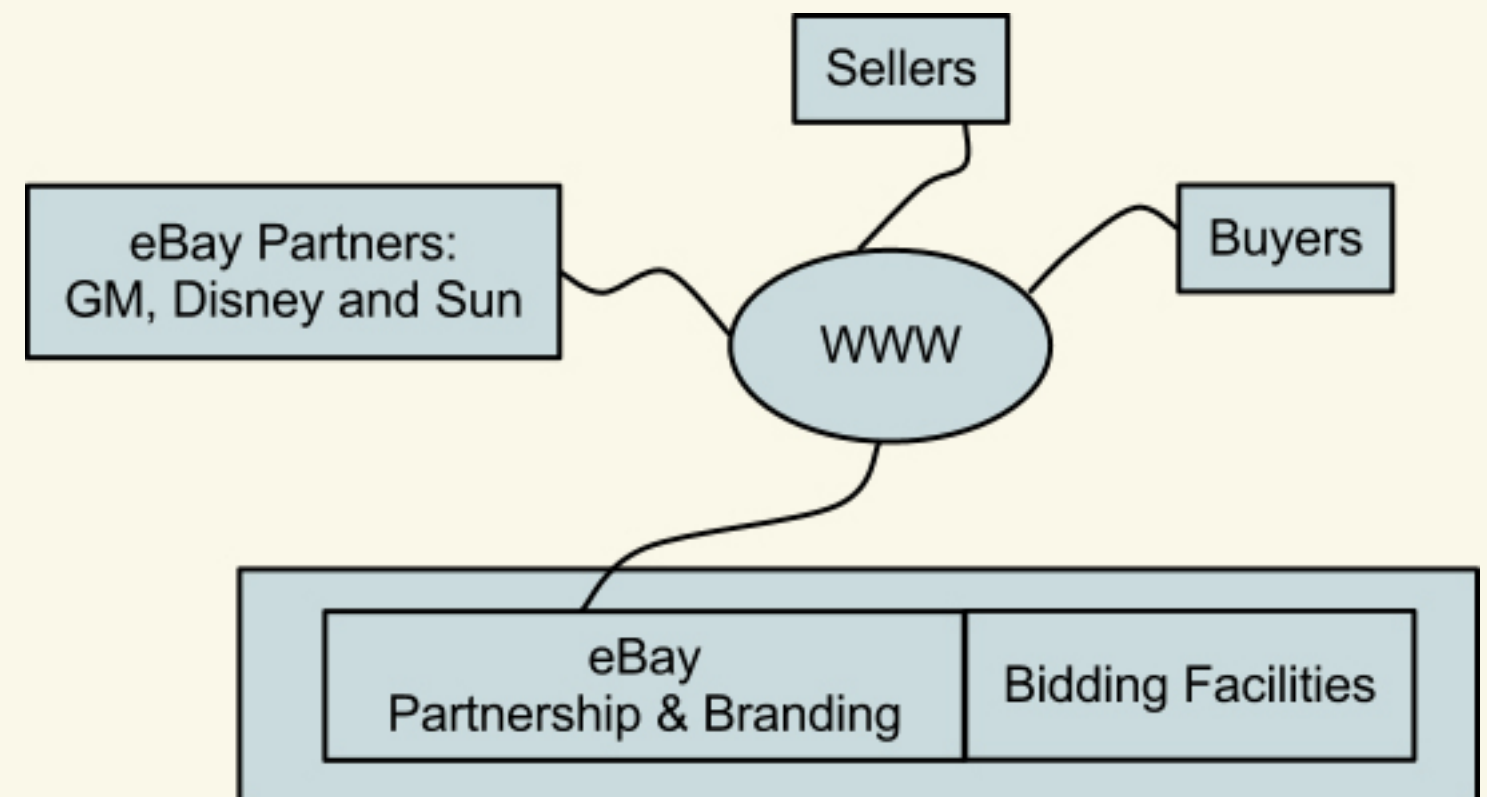
founded in March 2000

gumtree.com

Gumtree serves as a free online network of classified advertisements and websites. There is an option for users to pay a fee to highlight their advertisement, or to extend its running time. Key areas to note in the exploration of Gumtree would be reasons for its popularity and whether the website works well internationally.

founded in May 2006
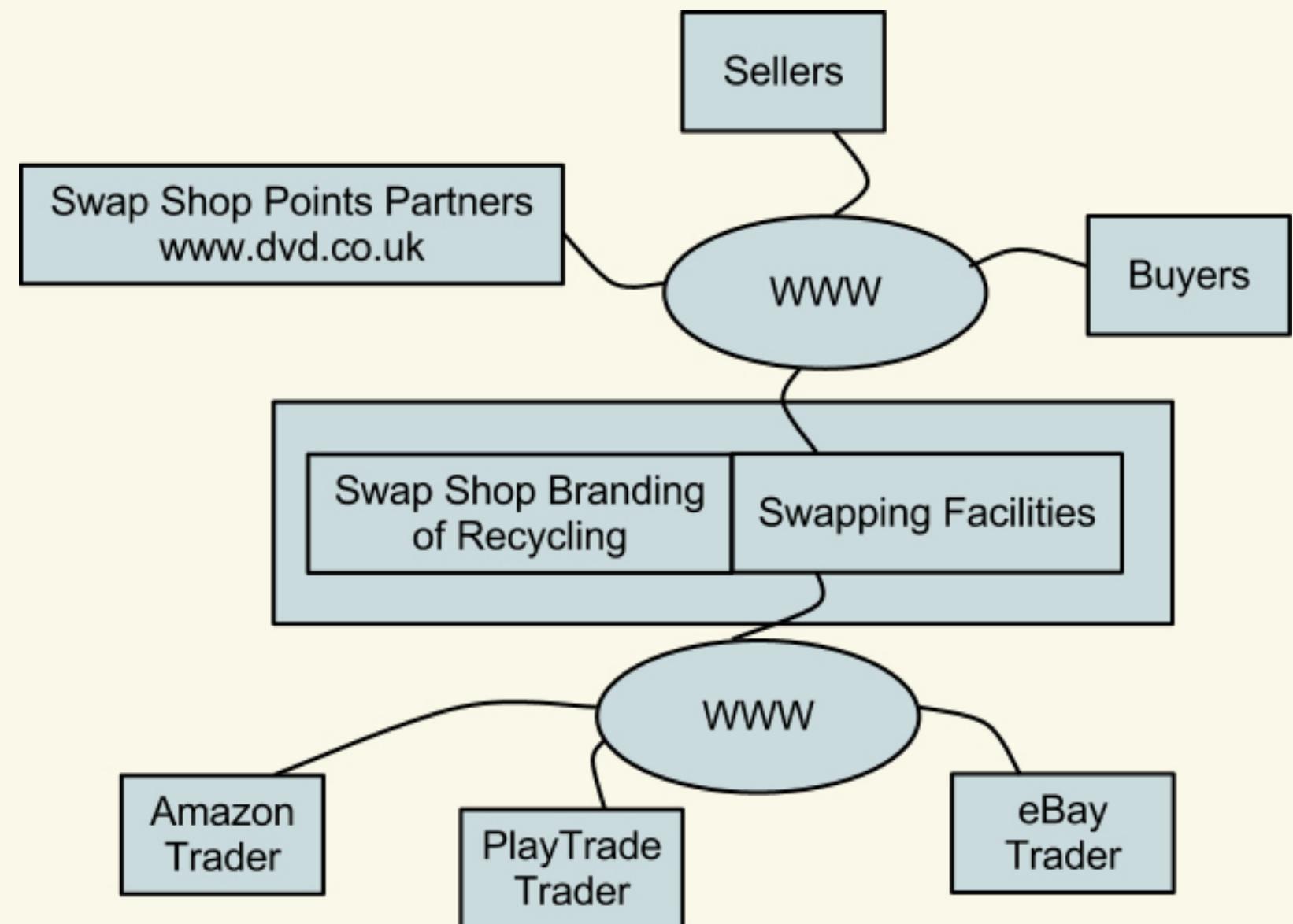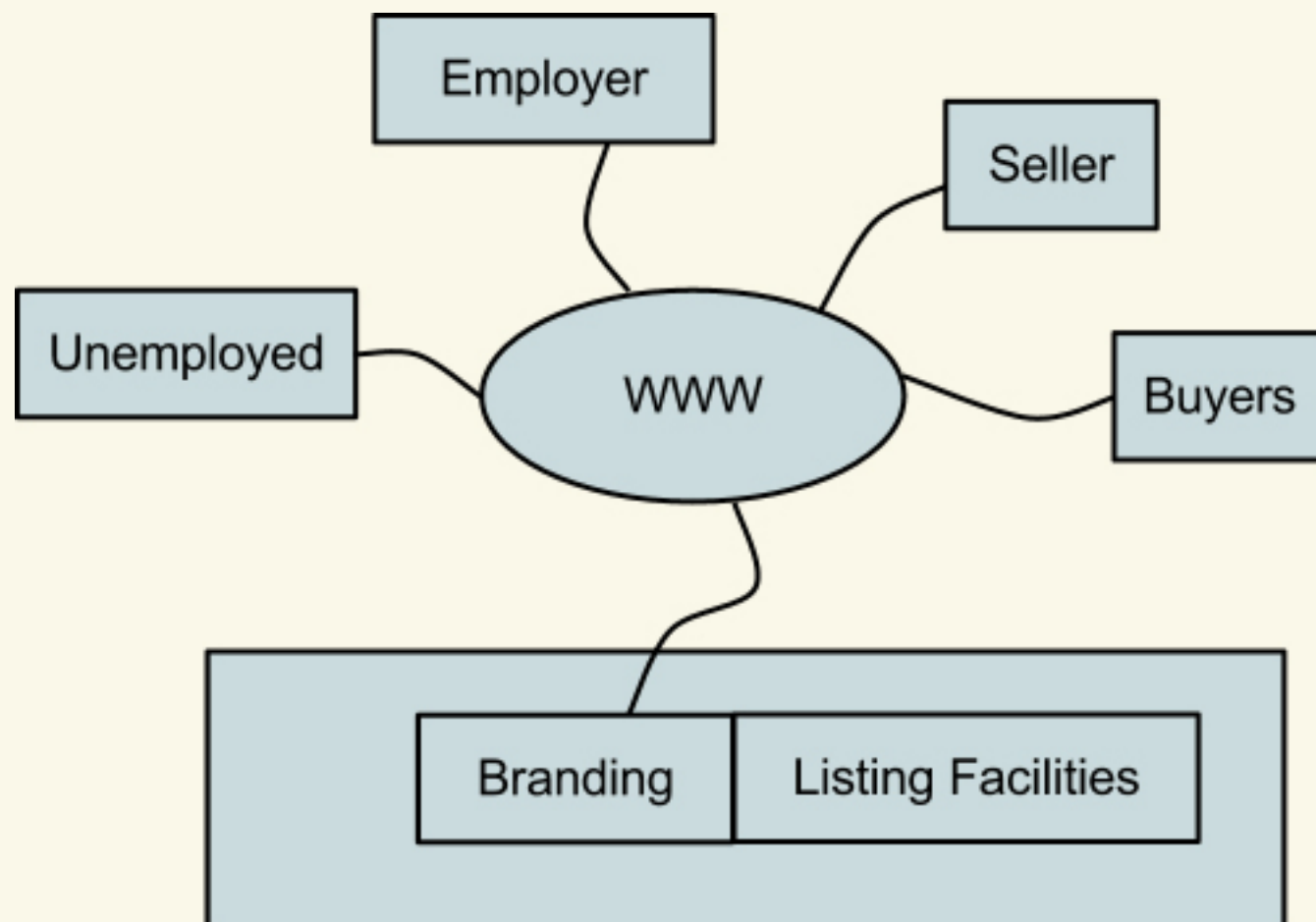
swapshop.co.uk

A relative of Swapr. However this particular business focuses on a recycling method, whereby the user swaps their unwanted items for 'Swap Points', for which they can them use to 'buy items' offered in SwapShop. What should be looked into is how these points decided upon, and whether there is possible room for negotiation depending on the condition of the unwanted item. Also, study of the website should lead onto the extent of what a user is able to trade.
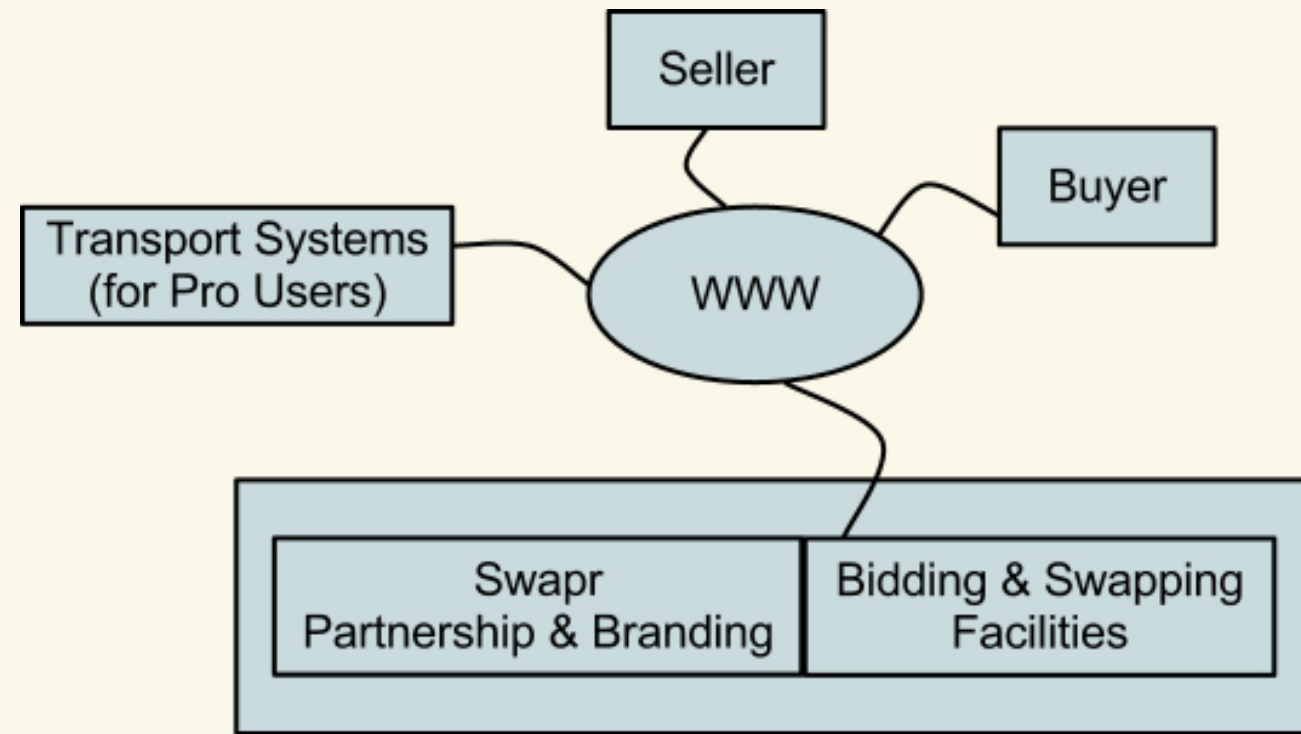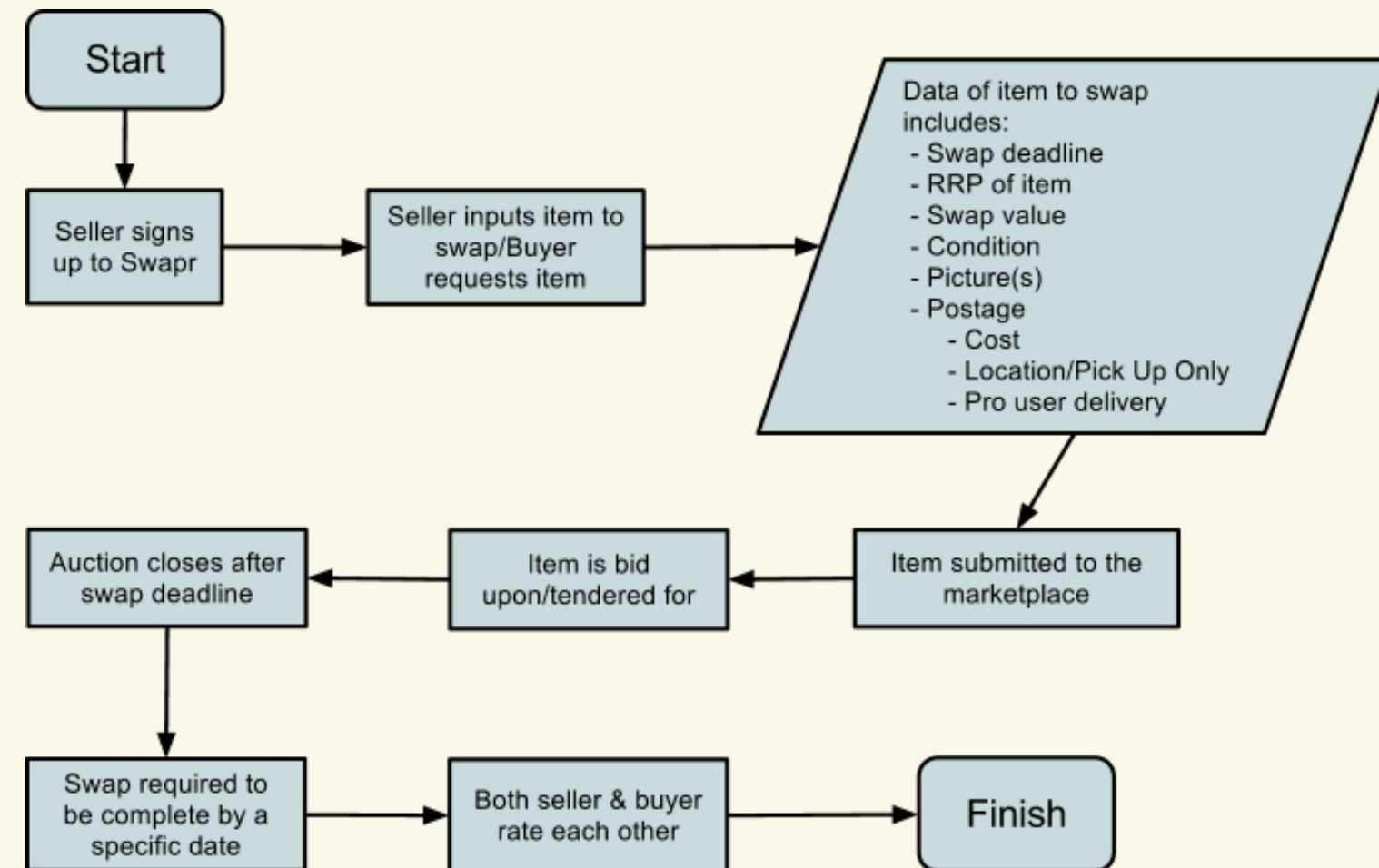
BUSINESS MODELS

SWAPR PROPOSED BUSINESS MODEL

E-PROCESS OF SWAPR

To gain a better understanding of the process by which Swapr users go, a diagram illustrating the path of exchange of items has been provided below. This diagram ultimately sums up the user experience using Swapr.

BUSINESS PLAN

BUSINESS MODEL

Hybrid of forward/reverse e-Auction and community
- Buyers can bid for products online
- Sellers can request an item to be bid for
- Business relies on a strong user community

Our business cannot be comprehensively described by any single business model. Instead, a hybrid model can be created by combining the e-auction model and the value-added-chain. While not strictly conforming to the traditional requirements for either model, elements can be seen from both. In our model, the initiator of the transaction will be referred to as the seller and the second party will be referred to as the buyer, despite the distinction between the two being somewhat blurred.

This is where our business lies in respect to it's features and behaviour

Exchange of products for cash is substituted for the exchange of products for other products. Ultimately a business such as Ebay conduct their transactions using cash, albeit in an electronic form, and even swap-based services generally tend to employ a single fixed proprietary currency or credit system. Essentially, both rely on the buyer either having the cash on hand to purchase.

Exchange products for money
Mainly for enthusiasts/collectors
Revenue from
    - Insertion
    - Extra listing options commission

Online/realtime bidding
Exchange of products
Instant access
Importance of accurate information
Community building emphasis on bidding mechanism
Validation/verification
Security of personal data

Focuses on current sales opportunities
Emphasis on cost reduction
Heavily reliant on technology
    - Improve the product's image
    - Analysis of market

Low purchasing costs
Commission
Customer subscription

BUSINESS MODEL

an item, the buyer first selling an item in order to raise capital for the purchase or the buyer first crediting an account with real-world currency. Our business instead accepts any currency that the seller is willing to accept, as long as it's not monetary, cash or electronic. This exposes a different segment of the market to traditional e-auctions.

The view that traditional auctions are mainly for enthusiasts and collectors does not hold true when considering e-auctions. That is not to say that specific online auctions do not exist, however, the emergence of low-cost and relatively simple-to-implement systems and process have meant that auctions can open themselves up to greater ranges of products. Our auction will rely on the greatest range of products possible to achieve the most number of matches. Although, there will be sub-auctions to help sellers find their ideal swap.

Essentially, revenue will be acquired from the potential for direct marketing and related product suggestions. With such a wealth of information on the needs/wants of our customers, guiding customers to similar or related products on offer from other business will be easy to do and made easier by the potential for automation. This business model requires a robust software application and technological process and a wide user base; keeping costs low and relevance of advertising high.

On most other ways, our product displays the behaviour and requirements of an e-auction:

- Online, real-time bidding
- Sale of products
- Instant access, 24/7
- Demands accurate product information
- Community building and sustaining
- Emphasis placed on bidding mechanism
- Validation/verification of sales and customers
  - Security/limiting of personal data

Most value chain integrators focus on minimising the outlay for products with the aim to group them together in combinations such that the attractiveness to the customer is increased. Our business has no interaction with the value of the products as it is the seller that sets the price and the buyer that agrees. Our involvement is limited to improving the value of the product by suggesting vendors from which to buy related products and accessories, thus adding value to the product and reaping the value from the advertiser. As such we have no purchasing costs whatsoever.

Customer subscription is absolutely necessary for this business. It is unnecessary for every member to be a paying member, however. It is necessary in order to facilitate the delivery of user specific advertising only. There will be opportunities when the business grows, to offer paid subscriptions to cover any operating costs that may be incurred from extended services.

In other ways, this business model fits with that that of the value chain integrator.Attention to current sales opportunities is part and parcel of the business activities. By monitoring what is being offered by the initiators of the swap matches can be found and transactions carried out.

COMMERCIAL

The commercial return fro this business can be channeled in in two ways. Either directly from the customers/users of the site in the form of tiered subscriptions. Alternatively, transactions and user data can be used to direct specific marketing/advertising.

Subscription is a more difficult income to harness without a supporting reputation, certainly in the initial stages of the business' life. At a later date, once a significant user base has been cultivated, chargeable services can be rolled out. Tailored advertising, however, is easy to implement on a 'pay-per-click' basis. 3rd parties will only be required to pay based on results that they themselves can measure. This system is widely use3d thgroughout the web as it currently stands and there are many tools available to track usage behaviour. Based on the products being sold, advertisements for accessories, product support, similar products and consumables will be laid in the users' path.

Future opportunities could see branded consumables sold along-side swaps such as batteries, lanyards, repair kits etc.

LEGAL

The legal liability issues surrounding e-auction style are all very similar and deviate little from the disclaimer seen below. This disclaimer, from popular auction site Ebay, seemingly absolves the service provider of any obligations surrounding failed transactions or claims which originate from a transaction.

> *"You will not hold eBay responsible for any loss you may incur as a result of eBay taking any of the actions described in the Abusing eBay section above nor for other users' actions or inactions, including, without limitation, things they post, items they list or their destruc-tion of allegedly fake items. You acknowledge that we are not a tradi-tional auctioneer. Instead, our sites are venues to allow anyone to of-fer, sell, and buy just about anything, at anytime, from anywhere, in a variety of pricing formats and locations, such as stores, fixed price formats and auction-style formats. At no point do we have possession of anything listed or sold through eBay."*

This is possible due to the fact that Ebay and other auction sites are regarded as facilitating the transaction rather than acting as a participant. Some of the more pertinent clauses in the user agreement vindicating the business in cases of a claim being made against them:

> *"Please do not assume that the offer, sale, purchase, export or import of any item is valid and legal simply because it is listed on one of our sites...*
>
> *You may not use our sites and services if you are under the age of 18 or you are not able to form legally binding contracts...*
>
> *You agree that you will only use our sites and services in accordance with this Agreement."*

COMPARING EXISTING BUSINESS

eBay

eBay is one of the earliest examples of a solely online business which works. Founded in 1995, the company has grown into one of the largest online business and certainly the most popular e-Auction model.

Mousavi (2008) describes the features of an electronic business model as:
Provision of attractive products
Community building
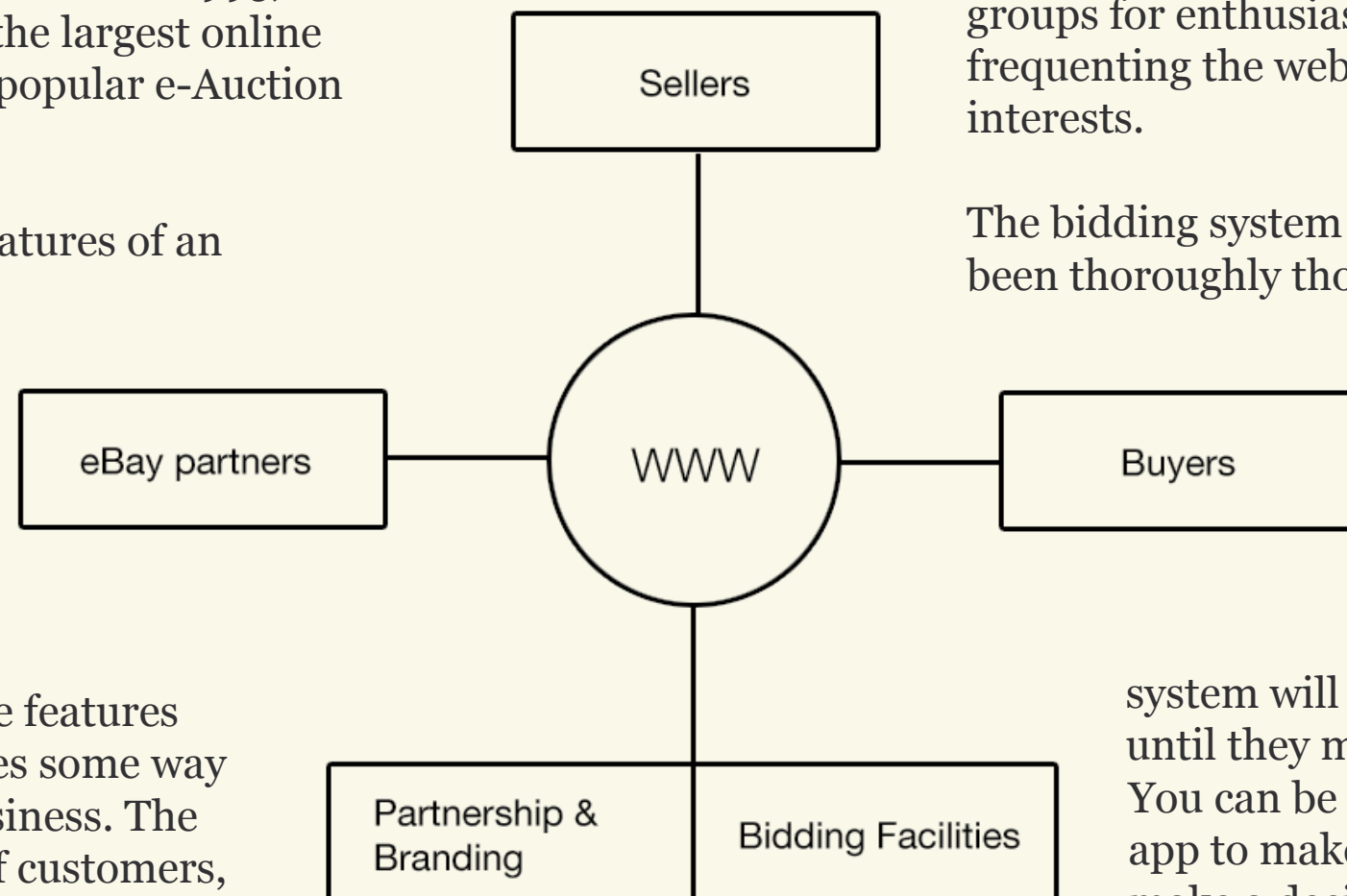Bidding facilities
Validation and Verification
Security

eBay account wholly for all of the features described by Mousavi, which goes some way in showing their success as a business. The business has a huge allegiance of customers, meaning that almost anything you could ever want is available to purchase, meaning the range of attractive products available is extremely high, which would furthermore increase the customer base.

The community element of eBay plays a large part in its success. A trusted rating system is used to provide feedback on transactions and allow well regarded users to have a high reputation for buying and selling. People selling items can be added to a 'Favourite Sellers' list allowing the individual user to build their own personal community of eBay sellers. However, the community is built most prevalently by the use of discussion boards, an answer centre and groups for enthusiasts. Building this community keeps customers frequenting the website whether it's to buy items or discuss interests.

The bidding system used by eBay is comprehensive and has been thoroughly thought out. The bidding facility is arguably the most important factor in an e-Auction website as it provides the difference between the online auction and the normal online purchasing process. eBay allows customers to enter a 'maximum bid' when bidding which is the highest amount they are willing to pay. The system will then automatically outbid any new bidders until they make a bid higher than your maximum amount. You can be notified by either email or using the mobile app to make sure you are notified of any rival bids to then make a decision whether to bid again or not.

The way in which eBay works is very clear and if people are unsure there is a comprehensive help section as well as the online community. Within this section is also a rules and policies section which outlines the do's and don'ts on eBay. Some of the major problems that e-Auctions face is customers bidding erroneously or buyers not paying the seller. eBay has rules to make sure all transactions are verified and adhere to the eBay regulations.

Sellers

eBay partners

WWW

Buyers

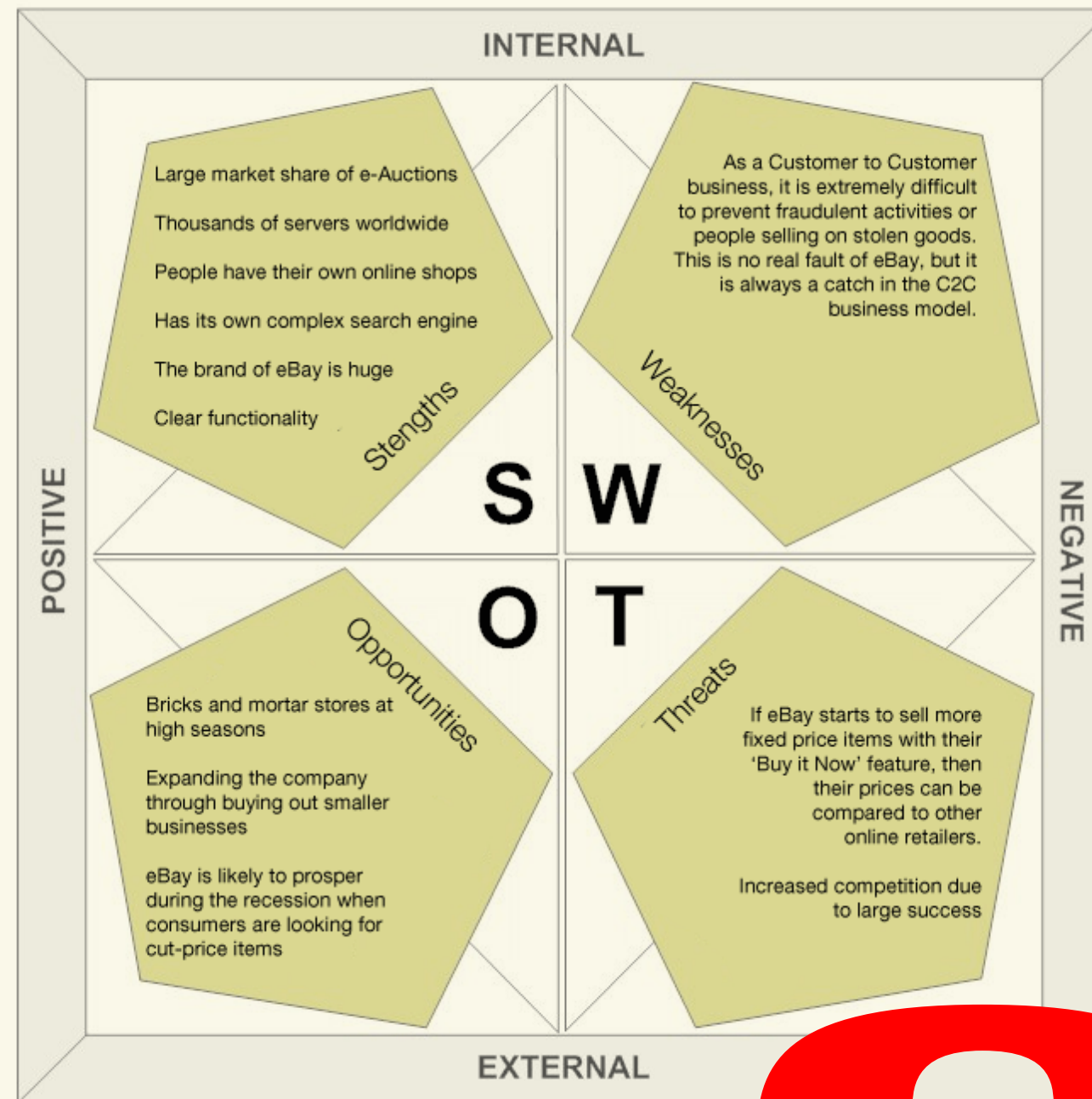Partnership & Branding

Bidding Facilities

Security is obviously paramount in any online transaction and eBay is no exception. During any moments where sensitive information may be entered, they make use of SSL to protect their customers data. The purchasing process is conceivably the part of any online retails which consumers are most worried about. eBay uses PayPal as it's primary payment service, meaning users aren't ever repeatedly typing in their financial details and it is all completed through the third party.
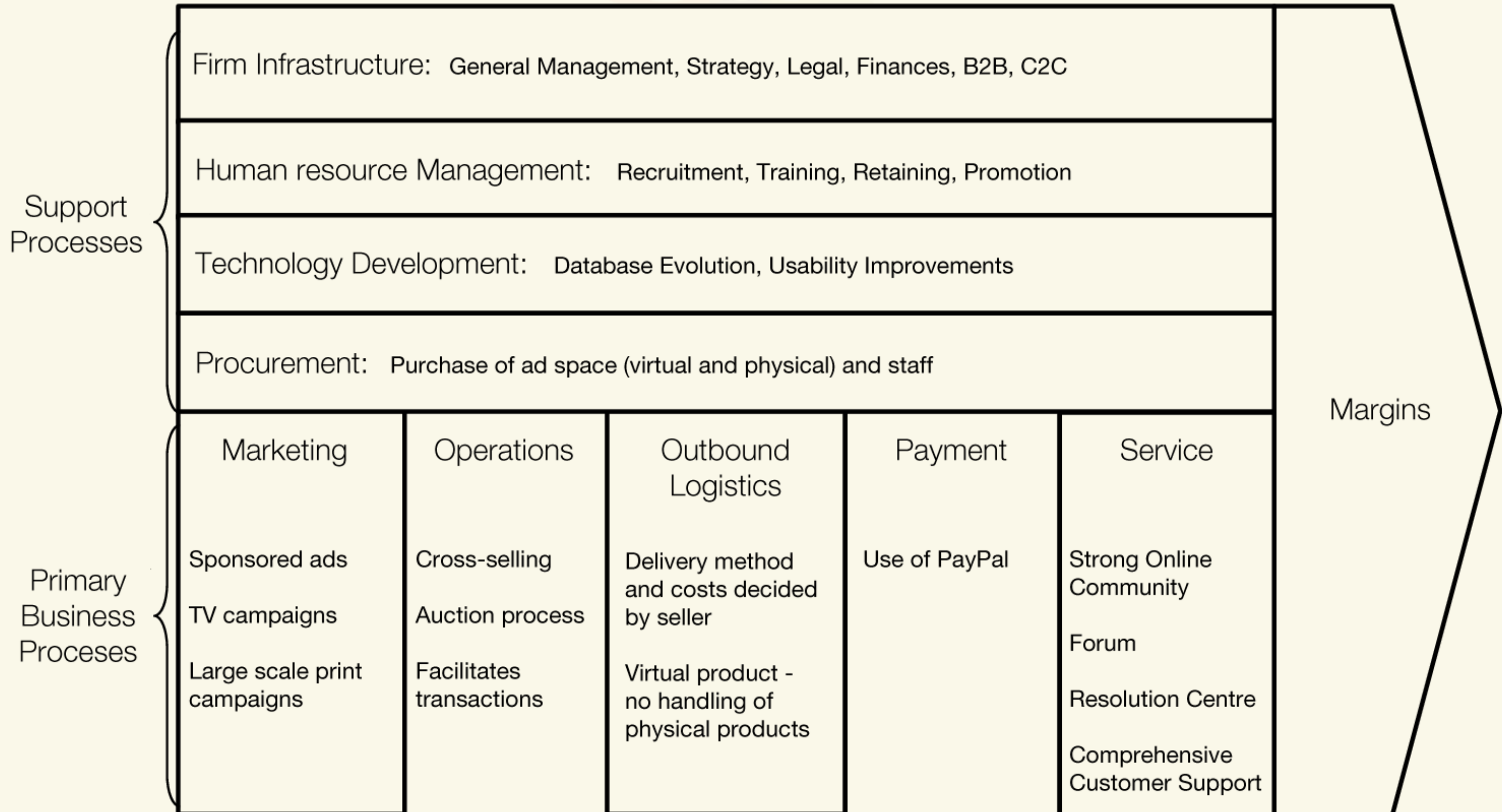
'The New Business Road Test' by Professor John Mullins looks at how eBay's business model is one of the most economically viable, and how this can be attributed to the success that eBay has attained. He looks at some of the key points to what makes a business economically viable and further compares this to what eBay do to fulfill these requirements. The characteristics that were looked at were: having adequate revenue, acquiring customers and having adequate gross margins. eBay make a large amount of revenue based on the fact they have little investment costs and customers that are happy to pay fees for listing items and various other small

charges throughout the process.

The choice of an e-Auction business model really comes into its own in their ability to cover their costs. As the customers are the ones that are buying and selling with eBay acting as an intermediary, meaning that eBay's gross margins stand at around 85%. Robert Hof in his BusinessWeek article stated ' In essence, customers are eBay's de facto product-development team, sales and marketing force, merchandising department, and security detail--all rolled into one'.

The eBay business model is certainly one from which we can draw a lot of similarities. Their primary focus is on the buyers and sellers, with an emphasis on the bidding facilities which sets it apart from similar business. Our business model's strengths also lie within the 'swappers', and the way in which users interact is paramount to making the business successful.

INTERNAL

POSITIVE

NEGATIVE

Stengths

Large market share of e-Auctions

Thousands of servers worldwide

People have their own online shops

Has its own complex search engine

The brand of eBay is huge

Clear functionality

Weaknesses

As a Customer to Customer business, it is extremely difficult to prevent fraudulent activities or people selling on stolen goods. This is no real fault of eBay, but it is always a catch in the C2C business model.

S W

O T

Opportunities

Bricks and mortar stores at high seasons

Expanding the company through buying out smaller businesses

eBay is likely to prosper during the recession when consumers are looking for cut-price items

Threats

If eBay starts to sell more fixed price items with their 'Buy it Now' feature, then their prices can be compared to other online retailers.

Increased competition due to large success

EXTERNAL

ebaY®

Support Processes

| Firm Infrastructure: General Management, Strategy, Legal, Finances, B2B, C2C |
| Human resource Management: Recruitment, Training, Retaining, Promotion |
| Technology Development: Database Evolution, Usability Improvements |
| Procurement: Purchase of ad space (virtual and physical) and staff |

Primary Business Processes

Marketing	Operations	Outbound Logistics	Payment	Service
Sponsored ads TV campaigns Large scale print campaigns	Cross-selling Auction process Facilitates transactions	Delivery method and costs decided by seller Virtual product - no handling of physical products	Use of PayPal	Strong Online Community Forum Resolution Centre Comprehensive Customer Support

Margins

20   21

GUMTREE

Gumtree is a classified ads website which allows visitors to browse adverts that are posted by users. Gumtree doesn't just advertise

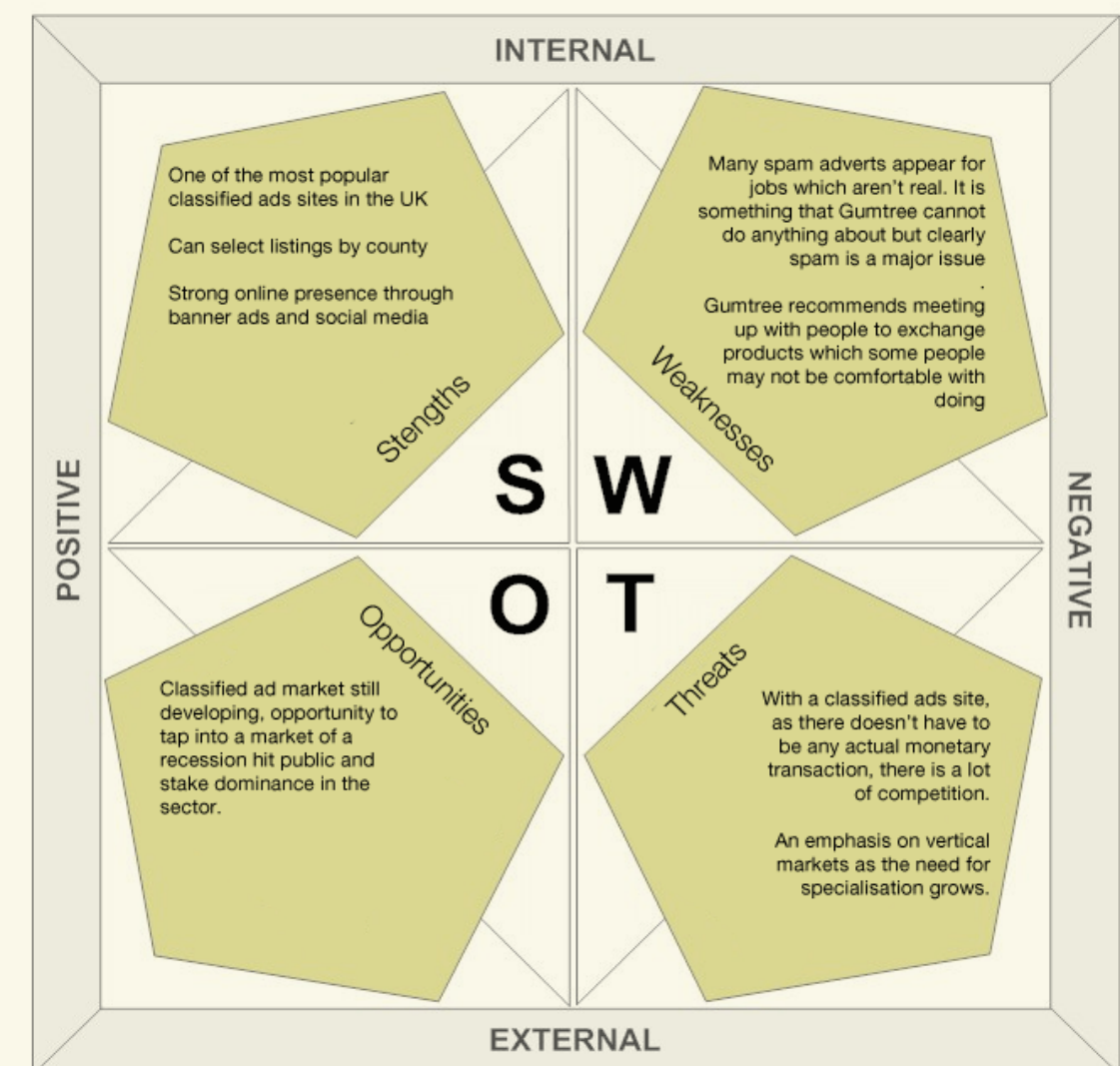physical products, but also services such as tutoring or job advertising which is where the classified ad sector comes into its own domain.

 As regard the business model of Gumtree, it cannot be simply categorised as using a standard e-shopping model. It certainly has many elements of this, with product browsing, ordering and payment facilities and product delivery however the classified ads which make the site what it is do not fall into this model. The site primarily drives communication between users to purchase products or services between them. In this it is very similar to eBay and also similar to the idea of our business, although with Gumtree there is no payment facility. Gumtree just puts in contact the buyer

and seller to organise themselves to meet up or send the product accordingly, leaving Gumtree as the middleman. In this sense it lends itself more to the model of a Value Chain Integrator, utilising the e-process with a wide range of suppliers.

Gumtree does not fall under the e-Auction model like Swapr's closest competitors, but clearly holds some key values which should be considered. Being a classified ads site, it still has users that list items/services and users that will purchase these, but conversely to eBay the buyers make private offers by getting directly in contact with them. This way of working as regard private C2C transactions matches our business model, in that the lister can accept/reject offers as they see fit.

Support Processes

Primary Business Processes

Margins

Firm Infrastructure: General Management, Strategy, Legal, Finances, C2C

Human resource Management: Recruitment, Training, Retaining, Promotion

Technology Development: Develop section by section, usability improvements

Procurement: Acquisition of sponsored Google ad space

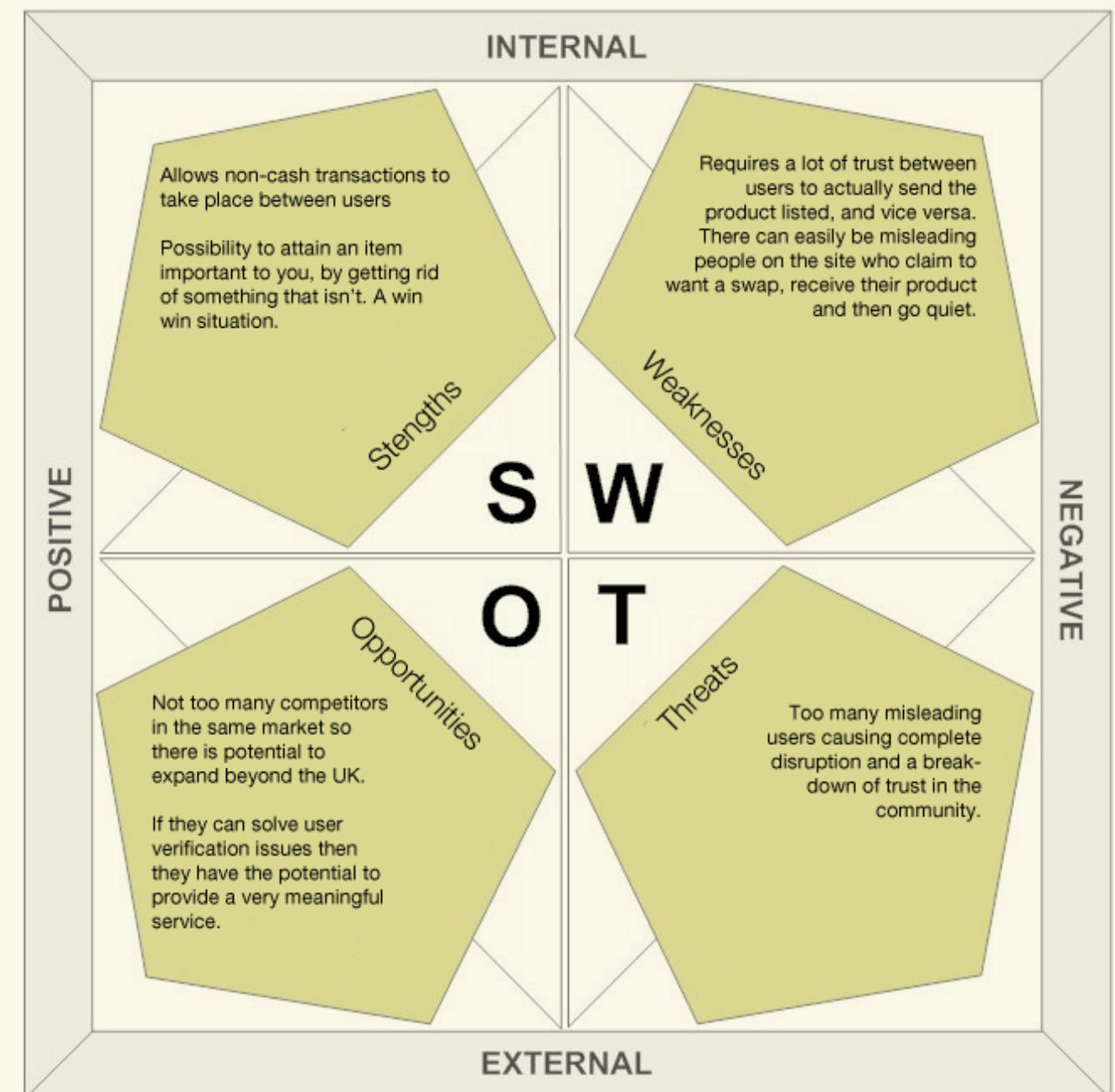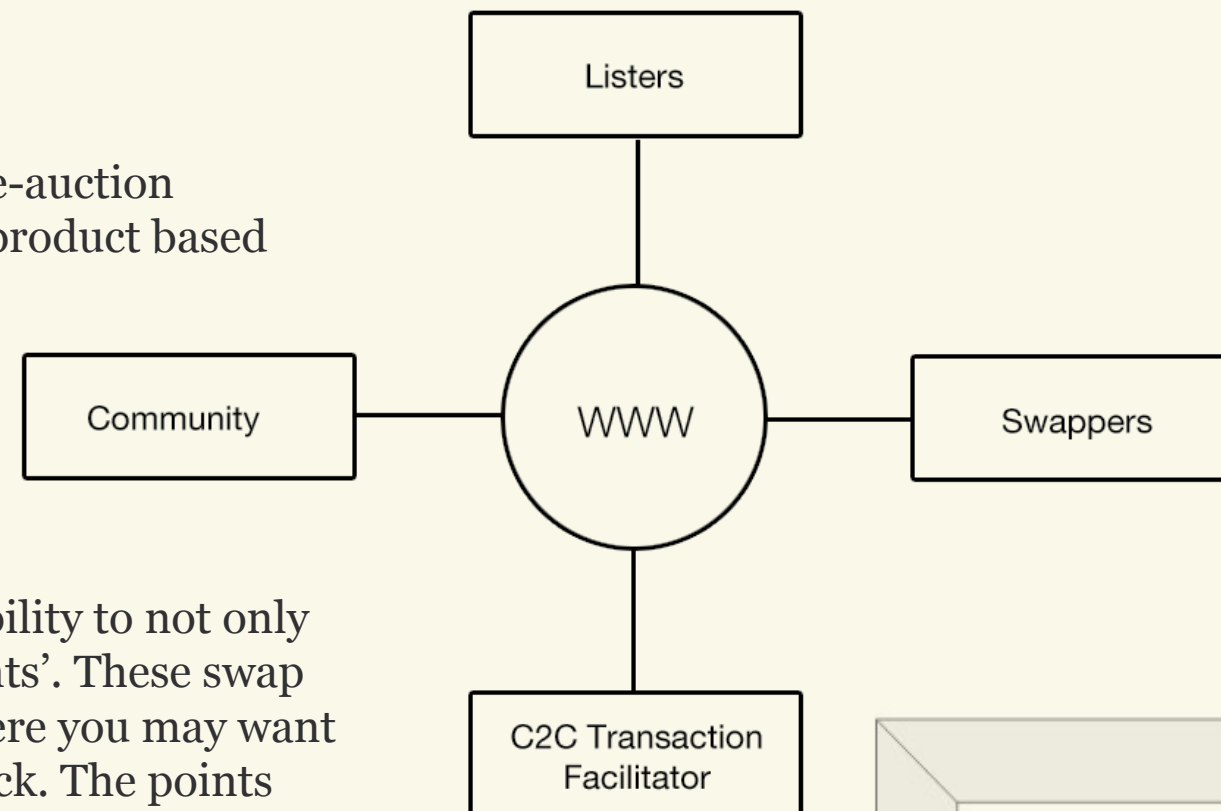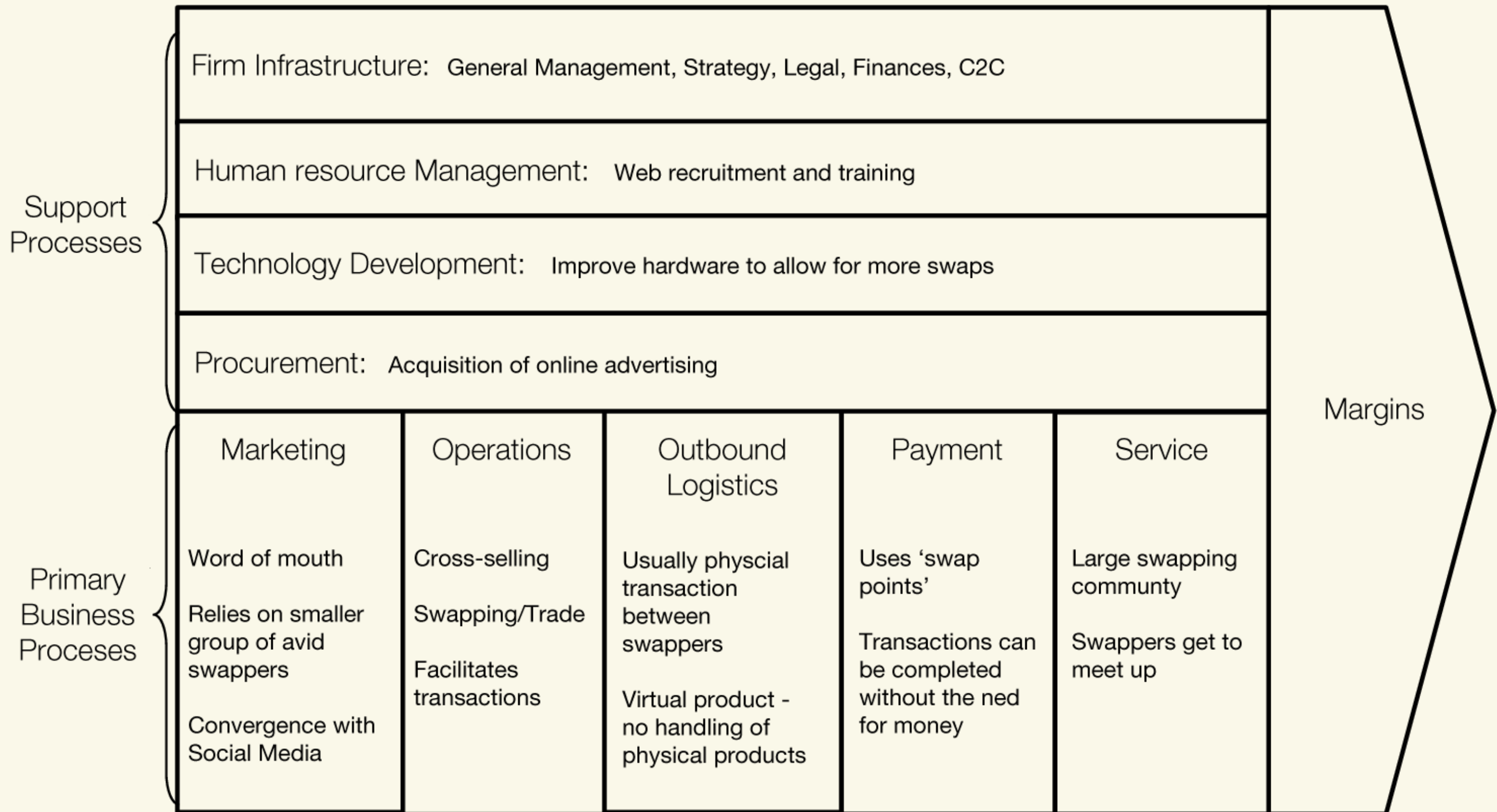| Marketing	Operations	Outbound Logistics	Payment	Service
Sponsored ads	Cross-selling	Delivery method and costs decided by both buyer and seller	Negotiable prices	Forum
One off promotional marketing campaigns	Classified ads	Virtual product - no handling of physical products		Post-sale email communication
Social Media	Facilitates transactions			Blog

SWAPZ

Another alternative to the traditional e-auction model, Swapz introduces product for product based transactions. Swapz says it is "an alternative marketplace to the established auction and classifieds website", which certainly puts itself in competition with eBay and our other case Gumtree. Another initiative that Swapz provides is the ability to not only swap for products, but also 'Swap points'. These swap points can be used in transactions where you may want a product but have nothing to offer back. The points provide an original currency for users to trade in, one which cannot be abused but can be universally used in the context of Swapz.

Swapz also gives its uses the opportunity to list items that they would like, or 'Wantedz' as the site calls them. Users can list an item that they would like, and if I owned that item I could offer it to them in return for one of the items they are swapping or something else upon request. This whole process in turn acts as a two way classifieds service, lending itself more to the Gumtree model than the eBay one.

Swapz has the most closely linked business model to our own, as it pushes the normal conventions of the e-Auction model onto a more refined 'eTrade' model. The way users interact with each other provides a large sense of community which is something Swapr are definitely looking to involve. The way we set ourselves apart from very similar sites such as Swapz, is to completely eradicate the need for money or 'Swap Points' and place the emphasis on the subjective value of each product. It is also noticeable with Swapz that transactions are quite readily cancelled due to one end of the bargain not holding, so at Swapr we want to minimise the null transactions to the best of our abilities.

Listers

Community — **WWW** — **Swappers**

C2C Transaction Facilitator

SWAPZ .co.uk™

SWOT

INTERNAL

POSITIVE / **NEGATIVE**

Stengths
Allows non-cash transactions to take place between users

Possibility to attain an item important to you, by getting rid of something that isn't. A win win situation.

Weaknesses
Requires a lot of trust between users to actually send the product listed, and vice versa. There can easily be misleading people on the site who claim to want a swap, receive their product and then go quiet.

Opportunities
Not too many competitors in the same market so there is potential to expand beyond the UK.

If they can solve user verification issues then they have the potential to provide a very meaningful service.

Threats
Too many misleading users causing complete disruption and a break-down of trust in the community.

EXTERNAL

SWAPZ - VALUE CHAIN

SWAPZ

Support Processes	Firm Infrastructure: General Management, Strategy, Legal, Finances, C2C
	Human resource Management: Web recruitment and training
	Technology Development: Improve hardware to allow for more swaps
	Procurement: Acquisition of online advertising

	Marketing	Operations	Outbound Logistics	Payment	Service
Primary Business Proceses	Word of mouth Relies on smaller group of avid swappers Convergence with Social Media	Cross-selling Swapping/Trade Facilitates transactions	Usually physcial transaction between swappers Virtual product - no handling of physical products	Uses 'swap points' Transactions can be completed without the ned for money	Large swapping communty Swappers get to meet up

Margins

TECHNICAL ANALYSIS

HARDWARE

Hosting

We will need to pay for a hosting plan. The features/limits to this plan can be increased as the company grows and gets more hits.

Hosting Requirements:

Storage Size	Increasing over time. Images or products to trade will take up the most space.
Databases	One
Bandwidth	Serving and uploading of images will require a lot of bandwidth.
Server Location:	Preferably in the United Kingdom
Server OS:	UNIX Based Linux Open Source Free under GNU Popular server OS Less potential for viruses
Services:	Web Server Php 5.3.8 (Latest version) Database Server MySQL

SOFTWARE

Database

We will use a MySQL database to store:
- User details
- User feedback
- Listing records
- Offer records
- Trade records (active and archived)
- Chat records
- Watch Lists
- Site Preferences
- User Activity

Structure

Please refer to the Appendix document "Database Schema.PDF" for an ER Model of the database Schema.

Please refer to the Appendix document "Database SQL (To Deply the Database to Server).txt" for the SQL commands to construct the database.
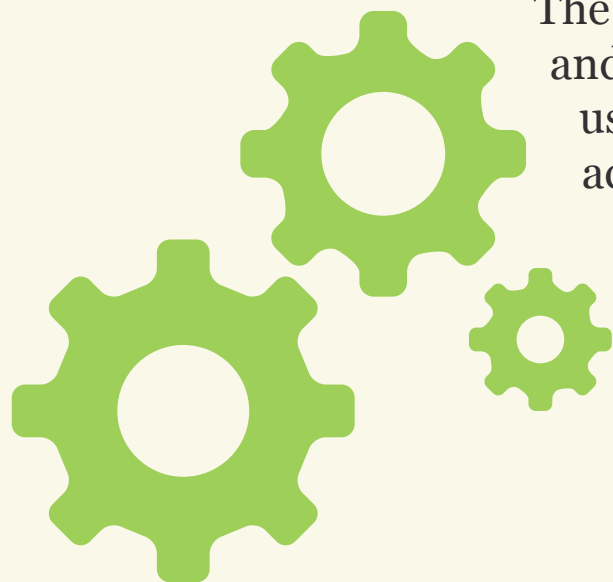
SOFTWARE

Website

We will produce a front-end system using PHP and xHTML to allow users to register and advertise their items for a trade.

When a user attempts to upload their item, the system will first query the database using the name of the user's item. The query will return any active trades with people requesting the user's item. Using the results from this query, we will show the user potential trades that can be made straight away, we will also give them the option to continue to list their item if there are not any suitable trades. This can be accomplished using a MySQL database and PHP.

The website will consist of static pages (for example, about pages, help pages, FAQS) and dynamically generated pages (search results, user profiles, etc). The static pages will be very simple to construct and the dynamic pages will pull information from the database to display relevant text and images on the pages involved.

The website will use jQuery for menus and image previews this will allow the use of well designed image carousels, accordion menus, lightbox galleries, etc.

Mobile App

For the mobile version of our site, we can create a native app or a web app.

iOS

iOS Apps are programmed using Objective C and the primary development environment is a program called X-Code and building an interface for the app uses a program called Interface Builder.

Apps that are submitted to the app store must comply with Apple's rules and quality control. There is also a yearly fee of $99.

Android

Android Apps are programed using Java and the development environment is the Android SDK.
There is a one off fee of $25 to add your app to the Android Market

Both platforms charge 30% commission on each sale, however our app will be free to download, so this should not be an issue.

sw apr

SOFTWARE

Security

Our database will store some sensitive user information such as:
Name
Address
Contact Details

This information will need to be kept secure, and we will need to comply with the Data Protect Act 1998.

To secure our database we will:
- Remove wild-cards in the grant/permission tables
- Require the use of secure passwords
- Check the permissions of configuration files
- Encrypt client-server transmissions
- Actively monitor the MySQL access log
- Disable remote access

People's personal details will be kept secure up until the point when a trade is confirmed. Once a trade has been confirmed, the delivery address of each party will be made available.

Advertising Technology

We can include product suggestions on the
or

homepage,
in a sidebar on other
pages. The suggestions will
follow the convention of:
You recently searched for *this*, maybe
you would like ....

You recently trade *this*, maybe you would like ....

We could use Google AdSense to serve adverts relevant to page content. However a more suitable service may be Amazon's Product Advertising API. We would be able to supply a product (from one of the scenarios above) and Amazon would be able to serve us adverts for related items.

Alternatively, we would be able to send emails to users with related products, much like Amazon already does using your purchase history. We could potentially supply peoples trade history to Amazon so that they could target advertising towards them. This would require user consent, an opt-out option will be required and email numbers will be have to kept to a minimum so we are not seen as a company which spams their customers.

Payment System

As there is no cash transaction involved in a trade, we do not need to implement or invest in a transaction system.

Security is one of our utmost concerns, however as we do not handle card details there is no need to implement a secure transaction system.

DESIGN IMPLEMENTATION

DESIGN

*To see the final website designs, please refer to the external document "Original Website Designs.pdf"

When designing the interface and system of our website as well as mobile app, we have to consider a few key factors that ensure good customer usability.
- Simplicity
- No wasted space
- No cluttering

The layout is very much inspired by ebay, this isn't so much copying as it is benefitting users. Our audience would most likely be ebay users so if they're familiarised with the interface, the user automatically feels comfortable. Elements such as the left hand navigation are borrowed from ebay, login schemes are similar, all of which adds more familiarity to users giving them more control. Using this interface we worked on ammending it to implement our main feature of QuickSwapping, our big comparison tool to find what users want to trade.

The user process of QuickSwap is straight forward, it's designed as a single search tool with dual functionality for matching items together. The interface couldn't be complicated so the concept came about of two boxes for the web and mobile app to simplify a users search - items you want to trade, and items requested for trading.

Usability is taken into consideration in many areas of the site. Since it's streamlined to be easy to use, obviously we have QuickSwap for novice users but our design choices are heavily focused on users. Fonts are big, colours are used to attract attention in areas in which the user should focus. Likewise the setup is designed in a structure which is read from left to right. What I mean by this is it's columned, so you see the navigation, the main featurette then content boxes. It's a simple system for any user and is compatible with tablets, in which the causual user will view from.

SITE MAP

Home
- Chat
- QuickSwap
- Help
- Items
- Register
- Login

Login
Help
Contact
Chat
About

QuickSwap
- Trading for
- What I have

Categories
- Sub-categories

User Profile

Register

SWAPSHOP TRADER BROWSES WEBSITE

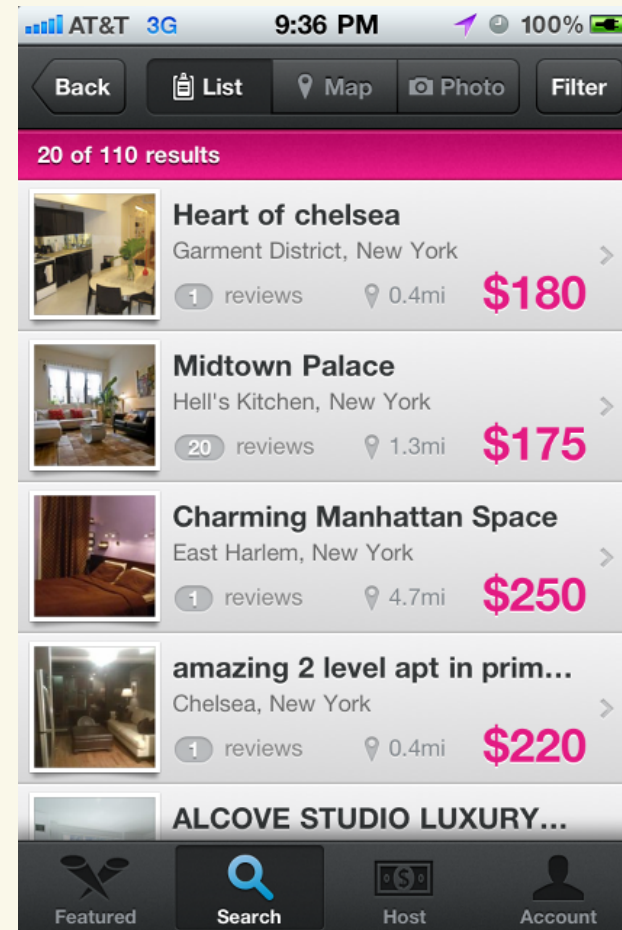This is a flowchart based on the buying aspect of the site. This structure essentially defines the QuickSwap feature which is the main purpose of the site. In which looking for an item is simple

Does the user filter an item they to trade or want to find?

Search by item

Search by my item

Search for another item

Trader uses search filter to look for a specific item

Trader uses search filter to see if any sellers want to trade item

Search for another item

No

No

Is there anyone who wants to trade item? Filter search results

Is there anyone who wants to trade item? Filter search results

No

No

Yes

Yes

Cancel bid

Do any of the traders have a good feedback rating?

Do any of the traders have a good feedback rating?

No

Yes

Yes

FINISH

Yes

Are you interested in what the seller is trading?

Select delivery options

Yes

Confirm bid has been completed

Select sellers item

Make bid

Is the seller taking to long to respond?

No

Has the seller responded to your bid?

Yes

Private chat additional details - extra bidding options

Yes

No

SWAPSHOP TRADER BROWSES WEBSITE

Write details on item, and what the user wants to trade

Upload photos of product

Select details eg category type, tags, etc

Is submission ready?

No

Yes

Submit item

Wait

Has anyone bid for item?

No

Are you interested in offer?

No

Yes

Has the bidder responded?

No

Yes

Does the user filter an item they to trade or want to find?

Search by my item

Trader uses search filter to see if any sellers want to trade item

Search for another item

No

Is there anyone who wants to trade item? Filter search results

Yes

No

Do any of the traders have a good feedback rating?

Yes

No

Are you interested in what the seller is trading?

Yes

Select sellers item

Make bid

Cancel bid

FINISH

Select delivery options

Confirm bid has been completed

Private chat additional details - extra bidding options

Yes

Has the seller responded to your bid?

No

No

Yes

Is the seller taking to long to respond?

DESCRIPTION

The mobile app itself is minimalistic only incorporating the QuickSwap feature as well as a possible barcode scanner. If the interface is minimalistic, the user can access their data quickly so we wanted a bright but contrasting colour scheme that was also unique to our competitors.

Navigation is simple, items are shown in a list format inspired by various mobile apps. It's listing is based on simplicity, so it will show by a matching scheme. So it will display 90% next to the item and additional complex details are featured on its item page. Same for the Web version.

To keep content interesting, we pursue dynamic/animated content. The application of an animated banner displaying various features of the site is a unique pursuit. It organises the content easy for navigation, the animation also conserves space. As the layout is quite simple, we want to keep updating content. We Using a lot of CSS3 and JQuery will help make other content interesting but also be helpful. Filtering content is another step to reducing the number of pages required on the site and improve site fluidity. It allows us to manage space more effectively to avoid cluttering.

Coming up with a brand, we opted for simple text and green/white colour scheme as both a usability, diversity and psychological feel. As quoted by Smashing Magazine:

If an element contributes to a website's overall branding, image or reputation, then it's safe to say that it contributes to its usability. Properly planned and executed branding is not superficial or

decorative. Carefully chosen colors and graphic elements create an inviting atmosphere that leads the user to make easy decisions and helps them interact with elements smoothly and intuitively.

Green has a natural representation of safety which is what we want users to feel and is unique in an eauction market. It's a brave design decision, but gives a stronger, personal feel of the brand. The brand is also open to bold design choices. Green is very helpful in creating an easy contrast, ie between buttons and background.

We have design similarities to www.swap.com in terms of branding, however we opt for a more technological look. Swap.com seems to cater a more earthly design that seems inappropriate.

To fund the site, advertising is required and implemented on the site through boxes that coincide with search results. Advertising can be contextual in the sense that it will appear related to the item being viewed, or just general advertising such as that of the front page. It's an essential part in the grand scheme since it can open the doors for more revenue with a Go Pro feature. With a subscription ads can be turned off. This is a win/win situation as our incentive scheme also grants more revenue through memberships.

The GoPro feature is another concept that could further improve our revenue. It's essentially a subscription based service for additional features. In this case it's for simple incentives such as deluxe postage.

Likewise the concept to advertise out would consist of contextual ads. We would focus on tech sites and category specific sites with specific items from said category to display in ads. It's not an incredibly unique premise, but the novelty of a trading site unlike ebays paying system is a fresh enough concept to get users visiting depending on the right ad campaign.

RESPONSIBILITIES

DOCUMENTATION

Introduction - All
Proposed Business Model - Michael Gorov
Business Model Analysis - Stuart Brockwell
Business Strategy - Liam Warby
Technical Analysis - Graham May
Design and Implementation - James Bruck
Conclusion - All

IMPLEMENTATION

Web Design - Stuart Brockwell & Liam Warby
Web Implementation & Journey- James Bruck
Mobile Design - Michael Gorov
Mobile Implementation - Graham May

APPENDICES

Database Schema - Graham May
Database SQL - Graham May
Document Design - James Bruck
Original Design Document - Stuart Brockwell
Website PSD - Stuart Brockwell and Liam Warby
Mobile PSD - Michael Gorov

CONCLUSION

PROPOSED BUSINESS MODEL - MICHAEL GOROV

Proposing a business model enabled me to take the initial steps in directing the route in which Swapr took. By researching into and declaring similar businesses to Swapr, I was able to gain a greater understanding as to how the proposed business model might manifest. This free-canvas of opportunity led me to powerhouses such as eBay, useful classifieds sites like Gumtree, and intriguing trends such as Swap Shop. I was searching for was the missing links on the surface of all three, and to do this I had educate myself on them.

With better comprehension of Swapr's similar businesses, there is less risk of rivals jumping on the scene to dominate a USP. Many small businesses tend to fail for this very reason. During my research I scoped in on what I felt were the biggest success factors of each business. This enabled me to dissect general user reviews, and penetrate Swapr group discussions with each of the businesses greatest assets.

Having learnt how to dissect a company in such a way, I now feel comfortable with assessing any given online business to find their key strengths; this allows me to critically analyse, adjust, and apply a company's biggest strengths, whilst synonymously eradicating their weaknesses.

The proposal of the Swapr model initialised the based-workings of the business. In this instance, it was essential to create model that constituted all of the major role players within the business. Only by visioning this was I think able to grasp a general overview of a possible E-Process by which the user may experience when uploading an Item to sell on Swapr.

My other major role in Swapr was the design of the Mobile App. With Mobile technology set to take the lead in how we access the Internet in the future, it was vital for this design to be clean, precise and consistent with the Home website. Much of the Mobile App worked off of and alongside with the designers of the website. This way nothing, to our greatest knowledge, was overlooked. An understanding of the limitations of coding a Mobile App were required, such as an outer-glow on items placed on a carousel.

However, I was able to work around this with by creating a gradient behind the items listed in the carousel, which had an offset effect on the items themselves.

Given my input in the design process, I feel the look of Swapr really speaks my mind and preference. Everything from the styling of text, to positioning of content and choice of colour. The model really has come together, to create business with great depths of potential.

COMPARING EXISTING BUSINESSES - STUART BROCKWELL

Comparing our proposed business model and idea to other similar businesses is really important for any start-up company, to assess the close competitors seeing what they do well and what could be improved upon. By thoroughly analysing similar businesses and their business models, I was able get a much clearer picture of what is required to not only survive as business in the e-Auction sector, but thrive with a USP which other companies are not using.

Having a USP is vital in this sector, as firmly established brands can dominate potential rivals with their sheer size of company and consumer base. By composing business model diagrams, value chain diagrams and a SWOT analysis of similar businesses, I learnt a lot about the composition of e-Businesses and what makes them successful. Research into these similar businesses also helped me in the design process, as I was already aware of the common e-Auction conventions that worked well, and could incorporate the best bits from each site and create an amalgamation of different e-Auction models to suit our purpose.

One of the major challenges that I faced was finding information about the smaller businesses. Without sufficient information, business models and value chains alike were much more difficult to complete, so a lot more thought and research was required to complete these. Despite this, I believe that my contribution to the project on the whole has been valuable, not only in terms of research and design, but also my contribution to the group in terms of ideas and suggestions.

BUSINESS STRATEGY - LIAM WARBY

Business strategy is not an area that I am familiar with, nor one that I have any particular interest in. Sub-topics under the business strategy umbrella range from the theoretical/philosophical such as defining the business attributes through to the more practical issues, accepted currencies for example. Therefore, playing on my own leadership experience and appreciation of soft-management, I was able to contribute to group discussions brainstorms while all the time learn from what my peers put forward.

Self-organised learning has played a major part in my element of this project. With no experience of business strategy until commencing this module, all of the knowledge and understanding that has been shown is as a result of structured revision of the lecture information as well as my own research.

The most challenging are of research was surrounding the legal aspects of running an online e-auction. While the other themes of my section were often explained through my research in a way that could be understood by laymen, the terms and conditions of any site, with one or two exceptions, are a minefield of run-one sentences and verbose descriptions of often simple concepts. Again, employing 'soft-managerial' techniques I called upon the expertise of my partner, a graduate in both Philosophy and Law, who taught me the techniques required to deconstruct, analyse and then translate the more complex clauses.

This last point summarises the most valuable lesson learned from this project. While it is not possible to self-learn every little detail of the assignment, project, process or collaborative work, the alternative should not be to rely on the complete delegation and isolation of tasks but instead should be to call on the learning of others and also to contribute ones own learning to the group forum in return.

TECHNICAL ANALYSIS – GRAHAM MAY

Being in charge of Technical Analysis I have learnt about the vast range of technical considerations that have to be made before a business can launch a website, and even more so when launching a mobile app. It was interesting to learn about the different reasons why you would choose a particular hosting setup in terms of hardware.

On the software side, the database technology and scripting language we were to use was predefined by our skills that were gained whilst studying Multimedia Technology & Design at Brunel. Where it got particularly interesting was when I began researching how mobile apps are produced, I was surprised at how high the fees were to submit an app to the iTunes App Store, even if free.

The most challenging area of the technical analysis was producing a database schema that would accommodate our system. I had to take into account normalization and all of the different aspects of the website such as item listings, feedback, chat, profiles, etc. Completing this task definitely improved my back end skills in terms of database structure and also my skills in using MySQL Workbench.

DESIGN IMPLEMENTATION – JAMES BRUCK

Design Implementation is field I'm comfortable in but also striving to improve on in my work. Creating a formidable brand that is unique in the market, but also familiar to users was a difficult part of this project. Especially with competitors that have strong branding, it was hard to find a niche, but through experience in previous work as a Graphic Designer I was able to put my skills to the test.

I have learnt a lot in this project about the key elements of design usability for novice and experiences users, learning about the familiarity of competitors websites to shape new experiences. This was definitely the most useful aspect for me as a designer to learn to design for users who can't use the internet.

In particular, distinguishing the mobile app and website was an important part of this project, to simplify the mobile process but keep that same complexcity as the website. Through research into mobile UI, it became clearer how applications were designed and became a refreshing learning experience.

I feel I made a good contribution towards this project, by working with my team to produce some good front end designs that are appealing but simple for users.

OVERALL

We worked well as a group and held regular meetings to update each other on progress made. We made full use of applications such as Skype and Google Docs to allow us to tele-work effectively and also remotely which eased the stress of too regular meetings and having to choreograph all 5 members. The 'design and implementation' crew made use of Dropbox to synchronise our working files and ensured a modicum of version control

Any meets that were had were casual, animated and good humoured. Due to our employment of online collaboration methods, meetings amongst all 5 members were often substituted for meetings amongst members working together at that time.

As a group, we played to each others' strengths and avoided each others' weaknesses as best we could and the result is evident in the work that we have produced. All members felt that they participated evenly within the group.

APPENDICES

ORIGINAL WEBSITE DESIGNS

This is a collection of the final designs for the website and web interface.

The file contains exported images and explanations and descriptions for each page.

File:

/Appendices/Original Website Designs.pdf

WEB MOCKUP

This is a concept of the Home Page, as you can see, the layout is clean, giving a major focus to the open space in the middle designed to introduce content and the QuickSwap feature. We wanted to incorporate tabs that is a streamlined way to display various forms of content. So we have items displayed as well localised items using the users profile, advertising as well as user specific related items.

Chat is incorporated similar to and inspired by Facebook. Private messaging is relatively slow communication considering bother traders would haggle and this can go on for a long time. So chatting was initiated with it's main goal allowing traders to interact with each other via an instant messaging service.

File:

PC:
/Appendices/Web Site/swapr.exe

Mac:
/Appendices/Web Site/swapr.app

MOBILE SITE MOCKUP

This is a concept of our mobile site, we have tried to follow mobile design conventions and make it as user friendly as possible.

Using the navigation at the bottom, the user will be able to access the different services we offer.

The mobile app allows the user to perform nearly all of the tasks that they could complete using the full version of the website.
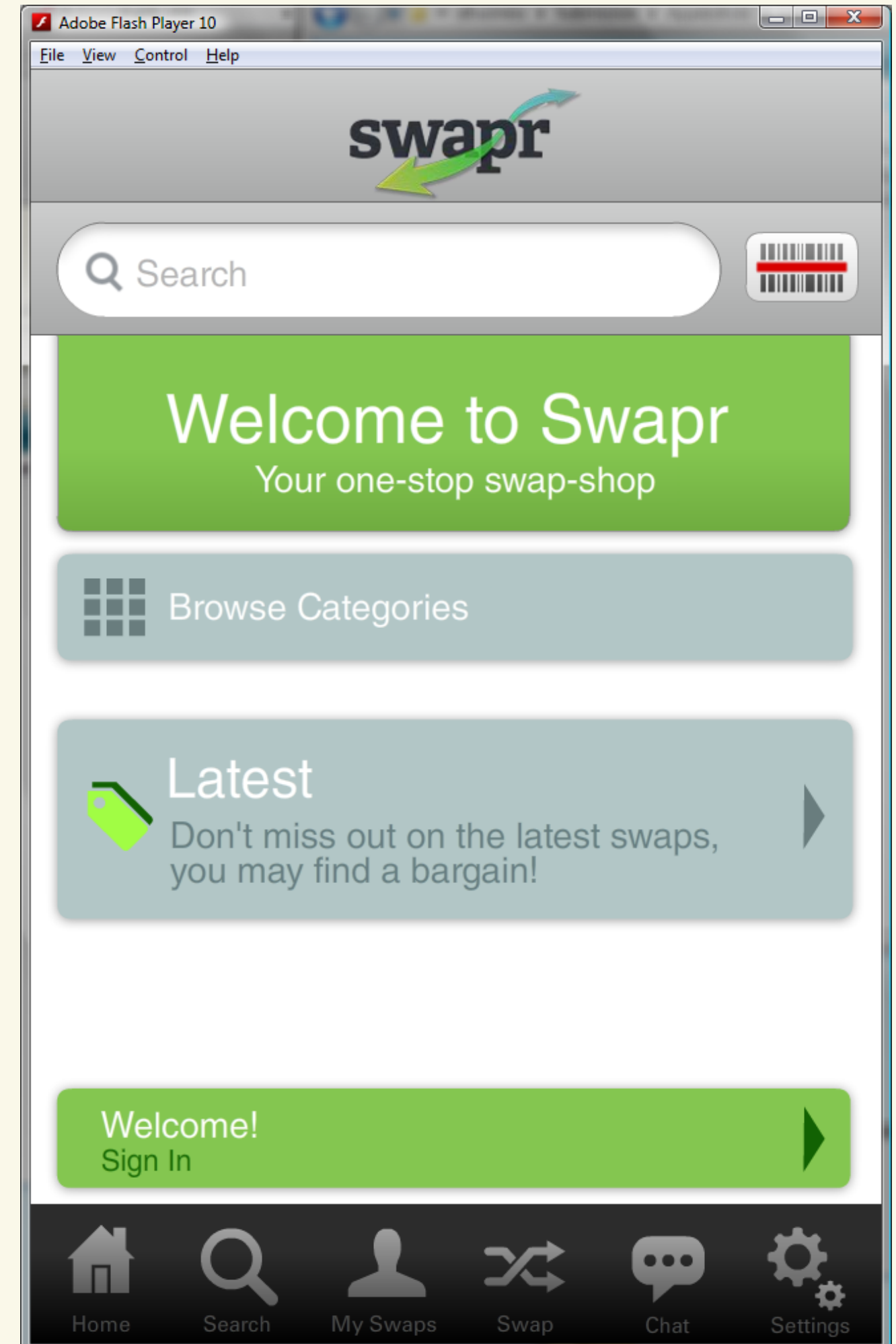
File:

PC:
/Appendices/Mobile Site/Mobile Site Mock Up AS3.exe

Mac:
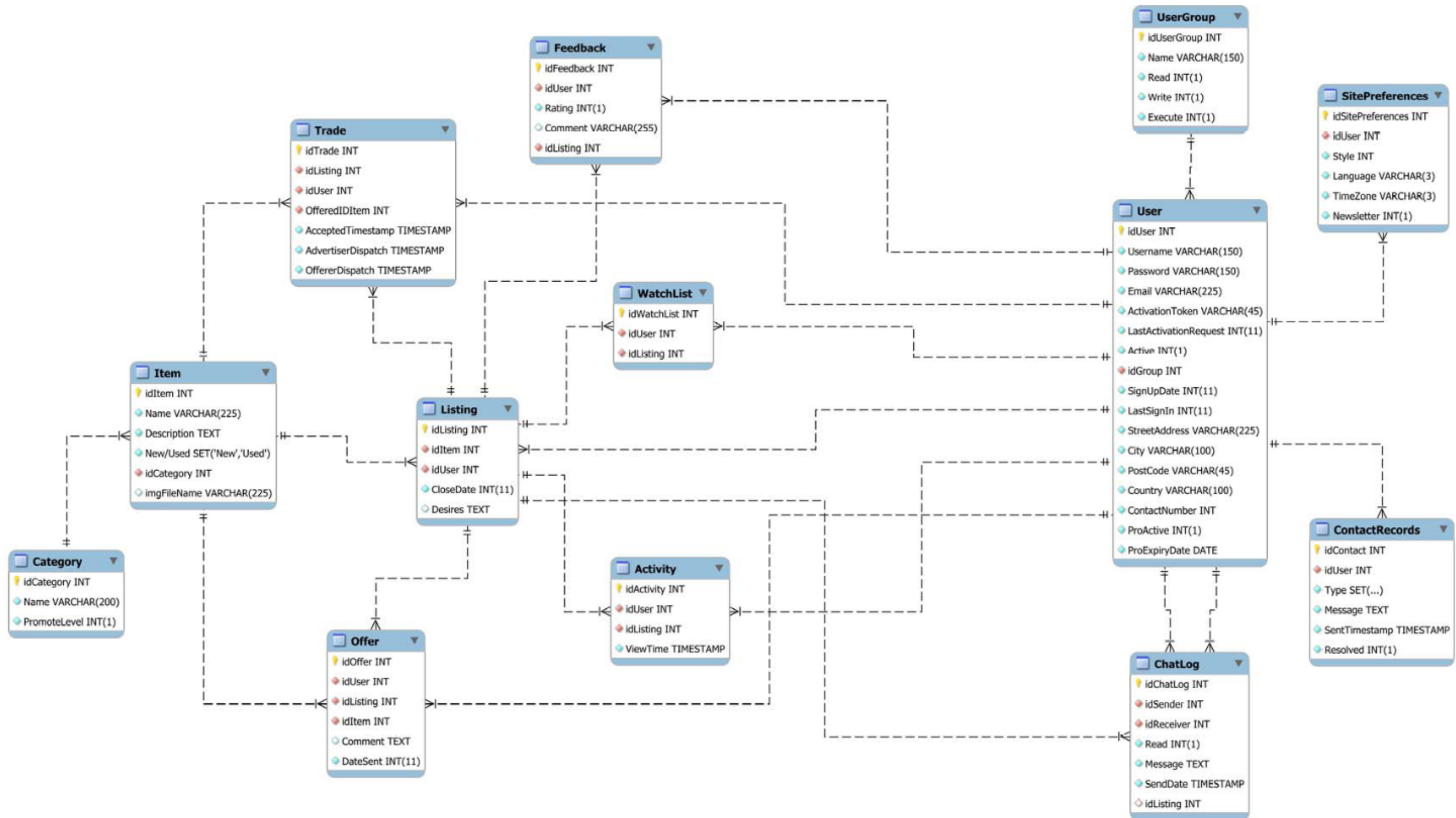/Appendices/Mobile Site/Mobile Site Mock Up AS3.app

DATABASE SCHEMA

This is an ER Model for how our database system could look.

The full PDF can be found at:
/Appendices/Database Files/Database Schema.pdf

DATABASE SQL

This file is the SQL commands required to construct our database.

This includes all entities, relationships and constraints.

File:

/Appendices/Database Files/ Database SQL (To Deply the Database to Server).txt

```
Database SQL (To Deploy the Database to Server).txt - Notepad

File  Edit  Format  View  Help

SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0;
SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0;
SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='TRADITIONAL';

CREATE SCHEMA IF NOT EXISTS `Swapr` DEFAULT CHARACTER SET latin1 COLLATE latin1_swedish_ci ;
USE `Swapr` ;

-- -----------------------------------------------------
-- Table `Swapr`.`UserGroup`
-- -----------------------------------------------------
CREATE  TABLE IF NOT EXISTS `Swapr`.`UserGroup` (
  `idUserGroup` INT NOT NULL ,
  `Name` VARCHAR(150) NOT NULL ,
  `Read` INT(1) NOT NULL ,
  `Write` INT(1) NOT NULL ,
  `Execute` INT(1) NOT NULL ,
  PRIMARY KEY (`idUserGroup`) )
ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `Swapr`.`User`
-- -----------------------------------------------------
CREATE  TABLE IF NOT EXISTS `Swapr`.`User` (
  `idUser` INT NOT NULL AUTO_INCREMENT ,
  `Username` VARCHAR(150) NOT NULL ,
  `Password` VARCHAR(150) NOT NULL ,
  `Email` VARCHAR(225) NOT NULL ,
  `ActivationToken` VARCHAR(45) NOT NULL ,
  `LastActivationRequest` INT(11) NOT NULL ,
  `Active` INT(1) NOT NULL ,
  `idGroup` INT NOT NULL ,
  `SignUpDate` INT(11) NOT NULL ,
  `LastSignIn` INT(11) NOT NULL ,
  `StreetAddress` VARCHAR(225) NOT NULL ,
  `City` VARCHAR(100) NOT NULL ,
  `PostCode` VARCHAR(45) NOT NULL ,
  `Country` VARCHAR(100) NOT NULL ,
  `ContactNumber` INT NOT NULL ,
  `ProActive` INT(1) NOT NULL ,
  `ProExpiryDate` DATE NOT NULL ,
  PRIMARY KEY (`idUser`) ,
  INDEX `user_GroupConstraint` (`idGroup` ASC) ,
  CONSTRAINT `user_GroupConstraint`
    FOREIGN KEY (`idGroup` )
    REFERENCES `Swapr`.`UserGroup` (`idUserGroup` )
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `Swapr`.`Category`
-- -----------------------------------------------------
CREATE  TABLE IF NOT EXISTS `Swapr`.`Category` (
  `idCategory` INT NOT NULL ,
  `Name` VARCHAR(200) NOT NULL ,
  `PromoteLevel` INT(1) NOT NULL ,
  PRIMARY KEY (`idCategory`) )
ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `Swapr`.`Item`
-- -----------------------------------------------------
CREATE  TABLE IF NOT EXISTS `Swapr`.`Item` (
  `idItem` INT NOT NULL ,
  `Name` VARCHAR(225) NOT NULL ,
  `Description` TEXT NOT NULL ,
  `New/Used` SET('New','Used') NOT NULL ,
  `idCategory` INT NOT NULL ,
  PRIMARY KEY (`idItem`) ,
  INDEX `Item_CategoryConstraint` (`idCategory` ASC) ,
  CONSTRAINT `Item_CategoryConstraint`
    FOREIGN KEY (`idCategory` )
    REFERENCES `Swapr`.`Category` (`idCategory` )
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

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