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THE EVOLUTION OF COMMERCE

An Interactive Qualifying Project Report

submitted to the Faculty

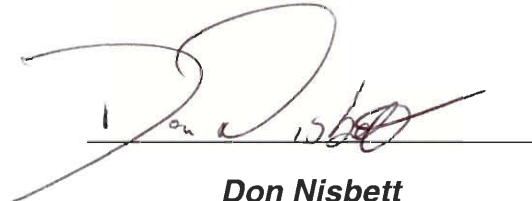of the

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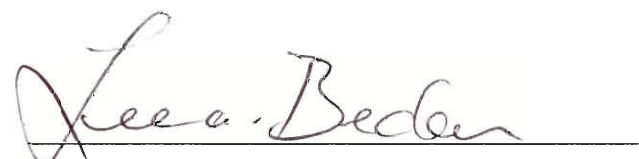
Degree of Bachelor of Science

by

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Approved:

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1. commerce
2. privacy

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I. Abstract

The topic of this report, "The Evolution of Commerce". is an issue that is highly relevant to today's world This paper takes into account the history of both commerce and privacy issues along with the thoughts of the general public to establish the current views and the possible future of commerce itself.

1.Introduction

Commerce and technology tend to evolve depending upon each other. The evolution of commerce requires more advanced tools and brings up new considerations and problems with each stride of achievement. The future is not possible to predict completely, but by observing how the past has occurred, it is possible to gain an understanding of what may come to be.

This project deals with the analysis of past and current commerce, followed by a prediction for its evolution. The types of commerce concentrated upon in this paper are retail, mail, phone, and electronic.

This Report is organized as follows:

➢ Background

➢ Investigation and Analysis

➢ Comparative Survey of Different Methods of Commerce

➢ Conclusion

The 'Background' section contains all information which is essential to understanding the different terms and circumstances of the subject. It gives the reader insight into the definitions and laws with respect to commerce and privacy issues. Without the knowledge contained in this section, the reader would be lacking needed background to understand the current issues relevant to this paper.

The 'Investigation and Analysis' section contains the methods that were used to gather the information needed for this paper. It explains how we went about getting the different pieces of research accomplished. Information could not only be taken from books. Due to the fact that this is such a modern topic, a large amount of the gathered data had to be taken from recent legal libraries and other such agencies.

The 'Comparative Survey of Different Methods of Commerce' section contains first an in depth look at the issues surrounding each of the current four major forms of commerce (retail, mail, phone, electronic). Next, it contains a compare and contrast section, where the similarities and differences of each type are highlighted. The final major portion of this chapter deals with the possible future of commerce. It takes in account where things have been heading, along with current advances with technology.

The 'Conclusion' section contains the authors' closing thoughts on the advances of commerce. It allows the chance for an opinion to be exercised, given the exposure to other material that was not relevant enough to fit into this paper. This section gives closure to the discussion of each of the forms of commerce and where things appear to be heading.

2. Background Information

This Chapter deals with familiarizing the reader with all that they need to understand the content of this paper. It contains mostly definitions of terms, along with abstracts of related laws.

It is Organized as follows:

➤ What is Commerce?

➤ What is Privacy?

➤ Why is Privacy important?

➤ Privacy and the Law

➤ Evolution of the Law

➤ Current Law

The 'What is Commerce?' section deals mainly with stating an outlook on the definition of commerce, with reference to its historical growth. It also delves into commerce in terms of each of its four major forms. Each major form makes up a subsection, where it is defined and clarified.

The 'What is Privacy?' section contains definitions of privacy, as well as the different forms of privacy related idealities. This section also gets into the fluidness of our personal information, how easily it can be acquired and how much of it is out there.

The 'Why is Privacy important?' section gives a brief political background on why it really is important. It explains how privacy is a basic right, and the psychological and sociological effects of loosing it.

The 'Privacy and the Law' section gives brief legal definitions of how privacy is protected and defines some other legal terms associated with the issues. It also gets into new laws that are being passed through Congress at the time this paper was being written.

The 'Evolution of the Law' section gives an explanation for why things are changing as they are. It gives some understanding of how things got to be there in the first place.

The 'Current Law' section gives abstracts to each of the laws currently affecting the fields of commerce and its related privacy concerns.

2.1 What is Commerce?

Commerce is defined as "the exchange or buying and selling of commodities; the exchange of merchandise, on a large scale, between different places or communities".[1]

Society has come up with many ways of exchanging goods and services throughout time. In the beginning people would trade and barter for goods on the basis of survival. Eventually it came to the point where so many different items were being traded, the need for a basis or common system of identification and comparison of value became of great importance. After the monetary systems had been developed, the rate at which goods and services were exchanged as well as the ease of the exchange increased.

Unfortunately though, as more people become involved in an event or process, the complexity grows as well. In addition to the producer/manufacturer and the consumer, a party was needed to become involved in the purchase/sale of items, while a fourth party became involved in the delivery. Involving more people in the entire procedure made things a little more complicated. The laws and regulations that were created and imposed upon the systems of commerce have helped to ease the situation, but due to the fact that there is a social portion in this puzzle, feelings interact as well. Not only this, but as technological development changes day to day, there are always new aspects to consider.

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[1] Webster's Unabridged Dictionary
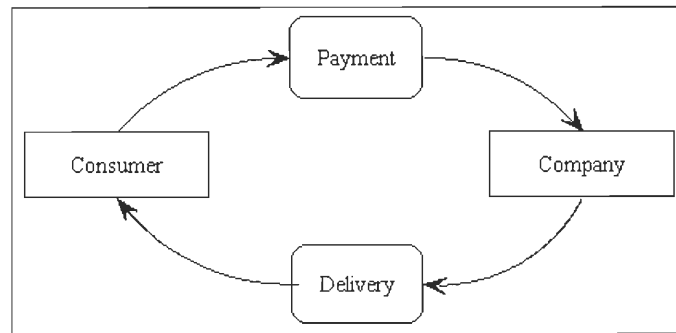
Figure 2.1: The Flow of Commerce

Figure 2.1 shows how there is a cycle involved in the flow of commerce. Although it is slightly different for each form of commerce, in effect the same events occur. The customer sends payment to the seller, and in return the seller delivers the purchased product.

2.1.1 Retail

In the beginning, commerce was the action of either exchanging goods with a neighbor or acquiring them from a local store. This kind of business was restricted to the local, or regional area, where people could get their goods from one place to another on their own. People were mainly limited to doing there shopping in a very small area due to lack of adequate transportation abilities. Now, even though we have the abilities to travel greater distances in small amounts of time, we still carry out a good part of our shopping in our local area.

In relation to figure 2.1, retail commerce is the simplest form. This is because the exchange may take place directly between the consumer and the seller with payment and delivery being direct from one to another.

2.1.2. Mail Order

Later society progressed to the point where there was a centralized system for sending and receiving information and packages from one place to another   This opened the road for a mail order, or delivery method of commerce. This was an effective manner of getting the nation into a position that allowed the sharing of information. This type of purchasing could cut out the third party that the goods are purchased from, i.e. the consumer could buy directly from the producer/manufacturer, because the information relative to the purchase was sent through mail. There still is the delivery party that keeps things a little more complex.

In relation to Figure 2.1, mail commerce differs from retail commerce in that the payment is normally indirect, such as through the use of a credit card since it is done by mail. The other main difference is that delivery is no longer direct, it involves some sort of a delivery service instead.

2.1.3. Telephone Order

Further on in time, with the advent of telecommunications, people gained the ability to avoid dealing with paperwork since it is all done using the telephone. This means is very similar to mail ordering, with the distinct difference of using a telephone instead of the mail services to make the purchases. It gave them another way of sending out for goods. This manner of shopping has the dependence upon a third party for conveying the information, which is needed to complete the transaction.

In relation to Figure 2.1, the telephone form of commerce is Identical to that of mail commerce, having only the differences of indirect payment and delivery

2.1.4. Electronic Commerce

Finally, there is electronic commerce. One possible definition of electronic commerce would be: "any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact".[2] However, while accurate, such a definition hardly captures the spirit of electronic commerce, which in practice is far better viewed as one of those rare cases where changing needs and new technologies come together to revolutionize the way in which business is conducted.

With the technology of computers in homes across the world, people have been able to effectively cut out the third person human interaction portion of the shopping experience. Now, they dial up the modem, or connect to their network, bring up a web page, and click a few buttons. With this kind of ease of transfer having been introduced into commerce, new laws, as well as thoughts and fears, have been introduced. Due to the apprehension many people have dealing with computers alone, there has been somewhat of a mental block keeping users from going on ahead and using this manner of completing transactions.

In relation to Figure 2.1, the electronic form of commerce is the most recent addition to the types of commerce. It makes use of computers and the Internet to make purchases. It is similar to mail and telephone commerce with the possible addition of third party (escrow) services. This service acts to hold the currency/product until the product/currency is received. This allows some security and insurance that the consumer and the company will each get what they are promised

2.2. What is Privacy?

Privacy has been defined as the "freedom from unauthorized intrusion; state of being let alone and able to keep certain personal matters to oneself"[3], or "A private matter; a secret"[1]. In the 1965 *Griswold v. Connecticut* case, Supreme Court Justice Hugo Black wrote, "'privacy' is a broad, abstract and ambiguous concept."[4] In other words, you need to be careful in the way that you define it. There are two main categories of privacy when dealing with commerce. These are Information Privacy and Data Privacy. Information Privacy is the "interest an individual has in controlling, or at least significantly influencing, the handling of data about themselves." Data privacy is quite similar to this. Data refers to "inert symbols, signs or measures, whereas information implies the use of "data by humans to extract meaning."[5] There are reasons to keep information private, but there also have to be bounds drawn to distinguish what needs to be private and what doesn't really need to be private. Some information simply needs to be given out.

"Our names, addresses, and telephone numbers are personal, but few of us keep them private. They are personal in the sense that they are about us, but they exist so they can be given out and used by others to contact or serve us. Most of us want people to know where to visit us, send us mail, or bring emergency medical care when we need it. What we do inside our homes with the blinds drawn, on the other hand, is personal, but also something tasteful people keep private.

Information about what we have purchased in traditional retail stores is personal — again, in the sense that it is something about us — but this information has typically not been private. Shopping in a store requires you to show your purchases to a stranger

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[2] Internet Business @ www.ibmag.co.uk
[3] Findlaw.com
[4] http://www.cse.org/informed/530.html

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— a store clerk — in full view of other shoppers. It may be said that part of forming a contract to purchase something involves identifying yourself and your purchases by presenting both to a clerk. (Imagine buying something at a store without doing this!) There is an enormous benefit to revealing ourselves and our purchases to others. "[6]

When we give information to businesses, we in turn can help ourselves. With the knowledge the business collects, they are able to cut costs by producing and marketing what the public wants. With the cut costs, information and products will flow in a smoother fashion, and there will be less downfalls in the economy. If what is needed is all that is produced, there is no waste, or loss of time.[7]

Some people believe that privacy is a basic right given to them both by the constitution and the Declaration of Independence.[8] Even though it is not explicitly stated, the tones of these documents hint at the fact that it was intended, if not explicitly stated. "The First Amendment protects the individual's freedoms of expression, religion, and association. The Third Amendment protects the private citizen against the state's harboring an army in his home, the Fourth against unreasonable search or seizure. The Fifth Amendment ensures that an individual cannot be compelled to provide testimony against himself. The Ninth Amendment reserves to the 'people' those rights that are not enumerated in the Constitution. And 'the Fourteenth Amendment's guarantee that no

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[5] Clark, Roger (ANU): Privacy
[6] The Value of Making Personal Information Public,
http://www.privacilla.org/default.htm?cablepolicyact.htm&2
[7] The Value of Free-Flowing Information Online,
http://www.privacilla.org/default.htm?cablepolicyact.htm&2
[8] *The Right to Privacy* Samuel Warren and Louis Brandeis, 1890, Harvard Law Review

person can be deprived of life, liberty or property without due process of law, provides

an additional bulwark against governmental interference with individual privacy'" [9]

In the United States there are now over 500 commercial databases that buy and

sell information[10]. With this kind of interest in the shopping habits of the public it is hard

to believe that your information is safe and that your life has not been compromised.

Technology currently facilitates invasions of privacy in cases where before it was

not as easy. For example, with the change from paper to electronic documents, no

longer is the information always stored in a secure manner. Where in the past people

could lock it up in the safe which they kept in their office, now they encrypt it in some

type of electronic storage facility under someone else's control, in some possibly

unknown location. The protection of privacy can only truly be maintained when

cooperation between employers, service providers, software developers, governments,

and the information collectors is somehow achieved. [11]

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[9] Privacy on the Line (USS 93c, p. ix).
[10] Internet Business @ www.ibmag.co.uk
[11] Privacy and Electronic Commerce (Department of Privacy and eCommerce)

2.3. Why is Privacy Important?

Privacy is a basic right. It is the right that gives everyone the legal freedom to keep their personal information separate from the lives of the people from the outside. It is built upon confidence; you only share information that is of a private nature to those who you trust, along with the assumption that it will not be used against you. If there were no laws or regulations regarding such things, the world would be privy to your life. Your identity, belongings, funds, and security would all be compromised to the extent where you alone did not control them. Others could use any of these things to strip you of other powers and innate rights that you have, which could make you defenseless, or at least in a world controlled by information, a loss of identity could occur. When you think about it, you come to realize how much of your life is controlled by numbers and information. The bills you pay, your credit cards, bank accounts, properties, and personal identifications such as your social security number are all available to someone who really wants them. These are the reasons that lawmakers have continued to try and protect the basic foundations, which underlie the principles of privacy.

There are also sociological and psychological effects associated with the loss of privacy. The Federal Trade Commission has shown that there have been some on-line service providers which were selling personally identifiable information to companies without the consent or knowledge of the people to which it pertained. Since things like this have been discovered and reported, these companies have been hurt not by law, but by consumers. There have been few laws associated with such things, so all that

could be done was the people had to stop supporting these companies.[12] Unfortunately, with the fear placed in the consumer's mind that their private information isn't safe in some instances, they slow or cease their transactions with all companies instead of just those which hurt them[13].

2.4. Privacy and the Law

In the beginning, privacy was implied, something that your neighbors and friends would give you, as they would expect it in return.[14] It was given to us as a right the legal perspective when the constitution was and the Bill of Rights was first constructed. There are some things that go along with privacy which are also of a legal manner. There are legal definitions regarding such things as the zones of privacy, which define the boundaries safeguarding such things as medical records and legal proceedings, as well as there are definitions of the infractions which could be incurred against these rights. Invasion of privacy is broken down into the basic principle that somehow privacy has been compromised, that those things that had been defined in the zones of privacy had been breeched. This usually occurs when information, which is considered private, is publicly displayed or used against the person from which it was taken.

The Department of Privacy and Commerce is a section of the government created by Congress that deals with, as its name implies, privacy and commerce related issues. Currently, it is trying to draft some new legislation, which it has named 'Principles of Fair Information Practices'. This legislation is aiming for the goal of

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[12] Junkbusters: Self-regulation and privacy
[13] Junkbusters: Self-regulation and privacy
[14] Clark, Roger (ANU) :Privacy

creating an even playing field for both consumers and business, while keeping the rights of both in mind. The following are the main points of this draft:

"Awareness. At a minimum, consumers need to know the identity of the collector of their personal information, the intended uses of the information, and the means by which they may limit its disclosure.

Choice. Consumers should be given the opportunity to exercise choice with respect to whether and how their personal information is used, either by businesses with whom they have direct contact or by third parties. Consumers should be provided with simple, readily visible, available, and affordable mechanisms to exercise this option.

Data Security. Companies creating, maintaining, using or disseminating records of identifiable personal information should take reasonable measures to assure its reliability for its intended use and should take reasonable precautions to protect it from loss, misuse, alteration or destruction. Companies should also strive to assure that the level of protection extended by third parties to whom they transfer personal information is at a level comparable to its own.

Consumer Access. Consumers should have the opportunity for reasonable, appropriate access to information about them that a company holds, and be able to correct or amend that information when necessary. The extent of access may vary from industry to industry. Providing access to consumer information can be costly to companies, and thus decisions about the level of appropriate access should take into account the nature of the information collected, the number of locations in which it is stored, the nature of the enterprise, and the ways in which the information is to be used. "[15]

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[15] http://www.cse.org/informed/530.html

With laws such as these, it appears as if the general consumer would be more likely to give out their private information. When confidence is developed, commerce will have a better chance. In other words, people will be less likely to fear that which they are working with.

It was found in an independent study that as of 1999, 90 percent of all web pages did not comply with the self-regulation standards as proposed by the most recent laws.[16] These laws involve information sharing, and basic business moral ideals. As long as the current laws are not enforced, there is no reason for this to change. With no prodding from the government, companies will most likely not go for the extra expense that is associated with the complete makeovers that are needed.

2.5. Evolution of the Law

In the beginning, the laws of both commerce and privacy, which laid the foundations for the structure that we have today, were less involved. This is mainly because what they governed was much less complex. Even though this was true, it is also true that these laws, in effect, have close to the same meanings, and apply to what we govern today. The types of things that were dealt with in the beginning had only to worry about the immediate public. When retail commerce took place, the actual deed was between a customer and a salesman. Now we have to take into consideration the global society. Transactions could be intercepted in any number of ways, as they occur between one person in the world and another person in another part of the world. Points of specific problems would be in areas such as the communication between the

two people, the act of purchasing (through the credit card, or other electronic means), and the delivery of the product or information.

2.6. Current Laws

This section gives an abstract for each of the laws currently effecting the fields of commerce and its related privacy concerns. In effect, these laws control just about every legal aspect involved in the area. The only area that is not completely defined would be electronic commerce. This is due to the fact that the legislature does not work fast enough to keep up with the dramatic growth of technology.

2.6.1. FEDERAL TRADE COMMISSION ACT ()

This law exists to protect the consumer indirectly by setting down the rules under which all companies may compete. It sets apart the hurtful, destructive types of competition from the fair in an attempt at keeping the peace and fair competitiveness between businesses. [17]

2.6.2. PRIVACY ACT (1974)

This law explicitly states what can and cannot be done with the personal information of the public in general. It defines the violation of this privacy and how the people's information may be collected.

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[16] Forrester Report, www.forester.com
[17] http://www.fda.gov/opacom/laws/ftca.htm

2.6.3. CABLE COMMUNICATIONS POLICY ACT (1984)

This law prevents cable companies from obtaining any personal information from the consumer through the cable medium. This could range from TV channels being watched to internet pages being visited.[18]

2.6.4. ELECTRONIC COMMUNICATIONS PRIVACY ACT (1986)

This law defines the boundaries associated with the legal framework of all information sent using electronic means. More specifically, this act covers the areas of encryption and security issues. [19]

2.6.5. TELEPHONE CONSUMER PROTECTION ACT (1991)

This law provides a way to prevent the constant sales pitches from ever getting even as far as your phone. It states that the consumer has the right to contact any given company to ask them to stop solicitations. The company has no way of legally continuing the sales attempts unless the consumer once again releases any of their personal information to that company. The only problem with this is that the consumer is responsible for having to contact each telemarketing agency. This problem has been addressed by the creation of phone numbers/ email addresses that may be contacted, who in turn contact a multitude of companies on the consumer's behalf. [20]

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[18] http://www.privacilla.org/default.htm?cablepolicyact.htm&2
[19] http://floridalawfirm.com/privacy.html
[20] http://www.richmondrulez.com/telephoneconsumerprotectionact.htm

2.6.6. DATA PROTECTION ACT (1998)

This law adds to the PRIVACY ACT by defining sensitive data, and the rights bestowed upon the people regarding the control of their data.[21]

2.6.7. FINANCIAL MODERNIZATION SERVICES ACT (1999)

This law protects the consumer in the event that personal information has been compromised. It acknowledges the fact the bank accounts, credit cards, and SS numbers can be compromised, and that the consumer should be protected[22]

2.6.8. CHILDREN'S ON-LINE PRIVACY PROTECTION ACT (1999)

This law addresses the issue of how to deal with the situation of minors and the Internet. This deals with issues such as web pages, and control of personal information.

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[21] http://www.hmso.gov.uk/acts/acts1998/19980029.htm
[22] http://www.crimetime.com/S900.htm

3. Investigation and Analysis

This section contains the methods that were used to gather the information needed for this paper. It explains how we went about getting the different pieces of research accomplished. Information could not only be taken from books. Due to the fact that this is such a current topic, a large amount of the gathered data had to be taken from recent legal libraries and other such agencies.

3.1. Methods used in acquiring information

As seen in Figure 3.1, there was a general flow as to how we gathered information. This project was completed in pieces, from the creation of the topic right through until the conclusion. Each of these parts was completed for the most part before another was started. It is "for the most part" because there were often things we thought of to add or revise the previous sections.
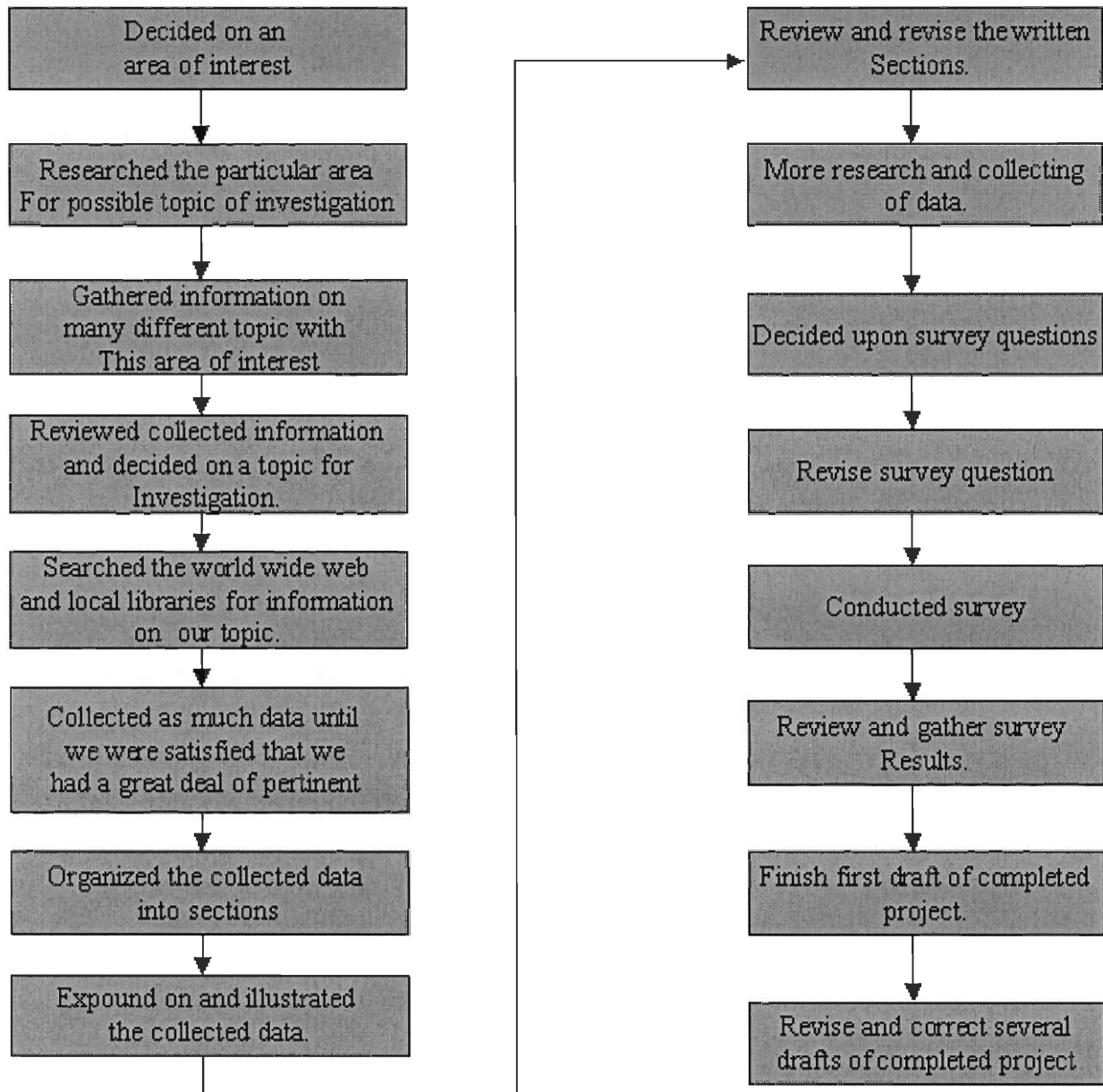
Figure 3.1. Project Flow

For a real definition of most of the terms used in the background information we looked them up the in an unabridged dictionary. This source was also compared to definitions given by other hard copy and electronic dictionaries.

 A great deal of the information need to successfully accomplish the task that we set out to accomplish was only available via the World Wide Web. We used the Copernic[23] Search Engine to find legal libraries, papers, magazine articles, government files, and government hearings that contained very useful information and ideals. Another very useful search engine that was important for find information was Google[24] Search Engine

As a way to research the type of information stores gather for application we decided to apply for a few super market discount cards. This way we can see first hand what information are required of applicants. We applied for the Shaw's Rewards card, Stop & Shop discount card and the CVS extra card.

While working on this project we tried to gather information at anytime on any occasion. We conducted some unofficial personal interviews and were told by a sale representative of a very high end retail store in the Boston area, that this particular store did not accept Master Card credits card or Visa credit cards because it was believed that those companies sold their customer lists to any one who is willing to pay for them. To verify this information we called AT&T Universal Card Customer Service in November of 2000. The representative we spoken to denied the allegations, and proceeded to state the privacy policy of AT&T Universal Card. In addition, we also

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[23] www.copernic.com
[24] www.google.com

called Home Depot to ask them their policies on customer privacy policies. They gave the same scripted answer, as did AT&T and Quicken Visa.

While conducting a search on the topic "how to remove your name for a telemarketing list", using the google.com search engine. We happened across the term "List Brokers". We then processed to enter this term into the search engine, to investigate to definition of the term. After a short search we learnt that a list broker is a company whose sole purpose into locate and sell customer list.

This also led to the discovery of the term "List Managers". A list manager is an establishment whose sole purpose is to gather, maintain and make available the lists of customer information to list broker, who in-turn rent or sell these list for a profit.

3.1.1. Survey

The purpose of this survey was two-fold. It was to see how aware the community was about certain privacy issues and to see how people felt about the different types of commerce in relation to their personal information. The target group in this case was mainly people in the 18 to 25 range due to the fact that they will have the most effect on how commerce will evolve. People from other age ranges were also targeted to get an idea of how they felt in comparison to the 18 to 25 range.

The following is the list of questions asked in a survey given to a number of people. It was given by email to the WPI community and in person to Verizon Wireless and NuVision Manufacturing employees. The results were categorized by gender and age-range in an effort to get an accurate depiction of how society is divided. This was done in an attempt to get another outlook on the major issues related to our paper. Here

you will find an explanation of why we chose each question, and the relevance it has to our topic.

Question 1: Did you know purchases you make with a store savings card can be tracked?

The first question was asked to test the general knowledge of the public. This information is given to a customer on the contract they sign to get the savings card. The problem with this contract is that people do not see beyond the fact that they will be getting some sort of a benefit. They do not think of every possible consequence to their actions. This question has the most relevance to this paper through the topic of privacy rights. It has to do with the importance of people knowing and understanding their rights, as well as how to protect them. With so much information being passed along on the daily basis, people must be aware.

Question 2: Where do you think marketers get information about you?
a.) Phonebook
b.) Credit card company
c.) From other companies

Question two is also a general knowledge question. This question was asked to see if there is a misconception of how marketers acquire personal information. It could be that people have no idea as to whether the calls or advertisements were targeted at

them or were simply received by chance. This question relates mainly to the topic of telephone commerce, due to the commonness of solicitation by means of the telephone. Telemarketers are a large component of the advertisement field, such that they require the sort of information supplied from companies such as the list brokers.

Here is an example as to how specific a marketer can get when they are looking to reach a certain 'group' of people: Single, white, 40-50 yrs old, teacher, who lives in Worcester, MA, and has made mail order/internet purchases in the last 6 months

Question 3: Did you realize before reading this that certain groups of people could be targeted so specifically?

Question three is also a general knowledge question. This question was asked because people may not have known that there are places where their information may be purchased. The 'list brokers' do not advertise publicly, so there existence may be unknown. This question, similarly to question one, relates to the privacy aspects of this topic. It gives awareness as to how personal information is used when it is given out. The wish to be left alone can be motivation to protect one's information.

Question 4: With which of the following ways of shopping do you have the least amount of concern about your **PERSONAL** information becoming available to a third party?
a.) Retail
b.) Mail Order

c.) Telephone Order

d.) Internet

Question four is a subjective question asked so that we could understand how safe the public felt using each of the forms of commerce. With the changing technology and demographics, a person's thoughts and beliefs follow suit. If there is some trend towards people feeling that one form is better than another, then it is possible that this form would be emphasized in the commerce forms of the future. Questions four and five relate to the future of commerce. Information needed to be gathered in the effort to obtain an accurate description of how the future will turn out. With this information, it becomes easier to predict which forms will become dominant, and which will subside.

Question 5: With which of the following ways of shopping do you have the least amount of concern about your **CREDIT** information becoming available to a third party?

a.) Retail

b.) Mail Order

c.) Telephone Order

d.) Internet

Question five is very similar to question four. The difference is that people are more sensitive to their credit information than they are of their personal information. This would cause them to have more weight on the credit information than on the personal information for deciding on which form of commerce they are most comfortable

with. Although this gives more importance to question five, question four is still needed

to get the complete picture.

4. Comparative Survey of Different Methods of Commerce

This chapter deals with the different topics that are related to each form of commerce. It contains first an in depth look at the issues surrounding each of the current four major forms of commerce (retail, mail, phone, electronic). Next it contains a compare and contrast section, where the similarities and differences of each type are highlighted. The final major portion of this chapter deals with the possible future of commerce. It takes in account where things have been heading, along with current advances with technology.

It is organized as follows:

- ➤ 4.1: Commerce
- ➤ 4.2: Retail Commerce
- ➤ 4.3: Mail Commerce
- ➤ 4.4: Telephone Commerce
- ➤ 4.5: Electronic Commerce
- ➤ 4.6: Comparison of Older Forms of Commerce with eCommerce
- ➤ 4.7: Prediction of the Future of Commerce

The 'Commerce' section deals with introducing the manner by which information flows through the different major entities. These major entities are the customer and each company that would have an opportunity to obtain the customer's information.

The 'Retail Commerce' section compares the flow of information in general to the specific nature of the flow with respect to retail commerce. The other major topic covered is the introduction and description of the two main types of retail commerce.

The 'Mail Commerce' section compares the flow of information in general to the specific nature of the flow with respect to mail commerce. It also goes into the details about the problems that may occur in transactions. Some growth statistics and general analysis results are also explored in this section.

The 'Telephone Commerce' section compares the flow of information in general to the specific nature of the flow with respect to telephone commerce. It also goes into the problems that may occur in transactions, as well as marketing issues. Finally, usage statistics and ways to avoid the related problems are discussed.

The 'Electronic Commerce' section compares the flow of information in general to the specific nature of the flow with respect to electronic commerce. Other major topics that are covered would be the distribution of users, and the categories of electronic commerce. The possible problems that occur between transactions are also discussed.

The 'Comparison of Older Forms of Commerce with Electronic Commerce' section provides a detailed comparison, and contrasts each of the sections with respect to electronic commerce.

The final section, 'Prediction of the future of Commerce', goes into the predicted future of commerce. This involves the speculation on technological advances along with how the legislature will control it.

4.1. Commerce

This section deals with introducing the manner by which information flows through the different major entities. These major entities are the customer and each company that would have an opportunity to obtain the customer's information

4.1.1. The Transfer of Information

The following figure is a representation of all the paths which information may flow, through any type of commerce. It contains a cumulative outlook on the manner of how valuable information in processed.

Figure 4.1: The Flow of Information

1.) The consumer gives up personal information (addresses, phone numbers…) either by volunteering it in exchange for a perk such as a store credit/discount card, or when the need arrives for an item to be delivered to the consumer.

2.) The consumer gives up demographic information mainly in a volunteering manner. this information is not normally needed for the completion of an exchange, but is often given up in exchange for some free service

3.) Credit information is not given when cash or checks are used, only credit cards. this is the only information that the company is not legally allowed to make use of in any way unrelated to the purchase.

4.) The personal information is gathered by the first company generally for shipping purposes..

5.)The demographics are gathered either by the first company explicitly for their own marketing purposes or for another companies research.

6.) The credit information can be sent to either the first company or an escrow service which just verifies the credit and passes along payment.

7 / 8.) The company may choose to compile a consumer information database for their own purposes

9. / 10)The collected information gives the first company a target for their marketing

11 / 12.) The first company may choose to sell or trade their customer database information to a second company. this second company gains the additional marketing information, so they benefit by finding more people to advertise their products to.

4.1.2. The ease of Acquiring information

With computers being used everywhere nowadays, gathering information has simplified greatly. Now with every online purchase, combined with all other forms of commerce, there is a wealth of information out there for sale. It may be surprising, but marketers can buy and sell lists of information through people called List Brokers. This is a legal profession that deals with all of your personal information. These lists contain everything from where you live to where you made your last online purchase.

4.2. Retail commerce

The 'Retail Commerce' section compares the flow of information in general to the specific nature of the flow with respect to retail commerce. The other main topic covered is the introduction and description of the two main types of retail commerce.
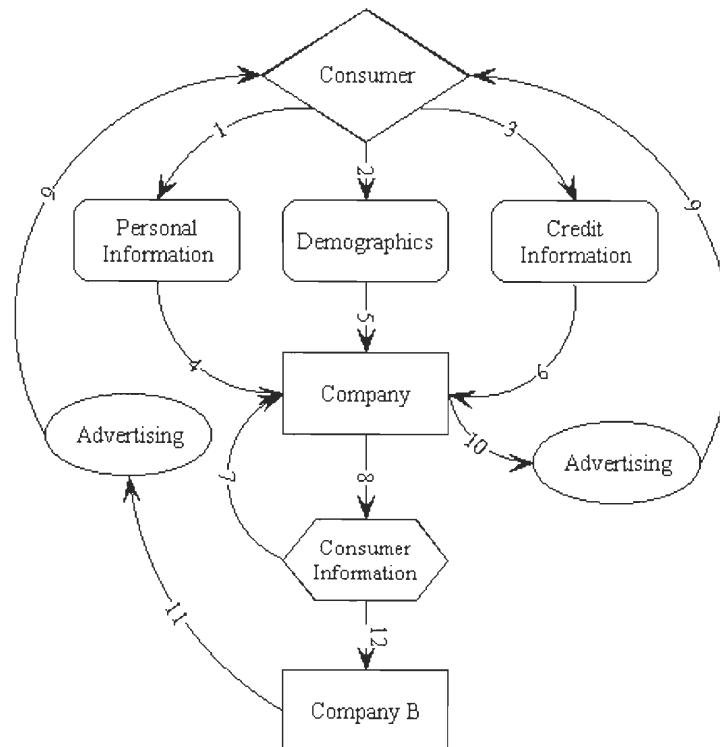
4.2.1 The Ttransfer of Information
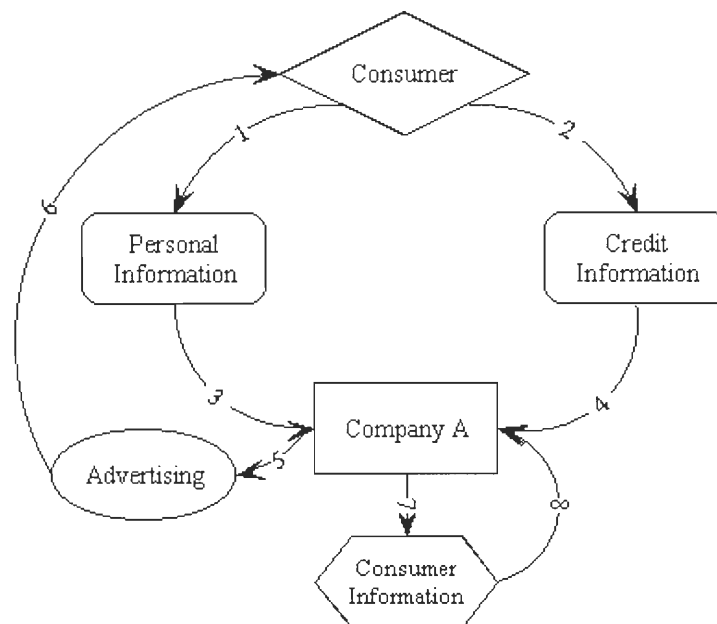
Figure 4.2: The Flow of Retail Commerce

1.) The Consumer gives up Personal information (Addresses, phone numbers...) either by volunteering it in exchange for a perk such as a store credit/discount card, or when the need arrives for an item to be delivered to the consumer.

2.) Credit information is not given when cash or checks are used, only credit cards. This is the only information that the Company is not legally allowed to make use of in any way unrelated to the purchase.

3.) The Personal information is gathered by the first Company generally for shipping purposes..

4.) The Credit information can be sent to either the first company or an escrow service which just verifies the credit and passes along payment.

5 / 6.) The collected information gives the first company a target for their marketing

7/ 8.) The company may choose to compile a consumer information database for their own purposes The collected information gives the first company a target for their marketing

The consumer buys his or her products directly from the retail store. The consumer has a few different options when it comes to the method of payment. If the consumer pays for his or her products using cash, then the retailer is not able to gather any information on that particular consumer. This vastly changes the flow chart. Without any information from the consumer, company A, the retailer, cannot track his or her buying habits nor can it advertise directly to them. In order to entice the consumer, company A, the retailer, has to advertise to the general public in hopes that the consumer will heed its advertisement.

On the other hand, if the consumer pays by using that store's particular card, he or she provides company A all the necessary information. This includes, but is not always limited to, personal information (name, address, telephone number), and card information and account information. In addition to the information mentioned previously, it is common for a company A to try and obtain more information from the consumer, through a survey or an incentive program. The information collected by this method is not necessary to complete the transaction at hand, and it is up to the

consumer to determine what information he/she feels comfortable sharing. Information falling into this category can includes, race, income, gender, age, martial status, buying habits, your likes and dislikes as well as areas of interest and hobbies.

The company that is collecting this formation compiles all the consumer information it has and from it generates potential consumer trends. Company A attempts to predict future consumer-buying habits and buying trends using this new information. With this knowledge of the consumer, potential buying habits in hand, company A tries to entice the consumer into buying its products and services through direct advertising mailings to the consumer. In retail commerce direct advertising is not also limited to the mail as a medium, it sometime uses the telephone or email as a medium for direct advertising.

In addition to using this new consumer information for the company's own marketing, company A may sell this information to a secondary company B, who may then use it for buy their own direct advertising purposes, trying to encourage the consumer to their goods and services.

Retail commerce has several opportunities for the consumer's information to be gathered illegally by a third party. The first could be by the person or persons processing the information for company A, or company B. In addition, there also lies a threat with the common thief who has no connection to any one involved in the original transition. He or she can intercepts credit card receipts or at any given point steal very important consumer credit information

4.2.2. Types of Retailers

According to the Bureau of the Census, U.S. Department of Commerce, store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers[25]. The United States Census Bureau is a government organization whose mission is to be preeminent collector and provider of timely, relevant, and quality data about the people and economy of the United States.[26]. As a general rule, establishments engaged in retailing merchandise and providing after-sales services are classified here. The Bureau of the Census also describes a `retail shop' as including `any premises of a similar character where retail trade or business (including repair work) is carried on'.[27] The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and nonstore retailers.

4.2.2.1. Store Retailers

Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers.[28] In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-

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[25] www.census.gov
[26] www.census.gov
[27] www.census.gov
[28] www.census.gov

sales services, such as repair and installation. As a general rule, establishments engaged in retailing merchandise and providing after-sales services are classified here.

4.2.2.2. Non-store Retailers

Non-store retailers ,like store retailers, are organized to serve the general public, but their retailing methods differ. The establishments of this subsector reach customers and market merchandise with methods such as the broadcasting of "infomercials," the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls (street vendors, except food), and distribution through vending machines.[29] Establishments engaged in the direct sale (nonstore) of products, such as home heating oil dealers and home delivery newspaper routes, are classified here.

The meaning of `retail shop' was considered in Kilmarnock Equitable Co-operative Society Ltd v CIR, 42TC675. In this case Lord Cameron said:

> 'the purposes of a retail shop are to enable the public to resort to a place where they may see and purchase goods or materials by retail and to serve as a place of exhibition and sale of a shopkeeper's wares'.[30]

The meaning of `shop' has also been considered in various rating cases. Those cases established that `shop' includes premises to which the public have access for the purposes of having wants supplied or particular services rendered therein. A building

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[29] www.census.gov
[30] www.info.gov

does not have to be premises where goods are sold over the counter to be a shop.[31]

For example, buildings occupied by launderettes, banks, undertakers, jobbing builders and shoe repairers are shops.

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[31] www.info.gov

4.3. Mail Commerce

The 'Mail Commerce' section compares the flow of information in general to the specific nature of the flow with respect to mail commerce. It also discusses the details of problems that may occur in transactions. Some growth statistics and general analysis results are also explored in this section.

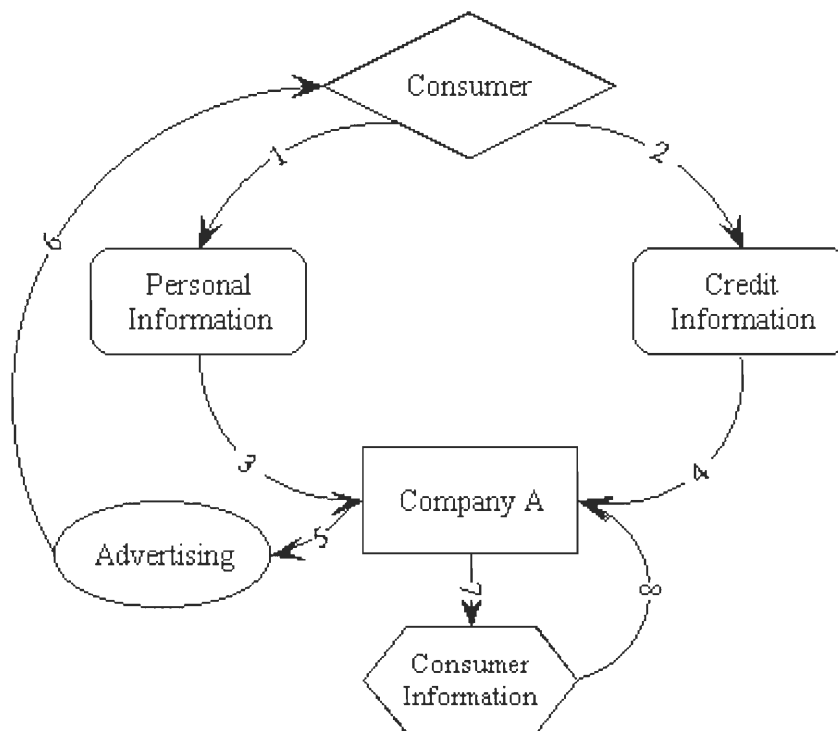### 4.3.1 The transfer of information

Figure 4.3: The Flow of Mail Commerce

Mail order is the method of conducting business wherein merchandise or services are promoted directly to the user, orders are received by mail, fax, Internet or telephone, and merchandise is mailed to the purchaser.[32]

Unlike retail commerce the customer only has one method of payment available to them. They must use a credit card or checks to complete the transaction. In addition to payment information other personal information such as (name, address, telephone number) are also required by the seller. This information is normally sent via mail to company A. In addition to the information mentioned previously, it is common for a company A to try and obtain more information from the consumer, through a survey or an incentive program. The information collected by this method is not necessary to complete the transaction at hand, and it is up to the consumer to determine what information he/she feels comfortable sharing. Information falling into this category can include race, income, gender, age, martial status, buying habits, your likes and dislikes as well as areas of interest and hobbies.

The company that is collecting this formation compiles all the consumer information it has and from it generates potential consumer trends. Company A attempts to predict future consumer-buying habits and buying trends using this new information. With this knowledge of the consumer, potential buying habits in hand, company A tries to entice the consumer to buying its products and services through direct advertising mailings to the consumer.

In addition to using this new consumer information for the company's own marketing, company A may sell this information to a secondary company B, who may

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[32] www.nmoa.org

then use it for buy their own direct advertising purposes, trying to encourage the consumer to their goods and services.

Mail commerce has several opportunities for the consumer's information to be gathered illegally by a third party. The first instance is in the mail on its way to company A, transition 4 on the flow chart. Here a postal worker at the post office or at company A can interrupt the mail. At this time I would like to state, that we believe, that in the past there have been very few instances where postal workers were involved in mail theft, but it is possible avenue that should not be overlooked. The second inception could be by the person or persons processing the information for company A, and the third by a person or persons in company B.

In addition, there also lies a threat with the common thief who has no connection to any one involved in the original transition. He or she can intercepts the mail at any given point and steal very important consumer information.

As reported in the 1998 Guide To Mail Order Sales, published by Marketing Logistics Inc. March 8, 1999:

- U.S. mail order sales in 1998 were $357.3 billion.

- 1998 mail order sales represented an increase over 1997 of 12%. Adjusting for the inflation rate of 1.5%, the growth rate was 10%.

- Consumer mail order sales were at $185.0 billion, and accounted for 52% of the total.

- Business-to-Business mail order was at $104.0 billion, accounting for 29% of the total.

- Charitable was at $68.2 billion accounting for 19% of the total.

- Consumer mail order sales were divided between product sales at $109.0 billion and services sales at $76.1 billion.

- Per capita consumer mail order sales were $685 over a population of 270 million.

- 1998 was the year of confirmation for the Internet as a significant channel for mail order sales. It is estimated that the Internet accounted for $5.6 billion in consumer mail order sales, $9.5 billion in business/industrial mail order sales. Major product categories for Internet sales were: computer products, Books, recorded music, gifts, financial services, general merchandise, travel services, and industrial electronics.

- This information is from the just published 1999 Guide To Mail Order Sales, the 18th edition since 1981. The Guide, a 1,200 page, 3 volume review of the worldwide mail order marketplace, is published by Marketing Logistics Inc. and brought to you by the National Mail Order Association. The National Mail Order Association is a membership supported organization founded in 1972, to help small to midsize businesses and entrepreneurs involved in mail order marketing. The primary goal of the NMOA is to provide education, information, ideas, and business connections to small and midsize mail marketers around the world. We serve as the industry "hub," the only point where all mail marketing professionals can come to conduct business.

4.4. Telephone Commerce

The 'Telephone Commerce' section compares the flow of information in general to the specific nature of the flow with respect to telephone commerce. It also discusses problems that may occur in transactions, as well as marketing issues. Finally, usage statistics and ways to avoid the related problems are discussed.

4.4.1 The transfer of information

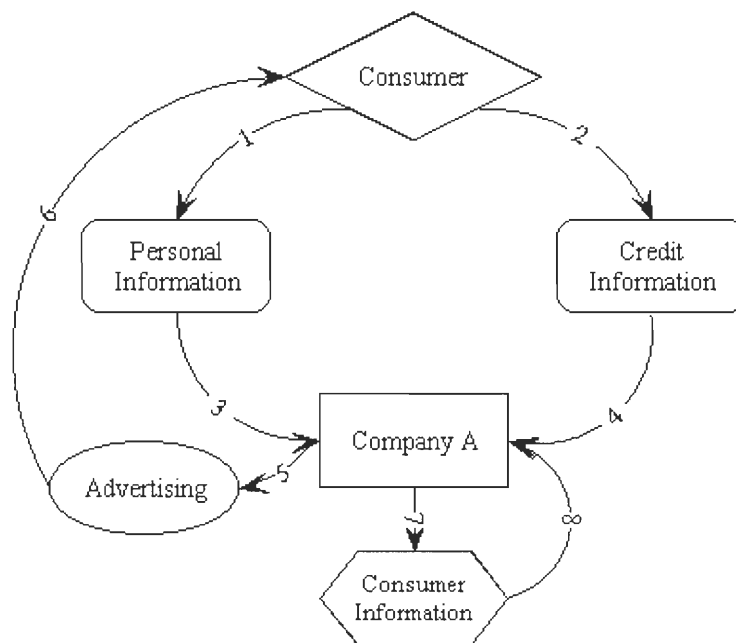**Figure 4.4: The Flow of Telephone Commerce**

Simply put, telemarketing is the act of conducting person-to-person business via the telephone. A more exact definition of telemarketing is given as the practice of using interactive telephone communications for the purpose of promoting, directly or indirectly, the supply or use of a product or for the purpose of promoting, directly or indirectly, any

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business interest.[33] At this time it is important to note that interactive telephone communications are interpreted as live voice communications between two or more persons, and that fax communications, internet communications, or a customer's interaction with automated pre-recorded messages are not considered as being interactive telephone communications.[34]

The legal definition of telemarketing varies slightly from place to place, and there are some exceptions to the types of transactions that may be covered. But in general, telemarketing involves situations in which companies call consumers to sell their goods or services, or consumers call companies to make purchases in response to mailings or other forms of advertising.[35]

The telemarketing business makes up a large part of total sales in the Untied state and is growing very rapidly, at a rate of approximately 20 percent per year.[36] It is our belief that this rate of growth will likely continue, only to be accelerated with the growth of international Telemarketing.

The consumer buys his or her product via the telephone system. To carry out this transaction easily and efficiently the consumer must provide the company all the necessary information. This includes, but is not always limited to, personal information (name, address, telephone number), and credit card information or checking account information.. A. In addition to the information mentioned previously, it is common for a company A to try and obtain more information from the consumer, through a survey or an incentive program. The information collected by this method is not necessary to

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[33] www.canlii.org
[34] www.fasken.com
[35] www.fraud.org
[36] www.ksi.edu

complete the transaction at hand, and it is up to the consumer to determine what information he/she feels comfortable sharing. Information falling into this category can include race, income, gender, age, martial status, buying habits, your likes and dislikes as well as areas of interest and hobbies.

The company that is collecting this information compiles all the consumer information it has and from it generates potential consumer trends. Company A attempts to predict future consumer-buying habits and buying trends using this new information. With this knowledge of the consumer, potential buying habits in hand, company A tries to entice the consumer to buying its products and services through direct advertising mailings to the consumer. Company A also advertises directly to the consumer via the telephone through cold calling.

In addition to using this new consumer information for the company's own marketing, company A may sell this information to a secondary company B, who may then use it for buy their own direct advertising purposes, trying to encourage the consumer to their goods and services.

Telephone commerce has several opportunities for the consumer's information to be gathered illegally by a third party. The first avenue for trouble is at the time when the information is being collected. The second interception could be by the person or persons processing the information for company A, or company B. A third possible avenue, also lies with the threat of the common thief who has no connection to any one involved in the original transition or any one involved. He or she can intercept the telephone conversation at any given point and steal very important consumer information.

4.4.2. Marketing (spam)

The general public more commonly knows telephone commerce as telemarketing. It is difficult to provide a single precise definition of telemarketing. A more exact definition of telemarketing is the practice of using interactive telephone communications for the purpose of promoting, directly or indirectly, the supply or use of a product or for the purpose of promoting, directly or indirectly, any business interest.[37]

In 1992, thirteen billion calls were made to 800 numbers, yielding sales of $7.73 billion. Five years lately, sales from 800-numbers grew to be $11.4 billion, with most of the growth in from small-to-medium-sized business.[38] As sales and revenue grow, more and more companies are encouraged to enter into the industry, and existing companies are encouraged to expand their telemarketing operations. Between 1980 and 1985, the number of companies involved in telephone sales grew from 1,500 to over 80,000. By 1993, there were 565,000 telemarketing operations in the United States.[39]

The rapid development of information technology has certainly played an important role in the growth of telemarketing. It has made telemarketing more efficient and created the capability to provide more personalized service. In addition, it also provides huge employment opportunities for those who have the skills to enhance customer relations. Computer assisted telemarketing systems, predictive dialing, and enriched databases are just a few of new developments. The growth of professionalism and the success of telemarketing are predicted to result in one of the faster growth employment opportunities in this decade.

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[37] www.canlii.org
[38] www.ksi.com
[39] www.ksi.com
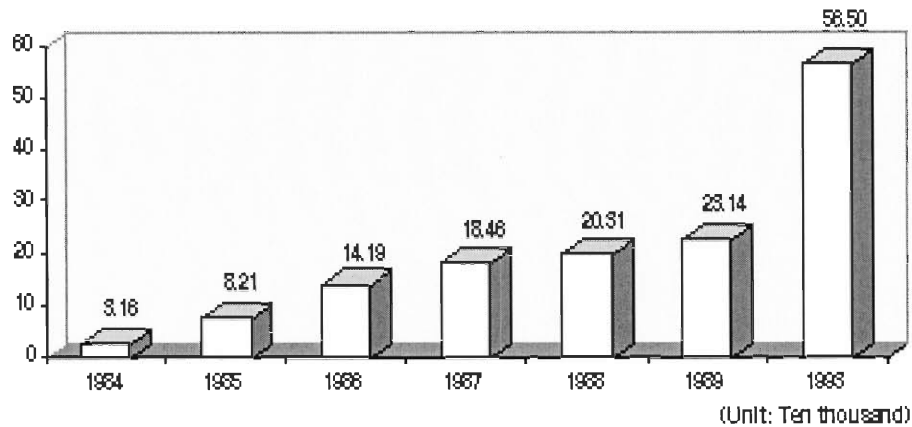
Figure 4.5: Growth of Telemarketing in the United States

The concept of telemarketing is totally dependant on information. Without the names, telephone numbers and some little personal information on the consumer, telemarketing be a very uneventful venture. And for this reason database marketing is the lifeblood of the telemarketing industry. Database marketing is an advertising tool designed to bring back brand loyalty. It is a unique way to bring back brand loyalty by a simple to understand concept. Bond and communicate with your customers to meet their needs to develop an ongoing relationship.[40]

Without database marketing, direct marketing, of which telemarketing is an integral part, would be a shambles. Without a database a telemarketer cannot have segmentation, which is the process of directing all marketing efforts at a particular group of potential customers.[41] For example, Rolex directs the marketing of its watches to upscale customers who are very brand conscious. Without segmentation a telemarketer cannot have targeting which is selecting a segment of the market and matching the

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[40] www.intervox.com
[41] www.learnthat.com

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appropriate approach to them on the basis of buying custom and life style.[42] So, database marketing is necessary for telemarketing is to succeed.

The information system is important; it may include customer's lists, customer's data, selling records, trace records or other relevant data. To establish complete information systems is very necessary to telemarketers.

Developing a basic customer database is very important. Creative enhancements to the database can improve sales efficiency dramatically, but the first question to be answered is "What data should be included in the basic database?" The database requirement varies by category of business and/or type of customer.

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[42] www.fas.org

For telemarketers, a key source of data is the call report. The call report should capture the history of each account and give direction for future servicing. Basic data, which should go into the database, include the following:

- Key contact

- Title

- Telephone

- Best calling time

- Time zone

- Mailing and shipping address

- SIC # (standard industrial classification) if a business firm

- Source of original contact

- History of purchases

- Current buying pattern

- Special requirements

- Credit limit

- Personal notes

- Other products/services in the discussion stage

- Log of call by dates

- Follow-up call cycle[43]

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[43] www.ksi.edu

With these data safely stored in the computer, carrying on meaningful dialogues with a customer base becomes much more easy. It is now his or her personal approach that will sell the customer.

Telephone marketing has risen in popularity as a legitimate way of selling; it has also become a common mode of defrauding the public. While there are many legitimate and reputable companies that use the telephone for marketing and for conducting business, there are many less reputable and honest companies and individuals who pose as legitimate telemarketing companies to rob and defraud consumers. According the National Fraud Information Center, a private nonprofit advocacy group representing consumers on marketplace and workplace issues,[44] consumers lose an estimated $40 billion a year through telemarketing fraud.[45] Telemarketing has become an extremely popular way to contact numerous potential customers quickly and easily in an effort to sell a variety of products and services. Home improvements, security systems, insurance policies, light bulbs and newspaper and magazine subscriptions are examples of products sold by the telephone. You may be contacted due to past purchases or charitable contributions or because you have been identified as a new home buyer who may need a security system or insurance, or simply because you happen to have a telephone.

A Louis Harris Survey conducted for the National Consumers League found that 92 percent of adults in the United States reported receiving fraudulent telephone offers.

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[44] www.nationalconsumersleague.org
[45] www.fruad.org

And the FBI estimates that there are 14,000 illegal telephone sales operations bilking consumers in the United States every day.[46]

It's very difficult to distinguish between reputable telemarketers and criminals who are using the phone for fraudulent purposes. Schemes vary depending on what or who the criminals are after. Some schemes are aimed specifically at businesses while others prey on individual consumers. And because there is no personal contact, it is hard to judge for one's self if the person on the other end of the telephone is legitimate. See examples, for some of the most popular methods and schemes used by people pretending to be telemarketers to defraud the public

The Better Business Bureau (BBB) reports a surge in calls from consumers reporting that they had received suspicious telephone calls soliciting personal credit card account information. Although the scenario of these calls varied, they shared a common attribute: the caller was attempting to catch the consumer off guard and gain their credit card number.

A Huntsville Alabama woman reported an example of one such call. She reported that she received a telephone call from someone posing as an employee of her credit card issuing company. She was asked to read her credit card number to the caller in order to supposedly update account information. When she refused, the caller relayed the first 12 digits of the card and asked the consumer to provide the last four digits and the card's expiration date, which she did. Within a few days, the consumer discovered an unauthorized charge on her credit card bill totaling $295.00. In similar cases, callers identified themselves as representatives of the consumer's credit card

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[46] www.fraud.org

company with an offer of credit card protection service. In order to subscribe to the protection service plan, the consumer would be required to provide all of their credit card numbers to the caller. In a third twist to the credit card scheme, consumers report receiving a call from an individual offering a low rate credit card. The caller claimed that in order to offer this "lower rate" card, they needed to verify the consumer's existing credit card account number and its current rate.

Fraud in the telemarketing business also occurs within legitimate operations. Workers who take customer information can easily copy this information and use it as they seem fit. They are able to sell or exchange this information, if they themselves have no use for it. In more extreme case and information is intercepted by way of wire-tapping.

This is how it done: Find a telemarketing building where they take credit card phone orders. Get into the nearby Telco box or the Network Interface on the back of their building and hook up a tap. Either a tape recorder or a radio transmitter will work.

Now listen in when they start calling people and when they finally take an order write down all the information. You'll have the card number, expiration date, name on the card, address, everything.

4.4.3. How to clear your name from telemarketing lists.

While many people enjoy receiving information about products or services in their homes over the telephone. Many other consumers find telephone shopping to be a convenient way to shop. However, some consumers would rather not receive any

telephone marketing calls at home. Well, there are few ways to get on a do not call list and off the telemarketer's list.

The Telephone Preference Service (TPS), a do-not-call service, is a free service to assist those consumers in decreasing the number of national commercial calls received at home.[47]

The Telephone Preference Service (TPS) is a free consumer service sponsored by the Direct Marketing Association (DMA). Established in 1917, DMA is the oldest and largest national trade association serving the direct marketing field. DMA is not the source of calling lists, and does not sell calling lists to other companies.[48]

To use the services of TPS you must first register by sending your name, home address, and home telephone number including area code and signature in a letter to Telephone Preference Service. (See next page for example letter). This information is filed on a do-not-call list.

Once you are registered with TPS, your name, address and telephone number are placed on a do-not-call file. This "delete file" is updated four times a year -- January, April, July, and October -- and made available to telephone marketing companies who choose to use it. Your name remains on file for five years, after such time you have to re-register.

Although registration with TPS will help reduce the number of telemarketing calls you receive, it will not stop all telemarketing calls. You may continue to receive calls

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[47] www.the-dma.org

The DMA Telephone Preference Service

If you want to reduce the number of unsolicited national telemarketing calls you receive at **home**, you may register with TPS by printing out this form and mailing it to:

TELEPHONE PREFERENCE SERVICE
ATTN: PREFERENCE SERVICE MANAGER
DIRECT MARKETING ASSOCIATION
PO BOX 3079
GRAND CENTRAL STATION, NY 10163

The DMA does not provide marketers with consumer telemarketing lists. The TPS file is available to companies for the sole purpose of removing your name, address and home telephone number from their calling lists. This service does not apply to telemarketing calls coming to your business phone.
After several months you will begin receiving fewer telemarketing calls. Local businesses and organizations usually do not use this program. You will continue to receive calls from companies with which you already do business. Not all companies use TPS to purge their calling lists, therefore, you may continue to receive some companies' calls. If you are sure you do not want to do business with the company now or in the near future, ask to be placed on the company's do-not-call file.

Your information will remain on TPS for 5 years.

TRACKING NUMBER: 000000000232322

NAME: Don Nisbett

STREET: 8 Central Street APT#:

CITY: Westboro

STATE: MA

ZIP CODE: 01581

SIGNATURE: _____

If there is a problem with my registration I can be contacted at:

TELEPHONE: 508 366 0983

E-MAIL:

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[48] www.the-dma.org

from local merchants, religious and charitable organizations, professional and alumni associations, and political candidates and office holders.

Companies who choose not to use the do not call list may still call you and sequentially dialed automated recorded message (computerized) calls are also not affect by this list. In order to stop these call you most track the company and contact them directly and ask to be placed on there own do not call list. If you request to be put on a company's "no call" list, that company is required by law not to contact you for a period of 10 years.

4.5. Electronic Commerce

The 'Electronic Commerce' section compares the flow of information in general to the specific nature of the flow with respect to electronic commerce. Other major topics that are covered would be the distribution of users and the categories of electronic commerce. The possible problems that occur between transactions are also discussed.
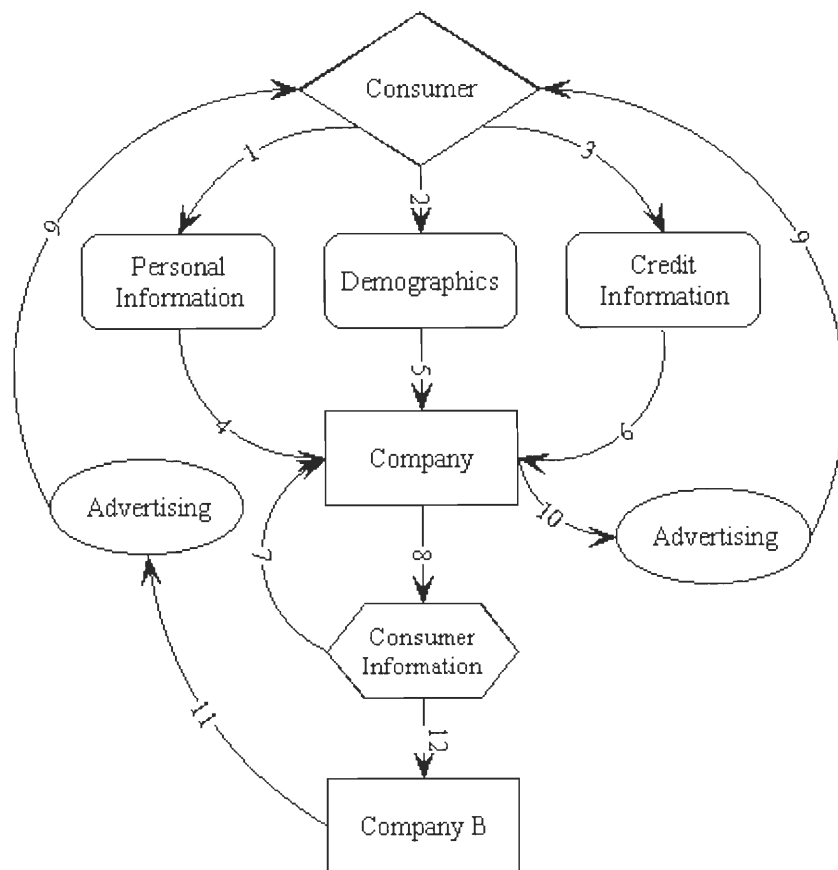
4.5.1 The transfer of information

Figure 4.6: The flow of Electronic Commerce

The consumer buys his or her product via the Internet or the World Wide Web.
To carry out this transaction easily and efficiently the consumer must provide the
company all the necessary information. This includes, but is not always limited to,
personal information (name, address, telephone number), and credit card information or
checking account information.. A. In addition to the information mentioned previously, it
is common for a company A to try and obtain more information from the consumer,
through a survey or an incentive program. The information collected by this method is
not necessary to complete the transaction at hand, and it is up to the consumer to
determine what information he/she feels comfortable sharing. Information falling into this
category can includes, race, income, gender, age, martial status, buying habits, your
likes and dislikes as well as areas of interest and hobbies.

The company that is collecting this information compiles all the consumer
information it has and from it generates potential consumer trends. Company A
attempts to predict future consumer-buying habits and buying trends using this new
information. With this knowledge of the consumer, potential buying habits in hand,
company A tries to entice the consumer to buying its products and services through
direct advertising, by emails to the consumer.

In addition to using this new consumer information for the company's own
marketing, company A may sell this information to a secondary company B, who may
then use it for buy their own direct advertising purposes, trying to encourage the
consumer to their goods and services.

Electronic commerce has several opportunities for the consumer's information to
be gathered illegally by a third party. The first avenue for trouble is at the time when the

information is being collected. The second interception could be by the person or persons processing the information for company A or company B.

A third possible avenue, also lies with the threat of the common thief who has no connection to any one involved in the original transition or any one involved. He or she can intercepts the data transmission by hacking into company A's or Company B's computer at any given point and steal important consumer information.

Modern business is characterized by ever-increasing supply capabilities, ever-increasing global competition, and ever-increasing customer expectations. In response, businesses throughout the world are changing both their organizations and their operations. They are lowering the barriers between the company and its customers and suppliers. Business processes are being re-designed so that they cross these old boundaries that have been in existence for so long. We now see many examples of processes that span the entire company and even processes that are jointly owned and operated by the company and its customers or suppliers. Electronic commerce is a means of enabling and supporting such changes on a global scale. It enables companies to be more efficient and flexible in their internal operations, to work more closely with their suppliers, and to be more responsive to the needs and expectations of their customers. It allows companies to select the best suppliers regardless of their geographical location and to sell to a global market.

One special case of electronic commerce is electronic trading, in which a supplier provides goods or services to a customer in return for payment. A special case of electronic trading is electronic retailing, where the customer is an ordinary consumer rather than another company. However, while these special cases are of considerable

economic importance, they are just particular examples of the more general case of any form of business operation or transaction conducted via electronic media. Other equally valid examples include internal transactions within a single company or provision of information to an external organization without charge.

Electronic commerce is technology for change. Companies that choose to regard it only as an "add on" to their existing ways of doing business will gain only limited benefit. The major benefits will accrue to those companies that are willing to change their organizations and business processes to fully exploit the opportunities offered by electronic commerce.
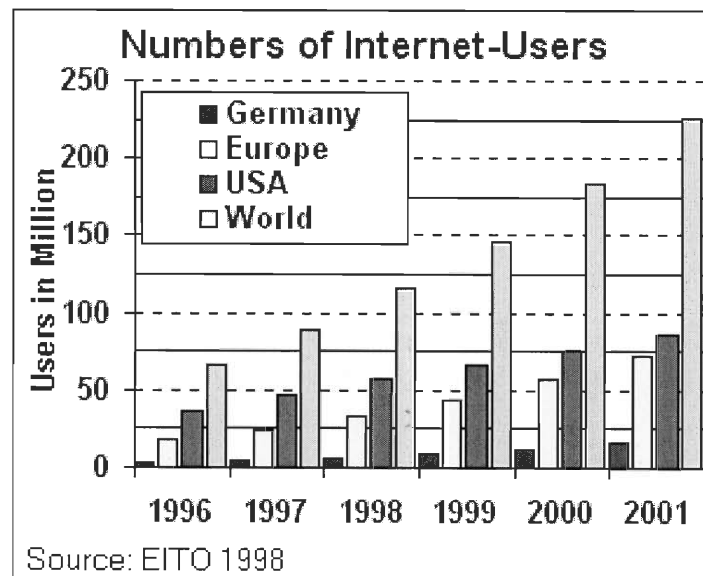
Figure 4.7: The Number of Internet users from 1996 to 2001

4.5.2. Distribution Of User-Numbers

As shown in figure 4.7, European IT Observatory predicts that in 2001, the total

Internet community will cover 225 million users world-wide. EITO - the European IT

Observatory - is the most authoritative and cost-effective source of market information

and forecasts about the sales and use of computers and telecommunications in

Europe.[49]
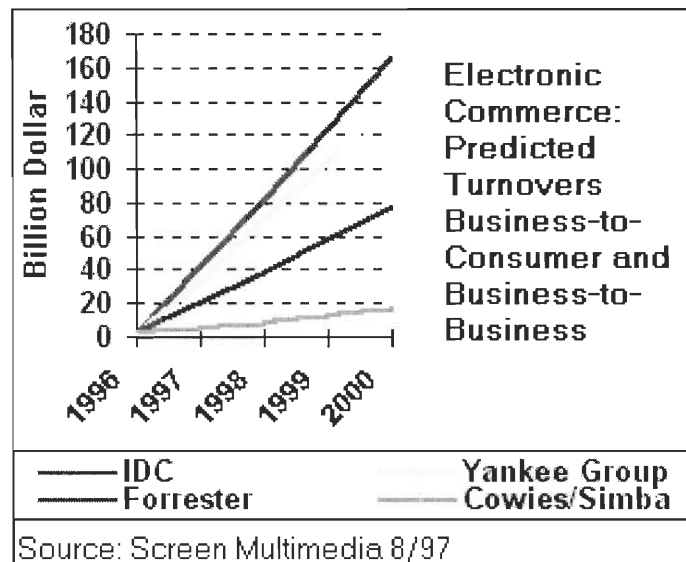
Figure 4.8: Predicted Turnovers of Electronic Commerce

As seen in Figure 4.8, a large number of transactions occur using the Internet.

On a worldwide scale Forrester's forecasts represent almost middle ground of

predictions by all market researchers (trend-scenario). Forrester is a leading

independent research firm that analyzes the future of technology change and its impact

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on businesses, consumers, and society.[50] In 1996, the business-to-business and business-to-consumer areas have sold more than 8 billion US$ in goods and services through Electronic Commerce. In the year 2000 turnovers could presumably gain more than 73 Billion US$.[51]

> There are currently Over 3.5 million web sites (Nov. 1998)[52] and by the year 2002, Internet Commerce (in US) will reach :

$327 bn for Business-to-Business (from $8bn in 1997)

$8.5 bn for Business-to-Consumers ($2.4b in 97) Forrester Research Inc - July 1997

4.5.3. Categories of Electronic Commerce

Electronic commerce can be sub-divided into three distinct categories:

- business-business

- business-consumer

- business-administration

An example in the business-business category would be a company that uses a network for ordering from its suppliers, receiving invoices and making payments. The business-consumer category largely equates to electronic retailing. This category has

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[49] EITO @ www.eto.org.uk
[50] Forrester Research @ www.forrester.com
[51] Forrester Research @ www.forrester.com
[52] Netcraft survey - www.netcraft.com/survey

expanded greatly with the advent of the World Wide Web. There are now shopping malls all over the Internet offering all manner of consumer goods, from cakes and wine to computers and motor cars.

The business-administration category covers all transactions between companies and government organizations. For example, in the USA the details of forthcoming government procurements are publicized over the Internet and companies can respond electronically. Currently this category is in its infancy, but it could expand quite rapidly as governments use their own operations to promote awareness and growth of electronic commerce.

4.5.4. Possible Problems:

There are many types of problems that, if not careful, one may come across. The following are some of the more recognized ones, the common ones that most people have to deal with. These would be fraud, cookies, and spam.

4.5.4.1. Fraud

Stock price manipulation, pyramid schemes, fraudulent business opportunities and "off-shore" scams are just a few examples of the illicit activity found on the Internet. Where telephone "boiler rooms" may once have been restricted to hundreds of calls daily, the Internet allows scam artists to easily reach thousands of potential victims with inexpensive web sites. E-mail also allows countless people to be "spammed" with

fraudulent offers. According to Visa research, only 5% of consumers currently trust electronic commerce, compared with 57% who trust PC banking, 62% who trust telephone banking and 77% who trust automatic teller machines.[53]

Fraud has been perpetrated against every commerce system man has ever invented, from gold coin to stock certificates to paper checks to credit cards. Electronic commerce systems will be no different; if that's where the money is, that's where the crime will be. The threats are exactly the same. Unfortunately, there are two features of electronic commerce that are likely to make fraud more devastating.

The first is the ease of automation and the speed of propagation. The same automation that makes electronic commerce systems more efficient than paper systems also makes fraud more efficient. A particular fraud that might have taken a criminal ten minutes to execute on paper can be completed with a single keystroke, or automatically while he sleeps.

The second is the difficulty of isolating jurisdiction. The electronic world is a world without geography. A criminal doesn't have to be physically near a system he is defrauding; he can attack Citibank in New York from St. Petersburg. He can jurisdiction shop, and launch his attacks from countries with poor criminal laws, inadequate police forces, and lax extradition treaties.

Fraudsters also capitalize on the Internet's anonymity, the customer provides the merchant with information apparent from the face of the card: its type (typically Visa or Mastercard), its number, its expiry date and the name of the cardholder. (Except in the case of mail order, the customer provides no signature; and in mail order the merchant

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[53]http://www.fipr.org/WhoCarriesRiskOfFraud.htm www.informal.com

cannot compare the signature with that on the card.) The ability of the customer to provide the card information does not depend on possession of the card: it is available to anyone through whose hands the card has passed in the course of earlier transactions, perhaps to the cardholder's family and friends, and to anyone who may have received or intercepted the information as it was transmitted by telephone or through the Internet.

Fraudsters can also use the Internet to obtain important and necessary information to carry out these fraudulent acts. It would not be very difficult to establish a website purely for the purpose of obtaining cardholder information, by offering transactions at favorable prices which the site owner has no intention of executing.

E-schemes are very difficult to detect, prevent or stop all together. However, merchants, government and groups of customers are working hard to help stop the influx of e-thefts into the internet. One such way is be implementing SET and SSL protocols. Most Internet commerce use a protocol called secure sockets layer (SSL). SSL encrypts (scrambles) electronic data, such as credit card numbers, in transit to maintain its confidentiality. Another emerging protocol is secure electronic transaction™ (SET). The SET protocol will similarly use encryption, and also employ digital certificates to authenticate that customers and merchants alike have relationships with legitimate financial institutions. Various types of digital "wallets" and e-cash are also under development. A web search will yield considerably more information about these security protocols.

For transactions carried out by the cardholder using a web browser to connect to a supplier's web page, it is possible to establish a secure connection so that the card information is delivered in encrypted form (using protocols such as TLS or SSL). This procedure is widely followed, and provides some welcome protection against interception of the card information in transit. It cannot affect the wide availability of card information from other sources, and since the procedure cannot provide evidence that the supplier of the card information is authorized by the cardholder to conclude the transaction, it does not materially reduce the merchant's risk.

Security technologies such as Secure Socket Layer (SSL) could adequately prevent eavesdropping and manipulation of online messages and transactions. But SSL can't help with the authentication problem. The Secure Electronic Transaction (SET) protocol, along with recognized Certification Authorities for issuing digital signatures, could assist in solving the problem.[54]

An alternative that offers a compromise between convenience and security is off-line security. Here, you can browse web sites and complete your transactions off-line by phone, fax or mail. However, this is akin to move forward only to return to the same spot.

The most important precaution consumer can follow to prevent fraud on the Internet is common sense. Use your own judgment can decide what feel right for you.

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[54] www.state.ct.us

4.5.4.2. Cookies

Over time, a system has been developed to keep records of information. Web sites started using a form of storage called 'cookies'. A cookie is a record stored on a user's machine, as a result of a web-server instructing a web-browser to do so. It is sent to an appropriate web-server along with a request for pages. The following is an example of the procedure used to access these cookies.

> ➢ "a web-browser requests a page from a web-server;

> ➢ the web-server sends back to the web-browser not just the requested page, but also an instruction to the browser to write a cookie (i.e. a record) into the client-computer's storage

> ➢ unless something prevents it, the web-browser does so

> ➢ each time a user requests a web-page, the web-browser checks whether a cookie exists that the web-server expects to be sent with the request

> ➢ if there is such a cookie, the browser transmits the record to the web-server, along with the request for the page

> ➢ when a web-server receives a request that has a cookie associated with it, the server is able to use the data in the cookie in order to 'remember' something about the user." [55]

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[55] http://www.anu.edu.au/people/Roger.Clarke/II/Cookies.html

The problem with this system is that the user does not know exactly what will be

stored in the cookie. Since there is this shadowing of information, one must be

careful what information they give out to websites. There is always the possibility

that the user could be tricked into giving away their information on a web site which

wasn't really there. If the user knows little about a web site they are on, disabling

cookies in your web browser could be a good idea. They are useful for some

purposes though, such as to save the user data input time. Using them allows the

computer to 'remember' what you have done there before so it adds some form of

convenience.

4.5.4.3. Spam

Spam is defined as 'unsolicited electronic communications."[56] The most

common form of this occurs in the forms of pop-up windows and email. Since there is

no immediate way to send the user advertising information directly, the web companies

simply add these pop-up windows to there web page soliciting either their, or some

other company's products. The other main form is through email. Information could

never before be sent out so easily. Before, such as in telemarketing, someone had to

actually call all of the people they wished to contact. Now with the technology of email,

they can just purchase a listing of email addresses related to the products they wish to

sell. Then they can immediately send that advertising out to everyone on that last

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[56] http://www.anu.edu.au/people/Roger.Clarke/II/Spam.html

instantly. There is no longer the time constraint, or the manpower that used to be involved.

4.6: Comparison of older Forms of Commerce with eCommerce

The first and most basic form of commerce would be barter. This kind of transaction can be completed with a minimum of two people, with the exchange of no marketable information or no need for advertising. The producer was known for what he or she produces. You would exchange a product you wish to obtain for something you produce yourself. Under the barter system the producer was also the distributor and deliverer of the good and service consumers needed. As shown in figure 4.9, the consumer interact directly with the producer and if the terms are fair to both parties involve then the transaction is successful. The transaction is normally a three step process where, the consumer places an order or request for the goods they need, directly to the producer who deliverers the product immediately to the consumer. No other information is needed. The only information that was necessary for the successful completion of any transaction under this system was what the other person had for exchange. Advantages of the barter system were both you only "bought" what you needed, and both parties were equally satisfied. On the other hand the barter system was limiting. In order for a transaction to occur the person that produces the good you desire must be someone will to accept your trade. For example, if the shoemaker wants want a bag of potatoes then he has to find to farmer who is willing to trade potatoes for shoes. If not, he would have to go through the process of finding the farmer is willing to accept in exchange for potatoes and trade the shoes for them. Then he could return and trade for the potatoes.

In addition, they was because no standardized measure of worth, the value of the product you had to exchange was subjective and total depended on the other person in the exchange. Who decides how many bags of potatoes a shoe is worth?

Barter gave way to cash or monetary system. Here goods and service are exchanged for something whose exact worth is known, and anyone is willing to accept. A monetary system made possible retail commerce. Figure 4.9 shows the pictorial representation of retail commerce. In retail commerce the producer's sole purpose is to manufacture or produce a certain good or service that consumers are willing to purchase. The distributors, or the retail stores buy a variety of goods from different producers and bring them to a central location close to the consumer who desire them. The consumer now has easy access to a variety of goods and services they desire. Unlike the barter system when a consumer desire a particular product they place an order with the distributor instead of producing it themselves. The distributor then delivers the product upon receiving payment.

As time progressed more and more retail establishments came along and competition was born. Each retailers tries to entice consumer to buy their product. When that did not work, retailers tried to make it easy and convenient for consumer to buy their products. This lead to mail commerce then telephone commerce and electronic commerce. Each trying to out do the other by getting the consumers what they want faster, cheaper, and without the consumer even leaving their home. The fundamental concept driving mail commerce, telephone commerce, electronic commerce is the same. Like retail commerce, there are producers who manufacture the desired goods and services. There are distributors also, however, these distributor are

not local to the consumer that desire these goods and services. In fact they can be anywhere in the world. Consumers know what retailers have mainly through advertisements and catalogs. When the consumer wishes to purchase a product he or she orders it through the mail, or by telephone or electronically from the distributor. At this point, it most cases, the distributor does not take the order directly. They is someone who takes the order and past that information on to the distributor. The distributor now has to get the product to the consumer. This is accomplished through a fourth party, the deliverer, whose sole purpose is to transport goods and service form the distributor to the consumer and vise versa. The introduction of mail, telephone and electronic commerce made competition even more severe. There exist many retailers and distributors all trying to entice the limited number of consumers to purchase their goods and services.

Many tactics are employed such as price wars, product dressing, exclusive pricing, brand names, advertising etc. In this competitive environment information is key to success. If the retailers know who are most willing to purchase their product then, they can target those consumers. In addition if consumers are aware of which retailer is selling the products they desire then they are able to purchase them at the time they need that product. This realization lead to the recognition of the importance of information: to know who the consumers are, to know where the consumer are, to know what the consumers want and how much they are willing to pay, to know how soon and how often they need it etc. Retailers soon realize the value of information and so the information age was born.
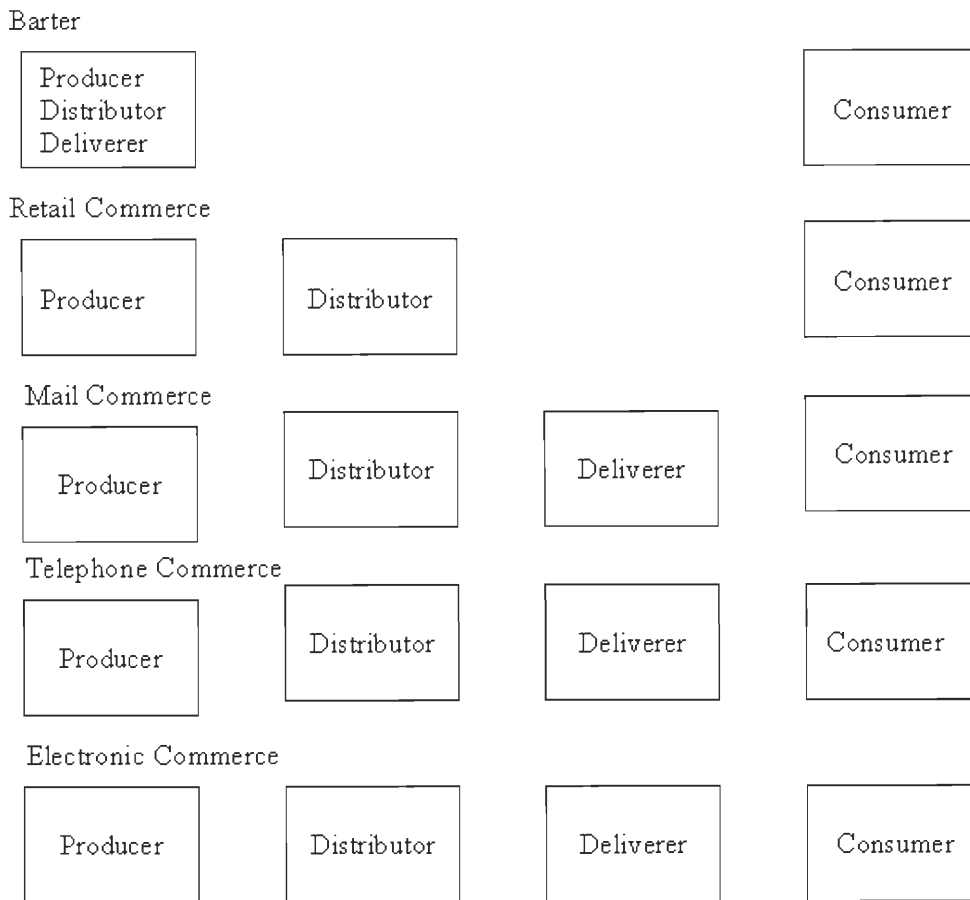
Barter

| Producer
Distributor
Deliverer | | | Consumer |

Retail Commerce

| Producer | Distributor | | Consumer |

Mail Commerce

| Producer | Distributor | Deliverer | Consumer |

Telephone Commerce

| Producer | Distributor | Deliverer | Consumer |

Electronic Commerce

| Producer | Distributor | Deliverer | Consumer |

Figure 4.9 Chain of Commerce

It is evident that availability of information plays a significant roll in the success of telephone, mail commerce electronic commerce and retail commerce. Without a customer list of names and phone numbers a telemarketer's job would be impossible. So where do they get their information?

Telemarketers can purchase a list with telephone numbers that combines age, income, lifestyle choices and many more specifics. There are many companies such as 1st American List Broker, whose business is to gather, compile and sell consumer information. List brokers or list mangers, as they are called, are legitimate businesses that operate and run like any other for profit business.

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Consumer telemarketing lists are very large in their size. Here computerization

has enabled marketers to narrow the audience gap and fine-tune the potential calling

list. Here are some of the ways in which marketers can target a market more precisely,

yet maintain comprehensive coverage. Major list compilers can provide the names,

addresses, and telephone numbers of 90 million households. Selections include

demographics and psychographics (lifestyles).

Demographics include your choice of age group, 18-24, 25-39, 40-59, 60-74,

75+. Most age information is obtained from driver's licenses and voter registrations.

There are a considerable number of names where ages are not included. The sources

that fill this void include credit bureau records, motorcycle registrations, warranty card

information, the Donnelley-sponsored Carol Wright questionnaires, house-to-house

interviews, etc. Donnelley Marketing is based in Stamford, CT; Best known to

consumers for its Carol Wright co-op coupon mailings, Donnelley Marketing provides a

full range of services for large-scale direct marketing, from database management and

analytical services through letter shop and mailing. Their list consists of 90-million-

household consumer file. The Share Force Lifestyle database includes data on hobbies

and interests, disposable income, occupation, mail-order buyers, and book and

magazine interests. There are 60 different lifestyle choices. Retail Targeting Solutions

combines Donnelley's databases to identify and target retail trade areas[57].

List brokers gather these vital information about consumers and store and sort them

according to the needs of the business or person buying the list.

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[57] http://michigansbdc.org/100bestsources.htm

Telemarketers can purchase a list with telephone numbers that combines age, income, and lifestyle choices. For instance, you may request that your list provider locate a file of families, ages 35 to 49, income between $50,000 and $125,000, who jog or own exercise equipment. Other major lifestyle categories include health, sports, hobbies/interests, religion, financial investments, contributions, electronics, insurance, ethnic groups, and mail order buyers. There are 60 different lifestyle choices.

To further define a prospect group, it's possible to select multiple life-styles, such as a wealthy household that purchases investment advisory information and also owns equities, in a particular age and income bracket, in a specific geographic area. Now that's precision marketing.

Believe it or not, another possible selection is the occupation of the prospect. There are hundreds of trades and professional occupations that can be married to the investor profile, as mentioned above. In this case, you can select top or middle management executives, plus business owners and professionals. This is really isolating a narrow market.

Probably the most exciting telemarketing lists are the actual mail order buyers of products or services or subscribers to newsletters and magazines. However to get access to these valuable files are sometimes a tricky feet.

Many of these list owners deny the use of their customer files for telemarketing purposes. They don't want their buyers exposed to high-pressure telemarketing promotions. However, most of these owners will allow usage of their names for direct mail solicitation and telephone follow-up of the inquiries. These lists have a very definite value to a telemarketer.

At this time we feel that it is important to note the difference between and list manager and a list broker. A list broker is a company whose primary purpose is to find and supply its customers with the list that they require. List brokers do not own the lists they supply, instead these lists are owned by list managers. A list manager, collects, sorts stores and maintains all the information that make up a consumer list. The lists are marketed by these management firms, who receive a portion of the income generated by rentals. Most all of these lists may be rented through list brokers who are compensated by the list owners or managers. Shown below is an example of the categories by which consumer information is collected, stored, and manager by the list managers.

1st American List Broker

CONSUMER INFORMATION

Created specifically for you, based on your needs, using a variety of consumer specific categories and information.

Each is created by you, our customer, to meet your specific needs. We offer many selections for your consumer information to help you target the customers you need for the growth of your business and to be successful. Below is a list of some of our many consumer groups. If you don't see the one you need, contact us! Our goal is to help make your business a success.

- General Demographics (Age, Income, Gender, Education, Occupation)
- Geography (Zip Code, City, Metro/ MSA, County, Area Code, State, Country)
- Mail Order Buyers
- Activities / Lifestyles (Travelers, Frequent Flyers, Vacationers, Etc..)
- Purchase Predictor List
- Survey Data Response
- Buying Habits, History

- Census Data

- Family and Marital Status

- Media Market Information

- Computer / Internet Users

- E-Mail Addresses (opt-in)

- Exercise, Diet, Health

- Opportunity Seekers - MLM

- Religious Preference

- Pet Owners

- Saturation Mailings

- Ethnicity, Foreign Language

- Credit Ratings / Information

- Credit Card Holders

- Mortgage Information

- Automobile Ownership / Leasing Information

- Luxury Item Ownership

- Investors

- Complete Real Estate Information (Homeowners, Renters, Etc..)

Source: Robert Dunhill is president of Dunhill International List Co.,Inc., located in Pompano Beach,

Information	Retail				Mail	Telephone	Electronic
Type	Cash	Credit Card	Store Card	Courtesy Card	Credit Card	Credit Card	Credit Card
Personal	no	yes	yes	yes	Yes	yes	yes
Demographics	no	no	yes	yes	No	no	no
Credit Card	no	yes	no	No	Yes	yes	yes
Buying Habits	no	no	yes	yes	Yes	yes	yes

Table 4.1: Where Information is Exploited

Table 4.1 demonstrates the possible avenues for information exploitation within the difference forms of commerce. It represents the different types of personal information and in which forms of commerce they may be exploited. In each case where this is true, there is a 'yes'. As you can see by this table, once you begin shopping with something other than simply cash or a credit card in retail commerce, the risk becomes the same for each form. There is just as much information being exploited in retail commerce, as there is in mail, telephone, and electronic commerce. The first instant looked at is retail commerce.

As mentioned in previous sections, in retail the consumer has many different methods of payment, each with its own benefits and draw back. As suggested by table 4.1, if the consumer pays using cash, then there is no exchange of information of any kind. There is no link between what that person is buying and their identity. However, this situation changes when the consumer decides to pay with cash and a store discount card or courtesy card. Since the store discount card is issued to consumers who fill out an application for the privilege of use the card, by using it the store can identify the purchaser and track the purchases also. The retailer also has demographic

information on the customer because it was requested on the application for the card. This opens of the block for the flow of personal information. Even in this case though, it is not mandatory to give up this information. The consumer adds another level of information to this when they decide to use a credit card. At this point the company is able to see the financial ability of the consumer and more personal information.

As shown by table 4.1, mail, telephone and electronic commerce all only offer credit cards as primary means of payment. This makes the information flow identical for all three modes of commerce. The most basic form of mail order would involve the consumer giving up either a credit card ore more commonly, a check for payment. There is a limited use for cash. The consumer must also give up personal information so that the product may be delivered. The demographic information is even less relevant here, since the transaction is totally controlled by the consumer. There is not even a real chance for that information to be gathered. As for buying habits, it is easy for this information to be gathered, mainly because a record of the transaction is made and kept. This information can easily be store for later use.

The most basic form of phone commerce would involve almost all the same conditions as with mail order. The main differences would be that the consumer doesn't necessarily have complete control over the transaction. They must interact with a sales person. Also, it is getting to be more common to use a credit card than a check for simplicity's sake. So once again personal information, and credit information are given as illustrate by the table 4.1. It is also same for demographics, since the telemarketer can not easily gain this information over the phone by ask a few questions.

This most basic form of eCommerce would involve the consumer giving personal information as well as credit information, since product must be delivered and paid for and it is more difficult to pay in other manners. Companies are more likely in this case to get demographic information. It is simple to have the companies post a questionnaire before the order form. Even though it isn't required, it is so simple to do, people are more likely to give up their information.   All this information is handled electronically, therefore gathering, storing and maintaining this data becomes easier than all the other modes of commerce, since the consumer enters it all.

4.7: Survey Results

      This section presents the results from the survey and shows how the public reacted to each question. Following this is an explanation, where appropriate, as to why the results appeared as they did and the consequences they will have on the different forms of commerce. Since commerce obviously requires public participation, the people have the greatest impact on how the future will turn out. There were 562 responses to this survey, with varying ages. The makeup of this group included 360 males, 274 (76%) of which were in the 16-26 year age range and 86 (24%) in the over 26 years age range. There were 79 (39%) of the females made up the 16-26 year age range and 123 (61%) in the over 26 years age range.

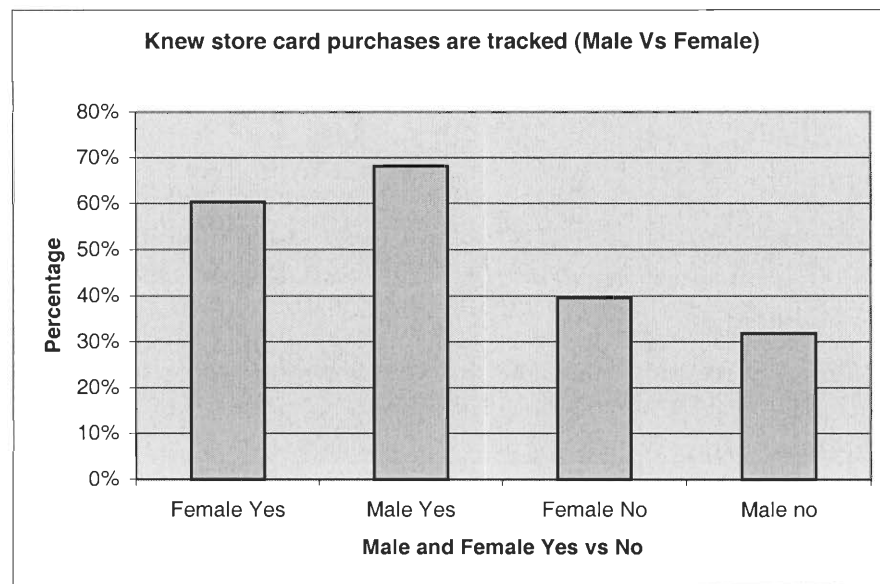**1.) Did you know purchases you make with a store savings card can be tracked?**

Figure 4.10 Survey Question 1 results (a)

Knew store card purchases are tracked (By Age)

Figure 4.10 Survey Question 1 results (b)

This question shows that there are still many people who do not know exactly what is happening with their personal information. With the number of people making purchases out in the world, advertisers do not lack resources. On the survey some people went as far as to write that they have given up in their effort to keep information private, as there is always some group trying to get it. With this kind of apathy, there could be a greater push for other, more personal types of personal information by advertisers. The data, as seen in Figures 4.9 and 4.10, showed that there was a fairly equal number of males and females with the knowledge the purchases are tracked, with males being slightly more aware. It also showed that age makes a difference. Those who were over 26 had a much higher percentage of awareness. This was most likely due to the fact that the over 26 year age group has had much more exposure to sales and advertising.

2.) Where do you think marketers get information about you?

Where marketers acquired personal information

15%

39%

46%

- ☐ Phone Book
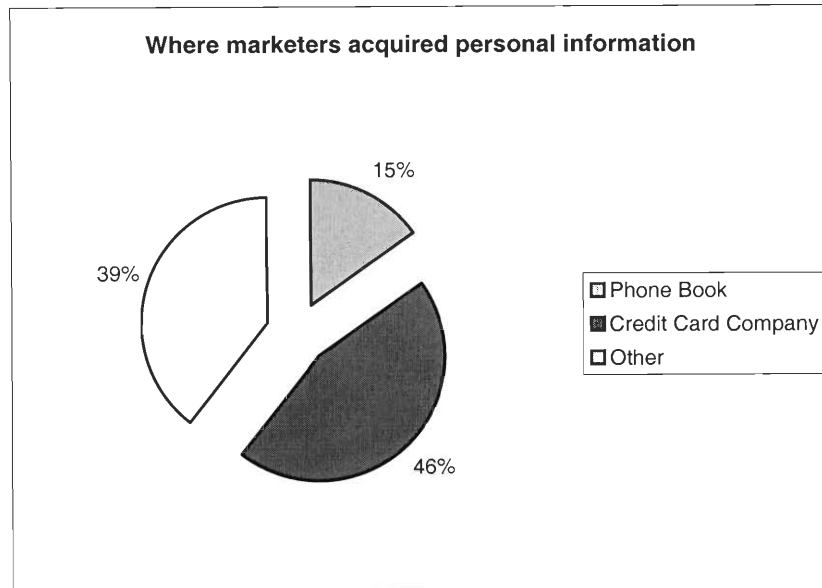- ▨ Credit Card Company
- ☐ Other

Figure 4.11 Survey Question 2 results

This question tried to examine where people thought the majority of their solicitations were based upon. In other words, where advertisers got the information about them, such as to history of purchases, product interests and the actual name and contact number. Surprisingly, as seen in Figure 11, there were a fair number of people who honestly believed the majority of their solicitations came from advertisers looking through a phone book. This is a difficult way to market a product, with the manpower involved in wasted time calling or contacting people who may have no interest in that given product. There was also a fair percentage who believed the information came from their credit card company. This is a good way to get a purchase history and an address, but this information is still limited. The majority of the respondents indicated that they believed there was some other source of the information. Many of these people listed some of the places where they believed the information came from. Some

of these were: passports, companies where products were purchased, realty agencies, insurance agencies, banks, and the post office. Although these are all valid answers, we believe that the majority of the information comes from list brokers, who gather the information from each of these companies, compile lists specific to an advertisers needs, and then sell these lists for a profit. The fact that not everyone knows about these different methods of personal invasion is a problem, for the more people who go about their normal daily activities, the more information there is about them sitting in a database on someone's computer. If people do not begin to understand what is going on, they will find that there privacy is on longer something they may call there own.

Here is an example as to how specific a marketer can get when they are looking to reach a certain 'group' of people: Single, white, 40-50 yrs old, teacher, who lives in Worcester, MA, and have made mail order/internet purchases in the last 6 months

3.) Did you realize before reading this that certain groups of people could be targeted so specifically?
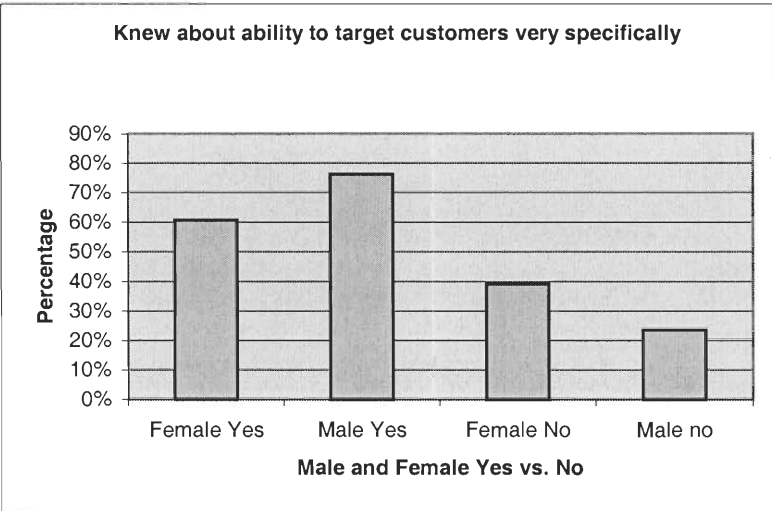

Figure 4.12 Survey Question 3 results (a)

This question helps to show that there is still a lack of knowledge as to how advertisers are able to target consumers. With current technology, advertisers have the ability to know every detail of your life. If you own a home or a car, use a credit card, or have kids in college to say a few sources, your information is available. Banks and credit agencies freely trade and sell information related to their customers, making it easy to get personalized lists. As seen in Figure 4.12, there was a difference between the awareness levels of males and females of nearly fifteen percent. The reason for this difference is not very clear to us; however, one conceivable idea is the fact that in earlier generation males were the main target. Because males were the main bread winners of the family then, all the matter having the deal with money when through them. Knowing this, marketing companies would knowingly target the person in charge of the family finances and the habit may have not changed over the years.

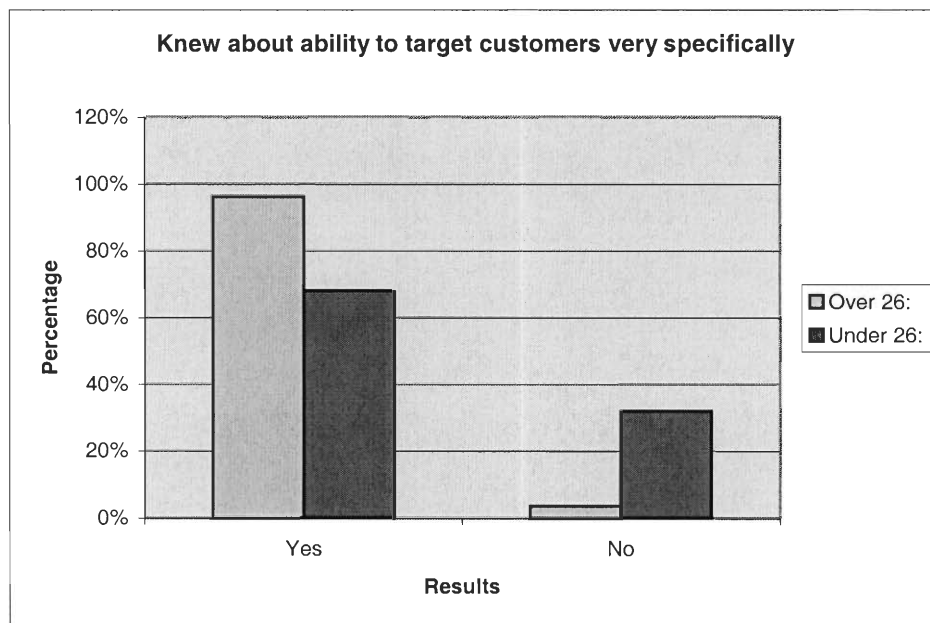**Knew about ability to target customers very specifically**

Figure 4.13 Survey Question 3 results (b)

A similar difference that may be seen in Figure 4.13. This figure illustrates the difference in percentages of understanding between people above and under the age of

26. In this figure, it can be seen that 95% of the people in the over 26 years age group realized that the targeting could be done so specifically. This would most likely be because they have been exposed to so much more of it than those who are younger.

4.) Which of the following ways of shopping do you have the least amount of concern of our PERSONAL information becoming available to a third party?
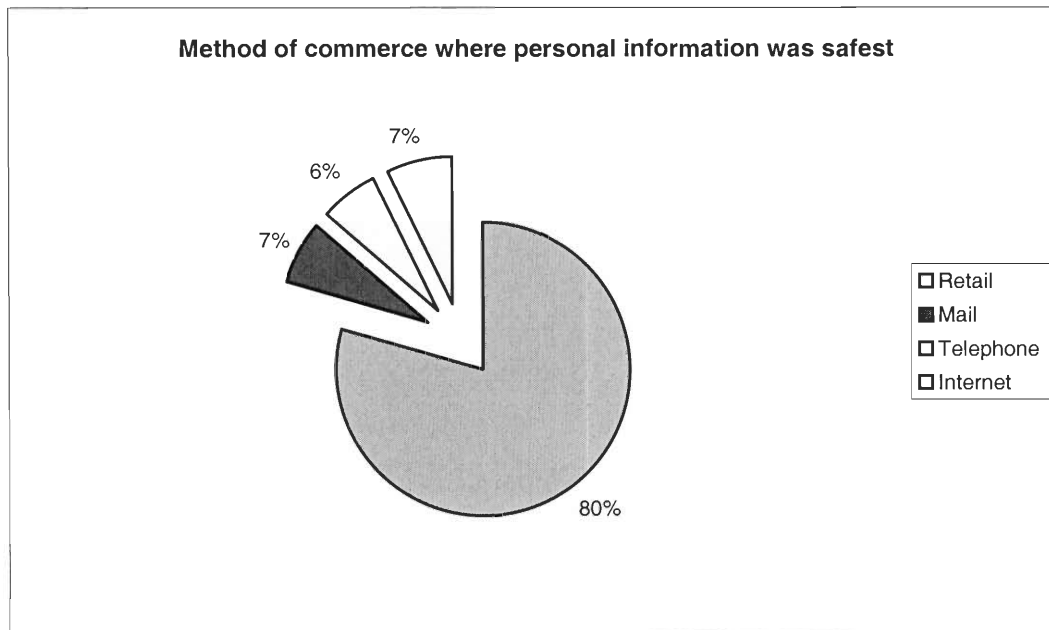

Figure 4.14 Survey Question 4 results

There turned out to be a problem in the wording of this question. Since it was not specified that the retail form of commerce was with a form of payment other than cash, people assumed that retail was the safest. In other words, it would have been more effective to state explicitly that it was using a credit or store card. Thankfully though, some people wrote down their second choices as well, which helped us to get a better picture. In the case of personal information, the subjects clearly thought that retail was the most secure form. People did not appear to realize that the same information was released using any of these forms, where at least in the forms other than retail, the

salespeople do not get to interact with you. This gives some amount of anonymity. This most likely means that people still have a great amount of their faith in the retail form of commerce. As long as they can use cash, they are predisposed to shopping in this manner.

5.) Which of the following ways of shopping do you have the least amount of concern of our CREDIT information becoming available to a third party?

Method of Commerce where Credit Information is the Safest

13%

7%

8%

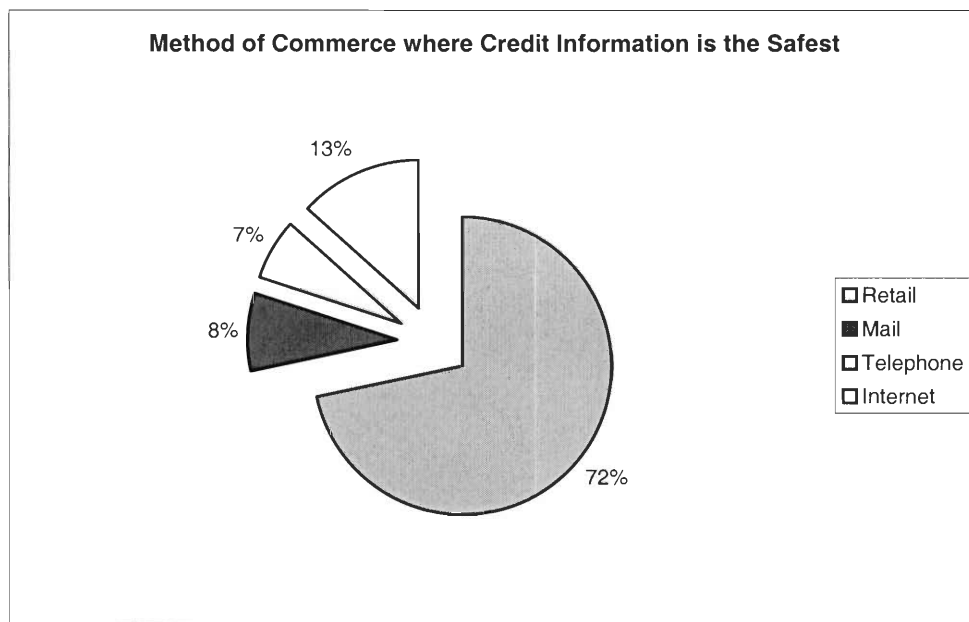72%

Retail
Mail
Telephone
Internet

Figure 4.15 Survey Question 5 results

This question had the same problem with wording. Where we had thought it was implied that a credit or store card must be used, people still assumed that in retail they were still paying with cash. Aside from that, as seen in Figure 4.15, the Internet appears to be gaining popularity. People are beginning to realize that it is safer to user a password encrypted system with no human contact to give credit card information than to hand the card off to a sales clerk, or to read off the number over unsecured phone

lines. The meaning of this is that with people gaining faith in the Internet sales, the technological advances are given a chance with the public. Since people's fears are alleviating, more of the commerce is directed towards the electronic form.

In summary, there were some interesting findings. One example is that 46% of the subjects believed that credit card companies supplied the majority of personal information to marketers. This is interesting because a very small percentage of personal information actually comes from the credit card companies. If we had more time to invest in this project, finding out why people believed this would be an interesting route to follow. Another point to notice is that in general, people over the age of 26 had the highest awareness level. More specifically, males over the age of 26 had hire awareness. Also, people have misplaced beliefs in the fact that personal and credit information are safest in retail commerce. They do not realize that there is equal risk for personal information in each form of commerce, and that according to our research; credit information is the safest in electronic commerce.

4.8: Prediction of the Future of Commerce

The future cannot be known exactly, but by examining what has already happened, along with developing trends, one may gain an insight as to how things may unfold. This section looks into how commerce has evolved with the reactions taken from a survey and tries to form this picture.

In the past, the four major forms of commerce were four distinct entities. Over time they have been forced to adapt to customer's needs and wishes, which has caused certain characteristics of each type to mingle with another. Modern tools such as computers have become common to the consumer, causing the surge of computers in the field of sales. Terms such as 'Bricks and Clicks' have been created to describe the change in the business environment. The meaning in this is that major corporations with retail outlets now also have web pages to represent themselves. Even grocery stores are getting high tech, with cash registers being replaced with computer systems. These computer systems contain an interactive environment that allows the consumer to receive help in areas such as coupons, or where to find items in the store.

Mail and telephone commerce are also evolving. Since the advent of free Internet service providers, it has become easier to use electronic commerce then either of these. With the need to fill out paperwork and people's growing wish to avoid such things, it becomes convenient to just move a mouse around the computer's screen and simply point and click. It is a similar situation with telephone commerce. Time has become a precious commodity. One problem with telephone commerce is the need to follow the menu trees designed by the company from which you would like to order. This takes a fair amount of time and patience, which the consumer of today is lacking.

So once again, it appears to be less of a hassle to turn on the computer where the menus are displayed in their entirety, simple to read and simple to follow.

The problem with electronic commerce is that computers have not evolved to the point where they will be used solely for exchanges. For some, they are too slow, and for others, they are too complicated. Progress is being made though, with such inventions as DSL and cable modems. These allow the consumer to be connected to the Internet at all times, eliminating the need to 'dial up' thereby eliminating a large piece of the 'slow' problem. Operating systems are also helping things along. Both the recent Microsoft and Macintosh operating systems are much more user friendly, which makes computers easier to deal with. The last issue that appears to be stopping consumers from using electronic commerce is that of security. Most people, as found in our survey, did not believe that electronic commerce was as safe as the other forms. Once it is realized that this is true, choosing this between this form and retail will most likely possibilities.

This is not to say that mail and telephone commerce will be forgotten, or that retail and electronic commerce will remain the same. On the contrary, it looks as if they will merge to form new types of commerce. Retail commerce looks like it will stay similar to that of today, except for the addition of more electronic aids. These aids range from things that help you shop, to those that make the trip more efficient. Electronic commerce may go through the most significant modifications. With technology advancing as it has, things such as web conferencing and remote computer control are becoming realities. It may soon become a common event to connect to a company's server to have them take control of your browser. Once they take control, a

web conferencing window could appear showing a sales consultant. Without even using a keyboard, you may interact with this salesperson either visually or audibly expressing what you want. At this time, the sales consultant would point your browser to the items to which they believe you are referring. All of the transactions would be taken care of by vocal commands, and with your personal information stored in a secured section of your computer, the sale could be easily completed.

Whenever there are advances in technology, new security concerns always arise. In the cases of the new forms of commerce, computer security becomes an obvious difficulty. The difficulty is that as fast as protection becomes available, hackers learn new tricks. With this type of problem there comes a new issue. Who is responsible for protecting the consumers? At the current time, government is having difficulties keeping up with the advances in technology so it has become a private affair. Each business creates its own security measures such as firewalls, or new identification requirements. With the lack of legal standards though, it is difficult for the consumer to know how well they are protected at any given business. Although it may appear safe, there is still the possibility of being misled. This is not to say that all companies are out to get the consumer. On the contrary, they are out to make profit. It is just a word of caution that the consumer must be aware of where they put their money; they cannot simply place blind sales.

The government is trying to pass regulations allowing for future advances of technology. The problem with this is that they do not know where the technology is heading. All they can do is what we have in this paper, look at the past and the trends and try to make an educated guess. We believe that it would be advantageous for the

government to create regulations for how business should be protected. There are some standards, but they are vague. They give no particulars as to how things should be done, simply that the companies should respect the consumer's private information. It would most likely be a great benefit to the market to instill confidence and good will in the electronic commerce, for it is in one way or another, heading in that direction.

5. Conclusion

Convenience, simplicity, fast, and inexpensive; These are the buzzwords that have changed and will continue to change the way we shop, work, the way we live, now and in the future. We are moving towards a society that is willing to forfeit the human interaction of a mall setting for the domain of the internet. A person who understands the general workings of a computer and the World Wide Web can buy most anything he or she pleases by pointing and clicking this mouse. Clothes, groceries, cars, houses, can all be purchased online. This is the main theme of this project.

This paper first dealt with the analysis of past and current modes of commerce, followed by a prediction for their evolution. It began by defining the terms and laws of relevance. The types of commerce that were discussed in this paper were retail, mail, phone, and electronic. This project investigated the earlier modes of commerce by analyzing and observing the problems that have arisen and the achievements made over the years.

A survey was conducted to find the knowledge base of the public. We wished to know how aware they were about some major topics. There were some interesting findings in this survey. One example is that 46% of the subjects believed that credit card companies supplied the majority of personal information to marketers. This is interesting because a very small percentage of personal information actually comes from the credit card companies. If we had more time to invest in this project, finding out why people believed this would be an interesting route to follow. Another point to notice is that in general, people over the age of 26 had the highest awareness level. More specifically, males over the age of 26 had higher awareness. Also people have misplaced beliefs in

the fact that personal and credit information are the safest in retail commerce. They do not realize that there is equal risk for personal information in each form of commerce; according to our research, credit information is the safest in electronic commerce.

With this knowledge we compared and predicted the future evolution of the four different modes of commerce, namely retail, mail, telephone, and electronic. We believe that each of the forms of commerce will be blurred together, forming high tech retail outlets and personalized electronic shopping. Technology will continue to integrate with our lives and people will realize that some amount of personal contact will be needed to gain the trust of the consumer. The main problem that will arise is that the government will have difficulties keeping up with the technology. They will find it increasingly difficult to create and enforce laws for a continuously changing entity.

Appendix A

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