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Table of Contents

Introduction	.3
Data Privacy in the USA	.3
Big Data Companies Use of Personal Data	3
Government Use of Data for Surveillance	4
Methods for Opportunity Identification	.4
Data Collection	5
Data Process	6
Data Analysis	8
Interviews	.8
Follow on Survey	.9
Results & Analysis1	0
A) Demographics1	.1
B) Importance1	.1
C) Satisfaction1	.2
Conclusions1	5
Future Recommendations1	5
Bibliography1	6
Appendices	8
Appendix A: Interviews1	. 8
Appendix B: Coding1	. 9
Appendix D: Survey Interpretation	9

Introduction

In the fuzzy front end it is very important to assess thoroughly whether an opportunity for a new product exists. In order to perform such an analysis a good understanding of the voice of the customer and future trends is required. The Scope of this project is to explore the existence of an opportunity for a product that will provide data privacy for the individuals.

In recent years the amount of data generated by an individuals has substantially increased[18], whether it be photos or check-in's in Facebook, email correspondence, online purchases etc.; all this data could be available for anyone to use.

Companies have been data mining in order to better advertise products that an individual is more likely to buy. The government has had the ability to monitor anyone's data, from email correspondence to bank details. With all this data readily available for anyone, the issue of individual privacy needs to be considered.

There have been laws that protect the security of sensitive data (ssn and bank account numbers), but other forms of data of an individual does not seem to have as much protection. In this paper we are going to try to understand the public perception of their data privacy and perceive whether customers are willing to pay for a product that will protect their privacy.

The voice of customer technique was used by conducting Interviews and surveys; and analyzing the data obtained through Qualtrics. The Data was then put through the Opportunity Algorithm in order to find a quantifiable opportunity present in this area.

Data Privacy in the USA

According to a Pew Survey many people in the United States express discomfort with the lack of control they have over their digital information. [1] The same survey indicates that another non-mutually exclusive group expresses that they are unhappy with the extent to which the activities of their daily lives may be monitored. These two main concepts are the driving force to use opportunity identification techniques for new products in the privacy domain.

Big Data Companies Use of Personal Data

There is a sector of technology companies known as "Big Data" who work with ways to process data sets large enough that traditional database approaches will be inadequate to process the data. One of the main profitable uses of these methods is to build personal profiles of users over the course of their free service use so that they can be more effectively advertised to than with traditional blanket methods. Advertising can be much more effective when taking into account: age, gender, location, culture, hobbies etc. [2]

There are several Privacy concerns with this mass data collection and retention for users of these services. One of the concerns that people have is that they have no right to know exactly how their data is being used and they are not able to get data removed that they find sensitive.

For example Google's policy on "Nude or sexually explicit images" is that they will only be fully removed if the images "were uploaded or shared without your consent." [3] Consent being withdrawn later is not a sufficient reason for compromising data to be removed. The right for embarrassing or damaging data to be removed from the internet is not a value upheld by US law.

Another of these concerns is that, while companies may keep private data private from other users, there is very little incentive for them to have good security practices with the user's private data. If there is a breach and hacker or employee gains access to personal data of any kind, usually the company is not liable for any problems caused unless there are grossly negligent practices in place. [4]This means that in a worst case, data that you would have liked permanently deleted but could not, could become public and the company that wanted to keep that data would not be held responsible.

Government Use of Data for Surveillance

The other concern for American citizens is that the government could be viewed as overstepping their bounds with respect to surveillance. The knowledge that various branches the United States Government have been using Big Data techniques for large scale surveillance was confirmed by Edward Snowden. He released many documents about classified NSA projects for mass surveillance, which by nature has to collect data on both American and non-American people. [5]

This is a concern for people because the mass collection of this data by very nature means that the government needs to have access to all the information and then decide what they can legally use afterwards. This is completely contrary to the environment in which the fourth amendment of the US constitution was written. In the case of physical evidence the fourth amendment prohibits unreasonable searches and seizures and requires any warrant to be judicially sanctioned and supported by probable cause.

Methods for Opportunity Identification

Opportunity identification should ideally be performed at the beginning of any new product development project. The methods chosen to complete this heavily rely on the type of product and industry which the project falls under. For this project, it is apparent that a "demand pull" is more appropriate than a "technology push" method (see Figure 1), since it is of paramount importance to determine if there is in fact a customer need in this area of concern before committing to a product concept.

Орр	Opportunity Identification (Idea Generation)					
Defining where to search for ideas Coming up with ideas						
Demand pull: Identifying Customer Needs	Technology push: Identifying technological opportunities	Collecting existing ideas New usage, product modi- fications, feature	Generating new ideas with the help of creativity techniques			
Collecting Data Processing Data Gap Analysis Forecasting	Identifying relevant technologies Forecasting	Lead users Competitors Suppliers Employees	Intuition and association Analysis and systematization			

Figure 1 - Opportunity identification [6].

According to several literature sources [7][8][9] it has been historically difficult for companies to successfully implement customer input into the front end of new product development. A major flaw in companies' use of customer input has simply been asking and listening to the customer with insufficient technique [7].

There are multiple methods which can be used for different levels of identify opportunity in the Fuzzy Front End which include Category appraisal, Conjoint analysis, Empathic design, Focus Groups, Free elicitation, Information acceleration, Kelly repertory grid, Laddering, Lead user technique, Zaltman metaphor elicitation technique [8].

The majority of these methods involve having existing product concepts or technologies, which is not yet applicable in this study. A few techniques, such as the Lead user technique and focus group technique could have been applicable, however the group felt that these methods would be too time consuming and may not have the open endedness that we were looking for.

In order to keep this study open-ended and very much focus on what the customer is looking for prior to focusing on a product concept, this study will rely on Ulwick's method for voice of customer input.

This method relies on a 5 step process: Step 1 is to conduct outcome-based customer interviews, Step 2 is to capture the desired outcomes, Step 3 is to organize the outcomes, Step 4 is to rate outcomes for importance and satisfaction, Step 5 is to use the outcomes to jump-start innovation. [7]

Data Collection

The collection of data for this project will rely on Step 1 and 2 of Ulwick's method. In addition to Ulwick's framework, the team will implement additional interview techniques. Available interview methods include Interview Conversational Interviews, General Interview Guide Approach, Standardized Open-ended Interviews [17,] and LIFFFT interview technique [10].

The Informal Conversational Interview technique involves off the top of your head "spontaneous" questions and it is very much lead by natural interaction between the interviewer and respondent. Due to this it lacks structure and can be very difficult to code. The General Interview Guide Approach is a more structured approach, however is still flexible in composition.

Due to the fact that questions can be posed differently to fit each respondent, this approach can have a lack of consistency. The Standardized Open-ended Interview technique is very structured in the wording of initial questions. The benefit however is that unstructured "probing questions" are allowed to fully extract ideas. This technique can be somewhat difficult to code however has been thought to reduce bias overall. [17]

The LIFFFT group technique emphasizes on pulling information rather than pushing, no pitching, no "ice cream" questions, using past behavior as an indicator of future behavior, and stories are better than statements [10]. Due to the nature of the project and the emphasis to pull information as much as possible without bias, a combination of the Standardized Open-ended Interview and "LIFFFT" techniques will be used to aid the team with proper interview techniques to ensure useful data is collected.

Step 4 of Ulwick's method also involves a feedback loop survey (which will be later explained), which requires a method for collecting data. This study will rely on using a web-based survey tool to share and publish the survey, and collect the results.

The alternatives to this method could be direct mail, in-person interviews, phone surveys, media distribution, etc [16]. The online survey tool method of data collection is chosen for time constraints, convenience of online accessibility by survey respondents, and overall flexibility of survey design within the online tool.

There are multiple online survey tools available, many paid and a few which are free. Some free survey tools available are Survey Monkey [13] and Qualtrics[15]. The free version of Survey Monkey has a limitation of 10 questions [13], therefore Qualtrics was chosen with ~30 questions in our study.

Data Process

Once customer interviews (from step 1 and 2 of Ulwick's method) are complete, step 3 involves organizing the outcomes from each interview session. There are many possible ways to process interview transcripts, both software and non-software based methods are available [11] [12]. To eliminate cost, and reduce complexity and learning curve, the team will use the non-software based methods found in Lichtman's book [11] outlined in figure 2 below.



The six steps are as follows, and are subsequently explained in detail:

- Step 1. Initial coding. Going from responses to summary ideas of the responses
- Step 2. Revisiting initial coding
- Step 3. Developing an initial list of categories
- Step 4. Modifying initial list based on additional rereading
- Step 5. Revisiting your categories and subcategories
- Step 6. Moving from categories to concepts

Figure 2 - Three C's of Data Analysis: Codes, Categories, Concepts [11]

This manual method is adequate for this scale of project, which has under 10 customer based interviews. It seems to be a straightforward and effective approach to coding interview transcripts. If a larger number of interviews were to take place, it could be worthwhile to invest in a software based approach due to how time intensive the manual approach can be.

Data Analysis

A number of different data analysis techniques can be used to help identify the important needs and potential concept ideas from customer input. A form of data analysis is performed in step 4 of Ulwick's method. The outcomes from the initial customer interviews, once coded and categorized, are then used to create a quantitative survey.

This quantitative survey will use the identified key concepts from the initial interviews to provide a feedback loop from a larger base of participants. Techniques such as the Bothersome Technique [6] or the Opportunity Algorithm [7] can be used in similar ways to have the customer's rate and identify potential market needs in this feedback survey.

The Bothersome technique relies on asking "how frequent does X occur? and how bothersome is X?". These inputs are rated and calculated by Opportunity=Frequency x Bothersome. [6]. The Opportunity Algorithm is preferred by Ulwick's method. This relies on asking "How important is X? and How satisfied are you with X?". These inputs are rated and calculated by Opportunity = Importance (Importance-Satisfaction) [7]. Due to the nature of the study and the preference by Ulwick, the Opportunity Algorithm will be implemented.

Step 5 of Ulwick's method is to analyze and draw conclusions from these results uncovered in Step 4. For this project, the data from these feedback surveys will be input into a software such as Excel to aid in the analysis and presentation of the study data. This software is chosen for its simplicity and group member's existing knowledge of this software.

Interviews

Step 1 of Ulwick's method is outcome based customer interviews. This can be tricky because customers like to talk about solutions and the interviewer needs to drill down into what they really want to be accomplished and record it as the outcome they care about.

This need to steer the customer to outcomes has to be balanced with not leading the customers to say anything about a specific topic as they can be very suggestible if they are aware the kind of answer that is being looked for. This is a bias that is very important to be avoided for opportunity investigation because confirmation bias can really hurt the results.

When conducting the interviews, there was one line of questioning to get the interviewer started: "What are the privacy concerns in your life?" This was meant to find out what kinds of worries people have about their privacy without biasing them to thinking about digital privacy. If they did not talk about data privacy during the interview that should indicate that this topic is not at the top of their list of concerns.

The rest of the interview is spent clarifying and digging into concerns around their issues of privacy and desired outcomes. An example interview that was transcribed from notes is available in Appendix A. It demonstrates the open ended nature of the interviews as well as LIFFFT technique for digging further into the outcomes that are desired.

Each member of the team was tasked with carrying out 2 interviews for a total of 8. There were 7 interviews that were actually carried out and only 5 of them were coded in time to have an effect of the survey questions. The team members carried out their interviews independently and there could have been a more diverse group used for the interviews.

There was good diversity in education and job, but not very much diversity in gender and age. The Interview demographics can be seen below:

Team Member 1: The demographics of the 2 people member 1 interviewed were that they were both not engineers, One was an English professor at a community College in his upper 30's and the other person was an Accountant for a non-profit firm in his lower 30's. Both of these individuals had a good understanding of data privacy and were good with computers.

Team Member 2: Team member 2 interviewed 1 person who was a male of approximately age 60. He worked as an accountant and has an Associate degree in accounting.

Team Member 3: There were two interviews completed by member 3. The first was a Male of about Age 60 with a PhD in computer science working as a professor of computer science at University of Portland. The other interviewee is 27 year old male with a bachelor's degree in general science and works as a web development manager.

Team Member 4: Two interviews were conducted with two Civil engineering PhD students, one male and one female, aged 28 and 26 respectively. Both of the participants are expert level computer users.

The coding on 5 interviews is found in Appendix B. To demonstrate the process by example the interview with Jack(interview 1) will be used. The first step of the coding is to indiscriminately note down all the concerns that are expressed in the interview. This will most likely give a lot of repetition in ideas.

This can be seen in the Jack interview with both "company storage of personal info" showing up twice as well as "Personal info should stay private" and "employer should stay out of personal life." Now that the full list exists, the extremely similar items are identified with a number so they are recognizable as the same sorts of issues. All of the personal information issues for example, should be identified as the same number.

After general categories have been established with the coding, the categories that these ideas fall under should be labeled. Personal life was used, in this case, to categorize the ideas of personal privacy from government, employers, and companies. Finally the categories are revisited in combination with the original concepts to derive a comprehensive list of the objectives the customers have with all the redundancy striped out. In this case "control over personal information" and "information being inaccessible by other entities were classified as separate outcomes.

Using a complete list from all the interviews of the coding based outcomes, there is more need to eliminate redundancy that happens from interview to interview to come up with one list of outcomes. The next step for the survey design will be to turn these outcomes into concrete survey questions.

Follow on Survey

Once the interviews are completed, a survey incorporating the most recurring concepts will be sent out. For example, one of the emerging topics of concern was that people were not comfortable with government surveillance of their personal data.

The survey is sent to a larger and more diverse group in order to understand if other people feel that way as well or if they are indifferent about this topic. In this survey, certain details of the individuals' demographics are collected, with the permission of the individual, as this information helped us understand our target customers better.

At first, the survey is designed in Survey Monkey [13] but as this cloud base survey service just let the free user to insert 10 questions into surveys, the team switched to use Qualtrics [15] for survey creation and data gathering, and the answers are scaled according to the Likert scale.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
(1)	(2)	(3)	(4)	(5)

Figure 3 - Likert Scale [14]

The Likert Scale allows us to interpret the data effectively especially for the Opportunity Algorithm. As mentioned above the main purpose of the follow on survey is to quantify the main codes that are found during the interviews. The question construction focuses on obtaining statistically useful information about a given topic. The questionnaire, in this project, was the vital instrument by which statements can be made about specific groups, people, or entire sample populations.

In order to design the proper questionnaire which later could be used in coding and conclusion phases, the team created the survey in three main sections; Demographics, Importance, Significance.

In the Demographics section of the survey the team asked the participants about their age, gender, education and occupation. This section of the questionnaire can later be used in target market identification and elaboration.

The second section of the survey -Importance - assessed the importance the privacy issues from the respondent perspective. Governments and Companies data gathering and personal information sharing as the main sources of the privacy issues are asked and the importance of each of the above mentioned data privacy sources were collected.

The last section of the survey focused on the satisfaction of the data gathering by government and companies and level of willingness to share personal information on the social networks. The complete questionnaire and results could be found in the Appendix C of this document.

The other important dimension of conducting a survey is selection of the audience. In this project, most of the participants are selected from university friends and workplace colleagues in order to increase the chance of receiving the response in a short period of time. This is one of the aspects that in the future studies could be enhanced and surveys are conducted in a broader and diverse group of people.

After collecting the survey responses, the data is analyzed and the results are utilized to give a better understanding on the data privacy topic. The next section illustrates the data analysis and final results in a detailed perspective.

Results & Analysis

There were 52 people who took the online survey. In order to analyze the results obtained from the surveys created in Qualtrics can be seen as follows:

A)Demographics



Figure 4 - Demographic Display

As it can be seen from the figures above, 69% of the people interviewed in this survey fall in the 25-39 age bracket. The majority of the personnel interviewed are male. It was also found that 48% of the personnel interviewed had graduate degrees and 42% had undergraduate degrees, at the same time 44% of the personnel interviewed were from either an engineering or an automotive background.

As the purpose of conducting this survey was to reach as diverse a group of individuals as possible, it was found that being a student in the engineering field limited our scope of reaching to a more diverse audience on the professional front.

The survey population can be categorized as "tech-savvy" and were aware about data mining as 82% of the survey population would use the privacy mode when using any form of bowser. 73% of the survey population used some sort of VPN tool and 49% used some sort of an alias name when signing into a website for the first time.

B) Importance

In Table 1, the result for the public opinion portion of the survey can be viewed.

	Completely				Completely	
	agree	Agree	Neutral	Disagree	Disagree	Total
Government should have the right to access to citizen's information	4%	16%	16%	43%	20%	100%
Government should need to go through a judicial process to get citizen's information	46%	36%	14%	2%	2%	100%
Government should not have the ability to curtail what a publishing house can publish	40%	36%	12%	10%	2%	100%
I am comfortable with companies collecting data in order to offer certain services.	12%	26%	24%	30%	8%	100%
I am unwilling to post some pictures to social media because of professional repercussions	40%	34%	22%	2%	2%	100%
People should be notified about when their data is being mined.	60%	26%	6%	6%	2%	100%
I have just accepted that data mining is a part of everyday life	18%	44%	10%	18%	10%	100%
People should have the right to know where and how their data is being stored.	56%	38%	4%	2%	0%	100%
People should have the right to control their data on the Internet, for example they should be able to delete certain things completely on the web.	50%	34%	12%	4%	0%	100%
People should have the right to know how their data is used	62%	38%	0%	0%	0%	100%
As long as sensitive data (SSN, bank details) is protected, every other form of data does not matter	4%	6%	12%	48%	30%	100%
I am more comfortable with my non-real time(email, text) communications being monitored than my real time communications (phone, video call)	6%	14%	16%	38%	26%	100%
I am willing to pay for a service in which even the provider of the service does not have access to the data without my consent.	22%	46%	20%	6%	6%	100%

Table 1: Table shows the Importance question results from the survey.

Government: As can be seen from table 1, 63% of the surveying population either disagree or completely disagree with the statement that the government should have the right to access the citizen's information. At the same time 82% are in agreement that the government needs to go through the judicial process in order to gain citizen's information.

Business: When it comes to the company's data mining on individuals, the surveying population was divided answers, as 38% of the surveying population was in agreement with companies using their data to provide products, whereas 38% were in disagreement. The remaining 24% of the surveying population was neutral on the subject matter.

Social: 74% of the surveying population are unwilling to post picture on Facebook due to potential professional repercussions. 86% are in agreement that they should be notified when their data is being mined. 84% of the surveying population agrees that people should have the right to control their data on the internet.

65% of the population disagrees that with the statement that they are comfortable with their non-real time data being monitored as opposed to real time. 68% of the surveying population are in agreement to pay for a service in which even the provider does not have access to their data.

C) Satisfaction

In Table 2, the results of the survey that talks about how satisfied the surveying population was with the current products available in the market.

	Completely agree	Agree	Neutral	Disagree	Completely Disagree	Total
I am satisfied with the current level of government access to citizen's information.	2%	15%	29%	31%	23%	100%
I am satisfied with the current judicial process the government must go through to obtain citizen's information.	6%	15%	27%	35%	17%	100%
I am satisfied with the services currently available that will not use my data to advertise	10%	25%	25%	29%	10%	100%
I'm comfortable that pictures I post to social media will not have professional repercussions for me	9%	26%	26%	22%	17%	100%
I'm confident I would be notified if my data was being mined	2%	9%	0%	43%	46%	100%
Current services offer my data the ability to not be mined	4%	7%	37%	39%	13%	100%
I'm satisfied that if I were to want to remove my personal data, I would be able to.	4%	15%	9%	37%	35%	100%
I am satisfied that I can find out how my data is being used.	7%	4%	11%	59%	20%	100%
I am satisfied that my sensitive data (SSN, bank details) is protected	9%	24%	30%	24%	13%	100%
I am satisfied that my real time communications (phone, video call) are not being monitored without my consent	2%	22%	33%	24%	20%	100%
There are products available that have sufficient performance and privacy for my needs.	4%	24%	43%	22%	7%	100%
There are products available with which even the provider does not have access to my data without my explicit consent	9%	24%	30%	24%	13%	100%

Table 2: Table shows the Satisfaction question results from the survey.

Government: As can be seen from table 2, 54% of the surveying population either disagree or completely disagree with the statement that they are satisfied with the level of government access to citizen's information. At the same time 52% disagree with the statement that they are satisfied with the current judicial process that the government must go through in order to obtain citizen's information.

Business: When it comes to the company's data mining on individuals, the surveying population was divided answers, as 35% of the surveying population was in agreement with companies will not use their data to provide products, whereas 39% were in disagreement with the statement. The remaining 25% were neutral on the subject matter.

Social: 39% of the surveying population is not confident that posting pictures on Facebook will not have a negative repercussion on their profession, whereas 35% are confident about this statement.

89% of the surveying population is not confident that they will be notified when their data is being mined and 52% of the surveying population is not satisfied with the current services that prevent their data from being mined. 72% are not satisfied that they will be able to delete their personal data from the internet. 79% of the surveying population does not agree with the statement that they can find out how their data is being used.

37% of the surveying population is not satisfied with the protection of their sensitive data, whereas 33% of the surveying population is satisfied. 44% are not in agreement that their real time conversation is not being monitored. 29% of the surveying population is not satisfied with the products available for their privacy and performance needs, whereas 28% are satisfied with the current products available.

37% of the surveying population is not satisfied with the products available that even the provider will not have access to their data, and 33% of the surveying population is satisfied with the current products.

Going through this data we have been able to understand the importance and satisfaction of the statements. Now applying the average of the data, of the responses from Qualtrics, to understand the opportunity can be seen in the table below:

Impotence Statement	importance	Satistic tion Statement	Ratisfaction	Opportunity
imporance statement	importance	I am esticifed that I are fiel out how my data is help a	aa uera cuorr	opporating
Dennie should have the right to know how their data is used	4.52	rani satellet tiat i can illit out to willy data is being	3.8	5.44
People around have the right to who who who when data is used	4.02	uccu. Im comfa table that a bitures I post to so abl modifi	3.0	3.44
mann unwining to post come protoco to coordine ta becauce of proteccional	4.08	will not have professional in nervisishes for me	3.13	5.03
	4.00	I am esticified with the current indicibil process the	0.10	0.00
Coversesset cloud aged to go the uph a hutblal amongs to get elitagein		any approach must ap through to obtain all tracis		
information	4.22	government most go through to obtain citizen a	2.42	5.02
As inno as sensitive data (SSN hank details) is protected, even other form of	4.22	Lam catiofied that my consitive data (SSN hank	0.42	3.02
Asta drias not matter	2.04	ran addited that my denotive data (35%, bank	2.00	4.70
Deanle chould have the right to control their data on the internet for example they	0.54	Im satisfied that fill were to want to remove my	3.05	4.72
should be able to delete certain this is completely on the web	43	ners onalidata I would be able to	3.93	4.77
entere et abre le deret deren aninge competely en ale in ca.	4.0	I'm confident i would be notified if my data was being	3.65	4 .11
People should be ontified about when their data is being mined	4.36	mined	122	45
r copie onobie de notifica adois inter ale r data la delingininea.	4.00	ism satisfied that my gai time communications	4.22	4.0
I am more comfortable with my non-real time/email text) communications being		(bhone video call) are not being monitored without		
monitored than my pai time communications (phone vitieo call)	3.64	my consent	3 37	3.01
	0.04	I am satisfied with the current level of covernment	9.97	0.51
Government should have the right to access to citizen's information	3.59	access to citizen's information.	3.58	36
To what extent are you willing to agree to exchange performance of a product for	0.05	There are products available that have sufficient	0.00	0.0
phacy?	3	performance and privacy for my needs.	3.02	2.98
		There are products available with which even the	0.02	2.50
i am willing to pay for a service in which even the provider of the service does not		provider does not have access to my data without my		
have access to the data without my consent.	3	explicit consent	3.09	2.91
		am satisfied with the services currently available		
I am comfortable with companies collecting data in order to offer certain services.	2.96	that will not use my data to advertise	3.04	2.88
		Current services offer my data the ability to not be		
I have just accepted that data mining is a part of every day life	2.58	mined	3.5	1.66

Table 3: Table shows the Opportunity Algorithm results

As can be seen from table 3, the opportunity is sorted from highest to lowest and it can be seen that the top 5 opportunities lie in the following:

- 1) People knowing how their data is being used
- 2) People posting pictures can lead to professional repercussions
- 3) The judicial process that the government goes through in order to gain citizen's information
- 4) Protection of sensitive data
- 5) Removal of personal information from the web

Conclusions

The conclusions of this study have shown that the top 5 opportunities lie within people knowing how their data is being used, professional repercussions when posting pictures on social media, the judicial process the government undergoes in order to gain citizen's information, protection of sensitive data and the removal of personal data from the web.

As expected through Voice of Customer interviews and follow up surveys, that true customer needs were identified. The team's original premise is that data privacy should be something of great concern to US citizens, and it is very well possible that there are customers willing to pay for a product or service which will help protect and safeguard the customer's right to data privacy. Through this study the team was able to show the opportunities in this sector through customer interviews and surveys.

Future Recommendations

Both the survey and the interview could have been improved if more time and resources were able to be dedicated. In the case of the interviews each respondent was giving unique topics of concern and the group that was interviewed was picked mostly by convenience and access. This makes it extremely likely that there would have been more topics to code and add to the survey if more people were interviewed.

It's also quite possible that a more diverse group would have added more different topics. Ideally if the group had been sufficiently diverse from the start then there would be a point of saturation where not many new ideas were coming in and that would signal there was enough of a sample.

There was also room for improvement in the survey. The sample size wasn't the best but was acceptable for this type of project. Given that there wasn't a purposeful target market it would have been great to get a representative group of the US population for the survey because then that could have also lead to market identification in addition to just the opportunity within the group that happened to take the survey.

There were also two "satisfaction" questions that must have been overlooked and not added to the survey which lost data on two opportunities. Since the questions were prepared in pairs to identify importance and satisfaction we were not able to use this data at all in our algorithm.

The other opportunity for improvement is in the quality of the collected data is in future works is inverting scale and changing the questions in order to have an opportunity present itself as an outcome (See Appendix D). For instance, in question number 6 could be changed to "It is important that government should have limited access to citizen's information", or in the question number 7 the question can be changed into "It is important that government should go through a judicial process to obtain citizen's information".

The main focus of this project was on the opportunity recognition and identification. In regards to the double diamond model the next step will be idea generation and elaboration. Time and scope of this project did not the let the team to enter the idea generation phase, however this is a vital step for creation of an elaborate new product concept.

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Appendices

Appendix A: Interviews

Interview, 10/31/2015 Jack, Associates in Accounting, Age 60

Q: What are your concerns on privacy (in general)? A: No government, firms, companies or jobs should be able to access your personal information. Refer to 4th Amendment. People should keep to themselves.*2*

Q: Are there specific activities or items that you specifically don't want these "organizations" to have access to in regards to privacy?

A: Personal information, gun ownership, how to raise your own children, personal rights. Keep government out of family privacy, health insurance, etc. Jobs shouldn't be able to access your personal medications, health conditions, credit references.*2*

Q: In what ways do you think people or "organizations" invade your personal privacy/information?

A: Companies track your purchase history. *3*

Photo/video surveillance in public places by government. *1*

Companies do online advertising by tracking. "3"

Google storing info in portland server center (being built). *2*

Government can track people by cell phones and GPS. *1*

Companies storing information, birthdates, etc. *2*

Should be able to turn accounts on/off so other people can't find your information, locations, etc. Should be able to delete your own personal information from the internet.

2

Government uses GPS, phones, etc to track down criminals. This seems okay but where do you draw the line? They need to have cause and search warrant first. Reference search/seize laws in 4th amendment. *1*

Storage of your information is wrong (by other parties). *2*

Q: What are your personal communication and cloud storage needs?

A: Cell phone, land line, computers. No not use cloud storage! *4*

Q: Why do you prefer to use these items?

A: To stay connected to family and friends by phonecall and online communication. Do not use texting, but do occasionally use messaging on facebook and email on both my cell phone and computer. *5*

Q: For what reasons do you avoid cloud storage services?

A: Do not want anyone (person, company, or government) to be able to get access to my information or files. Personal information is better kept safe on hard drives and personal storage devices rather than online. *4*

Appendix B: Coding

	INTERVIEW 1
Initial Codes	
2	Personal info should stay private
2	government and employer should stay out of personal life
3	companies tracking purchases
1	government surveillance
3	companies targeted advertising
2	company storage of personal info
1	government tracking
2	company storage of personal info
2	control of your info on internet
1	government tracking needs warrant
2	storage of personal info
4	no trust in cloud storage
5	perfer voice conversations over online
4	does not trust cloud storage to be private
Category	Internet
- subcategories	-control of your info
	-storage of your info
	-privacy of your info
Category	Personal life
- subcategories	-privacy from government
	-privacy from employers
	-privacy from companies
Concepts	Full control of your personal information on the internet
	Internet storage of personal information needs to be inaccessible by other entities
	Government should not be able to access your personal information without warrant
	Companies should not be able to profile you
	Employers and companies should not be able to influence your personal life based on personal information

	INTERVIEW 2
Initial Codes	
1	Hackers getting into personal info on personal or cloud stored date (identity theft)
1	Taken action to encrypt important information
1	Places information is stored (Little oppurtinity to protect it yourself)
2	Suspicious of emails (Phishing)
2	Using others personal information to impersonate
3	People knowing personal situations could lead to taking advantage (miricle drug for your condition)
3	Personal attacks based on private information
Category	Control of Data
-subcategories	Safe from hackers
	Where and how it's stored (encryption etc)
Category	Knowing Who I'm Communicating With
-subcategories	Impersonation
	Phishing
Category	Use of my information
-subcategories	Knowing what info someone has access to while talking to them
	Personal attacks based on my orientation of some kind (group affiliation or beliefs)
Concepts	Confirm who I'm talking to
	Data Secure from those who shouldn't have access to it
	Knowing who has access to my data
	Personal attacks based on personal information

	INTERVIEW 3
Initial Codes	
1	Cell phones can be used to record whatever you're saying (facebook, NSA app eats battery life and may be used to target ads)
2	Use of current products due to convienince
2	Non real time communication for thought out type issues
2	For making sure both parties understand something real time is best
2	Keeping in touch easy to maintain and get back to when you have time
2	Store project work, personal work, photos, personal life ends up in the cloud by associates
2	inertia in terms of changing how you communicate
2	Moving to another service is just releasing my data to yet another provider
3	Open source is needed to be sure of the privacy features of software
3	Lack of transparency and accountability in terms of how your data is used and what data is used
3	Need some strong judiceal system to choose when to violate privacy on the part of government
3	Journalism and activists need to be unable to be quashed based on their privacy violations
3	Mass data collection will always be abused by someone
3	Clients setup such that not even the maker of the service can view my emails are great but the government shuts those down
Category	Makes products worse (for collection purposes)
-	
subcategories	Eats battery life; Less security if backdoors are installed
Category	What use cases I need
subcategories	Storage for project files
	Communication that's not real time for convienence and thought out communications
	Real time for making sure 2+ parties understand somethnig
Category	Transparency
- subcategories	How is my data stored\protected
	Who has access
	Where can I find this information and is it disclosed to me
	Mass Collections will be abused
	Journalism needs privacy from governments
	Open source is the only trusted

Concepts	Products functionality shouldn't be compromised
	Need non real time and real time communication options
	Know how data is stored
	How data is used
	No mass collection and profiling
	Preferably only I have access to my data without explicitly giving it

	INTERVIEW 4
Initial Codes	Personal and Professional Lives should be kept seperate
	Personal Boundaries with regards to phone/computers,
	Permission is important before using this Person's things
	Problem with person with Authoroty prying into one's private life, judgement
	constant prying by someone who is not in uniform-annoying
	prying by someone with uniform and the person does not know-angry
	Does not use facebook as much as does not want people to make money off of him
	Would like to know if data mining is happening what purpose it is being used for esp-government related
	If person of uniform is watching their data, makes him feel scared, not knowing what they can do with the data
Category	Boundaries
- subcategories	seperation of person/profession; personal should have the right to be private
Category	Notification of surveillance
- subcategories	Government and Companies should ask permission/notify the individual
Category	Purpose of Surveillence by government
- subcategories	Categorize which data would be looked at
Concepts	Government and Companies should not be able to access your personal information without Permission
	Companies should not be able to profile you and hence earn profit
	Employers and companies should not be able to influence your personal life based on personal information

	INTERVIEW 5
Initial Codes	Privacy of information, my information should not be shared with other people
	Difference in privacy at the work place as opposed to home, anything goes at work
	Neighbours prying not a problem as they are just tryng to figure out who is living next to them
	Uses facebook actively to share information, absolutely ok with advertisers using his information
	If strangers pry into my life, it does not matter as they dont know me and i dont know them so it doesnt matter
	if the person is someone I know then I would be embarrased
	workplace data is not private and that is fine, at home the data should be private
	Everything is hackable, and therefore it is expected that the government is prying on you
	Would like to know what will be done with the infomration would be known
	works in financeand knows payroll etc information of other employees, and also knows certain things about them evern before they do
Category	Boundaries
- subcategories	Anything at work is not private, email etc, but at home should be private
Category	Surveliience of companies for data
- subcategories	It is fine with him for companies to collect data and advertise products to him
Category	Surveillence of government and companies
- subcategories	It is not a problem as long as I am not directly affected by it
Concepts	Companies can pry into one's life to collect data for advertising
	It should be known what the data is being used for
	Everything is hackable and this is the way of life today
	As long as sensitive data is protected the rest does not matter

Appendix C: Survey Data

Data Privacy Follow on Survey

Last Modified: 11/24/2015

1. Please specify your age group

#	Answer	Response	%
1	15-24	3	5%
2	25-39	39	70%
3	40-55	12	21%
4	Above 56	2	4%
	Total	56	100%

Statistic	Value
Min Value	1
Max Value	4
Mean	2.23
Variance	0.36
Standard Deviation	0.60
Total Responses	56

2. Please Specify your gender

#	Answer	Response	%
1	Male	36	64%
2	Female	18	32%
3	Other	2	4%
	Total	56	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.39
Variance	0.32
Standard Deviation	0.56
Total Responses	56

3. What is the level of your education?

#	Answer	Response	%
1	High School	6	11%
2	Undergraduate level	25	45%
3	Graduate level	25	45%
	Total	56	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	2.34
Variance	0.45
Standard Deviation	0.67
Total Responses	56

4. What Industry do you belong to?

#	Answer	Response	%
1	IT, Computer science, software	11	20%
2	Hardware and Electronics	13	23%
3	Education and academics	6	11%
4	other	26	46%
	Total	56	100%

other
Manufacturing
Automotive
Transportation - Heavy Trucks
Repair
Material science
Manufacturing
Engineering
Engineering
Engineering
Transportation and Urban Design
automotive
special needs
Nursing
Animation
health and education
Oil & Gas
Accountant
automotive
Engineering
Retail
Civil engineering

Statistic	Value
Min Value	1
Max Value	4
Mean	2.84
Variance	1.48
Standard Deviation	1.22
Total Responses	56

5. Have you used any of the following: (check all that apply)

-		•		•
#	Answer		Response	%
1	Privacy mode on Internet browsers (e.g. incognito in Chrome or private browsing in Firefox)		43	83%
2	any VPN tools - Tor, Proxifer, Freegate,		37	71%
3	Alias names for singing up in the websites		25	48%

Statistic	Value
Min Value	1
Max Value	3
Total Responses	52

6. Government should have the right to access to citizen's information

#	Answer		Response	%
1	Completely		2	1%
1	agree	-	2	470
2	Agree		8	16%
3	Neutral		8	16%
4	Disagree		21	43%
5	Completely		10	200/
5	Disagree		10	20%
	Total		49	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.59
Variance	1.25
Standard Deviation	1.12
Total Responses	49

7. Government should need to go through a judicial process to get citizen's information

#	Answer		Response	%
1	Completely		23	16%
1	agree		23	4070
2	Agree		18	36%
3	Neutral		7	14%
4	Disagree		1	2%
5	Completely		1	20/
3	Disagree	•	1	2%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	1.78
Variance	0.83
Standard Deviation	0.91
Total Responses	50

8. Government should not have the ability to curtail what a publishing house can publish

#	Answer		Response	%
1	Completely Agree		20	40%
2	Agree		18	36%
3	Neutral		6	12%
4	Disagree		5	10%
5	Completely Disagree	I Contraction of the second	1	2%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	1.98
Variance	1.12
Standard Deviation	1.06
Total Responses	50

9. I am comfortable with companies collecting data in order to offer certain services.

#	Answer	Response	%
1	Completely Agree	6	12%
2	Agree	13	26%
3	Neutral	12	24%
4	Disagree	15	30%
5	Completely Disagree	4	8%
	Total	50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	2.96
Variance	1.39
Standard Deviation	1.18
Total Responses	50

10. I am unwilling to post some pictures to social media because of professional repercussions

#	Answer		Response	%
1	Completely Agree		20	40%
2	Agree		17	34%
3	Neutral		11	22%
4	Disagree		1	2%
5	Completely Disagree	I Contraction of the second	1	2%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	1.92
Variance	0.89
Standard Deviation	0.94
Total Responses	50

11. People should be notified about when their data is being mined.

#	Answer		Response	%
1	Completely Agree		30	60%
2	Agree		13	26%
3	Neutral		3	6%
4	Disagree		3	6%
5	Completely Disagree	1	1	2%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	1.64
Variance	0.97
Standard Deviation	0.98
Total Responses	50

12. I have just accepted that data mining is a part of everyday life

#	Answer	Response	%
1	Completely	9	18%
	Agree		
2	Agree	22	44%
3	Neutral	5	10%
4	Disagree	9	18%
5	Completely	5	1004
5	Disagree	5	10%
	Total	50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	2.58
Variance	1.60
Standard Deviation	1.26
Total Responses	50

13. People should have the right to know where and how their data is being stored.

#	Answer	Response	%
1	Completely Agree	28	56%
2	Agree	19	38%
3	Neutral	2	4%
4	Disagree	1	2%
5	Completely Disagree	0	0%
	Total	50	100%

Statistic	Value
Min Value	1
Max Value	4
Mean	1.52
Variance	0.46
Standard Deviation	0.68
Total Responses	50

14. People should have the right to control their data on the Internet, for example they should be able to delete certain things completely on the web.

#	Answer	Response	%
1	Completely Agree	25	50%
2	Agree	17	34%
3	Neutral	6	12%
4	Disagree	2	4%
5	Completely Disagree	0	0%
	Total	50	100%

Statistic	Value
Min Value	1
Max Value	4
Mean	1.70
Variance	0.70
Standard Deviation	0.84
Total Responses	50

15. People should have the right to know how their data is used				
#	Answer		Response	%
1	Completely Agree		31	62%
2	Agree		19	38%
3	Neutral		0	0%
4	Disagree		0	0%
5	Completely Disagree		0	0%
	Total		50	100%

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Statistic	Value
Min Value	1
Max Value	2
Mean	1.38
Variance	0.24
Standard Deviation	0.49
Total Responses	50

16. As long as sensitive data (SSN, bank details) is protected, every other form of data does not matter

#	Answer		Response	%
1	Completely Agree	•	2	4%
2	Agree		3	6%
3	Neutral		6	12%
4	Disagree		24	48%
5	Completely Disagree		15	30%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.94
Variance	1.04
Standard Deviation	1.02
Total Responses	50

17. I am more comfortable with my non-real time(email, text) communications being monitored than my real time communications (phone, video call)

#	Answer		Response	%
1	Completely Agree	•	3	6%
2	Agree		7	14%
3	Neutral		8	16%
4	Disagree		19	38%
5	Completely Disagree		13	26%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.64
Variance	1.42
Standard Deviation	1.19
Total Responses	50

18. To what extent are you willing to agree to exchange performance of a product for privacy?

#	Answer		Response	%
1	Completely Agree	•	2	4%
2	Agree		12	24%
3	Neutral		22	44%
4	Disagree		12	24%
5	Completely Disagree	•	2	4%
	Total		50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.00
Variance	0.82
Standard Deviation	0.90
Total Responses	50

19. I am willing to pay for a service in which even the provider of the service does not have access to the data without my consent.

#	Answer	Response	%
1	Completely	11	22%
2	Agree	23	46%
2	Agiee	23	4070
3	Neutral	10	20%
4	Disagree	3	6%
5	Completely	3	6%
5	Disagree	5	070
	Total	50	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	2.28
Variance	1.14
Standard Deviation	1.07
Total Responses	50

20. I am satisfied with the current level of government access to citizen's information.

#	Answer		Response	%
1	Completely		1	20%
1	Agree	•	1	2 /0
2	Agree		7	15%
3	Neutral		14	29%
4	Disagree		15	31%
F	Completely		11	220/
5	Disagree		11	23%
	Total		48	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.58
Variance	1.14
Standard Deviation	1.07
Total Responses	48

21. I am satisfied with the current judicial process the government must go through to obtain citizen's information.

#	Answer		Response	%
1	Completely Agree	•	3	6%
2	Agree		7	15%
3	Neutral		13	27%
4	Disagree		17	35%
5	Completely Disagree		8	17%
	Total		48	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.42
Variance	1.27
Standard Deviation	1.13
Total Responses	48

22. I am satisfied with the services currently available that will not use my data to advertise

#	Answer	Response	%
1	Completely Agree	5	10%
2	Agree	12	25%
3	Neutral	12	25%
4	Disagree	14	29%
5	Completely Disagree	5	10%
	Total	48	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.04
Variance	1.40
Standard Deviation	1.18
Total Responses	48

23. I'm comfortable that pictures I post to social media will not have professional repercussions for me

#	Answer	Response	%
1	Completely Agree	4	9%
2	Agree	12	26%
3	Neutral	12	26%
4	Disagree	10	22%
5	Completely Disagree	8	17%
	Total	46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.13
Variance	1.54
Standard Deviation	1.24
Total Responses	46

24. I'm confident I would be notified if my data was being mined

#	Answer		Response	%
1	Completely		1	20%
I	Agree	•	1	2.70
2	Agree		4	9%
3	Neutral		0	0%
4	Disagree		20	43%
5	Completely		21	460/
5	Disagree		21	40%
	Total		46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	4.22
Variance	0.97
Standard Deviation	0.99
Total Responses	46

25. Current services oner my data the admity to not be mined				
#	Answer		Response	%
1	Completely Agree		2	4%
2	Agree		3	7%
3	Neutral		17	37%
4	Disagree		18	39%
5	Completely Disagree		6	13%
	Total		46	100%

25. Current services offer my data the ability to not be mined

Statistic	Value
Min Value	1
Max Value	5
Mean	3.50
Variance	0.92
Standard Deviation	0.96
Total Responses	46

26. I'm satisfied that if I were to want to remove my personal data, I would be able to.

#	Answer		Response	%
1	Completely		2	1%
1	Agree	-	2	470
2	Agree		7	15%
3	Neutral		4	9%
4	Disagree		17	37%
5	Completely		16	250/
5	Disagree		10	33%
	Total		46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.83
Variance	1.44
Standard Deviation	1.20
Total Responses	46

#	Answer	Response	%
1	Completely Agree	3	7%
2	Agree	2	4%
3	Neutral	5	11%
4	Disagree	27	59%
5	Completely Disagree	9	20%
	Total	46	100%

27. I am satisfied that I can find out how my data is being used.

Statistic	Value
Min Value	1
Max Value	5
Mean	3.80
Variance	1.05
Standard Deviation	1.02
Total Responses	46

28. I am satisfied that my sensitive data (SSN, bank details) is

protected

#	Answer	Response	%
1	Completely Agree	4	9%
2	Agree	11	24%
3	Neutral	14	30%
4	Disagree	11	24%
5	Completely Disagree	6	13%
	Total	46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.09
Variance	1.37
Standard Deviation	1.17
Total Responses	46

29. I am satisfied that my real time communications (phone, video call) are not being monitored without my consent

#	Answer	Response	%
1	Completely Agree	1	2%
2	Agree	10	22%
3	Neutral	15	33%
4	Disagree	11	24%
5	Completely Disagree	9	20%
	Total	46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.37
Variance	1.22
Standard Deviation	1.10
Total Responses	46

30. There are products available that have sufficient performance and privacy for my needs.

#	Answer		Response	%
1	Completely		2	4.04
1	Agree	-	2	4 70
2	Agree		11	24%
3	Neutral		20	43%
4	Disagree		10	22%
5	Completely		2	70/
5	Disagree		5	/ %0
	Total		46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.02
Variance	0.91
Standard Deviation	0.95
Total Responses	46

31. There are products available with which even the provider does not have access to my data without my explicit consent

#	Answer	Response	%
1	Completely Agree	4	9%
2	Agree	11	24%
3	Neutral	14	30%
4	Disagree	11	24%
5	Completely Disagree	6	13%
	Total	46	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.09
Variance	1.37
Standard Deviation	1.17
Total Responses	46

Appendix D: Survey Interpretation

Government should need to go through a judicial process to get citizen's information		NEED TO INVERT RESPONSES TO REFLECT OPPORTUNITY (question worded wrong or scale was wrong)				
#	Answer	Bar	Response	%	INVERT RATING	Importance
1	Completely agree	0.46	23	46%	5	115
2	Agree	0.36	18	36%	4	72
3	Neutral	0.14	7	14%	3	21
4	Disagree	0.02	1	2%	2	2
5	Completely Disagree	0.02	1	2%	1	1
	Total		50	100%		4.22
Mean	1.78	4.22	mean adjusted			

 Government should not have the ability to curtail what a publishing house can publish 		NEED TO INVERT RESPONSES TO REFLECT OPPORTUNITY (question worded wrong or scale was wrong)				
#	Answer	Bar	Response	%	INVERT RATING	Importance
1	Completely Agree	0.4	20	40%	5	100
2	Agree	0.36	18	36%	4	72
3	Neutral	0.12	6	12%	3	18
4	Disagree	0.1	5	10%	2	10
5	Completely Disagree	0.02	1	2%	1	1
	Total		50	100%		4.02
Mean	1.98	4.02	mean adjusted			

10. I am unwilling to post some pictures to social media because of professional repercussions		NEED TO INVERT RESPONSES TO REFLECT OPPORTUNITY (question worded wrong or scale was wrong)				
#	Answer	Bar	Response	%	INVERT RATING	Importance
1	Completely Agree	0.4	20	40%	5	100
2	Agree	0.34	17	34%	4	68
3	Neutral	0.22	11	22%	3	33
4	Disagree	0.02	1	2%	2	2
5	Completely Disagree	0.02	1	2%	1	1
	Total		50	100%		4.08
Mean	1.92	4.08	mean adjusted			

 People should be notified about when their data is being mined. 		NEED TO INVERT RESPONSES TO REFLECT OPPORTUNITY (question worded wrong or scale was wrong)				
#	Answer	Bar	Response	%	INVERT RATING	Importance
1	Completely Agree	0.6	30	60%	5	150
2	Agree	0.26	13	26%	4	52
3	Neutral	0.06	3	6%	3	9
4	Disagree	0.06	3	6%	2	6
5	Completely Disagree	0.02	1	2%	1	1
	Total		50	100%		4.36
Mean	1.64	4.36	mean adjusted			

13. People should have the right to know where		NEED TO INVERT RESPONSES TO REFLECT				
and how their data is being stored.		OPPORTUNITY (question worded wrong or scale				
				was wro	ng)	
#	Answer	Bar	Response	%	INVERT	Importance
					RATING	
1	Completely Agree	0.56	28	56%	5	140
2	Agree	0.38	19	38%	4	76
3	Neutral	0.04	2	4%	3	6
4	Disagree	0.02	1	2%	2	2
5	Completely Disagree	0	0	0%	1	0
	Total		50	100%		4.48
Mean	1.52	4.48	mean			
			adjusted			

14. People should have the right to control their data on the Internet, for example they should be able to delete certain things completely on the web.		NEED TO INVERT RESPONSES TO REFLECT OPPORTUNITY (question worded wrong or scale was wrong)				
#	Answer	Bar	Response	%	INVERT RATING	Importance
1	Completely Agree	0.5	25	50%	5	125
2	Agree	0.34	17	34%	4	68
3	Neutral	0.12	6	12%	3	18
4	Disagree	0.04	2	4%	2	4
5	Completely Disagree	0	0	0%	1	0
	Total		50	100%		4.3
Mean	1.7	4.3	mean adjusted			

15. People should have the right to know how		NEED TO INVERT RESPONSES TO REFLECT				
their data is used		OPPORTUNITY (question worded wrong or scale				
				was wro	ng)	
#	Answer	Bar	Response	%	INVERT	Importance
					RATING	
1	Completely Agree	0.62	31	62%	5	155
2	Agree	0.38	19	38%	4	76
3	Neutral	0	0	0%	3	0
4	Disagree	0	0	0%	2	0
5	Completely Disagree	0	0	0%	1	0
	Total		50	100%		4.62
Mean	1.38	4.62	mean adjusted			

19. I am willing to pay for a service in which even the provider of the service does not have			NEED TO INVERT RESPONSES TO REFLECT OPPORTUNITY (question worded wrong or scale			
access to the	e data without my consent.			was wro	ng)	
#	Answer	Bar	Response	%	INVERT	Importance
					RATING	
1	Completely Agree	0.22	11	22%	5	55
2	Agree	0.46	23	46%	4	92
3	Neutral	0.2	10	20%	3	30
4	Disagree	0.06	3	6%	2	6
5	Completely Disagree	0.06	3	6%	1	3
	Total		50	100%		3.72
Mean	2.28	3.72	mean			
			adjusted			