



Team 22

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### **Fork N' Found**

Fork n' Found is a college based lost and found resource used to return lost objects to their original owner.

November 28, 2018, Fall Semester

CIS 236 --- 2:00

## **Executive Summary and Rationale**

Fork n' Found is a college based lost and found resource used to return lost objects to their original owner. Often, especially on college campuses, if one has lost an item they must go from place to place in order to track it down. This takes away from time they could spend on other things like studying, writing a paper, or extra time for relaxation. Fork n' Found is a fast and easy website that speed up the process of finding a lost item. Our team has both the tools and capabilities to create this idea, and with funding we can turn that idea, into a reality.

## **Opportunity and Feasibility**

The problem is that within the ASU and other college communities is that people lose and find other people's items, but there does not exist a system to match these people together. Our startup would solve this problem by creating a centralized website that matches lost items to their owner. Currently, the market for this type of tech is blue. There are a few apps on the app store or websites that have attempted this type of service, like ReturnMe (*ReturnMe: Global Recovery Website*) or Lost and Found Site (*Lost and Found Site*). But, these are not centralized to a university or college making them almost irrelevant in their wide scope. Comparatively, our tech would be centralized, effective, and efficient to ASU and other colleges. our app will use a style similar to a local Craigslist with a bit more security and ease of navigation ("Craigslist: Phoenix, AZ."). The technologies we would be using are PayPal, Venmo, and Google Wallet as an internal payment system to help the transaction process between users and AWS as a cloud computing source ("AWS re:Invent"). Our solution is realistic and feasible because the technology to connect people through a website model is already possible to do and used for many companies. We, however, are using an unexplored market and our starting steps would be a website, which for our desired name, the domain is not accounted for.

## Competitive Strategy

Figure 1- Porter's Five Forces Analysis of Fork n' Found

Force	Key Players	Threat Level
Supplier Power	<ul style="list-style-type: none"><li>• Those who have lost items</li><li>• Those who have found items</li></ul>	-
Buyer Power	<ul style="list-style-type: none"><li>• College students</li><li>• College faculty</li></ul>	+
Threat of New Entrants	<ul style="list-style-type: none"><li>• Trace Tiger</li><li>• Lost 'n' Found</li></ul>	+
Threat of Substitutes	<ul style="list-style-type: none"><li>• ASU Lost and Found</li><li>• Customer's searching on their own</li></ul>	-
Existing Rivalry	<ul style="list-style-type: none"><li>• ReturnMe</li><li>• ASU Lost and Found</li></ul>	-

Figure 1 shows that we have two major threats in Porter's five forces: Buyers and New Entrants. Buyers are those who will use the app in order to find or return lost items, this will be our main focus in advertising to make sure students and faculty know about our service. New entrants are a few phone applications that are early in development like Tracetiger (*Tracetiger*) and Lost 'n' found ("Lost 'n' Found"), while we are web based, this shows that there is room for us to grow within this untapped market. The competitive strategy of our company will focus mainly on the cost and differentiation leadership in the industry. The cost leadership will consist of offering our service at a price that all other current competitors or substitutes can not beat. The app itself is free but those who have lost items can reward someone for finding it using a money transferring application like Venmo, PayPal, or Google wallet, and we would charge a 5% transaction fee. The two parts are a lost section which the customer provides a "reward" price and a found section which is controlled entirely by the customers to bargain an agreed upon price for returning the lost item. The differentiation leadership of our company in the industry is based on our service providing a unique process that the customers we attract in a college-based setting will value because of its reliability, simplicity, and easy accessibility.

## Process

The two changes from the Figure 2 to Figure 3 are for security purposes. The addition of a questionnaire will help to make connecting those who lost an item to those who found one easier. Meanwhile the review process will ensure neither party takes advantage of the other.

Figure 2 - As-Is Process Model of Fork n' Found

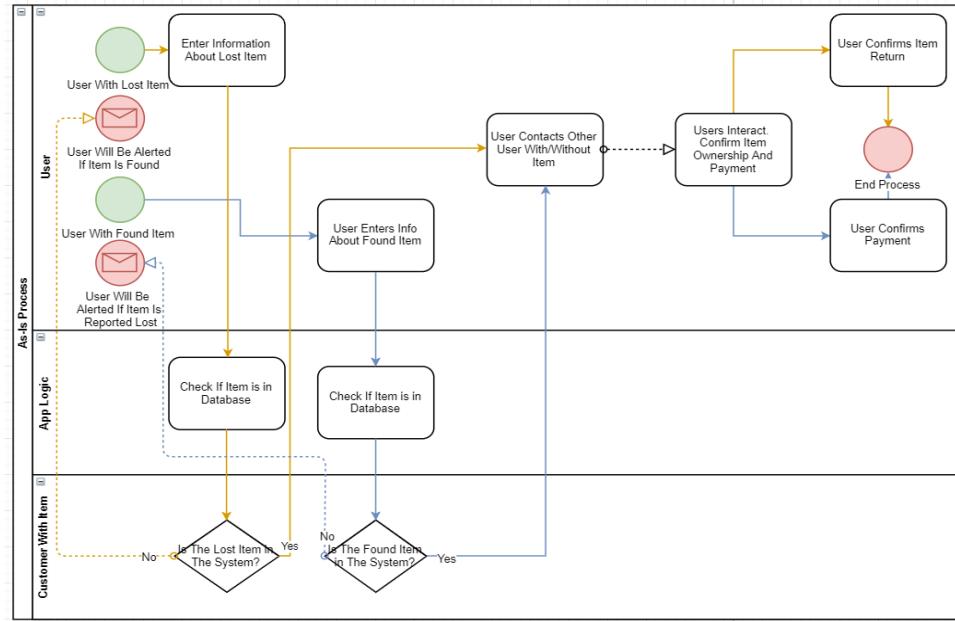
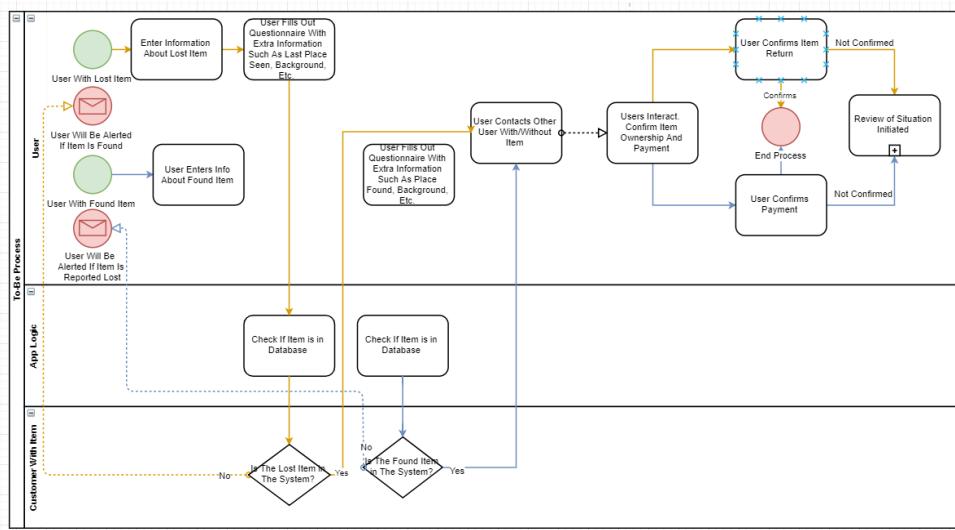


Figure 3 - To-Be Process Model of Fork n' Found

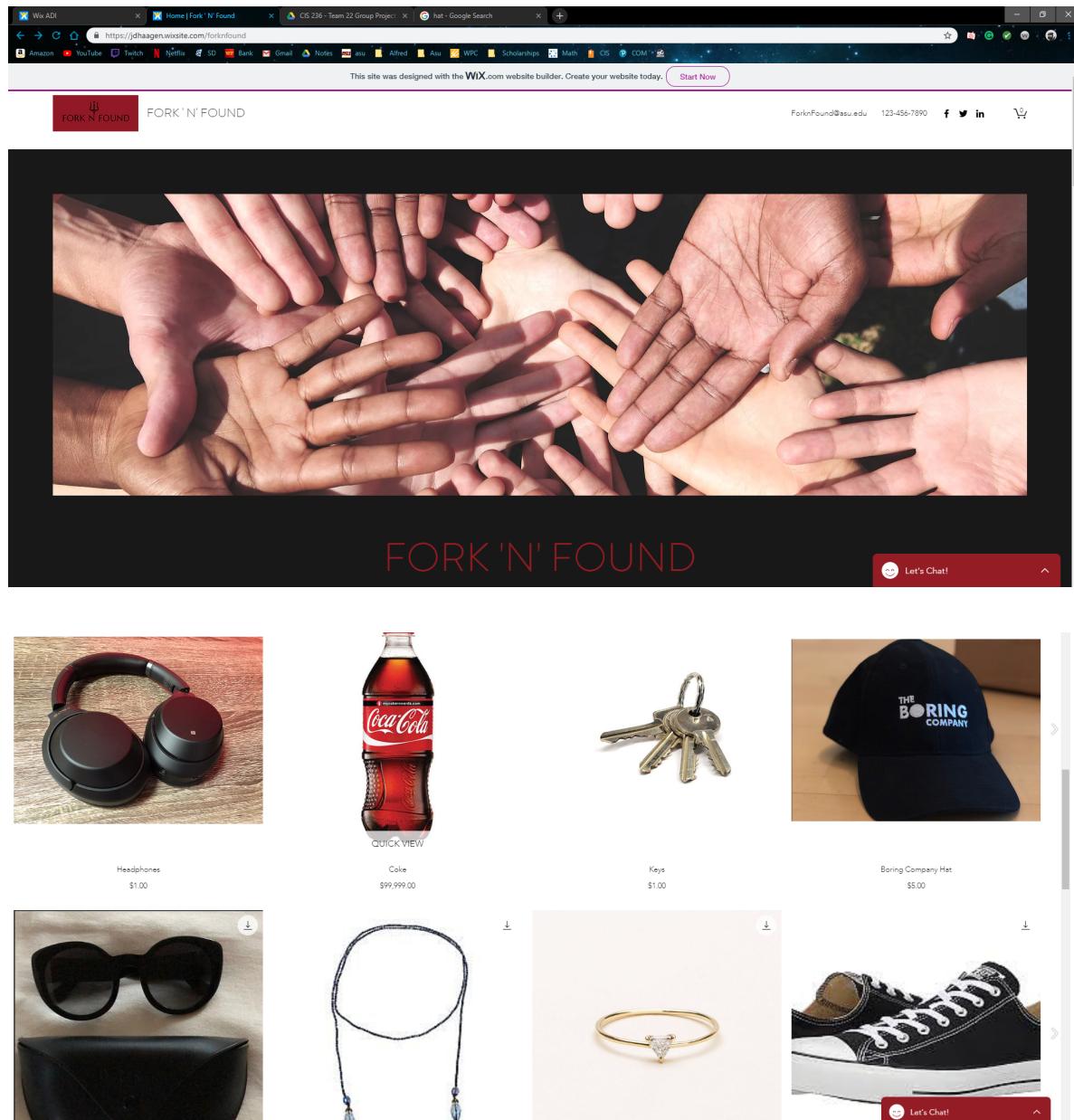


## **Data and Security**

To start off, the amount of data would be increasingly more as the project gains traction within the ASU community. With the use of a cloud computing service, like AWS, to store the account information the user would provide We will not requires a large amount of personal data. To sign up at first, we will require an email which can act as a username, a password, whether they live on or off the campus, and what payment method they would use (PayPal, Venmo or google wallet). We will also ask for a security question for account recovery. As we expand and hopefully partner with universities like ASU, we will incorporate their personal college logins, like ASURITE. In addition, an optional, but highly advised, double authentication process through user's messaging. In doing this the company saves time and resources with security and access with using the previously established login of ASU. The exchanges of the users can be through the asu.edu emails are already monitored by the university, when partnered with the university. To store this data, we will use cloud storage like AWS ("AWS re:Invent"). The primary way for users to interact will be through the on-client chat service similar to a direct message on Twitter or Messenger of Facebook. This way our team has easy contact with the messages transferred in case of an issue. Since the most personal and sensitive data will be handled by a vendor like the payment applications, we will not need to encrypt much besides the usernames and passwords.

# Development

Figure 4 - The Fork n' Found Interface





Boring Company Hat

\$5.00

Found in the MU lobby by the pool tables

## Look and Feel

The website (*Fork N' Found*), as is seen in Figure 4, has a swift and sleek look with a template of red, black, and white. The customer will be able to select links to our social media options, submit questions to the website, and be able to interact with cycling items in categories that they may have lost. Along with a search function, there will be a form for placing found items into the system with the cart symbol in the top right of the home page. The website should feel very linear and be able to get the user to their item as fast as possible to get a fast, easy experience. The look is of a professional company that can get their items searched and found in as little time as possible. The interactions are appealing to the customer because their selection process begins very early in their website interaction to streamline the process of searching for their lost item. The choices made within the website are for quick and easy access to the functions that the customer came looking for, a quick introduction of the company followed by immediate interaction with the process of lost and found. The UI creates an experience that makes it parallel with the customers want to quickly complete their

activities and leave the site to continue with their life. As the user logs on to our website, they are welcomed by our logo and see our social media and contact information. As they scroll down they can see the revolving lists of items that have been lost and another list of things that have been found to interact with.

## **Fundamental decisions**

To begin with, our platform will be web-based and mobile compatible for user convenience. In order to store our data, we will look to AWS. We will need AWS to host our website eventually as well as supporting the data that will be collected through and by the users of our platform. This will help if we need to scale up our data storage as well.

## **Coordinating Development**

For further development we would need to bring in someone to either teach or help create the search menus and ability within the website so that the user can search using filters like last seen location, item type, and a day lost, to help narrow down to the item that has been lost (see Figure 6 in the appendices for developer example). We will also create better forms for setting up exchange of the item, so that users can better communicate how they will exchange the found item.

## **Customer Engagement**

Our overall strategy for customer engagement is through social media and emails through the students' ASU emails. We feel this would be the most cost-effective way of reaching our customers and this social media approach would specifically help because this is the easiest and cheapest way to reach our young target audience. We will seek a partnership with ASU so we can have posts on the ASU Facebook, Instagram, and Twitter pages so we can reach thousands of more prospective consumers. We also want to have school-wide emails sent to all students regarding our new service which will reach all possible customers quickly and en masse. We feel that ASU will want to partner with us because it offers them an opportunity for co-branding and another way to associate with an exciting startup that will look good to donors,

alumni, and prospective students. If we are unable to do this, we lose the access to send out emails to promote our product, but can still go forward with our other advertising. The main way we intend to sell our service is through a website as shown above, which we preferred to an app because it will be more accessible to all customers and offer a better functioning UI, however, there is potential to offer a mobile application in the future. Luckily, no physical products will have to be delivered or handled at all because the customers themselves are the ones completing this process; we are simply providing the missing connection. Our strategy for new customers is to target any new students in future years through social media and mass emails through ASU as this will reach the most people and our association with ASU will provide a higher appeal. Lastly, our strategy to retain customers is through excellent customer service since this service can have its downsides so we will implement the approach where all employees will have a hand in helping and supporting any customer issues so that no problem goes unsolved.

## **Business Intelligence**

The main key performance indicators (KPIs) will be items returned, items posted, and overall traffic to the site. To monitor this, we will use Amazon QuickSight which allows us to view our data in custom made visualizations and run analyses on said data ("Amazon QuickSight"). In response to the measurements on our KPIs, we can change how we advertise. If our site traffic is down we post more general advertising to make people aware of our service or if our number of items posted increases significantly, we can shift our advertising to focus on people who have lost items recently. Our KPIs like overall traffic will help to gauge our interactions with our customers. We can also track data like whether they are on or off campus. If a person lives off campus and loses something, they would have more reason to use our website than someone who lives on campus and can possibly search for the lost item, so we could shift our marketing from physically around campus to a more social media based. We will know how successful we are based on how many new items are returned to their owners.

## Project Funding

Figure 5 - Cost Benefit Analysis over four-year Horizon

Cost Benefit Analysis - Fork n' Found					
Discount Rate	0.10				
COSTS	Year 0	Year 1	Year 2	Year 3	Year 4
<b>Marketing</b>					
Social Media Ads	\$5,000.00	\$6,000.00	\$7,000.00	\$8,000.00	\$9,000.00
<b>Labour</b>					
4 employees	\$80,000.00	\$80,000.00	\$80,000.00	\$80,000.00	\$80,000.00
<b>Software/Hardware</b>					
Amazon EC2 Compute Service	\$250.00	\$400.00	\$600.00	\$700.00	\$900.00
Amazon QuickSight	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00
Website Domain Name	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
<b>Support Costs</b>					
Legal/Protection Contracting Fees	\$3,000.00	\$0.00	\$5,000.00	\$0.00	\$5,000.00
Total	\$88,395.00	\$86,545.00	\$92,745.00	\$88,845.00	\$95,045.00
<b>Present Value</b>	<b>\$80,359.09</b>	<b>\$78,677.27</b>	<b>\$76,648.76</b>	<b>\$66,750.56</b>	<b>\$64,917.01</b>
<b>Total Cost Present Value</b>	<b>\$367,352.70</b>				
<b>REVENUE</b>					
AdSense	\$40,000.00	\$80,000.00	\$120,000.00	\$160,000.00	\$250,000.00
Exclusive Customer Membership	\$1,000.00	\$2,500.00	\$5,000.00	\$25,000.00	\$50,000.00
Total	\$41,000.00	\$82,500.00	\$125,000.00	\$185,000.00	\$300,000.00
<b>Present Value</b>	<b>\$41,000.00</b>	<b>\$75,000.00</b>	<b>\$103,305.79</b>	<b>\$138,993.24</b>	<b>\$204,904.04</b>
<b>Total Revenue Present Value</b>	<b>\$563,203.06</b>				
<b>NET Present Value</b>	<b>\$195,850.36</b>				

The Fork n' Found cost-benefit analysis represents the main costs we represented: marketing, labor, software/hardware, and support costs. To best reach our target market - busy young professionals - we limited our marketing to social media. With a minimal amount of physical advertising, which is most cost-effective. Another cost we recognized is labor. We recognize that we would need to be compensated for our full-time work. Furthermore, we included within our cost sheet, technology or better-termed software, for our website. Included would also be the price for our domain name since it would be through a website as the platform. The Amazon services we would need are EC2 and Amazon QuickSight because they would best fit the possibility for growth and improvement. Our break-even point is expected to occur within the 2nd

year. For all of the funds, we would not be dependent on crowdsourcing, but rather utilize the talents that the local ASU community offers and develops. Additionally, this will occur through the revenue of AdSense and membership exclusive fees. Therefore, it is apparent how important getting traffic onto the platform is for overall growth. The initial startup capital would be approximately \$50,000 which would be accrued initially through loans and grants being student-run and operated. We believe in that regard; our team will have and easily be able to acquire through the resource of ASU the skills to upkeep and maintain the website. However, none of the financials of the company are at all contingent or reliant on partnerships with ASU. Overall our time frame to get everything up and running would be 1 year. The time frame would ensure that when we launch it will be with perfect clarity and well awareness of the community.

## **Conclusion**

Our website will be a bridge between those who have lost things and those who have found them. We can do this because the technology is available and the waters of the market we are tapping are very blue, with new entrants being the biggest threat. The website itself is very sleek and appealing with a sign-up process that takes minimal personal data. We will advertise through both social media and physically on campuses, possibly helped by a partnership with the school, and use our KPIs sorted by Amazon QuickSight to modify our advertising methods. We will need \$50,000 to cover start-up costs and hope to be turning large profits by the 2nd or 3rd year.

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## Appendices

### Figure 6 - possible developer

Sergey S.  
Fremont, CA  
100%  
Job Success  
TOP RATED

PHP/Java full stack expert w/AMAZING TEAM  
(US+remote) working FAST

Leading a team of US/Russian experts in SalesForce and custom PHP (Symfony, Laravel, Yii), Java (Spring) and iOS/Android development. Our analysts/PMs in California offer comfortable face-to-face communication, while in-house developers in Russia allow for moderate rates. OUR 5 KEY DIFFERENTIATORS:

(1) WORKING FAST: delivering on targets with less code, fewer bugs and hence lower budget.

(2) THINKING PROACTIVELY: no coding starts till business goals are understood and coding tasks specified in detail (YES, WE WRITE SPECS and keep them updated for... [more](#)

[Play video](#)

\$55.00	\$90k+	15	2,160
Hourly rate	Total earned	Jobs	Hours worked

## Tool Reflection

Ellie: My experience with utilizing the collaboration tools as a result of this Tech Startup project was all together useful, however at varied levels. Some of the tools we had to use and/or actually did use were Google Drive, Trello, and Slack. Google Drive was extremely well utilized in all aspects of our work not only because we were all well familiar with the tool, but also because of it's complete convenience such as sharing while editing. Personally, this enabled me to do better on projects because I would be able to do them on my own time in a more efficient manner. In the future, it is undoubtedly that Google Drive will be relevant in my life.

In regard to Trello and Slack, they were definitely not utilized as much as Google drive as least personally and within the team. Trello of all others, was completely unused if I were to be perfectly honest. I believe this is because the amount of course load for this single project wasn't enough to truly necessitate Trello. Management of projects were handled in Snapchat communication that I will discuss in relation to Slack later. Moreover, the idea of Trello would work much better in that corporate larger "to do list" environment such as that in the Phoenix Project. Therefore it Trello was useful to learn and become a bit familiar with for future corporate endeavors I plan to pursue.

Furthermore, for Slack, I mentioned how our team utilized Snapchat. Specifically, the group chat option. I believe this is due to, again, our age and environment. Obviously, in a corporate environment, Snapchat would not be the mode of communication. As a result, the ability to get comfortable with Slack did benefit my future professional environment and overall personal learning. Personal Learning was affected as recent extracurriculars have adopted Slack.

Overall, while the tools exhibited different levels of use, they all served useful to learn for me personally as well as for our team.

Jordan:

I think Trello and Slack are good ideas to include, and have good capabilities but to be realistic in a group student project like this we are going to use what we know will work most effective. I did not like Trello but slack was great for discussion questions that may apply to our instruction but Snapchat for communication was most useful and a better way to receive communication in a timely manner. Also Google Drive was a necessity to help with collaboration with anything we did. Our day to day included messaging through snapchat and in person meetings that happened every other week and included uses of tools of our choice rather than the ones given.

I believe that Trello is a great resource and Slack could have worked just as well as Snapchat did for us. The fact of the matter is that groups are going to choose what they know already before integrating and learning a whole new program. Kanban and Trello would be great if that is how our group choice to brainstorm and decided on what to do next. This is simply not the way of thinking we purses and therefore other than the assignments was useless to us. Alos, there are more communication platforms other than slack that we already know past snapchat that are possible to use, Discord, Skype, IM. Slack is trying to add another communication platform that we as students already have a surplus of.

Ryan:

I didn't use Trello or slack for collaboration or communication, but rather I used applications like Google Drive and Snapchat in order to keep in contact with my group. Trello was a good program to use in order to have all of our priorities and steps in place, but it didn't help with the team's collaboration. Slack wasn't used for communication either, but Snapchat and Google Drive were used exclusively for this. Snapchat and Google Drive impacted how we were able to interact with each other when we weren't able to meet face-to-face, which was often, so they were very important applications to have for this project to have been successful.

Possibly in the future I will use Trello and Slack more because they are more of a professional-based program opposed to Snapchat and also they offer far more features that can help in future projects similar to this one. However, from a personal and academic standpoint Google Drive and Snapchat remain the most ideal and popular choices for collaborating with people because of how popular and simple to use they are. Most college kids probably wouldn't know how to use Trello and Slack so it would diminish their effectiveness.

Matthew:

I did not use Trello or Slack much for collaboration. However, tools like Google Drive and Snapchat Group Chat were very helpful. The group chat was the most helpful since it allowed us to answer each others questions with the startup and coordinate meetings outside of class. We could alert each other to parts of our assignments that were not done properly as well. It also allowed us to help each other when we got stuck on homework assignments. Google drive was very helpful by allowing us to work on assignments from different places and having the document constantly updated. Without being face to face, we could have conversations in the chat function so we could coordinate what we were doing.

I plan on using Google Drive and group chats in the future, and while I'm not sure about Slack, which is a good way for receiving information, but not as good for collaborating. I do, however, plan on using Trello, despite not using it much for this class. I've found, through using it on a different assignment, that it is very useful tool for keeping myself on a schedule. It allows you to know what you have to do, what you are doing, and what is already done quickly and easily.