

## **Final Project: Trading Questionnaire**

### **Author**

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### **Framing**

The constraints placed on employees for trading company securities are numerous and complex. The stakes of running afoul of these constraints are rather high. Improper stock trading of company securities, or even the perception impropriety, opens employees and the company up to great liability. Indeed, the Securities and Exchange Commission (SEC) monitors individual stock trading with great scrutiny, and they are quick to bring legal action against alleged perpetrators. One need only have a cursory memory of the news in the past few years to recall high-profile instances of the SEC cracking down on companies and individuals with charges such as insider trading and market manipulation.

Thus, there is a great need to clarify this complex system for employees. At my company, I am one of the managers for legal onboarding of new employees tasked with explaining this complex system. Providing a resource to help answer employees' frequently asked questions regarding securities trading would ensure greater confidence in employees' understanding of the law. Also, this resource would have the potential to cut down on answering a multitude of employee one-off trading questions, reducing work for the legal team as a whole.

Out of this need, was born the technical solution in the form of a trading questionnaire with automated answers to frequently asked questions. This description will outline the process and development of this tool.

### **Research**

While our legal onboarding is important for solidifying core concepts relating to securities trading, it is insufficient to teach the complex system of navigating questions such as whether one is eligible to trade stocks, how to exercise stock options, or how to enroll in a 10b5-1 plan. To walk employees through this process, I created a flow chart, which I send as a resource to employees after training. My research thus began by recognizing that I could convert and modify this existing flowchart into a automated questionnaire. I further researched how a typical user would go about trying to figure out answers to their questions. Almost one hundred percent of the time, users simply email the legal team to provide answers to these questions. I concluded that a better, more automated solution had to be possible.

## **Ideation and Prototyping**

My experience in Prof. Colarusso's Coding the Law course provided me with several options for optimizing an automated tool. One possibility was constructing a Chat Bot. However, I felt like this solution may lead to questions and answers that were too open-ended, thus rendering it essentially moot in the first place. I eventually arrived at using the QnA Markup editor (<https://www.qnamarkup.org/>) to create the questionnaire. This way, I could direct the flow of questioning in the same manner as my existing flow chart, adding a few extra features and links. What evolved from this was the understanding that I could broaden the scope even further than a simple flowchart. I could construct an introductory menu asking the user what they would like to do. The following questions could then walk them through their process of interest, providing great potential value to the user. I then created several versions of QnA prototypes for the questionnaire, which were changed based on initial input from my partners at the company. They contributed ideas of additional subject matter they wanted to see. For example, they wanted it to not only include eligibility to trade securities, but also protocols on how to set up 10b5-1 plans and how to enroll in our company ESPP. I set about adding these all in different versions, until I began user testing.

## **User Testing**

My testing consisted of A-B testing (i.e., alpha and beta testing). My alpha tester was my company partner (Soo Lim), who I regard as our subject matter expert. She provided great ideas of material to include, and found a few technical bugs to refine. After incorporating her input, I created a Beta version, which I distributed to our small, but tenacious legal team at the company. I used a survey on Google Forms to collect the Beta tester feedback.

## **Refinement**

Overall, the results of A-B testing showed that users highly ranked the ease of use and effectiveness of answering questions. However, the majority thought the beta version could be improved by incorporating more links to external resources and forms held by the company. I refined the final version to include links to more resources, especially on explaining the meaning of 10b5-1 plans and material non-public information.

## **Complexity and Robustness**

Overall, this system uses the QnA platform to enable answering complex trading questions by directing users to answer a set of simpler questions in a systematic questionnaire process. Beta

testing surveys revealed that this tool was very effective at answering subject matter relating to trading securities, setting up a 10b5-1 plan, and enrolling in the company ESPP. I have no doubt, that if adopted by the company at large, it would serve as a robust tool for simplifying an otherwise complex system.

### **Impact and Efficiencies**

My company intends to roll out this tool as a resource to all ~340 employees. As shown by Beta testing surveys, the questionnaire is very effective and easy to use. The only challenge I foresee is actually getting employees to adopt the tool instead of falling into old habits of simply emailing with all of their one-off questions. One can only expect so much.

### **Fit and Completeness**

Users agree that the questionnaire tool is useful and effective, as shown by Beta Testing and my final correspondence from my partner. The partner was very pleased with the final product and is excited about its implementation.

### **Documentation**

Please see my email entitled: Trading Questionnaire User Feedback. In the email, I included the results of A-B testing, my refinement process, as well as correspondence from my partner at the company.

### **Real World Viability**

The tool is essentially ready for use as is. There are no more identified bugs with the program, and users have agreed it is useful.

### **Sustainability**

I will maintain the questionnaire and provide updates with more material as needed. The final questionnaire will likely be moved off GitHub and onto a private server for best security practices.