Tyler Hoerschgen   Exercise 4.1

As we can see from the spreadsheet, there are a lot of technical and sociotechnical systems that are required for a given system to work. In this instance, 14 unique systems were identified and even more could be discovered by dissecting the given systems into their subsystems. An example of a smaller subsystem that can be derived from the retailer's software system is a system for encrypting sensitive user data. There were also a lot of ethical quandaries that can arrive in regard to a retailer selling user data to another company. This includes what data is sold and how the buying company uses the data.

The spreadsheet shows us the individual systems that are used in given circumstances. Due to the nature of the ethical quandaries, some of the systems are always in use. For example, the retailer's data management ethics system is always in play because each of these instances involves selling user data, which is something that must be taken seriously. Another system that is always in play is the retailer's software system which stores and manages the data. Therefore, it's obvious that this system must always be in play. A final system that is always in use is the privacy laws and regulations system. When dealing with sensitive user data, there will always be restrictions on the distribution of user's data. In fact, this system will be different for individual countries, states, and even municipalities. However, there are also systems that are only used in specific circumstances. The buyer's distribution logistics teams, for example, is only used when physical items must be distributed to different locations, such as stores or customer addresses. Another system that is only used in specific instances, is the system of retailer customers that do not have personal identification within the retailer's software system. These customers can only be used in general terms, such as typical customer arrival times, and average purchases. There is nothing linking them to an individual customer.