Question 1

In the book Hello World, Fry mentions an example of precise product push to female consumers that implemented by data and algorithm system. The company Target collects data of female’s tendency to be pregnant. Then, they will provide easier access or coupons of pregnancy related products to them.

Algorithm that investigating consumer situation is extremely emphasized in marketing management strategy, because providing consumer with the useful information or easier access to the product they need will increase the probability for consumer to pay for it, and thus increases the sellers’ profits. For example, when algorithm give a high score to consumers that implies higher tendency to be pregnant, the product or coupons pushed to people will be product like pappy and baby wipes. Therefore, people uses the algorithm that bases on consumer’s current situation and needs to provide them with potentially useful product. However, although this algorithm can make people get coupons or pregnancy related products on time, this help from algorithm can somehow invade people's privacy and can have a negative impact when people don't want to be told they're pregnant. When people receive pregnancy coupons before they know that they are pregnant, they will be embarrassed, and it is a kind of losing privacy. Therefore, it raises moral questions regarding the data and algorithm utilized. If algorithm system utilize consumer’s private information, should it be implemented on a large scale? In this case, the stakeholders are female consumers who have the right to keep their private information and the Target managers who have the right to push products to people who have a high tendency to buy it. However, the Target managers collect the private data from female consumers to score their pregnancy tendency to encourage products sell, which invades the female consumers’ privacy. Therefore, the relevant stakeholders’ right is infringed and there is not a good to way to avoid it. Since female consumer’s privacy is the more important right that needed to be hold, it should have higher priority. Moreover, I suggest that Target managers only use algorithm to score pregnancy tendency for female consumers who are willing to be collected private information and email the coupons to them. Therefore, it is revealed that this algorithm invades consumers’ privacy and has therefore been deemed morally wrong. However, perhaps the effectiveness of the algorithm should exceed their current shortcomings, because it will allow future innovations, better algorithms, and people to get the products they need without sacrificing the loss of private information.

Question 2

Formal fairness refers to the fairness of rules (such as the rules of equivalent exchange) and the fairness of procedures (focusing on the formal "pure" rule sense of Justice). Everyone has the same procedural and rules to follow. Substantive fairness refers to a more reasonable equality. Everyone get the fair results. The article from Angwin describes that for the same level of risk, people living in predominantly black communities need to pay higher premiums than people living in predominantly white communities. In addition, people living in predominantly black communities may have a worse community environment, which makes them have to buy a variety of insurance, even if they are struggling to make ends meet. This is a phenomenon of formal fairness, because the price of the insurance premium is calculated according to the risks in different parts of the city where they live. This is not substantively fair, because black people pay higher premiums than white people at the same level of risk due to the prejudice of apartheid against their neighbors in history. Rothstein's article describes that it is more difficult for blacks to get a home mortgage than for whites. This is formally fair because the loans issued by banks are based on FHA approval, which gives equal opportunity to everyone. Nonetheless, it is not substantively fair, because it is difficult for black people to be recognized because of the discrimination against people of color.

Question3:

Calibration is calculated by a single standard. In this article, Northpointe is specifically called risk index B, which unifies various parameters, such as race. In other words, no matter who they are, the criteria are the same. Classification parity requires the same calibration error between different groups, which is determined by some protected attributes. This minimizes factors such as race and place of residence.