

1) There are four squares whose color is black and four black lines connecting squares to each other. And the squares are fixed and static while the lines keep on moving a bit continuously parallel to the first ones.

2) After I modified the code, the four squares appeared with white color and started to change its color from white to black and from black to white continuously in turns, gradually, at some seconds interval. I think my answer was not wrong because I described the shape and the motion as they are.

3) Because of those black lines meeting at the center, our eyes are deceived and we see the two purple lines are bent even though they are not.

1. Delete all the black lines.

2. Check whether the two purple lines are straight out.

-In this step, we could know that they are straight and also parallel.

4) Due to the black and gray surrounding the 24 points, we human beings visually deluded into thinking that those look gray.

1. We should cover all the backgrounds up except dots.

2. Then figure out whether the dots are white or not.

-In this step, we can verify that all the dots are actually white.

5) The three conditions for information to be actionable are 1. Predictability 2. Changeability 3. Non-obviousness . Unless I gave the doctor more information like the cause of diseases, it could not do anything for me because the information they gave me is not changeable (or very tough to change) so not actionable by itself.

6) The information about the habits or behaviors of the patient that are distinct from general others

-We can associate it with other patients in similar case to make unique derived attribute that would help us find novel and significant connection between certain deeds or habits and the disease.

Data about other disease that are likely to accompany or be accompanied by the disease

-If the link between them turned out to be clear, we could prevent the disease indirectly by preventing other diseases from developing, which means that the disease has now become a bit more 'change-able'.

7) The accuracy scores in row A between the two models are quite different, and so do they in B & C (although they look fairly similar to each other in row B) . And I think I cannot say anything 'for sure' because the given information is so insufficient that it's hard to make any meaningful analysis.

8) I think we need data on topography and location from satellites and numerous driving cases from incident simulations. And with these data,

1. Recognize all the surroundings, traffics and so on.

-In this step GPS and radar sense and collect everything they can to improve the quality of data set.

2. Make decisions for moving, stop, turning and many others which are ideal for each situation.

-In this step, current topography or traffic is analyzed and lead to certain

decision.

3. Control the velocity and the steering system to make actions.

-Each move has its own chance an accident occurs, and a self-driving car may control its system to act toward lowered accident occurrence probability.

9) I designed my algorithm to lower the accident occurrence as much as possible. So what my evaluation approach must value is whether the accident occurs or not when self-driving.

Given the hazard of driving, the most ideal experiment would probably be computer-based autonomous driving simulation. When we conduct it for a few times, 1. The problem may occur at the certain section repeatedly. 2. We should figure out what the main problem exactly is. (about steering? Or about traffic light recognition?) 3 If it's because my self-driving car made bad decisions due to my bad algorithm, we would change our algorithm so that it moves toward our expectation.

10)

0. Make it sure not to knock anything over and bump into people.

-My robot can touch things only I permitted.

1. Clean up the table.

-My robot will make the table neat with wet tissue.

2. The birthday cake should be at center.

3. Set the foods I previously prepared on the table.

-My robot will check out the shape of my table then there would be circular arrangement for circular table, rectangular arrangement for rectangular table.

4. Decorate my room specially.

-With colorful, various shaped LED! And my robot would be careful not to set them overlapped.

11) When I simulated my algorithm on computer or just practice actually, there may be some expected feedbacks from my guests like 'The decoration only consisted of same shaped LED..' or 'Your robot recognizes my ice cream as yours to take it from me and treat it to another guest!'. Then I could evaluate my algorithm by the number of expected feedbacks.

12) That's not a true measure of the lethality of the disease because people might have died not from the disease but from another cause (e.g. just aging or heart disease). We should figure out the real number of people who undisputedly died from the disease through thorough judgement of the cause of the death.

13) To build a model for certain groups may be possible but to do so for the general would be almost impossible. What we can know from analyzing the dataset for sure is purchase tendency of people who have common characteristics (such as age or location or so on). But we cannot apply them to the general population because what we have figured out is about quite special case.

14) We could rearrange data by the same airline so that we find the patterns about delay time in certain airline. Then seeing the delay time data of 'Korean Air', we could know that 'Korean Air' usually delays its flight for 5 minutes (of course sometimes 13 minutes or doesn't). On the other hand, it takes more than 10 minutes on average for 'Delta' to flight when its flight is delayed, which is fairly longer compared to Korean Air's delay time. By conjugating category classifications like this, we can yield more meaningful results than ever before. And when the number of datasets become larger than now, the useful information we could get from them will be drastically increased.

15) Undisputedly the second one would be the better laptop 'for me'.

The first one's review received a high score of 4.7 points, but there are only 10 evaluators, which is highly likely to have been involved by the seller's side because it is quite a small number. On the other hand, the second one has 2,300 evaluators, which are much more reliable because the larger the population is, the higher the reliability is.

Of course, I saw 4.3 as a fairly high score even compared to 4.7 so I made such choice considering the reliability. I think the choice can be very subjective - is the gap greater between 4.3 points and 4.7 points? Or is the gap bigger between 10 people and 2,300 people?

16)

We should collect data on all safety-related devices such as seat belts, klaxons, car's body shape and brakes.

And three requirements for a testable hypothesis are

1. It must be possible to prove that the hypothesis is true.
2. It must be possible to prove that the hypothesis is false.
3. It must be possible to reproduce the results of the hypothesis.

Based on this, I came up with these hypotheses.

- 1) The more drivers press the klaxon, the higher the probability of an accident.
- 2) The more drivers apply the brakes, the higher the probability of an accident.
- 3) The narrower the car's body, the lower the chance of an accident.