

# Technology evaluation plan case study examples

[Law](#), [Security](#)



## **Introduction**

The emerging technology that will be the focus of the discussions in this paper would be the autonomous cars technology. Basically, autonomous cars technology is a general term that refers to the technology that allows people to use driverless cars . Now, most cars being used as a form of transportation today are driven manually by the car owners or a personal or family driver . There are a significant number of literatures that suggest that cars that are driven by humans are more prone to accidents because humans make errors and this fact is true regardless whether they are driving on the road or not .

Whenever they are on the road and they commit errors and or mistakes that often lead to road accidents and this is one of the main selling points of driverless cars that use this type of technology. Because the car is automated, learning how to drive would not be necessary; also, hiring a driver would be pointless because the car can move on its own; all that the owner has to do is learn how to operate the machine and watch it carry its passengers from point A to point B. However, since this is an emerging technology, meaning not a lot of people are using it yet, or at least today, there are still a lot of things that have to be uncovered about autonomous cars and that would be the goal of the proposed case study.

## **Research Question**

The research question for the proposed case study was meant to be direct and straightforward because after all, there is only one thing that people would most likely ask (first) after hearing the term autonomous cars: safety.

People would want to learn if cars that are driven by computers are indeed safer compared to cars that are driven manually by humans. So, in line with that, the research question for this case study would be: how safe are autonomous cars? There are already a number of available models of such cars that can be test-driven today. So, in order to setup the scenario for the case study, access to such cars must be obtained. The proposed scenario in the case study is also going to be simple. The subject (one subject only) would simply be asked to drive the car and the researchers would then have to conduct an interview questioning the subject about his experience and perceptions about the emerging technology that he just tried.

## **Methods**

Since the research question used the word “ how”, a qualitative research design and method would be the most applicable. Basically, the autonomous car technology would be evaluated based on the general perception (on safety) of the case study subject, again focusing on the research question at hand. The technology would be incorporated in the study by simply having the subject use an autonomous car by test driving it, and asking him questions afterwards about his experience and the perception that he developed after giving it a try. The diagram below shows how the pilot test for the study would be executed and of course, how the actual study would flow.

## **Limitations and Special Considerations**

One of the major limitations of this proposed research (i. e. a case study) is that it is a case study. Case study and case reports lie on the lower portion of

the hierarchy of evidences. This means that in terms of research evidence credibility, case studies are less famous compared to more work intensive research methods such as randomized controlled trials, systematic reviews, meta-analysis, and quasi-experimental studies. However, there is a good reason why the researchers chose case study as the research design; and that is because the aim of the present research is to know more things about a new emerging technology. One of the most recommended ways to do so is to engage in a qualitative research focusing on a small sample group .

Another limitation of this study is the fact that it utilizes only one sample population. Then again, it is not really uncommon for case studies to have only one sample. In fact, in some case studies being conducted in other fields such as medicine and allied health, and sociology, the use of only one subject in the implementation is recommended especially if a new intervention is being tested.

The safety of the test subject is the most important special consideration because the subject would be asked to try a new car and driving technology. This is a new technology and not a lot of things can be verified about its safety. So, in order to prevent the occurrence of any legal charges in the future in case something untoward happens, the subject would be asked to sign a notarized waiver detailing his expectations and the procedures that he would undergo as a test subject in the proposed case study.

## **Notional Timeline of Events**

Below is a notional timeline of events for the proposed case study:

## References

Benenson, R., Thierry, F., & Parent, M. (2008). Achievable Safety of Driverless Ground Vehicles. IEEE.

Chong, Z., Qin, B., Bandyopadhyay, T., Wongpiromsam, T., Rebsamen, B., Dai, P., et al. (2013). Autonomy for Mobility on Demand. Intelligent Autonomous Systems.

Flyvbjerg, B. (2006). Five Misunderstandings about Case Study Research. Quantitative Inquiry.

Rotman, D. (2013). How Technology is Destroying Jobs. Technology Review.

Yin, R. (2013). Case Study Research Design and Methods. Sage .