

Liability

Ype Wijnia

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Last week I was aware of the concerns Google had for the responsibility of their self-driving car. At first I thought I had misunderstood. Namely you could say that the primary concern in the making of an autonomous vehicle is safety. On the highway it's not a problem, since it is a matter of keeping a distance and stay between the lines. But in urban areas, with highly unpredictable behavior of other road users and weird situations where necessity of traffic rules should be waived seems still to be awfully difficult. Look at pictures of the DARPA Urban Challenge, in which several cars "froze", collided or stampeded. So from purely technical view there is something to do. Then to worry about liability seems to be typically American.

Only, in this case, I seemed to have understood it really wrong anyway. They guessed at Google namely that one would deal with the safety, or at least that one could make a self-propelled vehicle a lot safer than a car with driver. Rough estimate, about 50%. The number of fatalities in traffic would fall in the Netherlands to roughly 250 per year, rather than over 500 now. But the concern of Google was about the fact that they would not receive 250 "thank you letters", but 250 liabilities. When I read that, I indeed had to say they are right. No matter how safe they would make the car, any accident which would still occur would be the fault of Google. So assuming that an absolute 100% safety does not exist, the safety is not the problem but the liability.

If you look at it, it is a powerful ethical dilemma. You have the opportunity to save a lot of lives, but if you do that you are guilty of the death of all people you have not saved. While if you are just watching without preventing people who now get killed, you just get away with.

The weird thing is that this does not only go for the autonomous car. Many aircraft experts agree that the biggest risk factor in an aircraft is the pilot. Many accidents are related to blunt human errors caused by fatigue or distraction, just think of the pilots who missed their destination because they were working on their laptops in the cockpit. Other accidents are related to the incorrect response (= not follow prescribed procedure) on a technical problem. A computer here would score much better. Admittedly, for mistakes that have never happened before there is no procedure, so the improvisational skills of the pilot might win against the computer. But with over 100 years of aviation history and innumerable accidents that have already occurred, the flight manual is now a voluminous collection of procedures for various emergencies. Cru said, one plane is crashed for every line in the manual. So if you weigh the risks of possible mistakes during every flight against a risk of error in the most extreme situations, then the choice is obvious, namely remove the pilot from the plane. But we do exactly the opposite. The reason is purely emotional. You trust that the pilot does not want to die, but for a computer you do not know that obviously, probably the computer does not care. That argument sounds very convincing until there is a suicidal pilot behind the controls, as in the recent accident in the French Alps. Moreover, the security measures taken to keep hijackers out of the door were also causing a risk. Yet there is no one now who seriously proposes to eliminate the pilots completely, which shows the strength of the emotional argument.

Do we have to deal with this in normal asset management as well? Annoyingly yes, however, though it is fortunately usually on a smaller scale. Where you see the phenomenon most is in inspections. Take any object that can be inspected once every few years. When a serious deficiency in the inspection is found, it must be corrected immediately. For the very serious deficiencies, the inspector must not leave the location to speak before the repair crew is on site. Emotionally, this can well be understood: if you've seen that there are serious safety deficiencies and you go away and then there is an accident, you will feel guilty for the rest of your life (hopefully). So it's almost inhuman to ask the inspector to only report the status of the object and then move on to the next object.

Just when you think about this a little deeper you will see that it is rational nonsense. If you see an error in an inspection, it will be already there on average half the inspection interval. The errors can indeed have occurred anywhere in the interval, so on average the half. But that means that the risk of leaving and call in a repair team when they have time somewhere in the coming weeks hardly adds something to the risk, at most a few percent. The argument used to rationally justify their emotion is then the liability. One thinks and / or firmly asserts that if an accident happens you are liable after the inspection. If that is the case the inspectors would indeed have a point.

But somehow there is still ringing an alarm bell. Imagine that they were right, it would then be in your interest as the asset owner not to inspect the assets. After all, what you do not know will not hurt you. But that will not work in Dutch law happily. In principle, everyone carries his own loss. If you want to reimburse your personal injury from another, you have to prove that the other person caused harm to you through a tort. The burden of proof therefore lies with the complainant¹. Now cause is a difficult concept when it comes to an asset, since after all the owner was not present when the object caused damage. For these cases, there is a notion as negligence, in with an owner who takes good care of his assets is not liable for the damage caused by those assets. If a serious defect is not fixed, this certainly will be negligence, so the inspectors have a point. But if you do not inspect while you know that there can be a serious defect, this is just as negligent. So in terms of liability, there is no difference between the situation before and after the inspection. And given the time that the defect may exist, to allow a somewhat broader repair period is not an extra negligence.

Does this mean that an inspector will not have to worry about serious flaws? Problems? Of course not, if the defect arises during the inspection and thus has an acute character, the response must also be immediate. Think of decommissioning, the deposition of the environment, evoking a team for emergency repairs. But when it concerns a situation that presumably exists some time, than the acute character is not present. And therefore the response has not to be acute as well. Although this is slightly different than in the long term. A few weeks in which a careful planning can be made seems a good compromise.

To get back on the self-steering vehicles, how to deal with liability then? An initial response is perhaps to define the requirements that the autopilot must meet, including protocols to make a safe stop on identified problems. If after an accident seems that the system met the requirements, then in principle the manufacturer is not liable. But that will take some time before these requirements are well defined. Until then we keep the wheel in our own hands.

Ype Wijnia is partner at AssetResolutions BV, a company he co-founded with John de Croon. In turn, they give their vision on an aspect of asset management in a biweekly column. The columns are published on the website of AssetResolutions, <http://www.assetresolutions.nl/en/column>

¹ Coincidentally, it was just decided to reverse the burden of proof in the case of earthquake damage in the Dutch Province of Groningen. However for this is opted because the Dutch oil company 'NAM' flatly rejected half of the claims, despite the general advice to generously pay for the damage (see previous column)