



Automated driving Schools, a new way is possible.

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In a changing world things change. It may sound like an oxymoron but what we are witnessing nowadays is the proof that what we gave for granted up to today is going to be different tomorrow.

Automation is leaping forward at an astonishing pace. New habits, instruments, usual means of transport and communication have dramatically revolutionized our way of life.

Connection is the key word for everything.

How has our way of moving changed in the past few years? Are our roads the same of just five years ago and are our vehicles? The answer is, no doubt, no.

But in this radically changed environment have we, road administrations, stakeholders, drivers, passengers, cyclists, pedestrians acknowledged the change and adapted consequently?

Surprisingly, this change has had a better acceptance than one could have expected. Surveys carried on by institutions like the European Commission among many, have shown a good level of acceptance of any automation system pending that safety issue be assured.

Automotive, communication, highly technological industries are ready to push on the market their automated vehicles, sensors, cloud and satellite 5G communication waiting for a general regulatory framework.

As widely acknowledged, automated driving and smart infrastructures are going to be a dramatic thrust towards a final solution for road safety. It has been shown that over 90-95% of road accidents are in fact due to human distraction, be it texting, answering phone calls, in-vehicle distractions of any kind.

Automation is actually removing the main cause of road accidents which is the human on board.

But if vehicles and roads are going to operate autonomously granting a safe driving environment for all road actors are we going to be needing any sort of training to use an automated vehicle?

The first consideration one must take into account is the progressive development of automated driving due to the introduction of better and better technologies both on board and on the “smart” road.

The Five levels of automation have outlined a clear path from level 1 (no automation) to level 5 (full automation) where no human interaction is required.

But there are three other in-between levels that pose the biggest challenge.

Now that new generation of vehicles are already equipped with automatic driver assistance systems (ADAS) which are de-facto a prelude to full automation, the “driver” must be conscious of the technological opportunities the vehicle offers and, mainly, learn what he/she is still required to perform, in what way and in which case.

The few accidents that occurred involving automated vehicles were caused by the supervising human present on board and not the vehicle or infrastructure’s systems.

This is why it is essential, at this level of automation, to form and instruct the “driver” on the responsibilities that are still to be taken into account when using a vehicle with automated systems

But what is the new role of driving school then? Of course the current courses, both theoretical and practical, will have to be redesigned with specific modules on ADAS and the interconnected road environment. The interaction with other road users is also a main aspect to be taken into account both from the “passive” and active user. What is the perception of an automated vehicle by pedestrians crossing a road?

Designing and proposing in all driving classes such modules is necessary not only for new drivers attaining the licence but also, and I dare say mostly, for other subjects due to renew their licence probably obtained when no technology was present on their vehicles at all.

The digital divide is indeed an obstacle to such new approach and driving school should grant instructors comfortable with new digital tools.

This kind of information is even more necessary to avoid an overestimation of the automated vehicles’ possibilities and teach when and how to rely on them.

The expertise gathered by years of on-the-field experience of driving school can also be put into use for safety systems manufacturers who will need precise data on which to base their products.

Sensors are also a main aspect of automated vehicles and a correct analysis of the perception by “drivers” and other road users can also be provided by the driving school operators.

Last but not least, automated driving has a sharing long-term vision.

Private and public transport will be on a shared vehicle's proposal. In this long-term horizon, driving skills – even supervisory ones – will no longer be needed. A significant parallel could be moving on a bus or a train where the passenger is not required to be able to actually drive the machine.

The leap towards full automation might actually be even faster than we expect. In fact, technology is progressing at an exponential rate every day, not year, and it may be even possible to jump from level 3 directly to level 5 of full automation, avoiding the interim dangerous phase.

Besides, automatic driver assistance systems are going to be installed even on older models of cars, avoiding the need to wait for the new models to be put on the market.

As the world changes, automation is more and more overwhelming, people's role in labour is bound to be modified. This does not imply unemployment but just a diversification of professionalities.

Being able to adapt to change is the only winning strategy.

