

CfP: Who's Driving? Agency and Evidence in the History of Technical Safety

International workshop organized by the DFG Research Group "Practicing Evidence"
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Driverless cars and their ethical and practical implications have been the subject of intense debate lately, in academia as well as in the popular media. Especially prominent in these discussions have been questions of safety and responsibility. While proponents claim that the new technology will save millions of lives by eliminating error-prone human drivers, critics point to new risks about to be created. Who provides what kind of evidence that autonomous cars are really safe in any given situation, and who challenges it? How can it be proven that they will not malfunction catastrophically? Who is responsible if they do – the passengers, the manufacturers, the programmers, or even the car itself? Who, in that sense, is "driving" a driverless car?

From the historian's point of view, the attempt to delegate (some) responsibility for safety from the user to technology is of course not a new phenomenon. Since the introduction of the first cars in the late nineteenth century, manufacturers and engineers have tried to support error-prone human drivers with the introduction of technical improvements such as better brakes, windshield wipers etc. These improvements in "active safety", designed to help prevent accidents, were later supplemented by what came to be called "passive safety" measures in the 1960s and 1970s. "Safe" interiors, crumple zones, seat belts or air bags were meant to limit the consequences of collisions without requiring any input or skill from the driver. More recently, "active safety" has regained importance: Features such as electronic stabilizers, braking assistance systems, automated collision avoidance and similar devices rely again on external intervention, but now delegate this more and more to computer systems instead of humans.

This dynamic is by no means restricted to automotive engineering only. As human error is at the root of arguably a majority of accidents involving technological artifacts, the "technological fix" of trying to replace the unreliable "human factor" with technical solutions can almost be considered a standard response by engineers in many different technological fields to safety concerns of all kinds. Taking these considerations as a point of departure, the workshop aims to think about the changing relationship between technology and its users through the history of technical safety and its automation. For this purpose, we suggest that the question "Who's driving?" should be understood in a twofold manner, each pointing to a particular set of issues:

- Who was in charge of safety in a given situation: Humans or technical artifacts? Who was (thought to be) active, who passive? What part did automation have not only in creating safety, but also in proving it? How was responsibility for safety (re-)distributed over time? How did this change the social perception of technologies and their users, for example considering professional codes or gender roles?

- Who/what was driving the automation of technical safety? What influence did the need to provide evidence for safety have? Which actors and stakeholders were involved in the negotiations behind these changes, and how did they play out? Was the increasing assignment of responsibility for safety to technology a “one-way street”, or do we find examples of “de-automation”? How did this interact with changing safety “philosophies” and methods of calculating risk?

The workshop aims to explore these and similar questions by bringing together contributions from various countries and technological fields to look at different practices, definitions and chronologies. Possible case studies could deal with (among other things) the history of automobile safety, nuclear safety, chemical and industrial engineering, information technology, or safety science as such. While we propose to concentrate on the second half of the twentieth century as a chronological focus, contributions from other epochs are welcome to allow diachronic comparison.

Scholars interested in presenting a paper are invited to send a **brief abstract** (around 300 words), as well as a **short CV** by **July 1st 2018** to Stefan.Esselborn@tum.de. Limited travel and accommodation support is available.



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