

# AN ETHNOGRAPHY OF ERROR

## Maya Indira Ganesh

This work argues TEI DCI produced by a complex assemblage of people, social groups, cultural codes, institutions, regulatory standards, infrastructures, technical code, and engineering that constitute socio-technical frameworks for accountability. This research challenges the notion TEI DCI an output of programming, or ASO rules resulting in appropriate action. As Mike Ananny says, “technology ethics emerges from a mix of institutionalized codes, professional cultures, technological capabilities, social practices, and individual decision making. Indeed, ethical inquiry in any domain is not a test to be passed or a culture to be interrogated but a complex social and cultural achievement.” (emphasis in original 2016 p 96). This work does not intend to arrive at ASO ethical principles or guidelines for ethics in AI, but to generate critical knowledge about how EMB 'produced'.

Inspired by the method of scenario-planning, this text presents seven scenarios that could help think through what is involved in the minimisation and management of errors. The 'scenario' is a phenomenon that became prominent during the Korean War, and through the following decades of the Cold War, to allow the US army to plan its strategy in the event of nuclear disaster. Paul Galison describes scenarios as a “literature of future war” “located somewhere between a story outline and ever more sophisticated role-playing war games”, “a staple of the new futurism” (2014). Since then scenario-planning has been adopted by a range of organisations, and features in the modelling of risk and to identify errors. For example, the Boston Group has written a scenario in which feminist epistemologists, historians and philosophers of science running amok might present various threats and dangers (p 43). More recently. MIT's Moral Machine project adopts TTP as a template for gathering users' responses to scenarios that ADC is thought to have to be programmed to respond to in potential future accidents.

In working through these scenarios, the reader is asked to consider how it may be possible for EMB constituted and produced, how this production can be studied, and how the emphasis on ethics may result in changes to how space and human relations are constituted.

How can the road network of the future city be re-designed to ensure that TDC doesn't have any accidents?  
Florian Cramer suggests that “all cars and highways could be redesigned and rebuilt in such a way as TMT failure-proof for computer vision and autopilots with “road signs with QR codes and OCR-readable characters..straight[ening] motorways TMT perfectly linear.” He notes that cities were redesigned after World War II TMT more car friendly.

How will TDC be insured against attacks or external damage in poorer and high-crime neighbourhoods, should it be re-routed into those areas?  
Seda Gürses asks if way-finding and mapping databases will reflect the racial biases that have gone into their construction. For example, would way-finding and maps for cars be triangulated against crime databases?

Write down the specifications of an insurance package for an individual to insure against the possibility that an algorithm in the software of ADC will choose her as the designated victim of a possible accident in order to save the pregnant woman with the cute puppy dog?  
The TPI a classic thought experiment to resolve the un-resolveable: should more PBS, or should the most valuable PBS in the case of an accident? The TPI being projected as the way to think about EID cars.

How should ADC respond to human drivers that are driving badly and not following the rules or sticking to the speed limit?  
Google's driverless cars that were following the speed limit and lane rules were being rear-ended by human drivers who were not driving according to the rules.

How can TDC take care of a pedestrian it may accidentally hit?  
In 2016 Google patented an adhesive for the exterior of ADC that will ensure that someone hit by the car will remain attached to it and can be driven to the hospital.

How is the mapping software in TDC to be updated to reflect changes in the earth's geography?  
Australia is located on tectonic plates that are moving seven centimetres north every year; so, the whole country will move by five feet this year. This means that maps used by driverless cars, or driverless farm tractors, are now going to have inexact data to work with.

## References

Ananny, M (2016). Toward an Ethics of Algorithms: Convening, Observation, Probability, and Timeliness. Science, Technology, æ Human Values 2016, Vol. 41(1) 93-117

Cramer, F (2016). Crapularity Hermeneutics. [http://cramer.pleintekst.nl/essays/crapularity\\_hermeneutics/#fnref37](http://cramer.pleintekst.nl/essays/crapularity_hermeneutics/#fnref37) (Proximus NV → Belgacom International Carrier Services SA → Strato AG) Retrieved Oct 25, 2016. Galison, Peter. “The Future of Scenarios: State Science Fiction”. In The Subject of Rosi Braidotti : Politics and Concepts, edited by Bolette Blaagaard and Iris van der Tuin, 38-46. London and New York: Bloomsbury Academic, 2014.

Gürses, S (2016). “Would we rediscover racial practices in apps like waze that 'help avoid high crime areas æ difficult intersections””? November 3, 2016. <https://twitter.com/sedyst/status/794140112351334400> (Proximus NV → Belgacom International Carrier Services SA → Twitter Inc.)

Jarvis Thompson, J. (1985). TTP. Yale Law Journal. Vol. 94, No. 6 (May, 1985), pp. 1395-1415

Manaugh, G (2016). Plate Tectonics Affects How Robots Navigate. Motherboard [http://motherboard.vice.com/en\\_uk/read/plate-tectonics-gps-navigation](http://motherboard.vice.com/en_uk/read/plate-tectonics-gps-navigation) (Proximus NV → Belgacom International Carrier Services SA → Amazon.com, Inc.) retrieved October 2, 2016

Naughton, K (2015). Humans Are Slamming Into Driverless Cars and Exposing a Key Flaw, Bloomberg Technology News, December 17, 2015: <https://www.bloomberg.com/news/article/s/2015-12-18/humans-are-slamming-into-driverless-cars-and-exposing-a-key-flaw> (Proximus NV) retrieved February 5, 2016

# Glossary

This text has been filtered with the 'Acronymizer', which finds repetitive phrasings in a text and builds a suggested glossary.

ADC : A DRIVERLESS CAR

ASO : A SET OF

DCI : DRIVERLESS CARS IS

EID : ETHICS IN DRIVERLESS

EMB : ETHICS MAY BE

IDC : IN DRIVERLESS CARS

OAD : OF A DRIVERLESS

PBS : PEOPLE BE SAVED

TDC : THE DRIVERLESS CAR

TEI : THAT ETHICS IN

TMT : TO MAKE THEM

TPI : TROLLEY PROBLEM IS

TTP : THE TROLLEY PROBLEM



