

# Propositions

accompanying the dissertation

## Test Amplification For and With Developers

by

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1. When the main goal is for developers to accept a test case into their maintained test suite, it is more important that the test case is understandable and relevant to the developer, than how much it impacts the coverage of the test suite. [This thesis]
2. To use gaps in code coverage as effective indicators for test generation need, we should carefully weigh the importance of each coverage gap, the coverage by any quality assurance practices, and the effort required for the developer to close it. [This thesis]
3. Aiming to relieve human effort with generative artificial intelligence, easily moves the human's effort from creating to the likely harder evaluation of the generated content.
4. Advocating for tests and quality practices requires stubborn trust in their effectiveness in order to persist through the resistance against them.
5. The repeated study of outdated test smells shows the danger of an overly positivist research culture.
6. The rising damage to human lives by inadequate software and algorithms calls for computer science to work towards a public, collaborative, avoidance-focussed instead of blame-focussed safety approach similar to the aviation industry.
7. Instead of a minimum quota of women in employment we should require a minimum ratio of women amongst applicants to encourage employers to make their positions attractive.
8. Researchers should be involved in the peer review process as junior reviewers from the first year of their PhD.

9. Papers that apply AI techniques to software engineering should be required to have an evaluation focused on software engineering and not accept pure AI-metrics-based evaluations.

These propositions are regarded as opposable and defensible, and have been approved as such by the promoters prof. dr. A. van Deursen, and prof. dr. A. Zaidman.