My name is Michael Strube. I am Scientific Director at HITS, the Heidelberg Institute for Theoretical Studies. I am also Honorarprofessor at the Institute for Computational Linguistics at Heidelberg University. Computational Linguistics is a discipline between Linguistics and Computer Science.

Today it was frequently mentioned that science needs to be **free**, that scientists need to be **independent**. I'd like to add one additional point. As scientists we also have **responsibility**. Responsibility for the future. Because I cannot predict the future, I'd like to take an example from the present.

Let's take the filter bubble. The filter bubble did not get invented by reckless politicians. No, it got invented by computer scientists. Computer scientists are — at least partially — responsible for the existence of the filter bubble.

Concretely: In the early times of E-commerce, an online bookseller tried to make personalized recommendations to customers. Since this could not be done on the basis of the content of the books — my discipline, computational linguistics, was not good enough back then —, they tried to collect and analyze metadata about book purchases and buyers.

This works extremely well, is efficient and can be applied to almost everything else — from web search over online auctions up to online dating — which makes us falling in love with people who are just like us — and soon we are victims of the filter bubble.

If this is applied to news and information, then we learn only what we want to learn — and then we are suprised that there are actually people who voted for Brexit and Trump, and who will vote for Le Pen tomorrow and for the AFD in the fall. — What do these people think? This we don't know, because we never meet them, we never talk to them.

I am convinced that scientists, that computer scientists are **at least partially** responsible for this development. Search engines, personalization, recommendation systems have been developed by computer scientists. These developments make our lives easier, that's without question. However, there is something fundamentally wrong with these developments.

We let the genie out of the bottle, and we don't know how to put it back. To avoid **that** from happening again, we should seriously consider, whether to let the genie out of the bottle next time around.

This is the responsibility, we have as **free** scientists. **Freedom means also responsibility.**

Thank you very much!