A Guide to make your Research less successful

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Why am I talking about this?

- … have spent 10+ years in standardization, has participated in various funded research projects, and is active in various groups who would like to create the Future Internet.

- … have worked on some technologies that are still waiting to see their widespread deployment.
  - Example: Quality of Service

- My assumption: Successful research impacts deployment.

- Disclaimer: Sharing on my personal views.

Guideline: Terminology & Requirements Gathering

- Create new terminology to confuse everyone
  - Works surprisingly well (not only in research but also in standardization).

- Focus on technical solutions only
  - "Maybe the problem is not a technical problem?" -- for an engineer a meaningless question.
  - Maybe there are requirements also from the legal domain, business environment, user interface requirements, etc.

Guidelines: Your Baseline Solution

- Ignore currently deployment and the state of the art.
  - Understanding the current deployment status can be challenging: a lot to read and even worse – you may need to reach out to people you have never been interacting with before.
  - Why not go for the easy path? Everyone says "*The Internet has never been designed with 'foo' in mind.*' foo=privacy, security, mobility. So, it is broken and has to be re-designed.
- Don't talk to others and stay only within your own community.
  - These other people would probably tell you something that you may not want to hear. They are only short-term focused and so they are wrong.
  - You probably will not get travel approval for the trip to this industry group, developer community, regulatory body, etc.
  - Not everyone has incentives to give you brutally honest feedback.

Guidelines: Development Approach

- Make your work look complex since otherwise it will not get accepted by any conference.
  - Examples: Add lots of crypto to it; ideally something that only few people are familiar with (e.g., threshold crypto, identity based encryption). Add new parties of the exchange
- Aim for implementation of your new functionality lower in the stack
  - E.g., put new functionality at the network/link layer rather than the application layer.
  - For some reason people believe that network operators will then like it and it will get deployed.

Final Guideline: Deployment

- Research & standardization has been completed.
- You also have running code:
  - "Was so easy to implement."
  - "It works in my lab."
  - "We have 5 interoperable implementations."
  - "Open source code is available."
- Time to declare victory. Right?
- Wait. Just one minor thing: Someone else will figure out how to deploy it. Who is that going to be?