Asking questions to yourself and others

Gabriel Scherer

Parsifal, INRIA, France

July 7, 2018

Asking questions to yourself and others or: How to stay awake at talks or when reading papers

Gabriel Scherer

Parsifal, INRIA, France

July 7, 2018

Gabriel "gasche" Scherer

2010-2012: Master programme (MPRI, Paris)

2012-2015: PhD at Gallium, INRIA Rocquencourt, France, with Didier Rémy Which types have a unique inhabitant?

(program equivalence meet proof theory)

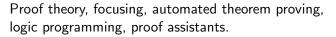
2016-2017: postdoc, Northeastern University, Boston, with Amal Ahmed

- Multi-language programming systems
- Speculative optimization in JITs (also with Jan Vitek)

2017-∞: researcher at Parsifal, INRIA Saclay, France

Parsifal





Me: expertise and application goals in *programming languages*. (OCaml expertise)

3

Asking yourself questions

Talk or paper. Helps:

Concentration.

Understanding.

Assessment.

Kinds of question

Understanding questions: I don't follow X, can you explain?

Curiosity questions: what if X?

Reading a paper

The authors want you to follow the paper.

If you don't understand, re-read. It clarifies, or it is obscure.

Curiosity questions: write them down.

After finishing the paper: it's normal to email your questions to the authors — if you care about their answers. (It helps the authors, the reply helps you, it starts a conversation.)

- 1. The authors claim they will <plant trees> in reaction to <cli>climate change>.
 - why trees?
 - what else could they have done? (did they reject or not consider?)

- 1. The authors claim they will <plant trees> in reaction to <cli>climate change>.
 - why trees?
 - what else could they have done? (did they reject or not consider?)
- 2. The authors just described a problem, not the solution yet.
 - How would / solve that problem?

- 1. The authors claim they will <plant trees> in reaction to <cli>climate change>.
 - why trees?
 - what else could they have done? (did they reject or not consider?)
- 2. The authors just described a problem, not the solution yet.
 - How would I solve that problem?
- 3. The authors claim a formal statement X.
 - How would I prove this statement?
 - Is it the right statement?

- 1. The authors claim they will <plant trees> in reaction to <cli>climate change>.
 - why trees?
 - what else could they have done? (did they reject or not consider?)
- 2. The authors just described a problem, not the solution yet.
 - How would I solve that problem?
- 3. The authors claim a formal statement X.
 - How would I prove this statement?
 - Is it the right statement?
- 4. This vaguely reminds me of X.
 - Is there a precise connection?

- 1. The authors claim they will <plant trees> in reaction to <cli>climate change>.
 - why trees?
 - what else could they have done? (did they reject or not consider?)
- 2. The authors just described a problem, not the solution yet.
 - How would / solve that problem?
- 3. The authors claim a formal statement X.
 - How would I prove this statement?
 - Is it the right statement?
- 4. This vaguely reminds me of X.
 - Is there a precise connection?
- 5. Something feels odd.
 - Why do I feel that way?

At a talk

The speaker wants you to follow the talk until the end. Questions can help along the way.

First try to answer your questions yourself. If you don't manage to, that's a question to ask.

At a talk

The speaker wants you to follow the talk until the end. Questions can help along the way.

First try to answer your questions yourself. If you don't manage to, that's a question to ask.

Live exercise: try to come up with questions for this talk!

When to ask

Depends on the formality level: higher stake, less questions.

Hiring talk, short conference talk: wait until the end, be considerate with time

Longer workshop talk, seminar talk ask understanding questions as they arise

Willing speaker, informal talk: ask whenever

Questions are your duty

As a speaker, I hate when people gets lost.

I would rather spend two more minutes right now than lose you forever!

It is your collective *duty* to ask questions before that.

Speaker visibly stressed

Speaker visibly stressed

Speaker not comfortable with spoken English

Speaker visibly stressed

Speaker not comfortable with spoken English

Speaker side-tracked by rambling questions (but: no mercy for planning too much content)

Speaker visibly stressed

Speaker not comfortable with spoken English

Speaker side-tracked by rambling questions (but: no mercy for planning too much content)

All other cases: do ask!

Speaker visibly stressed

Speaker not comfortable with spoken English

Speaker side-tracked by rambling questions (but: no mercy for planning too much content)

All other cases: do ask!

Speaker has no question... (but: terrible talks deserve the embarrassment)

Are there bad questions?

"All questions are good questions."

Are there bad questions?

"All questions are good questions."

All sincere questions are good questions.

.

Dumb/naive questions are excellent!

Are there bad questions?

"All questions are good questions."

All sincere questions are good questions.

.

Dumb/naive questions are excellent!

(Also: power dynamics.)

Bad question: out-of-scope question

Questions that are not about the work being presented.

You could have asked this question at any talk within the same general domain.

For example, at a formal verification talk:

What's the point of verifying software if the CPU can be buggy?

Heard in real life.

Bad question: mean question

Don't.

Don't ask questions about related work in public (you can email), unless you are **sure** that the speaker **already knows** the work.

Don't ask questions about related work in public (you can email), unless you are **sure** that the speaker **already knows** the work.

I don't understand your work well, but it sounds vaguely related to this other work that I also don't know very well...

... so let me make you worry about being perceived as a plagiarizing impostor on-stage.

Don't ask questions about related work in public (you can email), unless you are **sure** that the speaker **already knows** the work.

I don't understand your work well, but it sounds vaguely related to this other work that I also don't know very well...

... so let me make you worry about being perceived as a plagiarizing impostor on-stage.

I hate your PhD advisor and I think their work is subsumed by <game semantics> which you never heard of, let me make a point by asking you about game semantics in an agressive manner.

Don't ask questions about related work in public (you can email), unless you are **sure** that the speaker **already knows** the work.

I don't understand your work well, but it sounds vaguely related to this other work that I also don't know very well...

... so let me make you worry about being perceived as a plagiarizing impostor on-stage.

I hate your PhD advisor and I think their work is subsumed by <game semantics> which you never heard of, let me make a point by asking you about game semantics in an agressive manner.

If they should have known: blame the advisor.

Bad question: the not-question

Questions that do not end with a question mark.

(Sometimes comment are fine. Rambling comments are not good.)

Bad question: the ego question

Bad question: the ego question

I don't understand your work very well but I have a vague hunch that it is a ripoff of work I did 20 years ago, let me tell you all about it.

Bad question: the ego question

I don't understand your work very well but I have a vague hunch that it is a ripoff of work I did 20 years ago, let me tell you all about it.

I always make the same kind of joke at conference talks, so here is a variant of the joke using words of your talk.

Multi-questions and offensive rebounds

Several in a row: no problem, if you also let others ask.

Multi-questions and offensive rebounds

Several in a row: no problem, if you also let others ask.

Pressing on with the same question again: not a good idea.

Offline questions

Any question, you can ask offline. Even naive understanding questions.

At a conference, people love to connect with their audience. Excellent conversation opener.

You can also give feedback on the talk, but be gentle.

Thanks

Questions ?