I was asked to spend 30 minutes dispensing advice of my choice. I'm honoured — though it's a confusingly broad brief! I'll do my best.

I take the liberty of dedicating this talk to our colleague Gilles Dowek, who died this week far too young. He gave a lot of people a lot of good advice. May he rest in peace.

So let's have some wise words.

First: switch on 2FA on all accounts, and ...

. . . Jamie's musings and dubious advice

Murdoch J. Gabbay

(you don't have to follow all of it)

24 July 2025

About me

- Name: Jamie Gabbay.
- Born 1970s. Pre-internet, pre-mobile phones. Slide rules were still a thing.
- 1995 Cambridge Undergraduate maths. Exposed me to some genuinely clever people.
- 2001 Cambridge PhD. Introduced nominal techniques.
- 2001–present. Professional academic. 80 papers published. One book (on *Semitopology*).
- 2006–present. Lecturer at Heriot-Watt University: (nearly) 25 years of research & teaching!
- Currently on sabbatical, doing industrial distributed systems.
- Married with a young son.
- Definitely an older person than I was!

About you

- Born in the 2000s.
- 2024–present. PhD student.
- In your early 20s. Unmarried. No child.
- Young!

What can I say to help for your coming 25 years?

Well, I won't give a recipe for success because that doesn't exist: there's only judgement about what seems sensible.

I (and others) can provide food for thought, and thus perhaps inform your judgement, but nobody will live your life for you nor provide a rulebook for doing so.

That's what makes life exciting!

What to expect

- BA: follow a recipe under supervision.
  (Final year may be ~~hard~~ character-forming.)
- MSc: do a thing. Under supervision. No recipe.
- PhD: do a *new* thing, under supervision. No recipe.
  (Final year is character-forming; take some rest if required.)
  Teach, under supervision.
- Postdoc: do new things. Little supervision. No recipe.
  Teach, under less supervision.
- Lecturer: do what you want.
  Teach however you want (may have to write course yourself).
  (First year is character-forming.)
- Parenthood: Milk in, poo out. (First year is character-forming.)

Audience request: Importance of rest

Many PhD students (including myself) work too hard (story of hearing voices).

Taking up dancing helped me. Cycling, hiking, swimming, or (perhaps) music, gaming, etc. You may need *something*.

After PhD, tiredness distances you from who you are. This can affect your ability to decide what to do next (story of minor personal crisis).

Audience request: should or must I obey my supervisor?

Q. Must you obey your supervisor?
A. No. It's your PhD. *Your* PhD. (Culture disclaimer.)

Q. Should you obey your supervisor?
A. Maybe. Depends on whether they're right. (Nominal sets / failed student.)

Nota bene: your supervisor may not tell you directly what to do, because they want you to make decision. But, they may know what's going to work. It's possible that a quiet suggestion is actually an instruction. Be careful how you interpret the cues.

You can just ask: "Hi Supervisor. Did you suggest this because you know it's the right way forward, and if so on what evidence?"

This happened to me once. Someone tried to give me a nudge "perhaps you might like to look at this", and I missed the steely warning underneath the subtlety. In retrospect, I could have just asked.

Some thoughts

- You define your criteria for success. This is your power; use it.
- Many kinds of smarts.
  Example: maths; muggers; $5 million; object permanence; coding.
- You're in a professional context; behave accordingly (toilet).
- Yet also, nobody cares. That brings freedom. Strange paradox.
- Say thank you (thank you for the opportunity; thank you for the offer; thank you for making time to see me). Appreciate the breaks that come your way.
- People are busy. Follow up emails.
- Trust your initial questions. Vague/dismissive answers signal research opportunity.
- Listen. To what people say, how they say it, and what they intend. A useful conversation is when you're not speaking.
- Body language.
- Being listened to. Some people are good listeners; others aren't. This, you can't control.

Possible criteria for success (non-exhaustive list)

1. Learning (cf. eat the world!).
2. Following instructions.
3. Being the smartest (cf. complexity vs simplicity).
4. Scoring points (cf. debating).
5. Being right (cf. jury duty).
6. Being convincing.
7. Work hard.
8. Serve others / invest in next generation (teaching).
9. Blaming someone else (cf. blaming yourself is empowering).
10. Developing understanding / gathering knowledge.
11. Earning money (for its own sake / to support family).
12. Not making mistakes (cf. not *repeating* mistakes).
13. Serving science (cf. impersonal; cure for shyness).
14. Hamming question.
15. I personally really believe in writing papers (good ones!).

Further comments

1. Referees don't necessarily say what they mean.
2. Contradictory requirements: opportunity for creative solutions.
3. After PhD can be tricky. Can leave you with a narrow, not wide, view of how things should be done.
4. Anyone can ~~cook~~ have ideas. Try not to be hierarchical.
5. Interdisciplinary research is great! Perils and opportunities.
6. It's quite useful to clearly state (and restate) the question. I do this *all lot*. Perdita did this in today's lecture. Particularly useful in interviews and formal conversations: I personally take a minute to write down the question before answering.
7. Short answer vs. long answer pattern.
8. Suggest work on asking short questions and giving short answers. Much talking sucks oxygen out of a conversation, and often signals loose thinking.
9. Interview technique: Slow down. Don't be afraid to ask the interviewer to expand on the question or give more detail. Restate the question.

What question defines you?

Is there a question that defines of typifies you?

For me, two things spring to mind:

1. *What is this thing?*
   I am interested in understanding of what a thing *is*.
2. *Telling people that they're wrong.*
   In its raw form, this impulse is not a recipe for success: it sells better to tell people they're right.
   With some self-discipline, it can be harnessed (but it takes constant effort).

Audience request: whisky recommendation

- For oaky (sweet) whisky, try Deanston Virgin Oak, Deanston Virgin Oak cask strength, or Aberlour A'Bunadh Alba.
- For sherried whisky (rich) whisky, try Aberlour A'Bunadh.
- For peated whisky (burnt fermented compost), try Laphroaig Quarter Cask.

Investments compound

The Jamie who is here now in 2025 is here now thanks a some overall physical good fortune in life, and by the grace of, and also by the fault of, the Jamie from 2000-2010.

You are building intellectual capital now, just as I did then, which will compound and which will sustain you for a very long time.

Perhaps the details of what you do don't matter too much. Perhaps it's enough to:

- Learn as much as you can.
- Be polite.
- Respect your nature. You can't change it but you can try to harness it.
- Make mistakes and try to forgive yourself for that, but progress means making *new* mistakes; don't repeat the same ones.
- Define your own metric for success.

The world is a vast place. As one door shuts, another opens. There are no problems; only opportunities.