

Ten Years of Turing – a *personal* retrospective

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(image of me before 10 years
at turing😊)



Q1, prior to turing

- BA Natural Sciences 1970s
- MSc & PhD 1980s UCL
- Prof in Internet at UCL til 2000
- Prof in Systems (Cloud, Mobile etc) at Cambridge since 2001.
- Supervised 60 PhDs, some in AI (GA, Distributed Opt, FL) most in making systems go faster, be more reliable, more secure, cheaper
- Lots of failed research proposals....
- First heard of Turing in July 2014 (email from UCL/Manchester)

Q2 What I did last 10 summers

- My first role (chair “program cttee” = prototype of science exec)
 - Landscape mapping
 - 50 years of Data Science, David Donoho
<https://courses.csail.mit.edu/18.337/2015/docs/50YearsDataScience.pdf>

My first year’s reading (since I knew nearly zero about AI):-

<https://www.cl.cam.ac.uk/~jac22/jons-turing-bib.txt>

- To have meetings coz that looks like work to funders
- Then Researcher-at-Large (think, Paddington Bear) e.g. TPS, ASG, AIDA
- Then Advisor to Exec

Q3 What we did v. well

- Convene, Convene, Convene
 - PhDs, Enrichment
 - DSG
 - REG
 - Fellows/Projects (at first) and
 - Data (still!)
 - Never Knowingly Under-Catered

Q4 Lessons Learned: What could have been done differently

- Not be central (in London) & be fully inclusive from day 1
- Actually have own building,
 - Use universities' (extensive) resources to provide management/admin
 - Not get fed money in dribs and drabs
 - Or unmanageably big drabs (ASG)
 - Have some compute (i.e. be a lab too)
- Public policy
- Proper advisory board
- Long term funding like e.g.
 - MPI, INRIA, IMDEA, CNR (let alone CERN etc)
- Against the UKRI broken “partnership” model - not an endowment...a grant with many conditions
 - Initial setup daft – exclusive and fragmented at same time – -ve consequences for IP Model and spinout!
 - 5 year review, 2 years late, and report (and informal feedback) badly ambiguous
 - Noisy side channels from government undermining research independence

Q5 Some (of many) highlights (my narrow view)

- DSG e.g. locating jammers in GSM cellular data
- TRE design/advice
- Φ -ML & CIIG seminars (amongst many great interest groups)
- See also causal inferencing/bayes, public seminars, youtube channel
- Social media analytics for politics, strife, mental health
- Edinburgh denied chance to do first LLM a decade ago
 - due to “cost of storage” - a few terabytes of the common crawl
- Counterfactuals and ethics, pints of science
- t0 lean language models, D&S LLM poisoning, Aardvaak Weather Prediction
- <add yours here>
- Music, Film, Food, Improv, Pints of Science (&many other events)...

Q6 What next?

- ~~Muddle along~~ re-building 4 grand challenges, missions: Why only 4?
 - There's (always was) demand (e.g. from finance and others)& growth is a sign of life 😊
 - Manage Expectations Longer Term (MPI and INRIA have existed for 5 decades+)
 - The UK has been a leader in AI since 5 decades ago
- AI for Science, Science for AI
- Speak truth to power
 - Data center growth is environmentally unacceptable. Government, nay, everyone needs better advice
 - Still think they need to upgrade grid (LLMs 😞) etc
 - Autonomous weapons are unethical.
- Cultivate Alumni
- Whither LLM/Agentic/Chain of Thought? – code v. data, explainable, affordable, sustainable
 - Versus Neurosymbolic, Bayes, Physics, etc etc

Q7 Next for Jon?

- Gates :- Trustworthiness of AI for Africa...
- Resilience (3 UKRI proposals)



Q8 Audience Questions v. best Xmas Party...?

