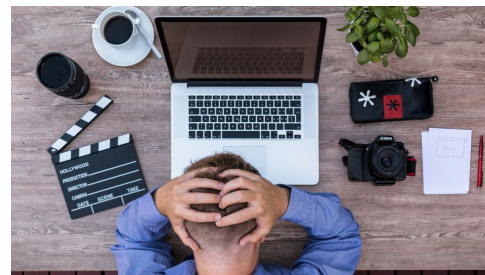
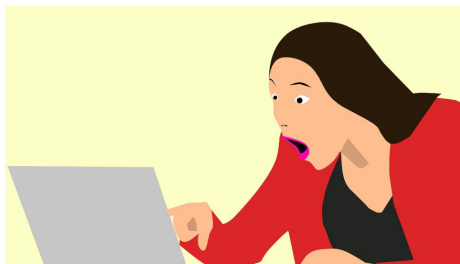
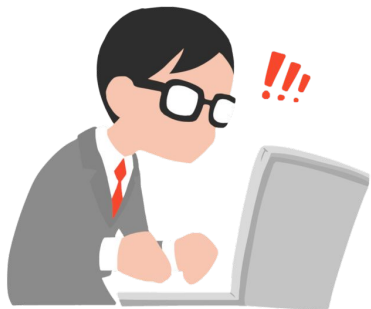


From physical to virtual conferences

Kevin McCurley & Kay McKelly

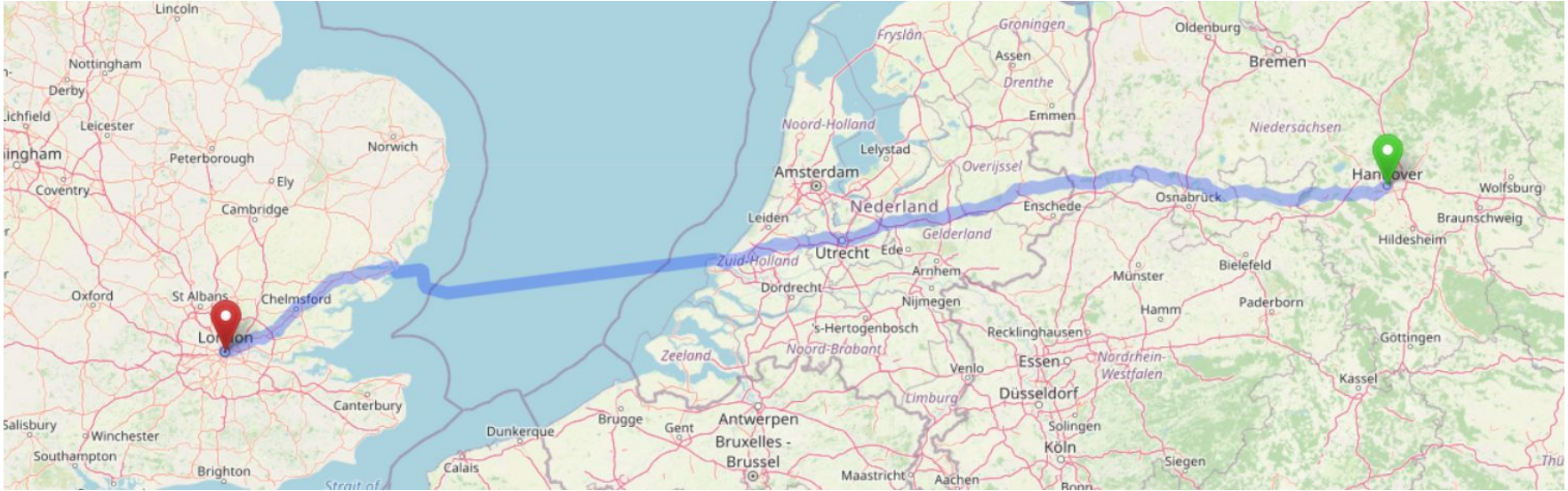


How have scientists communicated over history?

Science started in local learned societies

- First learned society: Academia Secretorum Naturae in Naples, 1560-1578
 - Closed by Pope Gregory XIII
 - Roman Academies - became public institution in the 17th century
 - Royal Society of London, 1660
-
- travel was difficult
 - manuscripts were hard to produce

17th century: Newton and Leibniz actually met in person in 1676



Travel was by horse-drawn carriages and sailing ships

Impact of technology on scientific communication

- 1806: Stanhope iron printing press could print 200 pages/hour.
- Early 19th century: train networks started to be built
- 19th century: first large scientific conferences
 - AAAS in 1848
- 1920s: air mail
- 1950s: international jet travel
- 1960s: international phone calls became routine
- 1970s: TeX, Fax
- 1980s: email became widespread, LaTeX, “desktop publishing”
- 1990s: world wide web
- 2010: video conferencing in small groups



We don't always use the best technology

In the 1990s someone faxed 12 copies of their paper to my building in order to submit to Crypto at the last minute.



Just an aside: Why are we uploading “files” to HotCRP in this era of the cloud?

Why do people attend face-to-face conferences?

- The talks
 - Online videos of talks can replace much of this
 - Computer scientists have always tied publication to a conference presentation
 - Listening to a talk can provide different insight than reading a paper
- Q&A to clarify the paper

Q&A is seldom very effective anyway. We can do better

- Perhaps most important: networking with others in the field
 - Meet new people
 - Make contacts for jobs and grants
 - Find new collaborations
 - Connect a face and personality with the name on a paper

This is the hard part:
chat & spontaneous video conference

Virtual conferences have some advantages

- More accessible for people with small children or small budgets
- Lower carbon footprint
- Easier to carry over conversation from conference to office.

2020: virtual conferences

Don't think of virtual conferences as substitutes for things that came before

Each technology finds a place in the fabric of scientific communication

We are at the dawn of an era in remote collaboration