

Advances in Software Practice

Reflections & Lessons from the Last 3 Decades

About me

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Senior Software Engineer

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Member of OOPS (now SPA)
since late 1980s

Helping organise London
meetings since early 1990s
Attended numerous OT/SPA
conferences

Guilty of inventing the name
"Software Practice

Advancement" in 2004

Enjoy music (most genres)

Tenor



OOPS / SPA

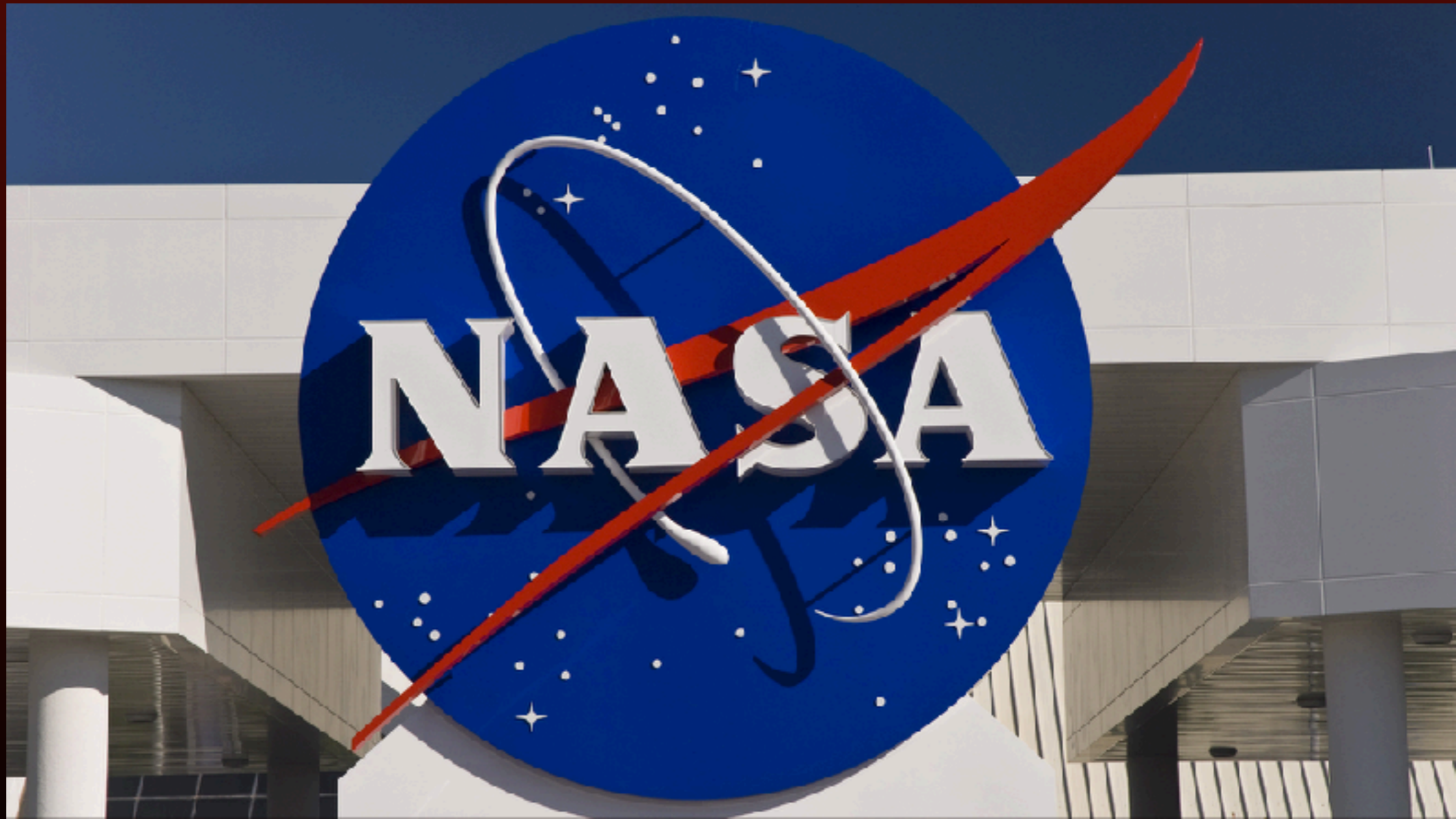
- Founded in the mid 1980s to help the flow of ideas among Object Oriented practitioners
- Early luminaries included Bruce Anderson, Steve Cook, Ralph Hodgson, Gillian Lovegrove, John Daniels, Helen Sharp, Jane Chandler, Ian Graham, Brian Saxby and many other thought leaders
- Initially not part of BCS - that came later
- Events had novel formats: one-day conferences, fish-bowl debates, hands-on workshops (without laptops in those days!), evening meetings, lecture series
- At various times, active "chapters" in the West, North and East
- OT conferences began in 1991: three-day residential format

What happened next

- Object Orientation became mainstream (C++, Java)
- New approaches: Incremental/Evolutionary
- New languages:
Data, Rules, Functional, Scripting, Domain-Specific
- New collaboration tools:
E-mail, WWW, Wikis, Repositories
- Open Source Software

New TLAs!

- TDD
- BDD
- XML
- UML
- RUP
- MDA
- ALM
- ESB
- EJB
- DSL
- J**
- LOL
- OMG



Mounting Excitement

Patterns

Package software (e.g. SAP)

Virtual Worlds

B2B

Agile

CASE tools

Object Databases

Autonomous Agents

The Method Wars

Components

Agents

APIs

CORBA

OT Conference: a brand

- By 2002, the annual OT conference had drifted away from the OOPS group that had founded it
- Start of a rebranding exercise to reunite the two
- Competition to find a name that describes all the strands of exploration described earlier
- Launch of "Software Practice Advancement" (SPA) in 2004

SPA Objectives

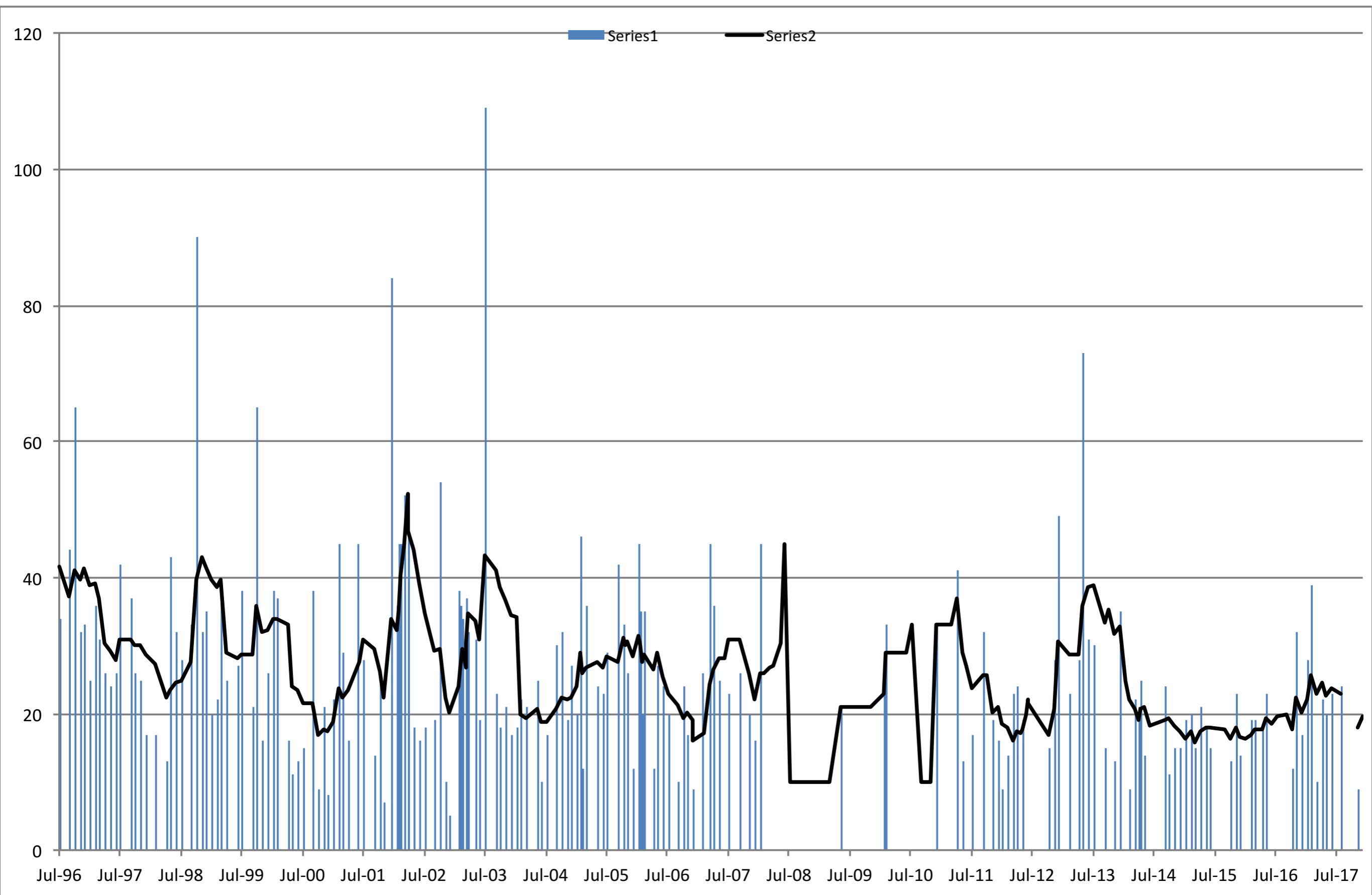
- Encourage the development of software systems based on **sound design principles**
- Foster **reflective practice**
- Promote development processes that **balance human and technical** potential
- Position new and emerging technologies within **modern design practice**
- Support a **community of people** to pursue these goals





Themes

A very unscientific analysis of London evening meetings



- 1995/1996: OOPS-95, (presenter?), (*topic?*)
 - 70 people
- 1 October 1996: OOPS-102, (Microsoft), *Distributed Objects*
 - 65 people
- 1 October 1998: OOPS-123, Stephen Davis, *Java Beans*
 - Joint meeting with BCS local branch
 - 90 people
- 1 October 1999: OOPS-133, Peter Coad, *Java + UML in Colour*
 - 70 people
- 15 December 2001: OOPS-157, First-ever *XP-Day* (one-day conference)
 - 84 people
- 1 July 2003: OOPS-169, Ivar Jacobson & Erich Gamma, *Rational / Eclipse*
 - Joint meeting with XtC
 - 109 people
- 1 May 2013: SPA-272, Shashin Shah and Christy Kulasingam, Onepoint IQ, *Apache Hadoop*
 - Joint meeting with BCS Open Source SG
 - 73 people

More Recent Trends

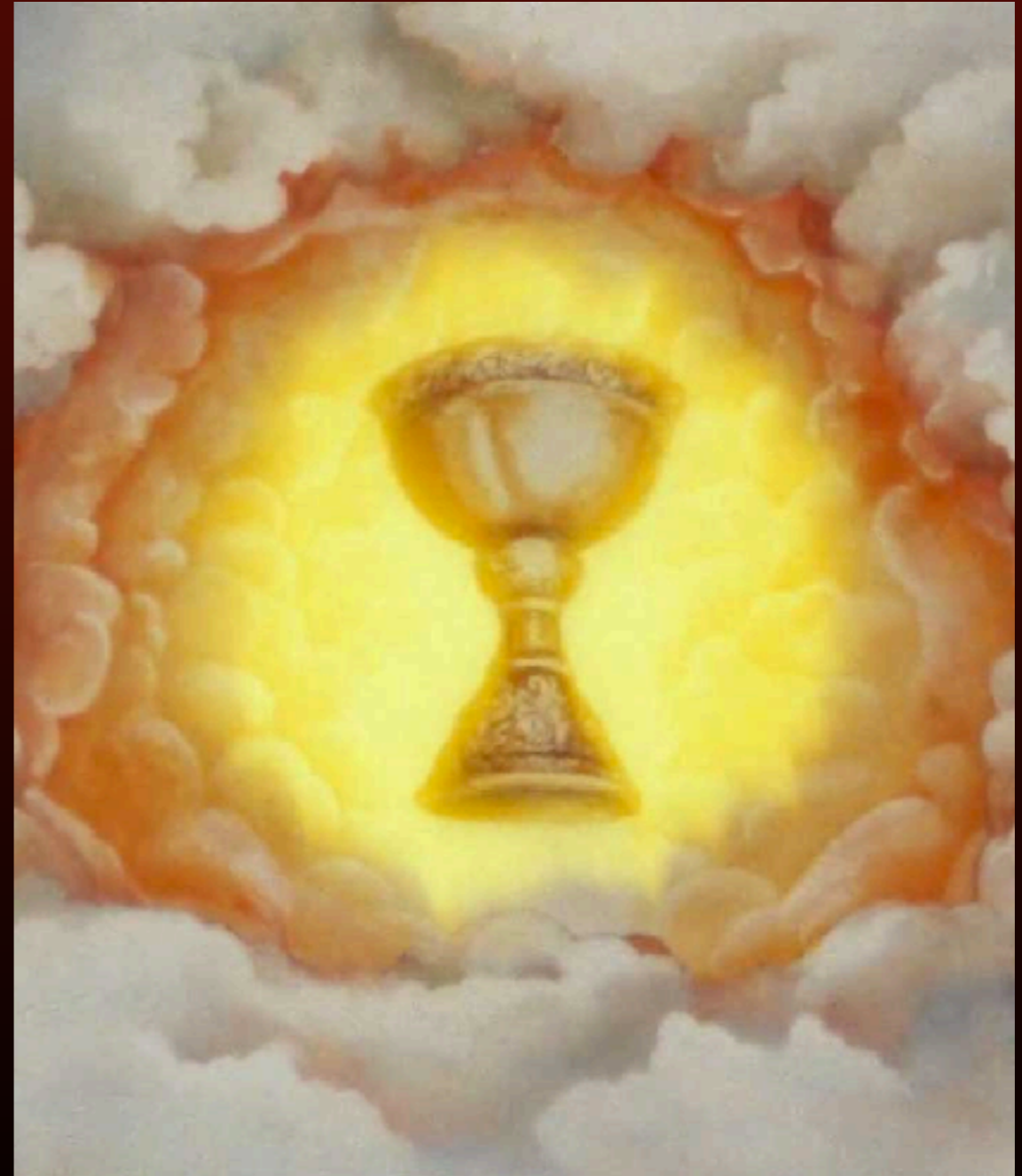
- Mobile devices as a major consumer platform
- New languages: Swift, Rust, Javascript, Kotlin, ... together with frameworks e.g. Node, React
- The return of distributed computing: Containers, DevOps, Micro-Services, REST
- Cloud Computing, Big Data
- Data Protection and Security as major issues

More recent trends

- The return of AI (a.k.a. Machine Learning); bots
- Internet of Things
- Democratisation - lots of cheap devices
- The return of coding as a skill and a pastime –
Craftsmanship movement
- Scaled agile approaches
 - none of which really work, in my opinion

A constant theme?

- The Holy Grail
- Software made simple
- Just follow the rules
- Any idiot can be a developer
- Idiots work for peanuts
- And can eventually be replaced by clever software

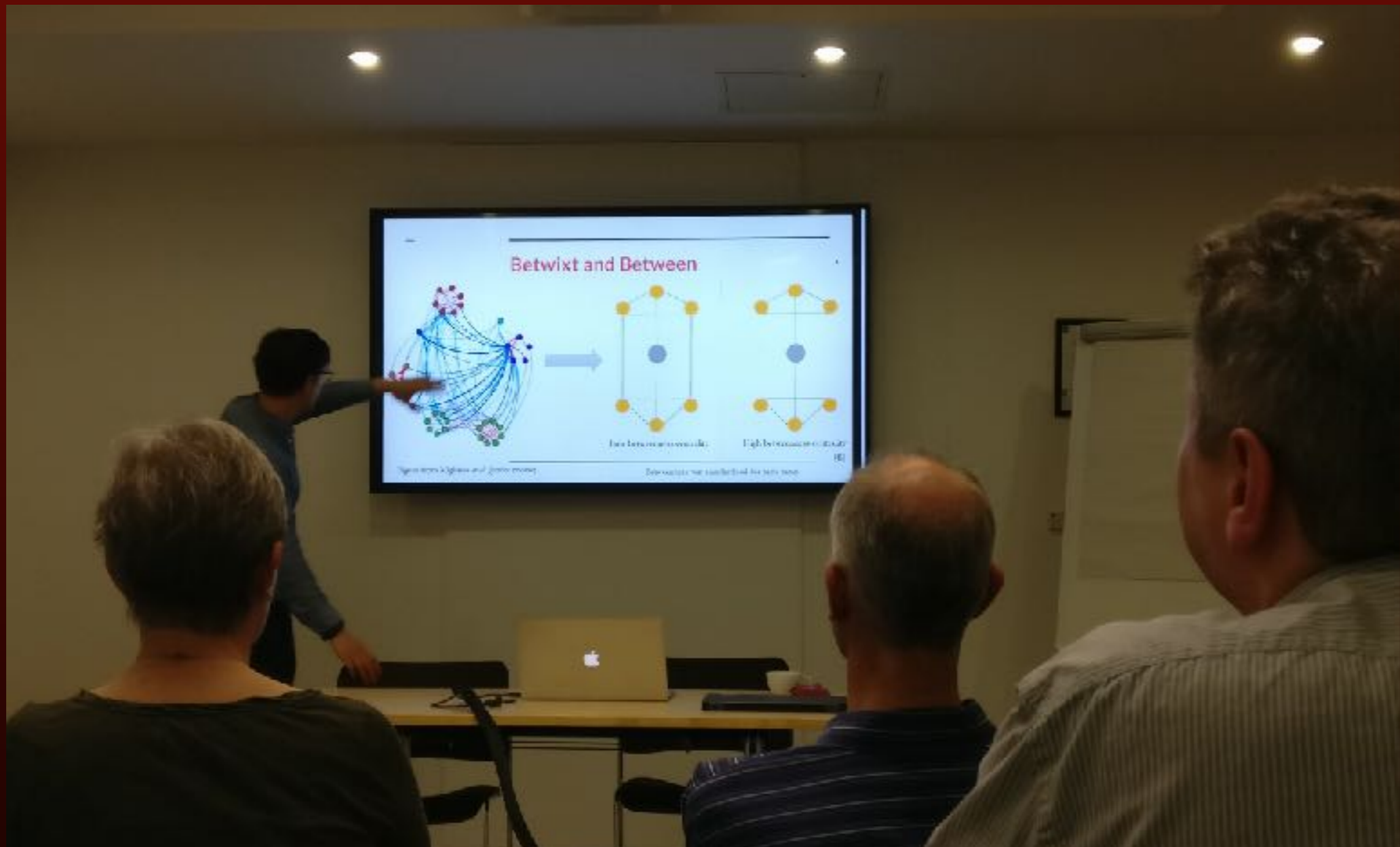




Looking Ahead

Trends of the next 5 years

- Data volumes and densities become so large that each bit will have to be stored in < 1 atom
- Languages, frameworks and APIs come and go at ever higher frequencies
- There is no longer enough time in the day to clear your inbox AND keep up with Social Media AND industry news, let alone do any work
- Software developers will be replaced by robots
- You start to enjoy building systems again in your new-found leisure time and come to SPA meetings for fun and friendship



Questions?