Advances in Software Practice
Reflections & Lessons from the Last 3 Decades
About me

Immo Hüneke MBCS CEng CITP
Senior Software Engineer
immo.huneke@zuhlke.com
immo@huneke.co.uk
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
- Agile
- CASE tools
- Object Databases
- Autonomous Agents
- B2B
- Components
- CORBA
- Agents
- The Method Wars
- APIs
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?