Eelco Visser and IFIP WG 2.16

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— Abstract —

Eelco Visser was a founding member of the IFIP TC2 Working Group 2.16 and long served as its chair. This brief note recounts Eelco’s impact on the group and his contributions to its meetings.

2012 ACM Subject Classification Software and its engineering → Formal language definitions;
General and reference → Biographies

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1 Introduction


2 Lunch in Reno

The IFIP TC2 Working Group 2.16 was conceived at an informal lunch at SPLASH 2010 in Reno, NV, colloquially nicknamed the “minus 1st” meeting. A number of researchers, including Eelco, had observed a lack of space to discuss programming language design in the broad sense. Indeed, the mission statement of the group states:

We have noticed that researchers interested in language design are isolated and lack a place to exchange ideas and criticism. Computer science conferences no longer serve this role, because they have become fixated on rigorous evaluation. There is nothing

1 An early draft was circulated among the membership of WG 2.16 for comments.
2 http://languagedesign.org

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wrong with rigorous evaluation of things that can be so evaluated, but language design ideas, particularly in their formative stages where feedback is most crucial – when there may be neither implementation nor experience with their use – cannot be so evaluated.

The result of this meeting was an official application to IFIP TC2, chaired by Bertrand Meyer at the time, presented by Jonathan Edwards and Eelco. The application was successful, and WG 2.16 was born.

The inaugural meeting was held the next year, in Mountain View, CA. And since then Eelco attended almost every meeting. Only when travel restrictions and lockdowns forced us to organize the meeting online he started skipping sessions, or did not attend the meeting altogether. In 2023, we are organizing our first physical meeting since the peak of the pandemic. Sadly, it will be without him.

3 Eelco’s contributions to the meetings

Eelco was a prolific researcher, but also a great designer, with a keen eye for detail, and attention for good taste. His slides were often beautifully designed. And when he decided to give a talk without slides at all, it was a carefully prepared live coding session, showing off his language engineering tools.

His talks often started with “Soooooo, I’ve been working on $x$” where $x \in \{\text{name binding, web programming, ...}\}$. The following list gives a good overview of the topics he covered at the working group meetings:

- Exploring the Web Programming Design Space (Mountain View, 2011)
- Dimensions of Domain-Specific Language Design (Mountain View, 2011)
- Spoofax Language Workbench (London, 2012)
- Declarative Name Binding and Scope Rules (Aarhus, 2012)
- Linguistic Abstractions for Web programming (Aarhus, 2013)
- Dynamic Semantics Specification in DynSem (Athens, 2015)
- The Name Binding Game (Los Angeles, 2016)
- The Semantics of Name Resolution in Grace (Park City, 2017)
- The Syntax Definition Formalism SDF3 (Antwerp, 2018)

Eelco was also an active ambassador for his work, always on the look-out for potential users of his tools or opportunities for collaboration. “Let’s meet during the break, and I’ll show you.”, he’d say, almost coercively, and nobody dared to resist.

In a sense, Eelco was the ideal chairperson, since he hovered above (or in between) the factions, styles, and schools of the programming language design field. Thematically, he occupied a middle ground between “the formal ones” (type systems, semantics, verification, etc.) and the “free radicals” (live programming, new programming interfaces, etc.).

If you look at the list above, however, you immediately observe that he was a “meta” person: most of his talks related to his ongoing work on the Spoofax language workbench and its set of meta-languages (SDF3, DynSem, NaBL, Statix). The exception being WebDSL\(^3\), his language for web programming, implemented in Spoofax\(^4\).

He once lamented to me in private, that “we need more language engineering stuff”. What he meant by that is: we could improve language design by developing better tools for language engineering. I think this summarizes his long-term goals quite accurately: better tools free up mental space for better design.

\(^3\) [https://webdsl.org/](https://webdsl.org/)
\(^4\) [https://spoofax.dev/](https://spoofax.dev/)
Chairing WG 2.16

Since the beginning, Eelco served as chair of the working group, until I succeeded him in 2019. In this role, he was in charge of scheduling talks during the meeting. The way he did this was: he’d walk around behind the attendees, sitting in carré arrangement, then squatted down and looked at you with his characteristic twinkling in his eyes: “So you will talk about $x$, right?”, or “Can you be the first speaker tomorrow?” (smirk).

His most direct impact for me personally is that he invited me as a visitor of the working group in 2012. And together with William Cook, who was vice-chair at the time, he asked me to become a member at the Austin meeting in 2012.

Everyone who knows Eelco, has seen him walking around with his camera. At the working group he acted as our semi-official photographer. Most of his working group pictures can be found online at https://www.flickr.com/photos/eelcovisser/albums/72157629257337544.

In memoriam

Eelco’s untimely and sudden death happened less than a year from the passing of another founding member: William Cook (†2021). WG 2.16 is still struck by these events. Both persons have been inspiring to me, both personally and professionally. I am sure the working group will keep their memory alive.

Only recently I learned that the official title of IFIP Working Group 2.16 is “Programming Language Design”. Turns out that Eelco had preferred “Language Design” (probably to include DSLs, specification languages, and meta languages), and that became the de facto name. I think this is exemplary for how he ran the working group: subtle, but impactful.