

Fifty-Year Anniversaries in Norwegian Computing History

Two fifty-year anniversaries in computing history were celebrated in Oslo in September 2017: the fifty-year anniversary of the creation of the Simula programming language, and the fifty-year anniversary of the founding of the Norsk Data computer company.

Simula

The Simula 67 programming language, first formally defined in 1967, was a step in a series of developments by Ole-Johan Dahl and Kristen Nygaard that began in the early 1960s.¹ Dahl and Nygaard were given the 2001 IEEE John von Neumann Medal and the ACM 2001 A.M. Turing Award for their creation of Simula.

A fifty-year anniversary celebration for Simula took place (in the “Simula Auditorium” in the “Ole-Johan Dahl Building”) at the University of Oslo on 27 September 2017. The celebration began with unveiling of a plaque from the IEEE History Committee’s Milestone program. The plaque reads:

IEEE Milestone

Object-oriented Programming, 1961–1967

Ole-Johan Dahl and Kristen Nygaard created the Simula programming languages in the 1960s at the Norwegian Computer Center, and in so doing introduced a new way of modeling and simulating complex tasks. Object-oriented programming is now dominant in systems development. It is an integral part of computer science curricula, as are languages built on object-oriented programming concepts, such as Smalltalk, C++, Java, and Python.

September 2017

The nomination of this Milestone was from the IEEE Norway Section. The photo shows Section Vice-Chairman Kaveh Niayesh unveiling the plaque.

The rest of the day consisted of presentations by several programming language researchers and developers: Oscar Nierstrasz (“Great Moments in the History of OOP”), Dave Thomas (“The Legacy of Simula 67”), and James Gosling (“Simula: A Personal Journey”), as well as a panel discussion



PHOTO 1. Photo credit: Harald Brombach/digi.no.

chaired by Eric Jul (“Whither Programming Languages? Can We Still Celebrate Simula 50 Years from Now?”) with participation of the prior three speakers and Ole Lehrmann Madsen and Olaf Owe.² Videos from the event are available.³

The previous afternoon, the Association of Simula Users (ASU) held a several-hour meeting at which there were six presentations and a wrap-up session. According to Boris Magnusson (ASU chairman 1982–83), the ASU has been in continuous existence since the early days of Simula 67, holding annual conferences and publishing a quarterly newsletter. However, in recent years the ASU activities “have slowly faded away, and the meeting in Oslo was intended as a last meeting and also a way to formally close down the Association.”

Norsk Data

On 16–17 September 2017, the fiftieth anniversary of the founding of Norsk Data was marked.

In 1967 Lars Monrad-Krohn, Per Bjørge, and Rolf Skår left the Norwegian Defence Research Establishment (NDRE), where they had worked on the computer developments in “Siffergruppen” (the Digital Group), initiated and



PHOTO 2. Veslemøy Østrem of *Aftenposten* interviewing Norsk Data founders Rolf Skår and Lars Monrad-Krohn. Photo credit: Ragnar Sturzel.

led by Yngvar Lundh. They founded Norsk Data Elektronikk, where their first computer development was the Nord-1, building on work they had done in the Digital Group.

The Nord-1 was a minicomputer and competed well in Europe with minicomputers from the United States. With additional computers being developed over the years (arguably better hardware and software than some US competitors) and many high-profile or operation-critical installations, Norsk Data eventually became a high-flying company listed on the London as well as the NASDAQ stock exchanges, in addition to on the Norwegian exchange. With the personal computer revolution, Norsk Data went the way of almost all minicomputer manufacturers, eventually going out of business. For many of the eventual 4,500 employees of Norsk Data, their time with a company was one of the most exciting times of their professional careers, and the one-time employees of Norsk Data went on to populate a significant part of the developing Norwegian computing industry.

The day of 18 September involved a five-hour afternoon event at the Norwegian Museum of Science and Technology at which (among other presentations on Norwegian industry) the history of Norsk Data was discussed, and Professor Espen Andersen of the Norwegian Business School used the example of Norsk Data (and the Opera browser and other technologies) to discuss issues of disruptive technologies.⁴

On 19 September an evening “jubilee” party of 270 former Norsk Data employees was held in a hotel in Lillestrøm near Oslo. Founders Lars Monrad-Krohn and Rolf Skår described their views of the company’s history, as did several other people who had positions with the company. Yngvar Lundh also spoke.

This journal has published several notes over the years relating to the history of Norsk Data.⁵

An interesting commonality of the Simula and Norsk Data creation stories is that the two Simula creators and the three Norsk Data founders all began development of the technologies celebrated in September at the Norwegian Defense Research Establishment. Several of the men originally were assigned to NDRE as part of their mandatory Norwegian military service. NDRE might be considered the birthplace of computer science (Nygaard and Dahl worked there with Jan Garwick) and of computer engineering in Norway (the three Norsk Data founders having worked with Yngvar Lund).⁶

References and Notes

1. K. Nygaard and O.-J. Dahl. “The Development of the Simula Language,” in R.L. Wexelblat, editor, *History of Programming Languages*, Association of Computing Machinery, New York, 1981, pp. 439–93. Another paper on Simula’s history was previously published in this journal: J.R. Holmevik, “Compiling Simula: A Historical Study of Technological Genesis,” *IEEE Annals of the History of Computing*, vol. 16 no. 4, 1994, pp. 25–37. Another historical summary of Simula is S. Krogdahl, “The Birth of Simula” *Proc. HiNC 1 conference*, Trondheim, June 2003; <http://heim.ifi.uio.no/~steinkr/papers/HiNC1-webversion-simula.pdf>. For extensive bibliographies of Dahl, Nygaard, and Simula, see <https://www.ub.uio.no/english/subjects/informatics-mathematics/informatics/>.
2. <http://simula67.at.ifi.uio.no/50years/>.
3. <https://www.ub.uio.no/fag/informatikk-matematikk/informatikk/faglig/dns/filmer/simula50.html>.
4. <https://www.facebook.com/Tekniksmuseum/videos/10155372606116141/>.
5. Interview of Rolf Skår, *IEEE Annals of the History of Computing*, vol. 34 no. 1, 2013, pp. 72–77; B. Lewental, “My Corner of the Time-Sharing Innovation World,” *IEEE Annals of the History of Computing*, vol. 36, no. 4, 2014, pp. 97–101; N. Liaaen and D. Walden, “Remembering the LFK Network,” *IEEE Annals of the History of Computing*, vol. 24, no. 3, 2002, pp. 79–81; D. Walden, “Norsk Data: 40th Anniversary Celebrations,” *IEEE Annals of the History of Computing*, vol. 30 no. 1, 2008, pp. 83–84. Two other useful references to the history of Norsk Data are T.O. Steine, *Fenomenet Norsk Data* (in Norwegian), Universitetsforlaget, Oslo, 1992; T.O. Steine, “The Founding, Fantastic Growth, and Fast Decline of Norsk Data AS,” *History of Nordic Computing 3, IFIP Advances in Information and Communication Technology*, vol. 350, Springer-Verlag, 2011, pp. 249–57.

David Walden. Contact at www.walden-family.com/ieee.