The Dawn of Online Education

The first decade of My Online Education World 1980-1990

Morten Flate Paulsen

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This is the first book in a four-book chronicle of personal anecdotes, experiences, and reflections on people, events, technology, and pedagogy that influenced four decades of my online education work.

The narrative is based on my international practice with online education as a pioneer, student, teacher, course designer, system developer, administrator, board member, researcher, professor, author, editor, reviewer, entrepreneur, and innovator.

The story progresses along with my work for NKI Distance Education in Norway, the American Center for the Study of Distance Education, the Athabasca University in Canada, the European Association for Distance Learning (EADL), the European Distance and E-learning Network (EDEN), the Universidade Aberta in Portugal, the Nordic open online Academy (NooA), the Norwegian University of Science and Technology (NTNU) and the International Council for Open and Distance Education (ICDE).

The anecdotes also include reflections from visits to thirty countries where I have given presentations about online education.

By Morten Flate Paulsen

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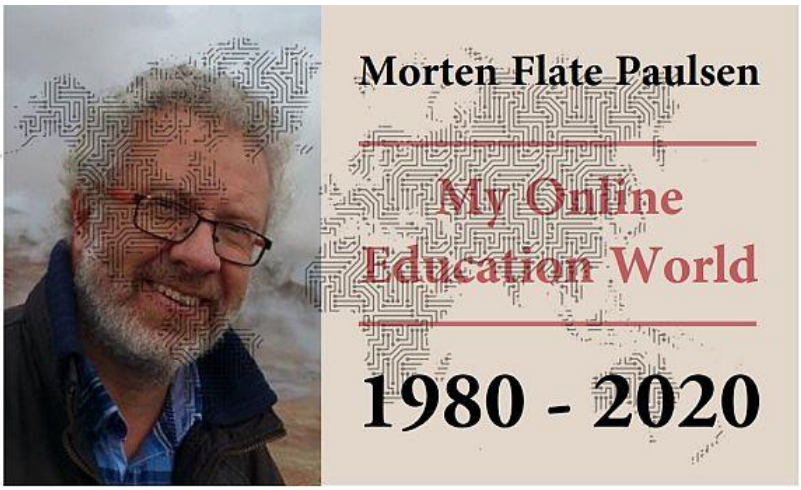
Table of contents

Introduction



My Online Education World chronicle emerged as an intriguing, but daunting, idea during 2019. First, when I attended the black-tie dinner hosted by Baroness Martha Lane Fox for the 50th anniversary of the UK Open University. Again, when I prepared a keynote on forty years of innovations in online education at the Sukhothai Thammathirat Open University's 40th anniversary in August 2019.

I gradually realized that I have four decades of online education experiences and many anecdotes that I had time to share after stepping down as Acting Secretary General of the International Council for Open and Distance Education (ICDE). I also realized that My Online Education World was formed by an unprecedented technological development, hundreds of good people I met, and my experiences with ICT and pedagogy in Norway and scores of other countries.

My ambition was to publish ten relevant recollections, year by year. The approach was inspired by Ketil Bjørnstad. The multi-talented Norwegian pianist, composer, journalist, and author - who shared personal anecdotes, celebrity encounters, and newsworthy moments in his monumental chronicle *Verden som var min* (The world that was mine). Hundred pages per year, one volume per decade. Before I started this chronicle, I had read his observations and views from the sixties and seventies. So, I continued reading his next four volumes as my writing progressed with the following decades.

Bjørnstad's world was especially interesting to me since we grew up in the same era, region, and cultural setting. In the same way, I hope my recollections are of interest to online educators around the world, to my dear family and friends as well as the countless people I encountered virtually and face-to-face in My Online Education World.

From the start, my ambition was to finish my recollections of the 1980s by the end of 2020. Then, focus on one decade per year and finish the project by the end of 2023.

I started to publish preliminary versions of the anecdotes at www.nooa.no/my-online-education-world/ and in social media. Which resulted in positive and useful feedback. And

encouragement to update and compile the anecdotes in a book. So, I decided to revise and publish the anecdotes as four open access books during 2024. One book per decade.

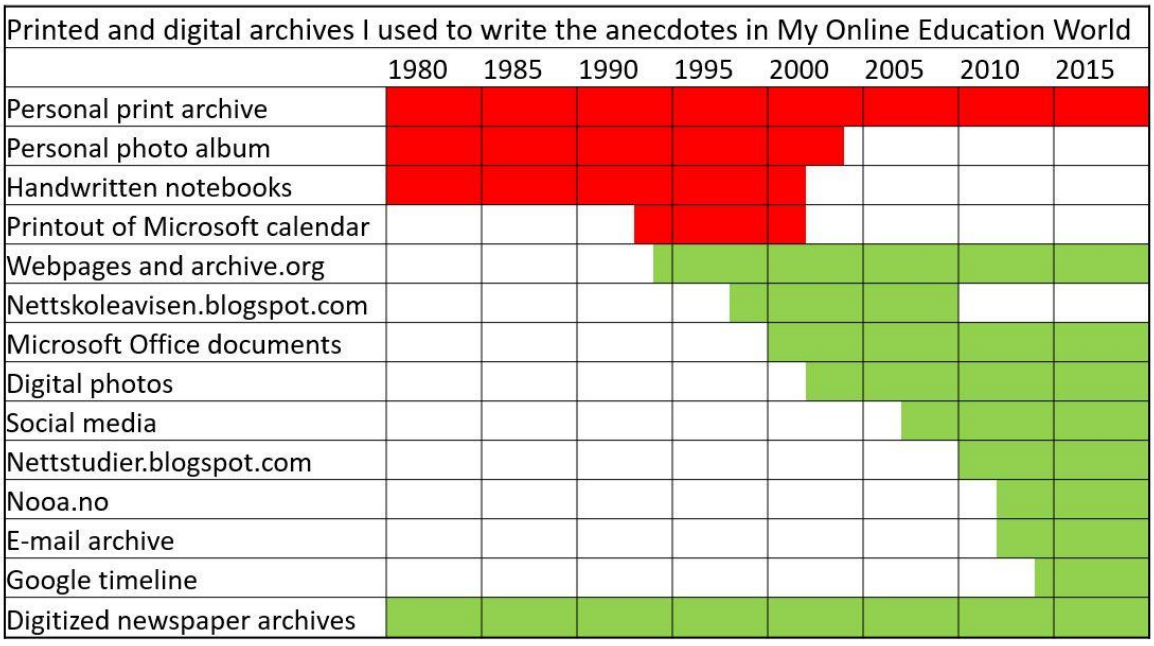
Fortunately, I remembered and had access to much more relevant information than expected. People close to me claim that I never trash a document before I copy it. So, I have kept a lot of printed books, proceedings, articles, reports, and printouts. Digital archives of old e-mails, reports, publications, presentations, and entries from the Windows 3.1 calendar I started to use in the nineties.

The Wayback Machine is an impressive resource. Archiving most of the websites we worked with in the second half of the nineties. The Norwegian National Library has a valuable online archive with hundreds of Norwegian newspapers, books, and journals including my name. And over one hundred of my publications are listed in Google Scholar.

Web-based, year-by-year chronicles of events helped me relate the anecdotes to current Norwegian and international events. So, the minutes concluding each year are chosen as formative events in My Online Education World. They are also meant to be reminders of the zeitgeist. The spirit, politics, technology, and culture that defined each year.

Based on all the available material, I've chosen anecdotes that recall good personal memories and include people and events that influenced me and the development of Norwegian and international online education.

Important archives that jogged my memories are illustrated in the timeline below. And it strikes me that so far only a few of these archives can be accessed by generative artificial intelligence. So, how will the history of online education be presented when AI systems soon ingest my open access publications?



Timeline of my most useful printed (red) and digital (green) archives

The pioneering 1980s

Edvard Munch's monumental painting "The Sun" expresses the majestic sunrise in Kragerø. The central work of Munch's world-famous artwork at the Oslo University Aula. It may be used to symbolize the dawn of online education and the university's fundamental task — enlightenment.

The first book in My Online Education World compiles anecdotes from the pioneering 1980s. Anecdotes chronicled during covid isolation in 2020. The decade that irrevocably hurled me into many unforeseen adult opportunities and challenges. The decade that indeed changed a modest Norway towards a more self-conscious, open, and rich country. Defined technology developments that spurred a paradigm shift in distance education. So remarkable to sum up the decade realizing that a century has passed since my father was born. Reading worrying news about the pandemic, US developments, and Brexit at the end of 2020. The warmest year on record in Norway. A year that certainly will define the years to come.

In 1980, distance education was synonymous with correspondence courses, educational radio, and television. It was the dawn of the online education era. The eighties totally transformed our perception of distance education. The major driver of the development was new technology: PCs, modems, and learning management systems. In retrospect, low-capacity technology without graphic and colour interfaces. But a technology upholding Moore's law by doubling processing and storage capacity every second year. Foreshadowed the ability to process digital sound and video. We introduced the term ICT for Information and Communication Technology. The Internet infrastructure reached leading universities, a few pioneers started to exchange e-mail and the first online courses were introduced.

The second half of the decade introduced a remarkable era for online education in Norway. When I initiated the country's first learning management system and online courses. Spent a

fortune on long-distance calls as an online student and teacher at Connect Ed in the US. Saw King Olav and prime minister Gro Harlem Brundtland at the World Conference for Distance Education. Hosted by the Norwegian Association for Distance Education at the University of Oslo. The International Council for Open and Distance Education (ICDE) opened its permanent secretariat in Oslo. Developments that clearly defined my online education world.

In the eighties, I was one of many Norwegians who viewed the US as the land of opportunities. Scientific excellence, NASA, high-tech companies, incredible new software, reliable news, impressive athletics, entertaining movies, and music we loved. A country I toured extensively as a tourist. And visited several times to learn more about technology and online education from the North American pioneers. Inspired by technology innovations and ICT entrepreneurs like Steve Jobs. And Bill Gates, who I interviewed in a 30-minute program on Norwegian TV.

1980 - Graduating for online education?

Student life

Picture of my first digital photo printout. The fifty shades of grey were made by various keyboard characters.

In 1980, I graduated from the Norwegian Institute of Technology (NTH, now NTNU) in Trondheim as a shy, introvert, mediocre, but diligent student. I remember we were 180 students in the class when the only female student dropped her knitting needle on the floor. The awkward lecturer wearing his sweater inside out. Spending two hours by the blackboard, unable to solve his own mathematical assignment. The often arrogant, sometimes brilliant, and always rabid professor Jens Glad Balchen. Norway's first professor of cybernetics, who many years later was commemorated on the tail wing of a Norwegian Air Shuttle. On that plane towards Trondheim, I wondered if any online educators would be featured in such a prominent place.

I saw my first microprocessors and fibre optic cables. Got a printout of my first digital photography. Learned Fortran programming in front of a punch card machine. Delivered stacks of cards at the counter for compilation and picked up all the printed error messages the next morning.

Most students substituted their manual slide rules with calculators from Texas Instruments or Hewlett Packard. I had the HP 21, which could be programmed with 49 command lines. Just enough for my friend Bjørn Bakken and my younger brother Frode to simulate five dices to play Yahtzee.

Long-distance calls to Oslo were expensive and the telephone charges were even higher during work hours. So, every Monday at 17.00, my father called me at my landlord Fru Hagen's telephone.

To add extra income to the student loan, I worked during vacations at the booming minicomputer company Norsk Data and the Norwegian state telecom monopoly (Televerket). At Norsk Data, we worked with the SIBAS database software. At Televerket, we measured how fast (300-4800 bits per second) future modem users could transfer data over ordinary telephone lines. Contemplated if people ever would need such services.

US road trip

Private photo with Dallas police officer

I had few distinct plans. So, I embarked on a summer journey with my childhood friend and 1975-76 Interrail companion, Atle Gunnari. Four countries in two months: USA, Graceland, Mexico, and Disneyland. We transported a Chevrolet Nova from New York to Dallas for a driveaway service. And were frisked by intimidating police officers at the destination. Alerted by a sixteen-year-old girl who was alone in the house. Checking our papers, they realized we had a wrong address to the owner of the car. So, they cheered up and helped us find the way.

We hiked Grand Canyon all the way down to the Colorado River and up again in one day. Continued to Las Vegas, San Diego, and Tijuana. Flew from Los Angeles to Hawaii. Surfed at Waikiki Beach, snorkelled with tropical fish near Diamond Head, and visited Pearl Harbour. Drove around Oahu in a white Jeep Wrangler.

Stayed a few days in a Santa Cruz collective with health-conscious people who only ate and smoked stuff they cultivated themselves. Together with Anna and Paula from Italy. Wonder if they remember the Volkswagen van excursion with Kim and her hippie friend, Gey. The excursion that culminated with his bamboo and coconut concert up in the huge redwood tree.

Later, on the Greyhound bus, we realized that we could only afford San Francisco's cheapest hotel room. It turned out to be in a gay hotel on Market Street. So, I was more than happy to arrive hand in hand with Anna. But disappointed when I asked for directions to Silicon Valley. To my astonishment, none of the locals had heard about this epicentre of ICT.

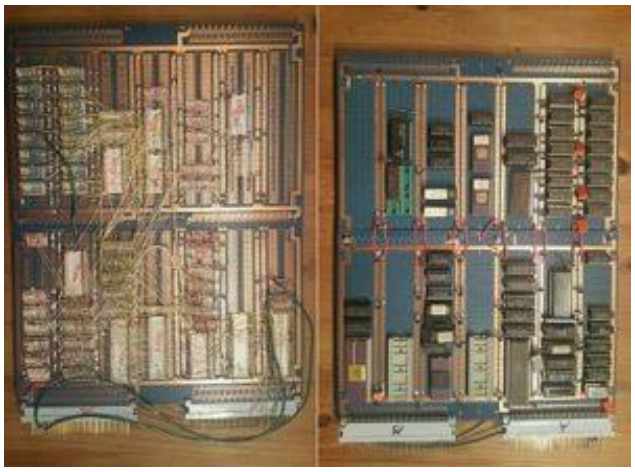
Continued from San Francisco to Eugene and Seattle as incumbent President Jimmy Carter was campaigning against Ronald Reagan. On July 22, we were on the road towards Seattle when Mount St. Helen again erupted with destructive force. The sky was dark with smoke and the bus driver used the windshield wipers to see through the ashes coming down from the sky.

My Mycron thesis

Returning home, I bought a NOK 35,000 one-room apartment at Ammerud in Oslo. There, I applied Televerket for a landline telephone and was lucky enough to get one after a few months. I bought Pink Floyd's 1979 LP *The Wall* and played *We don't Need No Education* repeatedly in stereo on my gramophone.

In the fall, I finished my master’s thesis in cybernetics at the microcomputer company Mycron in Oslo. Headed by the serial entrepreneur Lars Monrad Krohn who declined an offer to become Norway’s second professor in cybernetics. A position which was filled by my advisor, Olav Landsverk.

I interviewed Lars Monrad Krohn for educational TV in 1989. About his entrepreneurial experiences from Norsk Data, Mycron, and Tiki Data. See a brief clip of the interview here.



Private photo of the CPU I developed as part of my thesis.

As part of my thesis work, I designed and built the depicted central processing unit (CPU) for a microcomputer with the Intel 8086 microprocessor and 8087 arithmetic co-processor. I wrote the thesis with the very early word processor Mytekst (developed for Mycron by Haakon Wiig) and saved it on an eight-inch floppy disk.

Among my successful colleagues in Mycron were Terje Tinglum and Ingar Rune Steinsland, who developed CPM 86 together with Gary Kildall in the US company Digital Research. We all expected it would be the operating system for the planned IBM PC.

And I was lucky enough to make a 30-minute TV interview with Bill Gates about this in 1989.

Arild Haraldsen also wrote about it in his Norwegian article Den sanne historien om PCens historie (The true history of the PC).

It was Gary Kildall and Digital Research who should have supplied the operating system. Had it not been for the fact that Gary had chosen to take a trip with his small plane so that he did not make it to the meeting with IBM .

Such is the story. At least the official story, as told in a number of books and articles worldwide.

New information I have come to know shows that the story is not true. On the contrary, there are many indications that it has been planted. By Microsoft .

"It was then that I learned that computers were built to make money, not minds."

Gary Kildall in his unpublished book manuscript: "Computer Connections: People, Places, and Events in the Evolution of the Personal Computer Industry".

Screenshot of Arild Haraldsen's Google translated article in Digi.no 15.10.2001.

Excerpt from my TV interview with Bill Gates

Morten Flate Paulsen: In Norway, your company Microsoft is best known for its MS-DOS operating system. What is the true story behind IBM's choice of MS-DOS over CPM for its IBM PC personal computer?

William Gates: Well, when IBM was going to make their PC, they thought about the whole market. At that time (1980) there were many microcomputers: e.g. The Apple and Commodore machines, which used our BASIC translator. The CPM machines had approximately 20 percent of that market.

When IBM first came to us, they intended to make an 8-bit machine, like the other microcomputers on the market at the time, and they were only interested in using our BASIC translator. We convinced them that they should go for a 16-bit machine instead. This would be more powerful, and we believed that it should have an operating system based on the use of magnetic disks.

In fact, I sent them to Digital Research first, to Gary Kildall, to see if Gary had finished the 16-bit version of CPM. But unfortunately, they did not get in touch with him, and various other problems arose during the negotiations there.

Be that as it may: We then decided to go in ourselves and seize this opportunity to create a better operating system. And a month later, we submitted our system to IBM, with MS-DOS. We actually already had a system in house, made by Tim Patterson, which we could use as a basis for MS-DOS - which was lucky for us, given the tight time frame we had at the time.

MFP: Wasn't that the system they called QDOS (Quick and Dirty Operating System)?

WG: Well, Tim had several names for his system: QDOS and 86-DOS were two of the names he used. But we quickly had the name changed to MS-DOS when we took it over.

MFP: Would you then say that it was purely by chance that MS-DOS "won" over CPM? That if e.g. Had Gary Kildall been present at the decisive moment, perhaps CPM would have been chosen, and not MS-DOS?

WG: No, we had decided that we should have this assignment, and not Digital Research. And we played a leading role in the development of the hardware: I chose the character set, we chose the graphic resolution, etc. It wasn't entirely easy - e.g. we set as a requirement that the machine must be able to work both with and without magnetic disks. Besides, we were short on time, as already mentioned, and the 16-bit version of CPM was not available at this time. So, it was clear that IBM would choose us.

Here I can mention that in the beginning it was more complicated. When the machine came out, IBM offered it with both MS-DOS and CPM - i.e. the 16-bit version, which Digital Research completed approx. 6 months later. We then had a period of a few years when nobody knew what would become the standard. I travelled around speaking for MS-DOS, while companies like Victor (which few will remember today) were more CPM oriented. Only after a couple of years was everything clarified. People often think that things were simpler before, but that is not always the case - they could be just as complicated then as they are now!

1980 minutes

The events included in my yearly minutes are chosen as formative events in My Online Education World. They are also meant to be reminders of the zeitgeist. The spirit, politics, technology, and culture that defined each year.

The yearly minutes also list the publications and presentations I recall from my research and development work.

- February 11. Pizza Grandiosa was introduced in Norway.
- February 13. The Lake Placid Winter Olympics started, and American Eric Heiden won all five gold medals in speed skating.
- March 27. 123 people died when the Norwegian offshore platform Alexander Kielland tilted in a storm.
- April 20. Norway decided to boycott the Moscow Summer Olympics along with 64 other nations.
- May 18. Mount St. Helen erupted and fifty-seven people died.
- July 29. The UN general assembly decided that Palestinians had the right to establish their own state.
- November 4. Ronald Reagan defeated incumbent President Jimmy Carter and was elected US President.
- December 8. John Lennon was murdered outside his New York City apartment building.

One 1980 publication in Norwegian

Paulsen, M. F. 1980. Hovedoppgave: *Ko-prosessering for Mikroprosessor*. Trondheim: NTH.

1981 - Working with microcomputers

Mycron and the IBM PC

Screenshot of my video interview with Bill Gates

After finishing my master's thesis at Mycron, I continued to work there for six months as a hardware engineer. The company's future looked bright, so unfortunately, I bought shares in the company. How could I foresee that IBM would choose MS-DOS over CPM 86? And the introduction of the Osborne 1 portable computer and the IBM PC in 1981?

Analyses and acquisition of shares are often more successful in hindsight, as this brief video clip from my 1989 interview with Bill Gates focusing on MS-DOS indicates.

I bought my first home computer. Considered the Sinclair ZX80 but chose the Commodore VIC 20, which foreshadowed the more successful Commodore 64. I later added a cassette tape recorder to store programs and learned to program in Basic.

Looking back, I realize that many of Norway's most talented ICT personalities started their careers in Mycron. Just to mention a few I worked with: Ulf Motzfeldt, Dag Bøyesen, Christian Lied, Vigleik Eide, Monica Nøkleby, and Ivar Andersen. Stein Bergsmark was active in the climate debate and Gro Jørgensen co-founded Tiki Data for the school market and started CyberBook - a company that provided online learning resources.

Teaching in the Navy

In July, Prince Charles and Princess Diana married in London. And I was called to do my military service in the Norwegian Navy. It started with a three-week boot camp at Madla in Stavanger. Fortunately, I was soon transferred to SMK (Sjømilitære korps). The Navy's vocational boarding school in Horten. There, I spent one of my best years as a quartermaster and teacher, along with my university classmates Olav Stokke, Bjørn Hopland, Christopher Lund, and John Harald Bergheim. Brynjulf Freberg was a frequent visitor at the old military villa we shared at Karljohansvern. As quartermasters, we had privileged access to cleaning maids, windsurf boards, and sailing boats. But we worked bloody hard as teachers and duty officers.

Private birthday photo

As duty officers during weekends, we were responsible for the 200 students at the military boarding school. This was especially tough when they returned from the local discos and pubs. Often hard to wake them up the morning after they received their monthly payment. But we learned that they respected and cared about us - because we cared about them.

I fondly remember my 24th birthday. When I showed up in the classroom, it was decorated with petunia flowers in half-litre

beer mugs. Respectively stolen from the school's flower bed and the local pub. At lunch, about 200 male and 10 female students sang happy birthday in the cafeteria.

With no teaching experiences, I was thrown into teaching mathematics, chemistry, and electronics. The students were nearly my age and not especially motivated to learn theory. So, I soon realized that we needed some action in class. Chemistry became more interesting with explosive demonstrations. Lab sessions were more fun when we grilled hotdogs at 230 volts, injecting electric cords in each end. We learned that the sausages were well done when the 10 ampere fuses cut. It probably went too far when I ignited a leftover military thunderflash in the teacher room during lunch break.

Private photo of Olav Stokke in front of an ABC 80

The school had several Swedish ABC 80 microcomputers, and we connected them in a local area network (LAN). I expect it was one of the very first LANs in Norwegian schools. There, we developed our first online education application. A competitive arithmetic game, where the students tried to solve as many assignments as possible in a limited time. It became popular and the competition to be on the top ten list was fierce.

If not on duty, I went to Oslo during weekends with my first car, an old Renault 5. Olav helped me install a car computer and attach sensors to measure the flow of gas and rotation speed of the wheels so that the computer could show the current and the average gas consumption and speed of the car. Le Renault did not like steep hills but gave a special feeling of freedom.

Freedom of choice, however, was not abundant in the Norwegian society. In December, Minister of Culture Lars Roar Langslet announced a list of providers that were accepted for testing local radio and television broadcasting. Ending the Norwegian state broadcasting monopoly.

1981 minutes

- January 1. Greece became a member of the EU.
- February 4. Gro Harlem Brundtland became the first female Prime Minister in Norway.
- February 22. Two men were shot at the Hadeland murders by a Nazi-inspired three-men group called "Germanic Arms of Norway".
- March 8. Arnfinn Nesset admitted killing 22 patients at Orkdal's age and nursing home with poison.
- March 30. Ronald Reagan was shot and injured.
- May 10. Francois Mitterrand became president of France.
- May 13. Pope John Paul 2. was shot and seriously injured in Rome.
- June 7. Israeli fighters bombed a nuclear reactor in Baghdad.
- July 29. Prince Charles and Princess Diana married in London.
- September 9. Norway beat England 2-1 in soccer as reported by the renowned reporter Bjørge Lillelien in this famous audio clip.
- October 27. A Soviet submarine was stuck near Karlskrona in Sweden.

One 1981 publication in English

Bergsmark, S., M. F. Paulsen, C. Lied, and U. Motzfelt. 1981. *DIM 2001 CPU Module: OEM User's Manual*. Oslo: Mycron. pages: 70.

1982 - Gaining teaching experiences

SMK highlights

The navy officers in SMK (Sjømilitære korps) gathered in the large living room of our villa to socialize, watch VHS videos, and see Oddvar Brå break his legendary ski pole fighting for the World Championship in Oslo.

We served beer from the bar and called the private soldiers on duty when we needed more wood for the fireplace. Frequent discussion topics among the officers were Prime Minister Margaret Thatcher and the Falklands War between the UK and Argentina. It started when Argentina occupied the Falkland Islands in April and ended in June when the Argentine forces surrendered.

It was a special day. King Olav visited SMK. We were all lined up in navy uniforms and the King took time to inspect and greet everyone. My body hurt from lined up immobility. My soul was pleased with the royal handshake.

The open day for the local community and student families started with the traditional ceremony of hoisting the Norwegian flag. Maybe Thomas was among the students in the parade. At least his parents and older sister, Astrid, were watching. The handsome young woman who would mean so much to me later in life.

After two years of schooling, the SMK students continued with two years of military training at the Haakonsvern naval base near Bergen. As their teachers, we got a military flight to a guided tour of the base and the submarines. I was not intrigued to travel anywhere by submarine but inspired by the opportunity to hop on free empty seats on military flights to northern Norway. Christoffer Lund and I used the opportunity to seek the midnight sun and visited Tromsø and Bodø during summer vacation.

At the end of the school year, my military service ended. The students celebrated it traditionally by throwing their teachers, wearing quartermaster uniforms, into the cold Oslo fjord. It changed my interpretation of the word wetsuit.

NKI Distance Education


Aviser Side 54 av 60, 6. Mai 1982

Vi søker medarbeidere til prosjektgruppe

Datateknikk - mikroelektronikk

- Siv.ing./Cand. real som leder for gruppen. Forutsetter kompetanse fra EDB – software og/eller hardware, samt nødvendig administrativ erfaring.
- Ing./DH-kandidat med utdanning/erfaring innen EDB (software-retning)
- Ing./DH-kandidat med utdanning/erfaring innen EDB (hardware-retning)

NKI-SKOLEN

Facsimile of job announcement in Aftenposten, May 6, 1982

In the spring, I applied for a position at the Norwegian correspondence institute NKI that was announced in Aftenposten as shown in the figure. September 1st, after a successful job interview with Solveig Grepperud, I started as head of a project group which should investigate and develop new educational initiatives related to computer technology.

NKI produced a lot of written course material for their correspondence students and had a typewriter pool of women who typed from dictaphones and handwritten manuscripts.

One benefit was that the job came with affordable rent to one of the ten apartments NKI predisposed to in Limsteinveien near Bekkestua in the outskirts of Oslo.

Teaching Arab students in Oslo

NKI had international ambitions through ownership in ISOT - the International School of Technology. One of several ISOT-projects was a training programme in electronics for Syrian and Saudi Arabian engineers. It was part of a development program initiated by the Saudi Presidency of Civil Aviation (PCA) for Saudi technical personnel at the new airport in Jeddah.

As I recall it, NKI's project manager Stein Tore Jenssen called on a Friday to tell me that the coming week's teacher had withdrawn. Could I please step in and teach them PDP 11 assembly programming - in English? He argued that, since I knew some English and some assembly programming and had the entire weekend to prepare, there was no way I could decline. It was tough to teach a new subject in English for forty hours that week, but I made it. After a while, I appreciated that Stein Tore dared me to push my limits.

BBC microcomputers

In the summer, NKI bought 400 BBC microcomputers for educational purposes. The BBC Micro was developed by Acorn for the BBC Computer Literacy Project, which also included educational TV programs, textbooks, and software. NKI's intention was to use the computers for its computer courses and to get a foothold in the Norwegian school market. This effort was not especially successful since Tiki Data and IBM took over that market.

I was, however, fortunate to use the BBC micro and the additional resources for personal learning and some classroom ICT courses that I developed and taught for banks and insurance companies. I learned assembly programming with the computer's popular microprocessor 6502 and published a compendium with program examples and exercises.

1982 minutes

- February 18. The World Ski Championships started in Oslo. The moment Oddvar Brå broke his ski pole made an unforgettable impression on Norway's national soul.
- April 2. The ten-week Falklands War between UK and Argentina started.
- July 1. The Chinese population reached one billion.
- October 1. Helmut Kohl became Chancellor in West Germany.
- October 21. The Norwegian jazz singer Radka Toneff died.

One 1982 publication

Paulsen, M. F. 1982. *Mikrodatamaskinen: Praktiske Øvelser med 6502 assembler*. Stabekk: NKI-forlaget.

1983 - Starting Norway's first private ICT College

ICT technology and courses

Facsimile of advertisement for ICT courses in Aftenposten, January 13, 1983

The workforce needed more ICT competence, and NKI organized several introductory ICT courses for businesses and organizations in the Oslo area. I used to teach these courses to employees in banks, teachers, physicians, and dentists.

Used flip-overs, overhead projector, and preproduced plastic slides for the next ten years. Until I started lecturing with my Windows 93 laptop. First connected to a flat, translucent, black-and-white LCD slate I used on the overhead projector. Then to a portable LCD projector I brought along with my first PowerPoint presentations in the 1990s.

Few educators foresaw the immense impact PowerPoint and LCD projectors would have on teaching, lecturing, and presentations. But flip-overs and white boards are still useful.

The picture shows an advertisement from Aftenposten in January 1983, including some of my NKI colleagues. Oddvar Bentsen, Anne Kjeksrud, Helge Strømsø, Bjørn Kristiansen, and Noelle Bø. It also presents the BBC micros, black-and-white TV-monitors, and cassette recorders we used in the courses.

Carnivals in Brazil and Norway

In February, my neighbour and friend Arthur Knutzen invited me to the Carnival in Rio de Janeiro. He worked for the Scandinavian Airlines and had access to affordable flights. He snail mailed postcards to dozens of friends whenever he travelled and always packed the Oslo telephone directory to find their addresses.

It was an unbelievable week of experiences. We enjoyed body surfing and getting distracted and mugged by topless girls in Copacabana. We ran from shooting in the crowds outside Maracanã Stadium and rode a yellow Volkswagen Beetle taxi with an exploding tire in a tunnel towards Corcovado. Most memorable were the penetrating samba rhythms that heated up a frozen Norwegian. The experiences started a lifelong fascination with Brazil - a country that ever since has a special place in my heart.

Back in Norway, I met my life companion. Marith Helene Friisvold from the town of Molde. At a party in my colleague Petter Tjelle's neighbouring apartment in Limsteinveien. We started jogging together, ran the Oslo Marathon inspired by the two legendary Norwegian runners Grete Waitz and Ingrid Kristiansen. Had trips to Agadir and Teneriffe.

We also attended the first out of three Oslo Carnivals. Unfortunately, the cheerful but unrestrained carnival crowds did too much damage to establish a sustainable carnival tradition in Norway.

ICT summer schools

Facsimiles of advertisements in Aftenposten for NKI's ICT Summer School May 20 and EDB Skolen's summer camp May 5, 1983

In the spring, I initiated **EDB Sommerskole**. A series of weeklong courses for youth who wanted to learn programming in BASIC with the BBC microcomputers. A newsworthy initiative announced in and covered by both national and local newspapers.

Our competitors, EDB skolen, organized their three-week Summer Campus in Grimstad. I guess serial entrepreneur Jan Sollid Storehaug regrets that they started one week later than us.

I engaged my brother Frode to help with the summer school. We filled a Ford Transit with computers and TV monitors to arrange courses at the Panorama Summer Hotel in Oslo, Dombås Youth Hostel, and Skagerak Vacation House in Grimstad.

We organized barbecues, bonfires, and windsurfing. But I will never again agree to have 24/7 responsibility for teaching and social activities for youth on vacation away from their parents.

NKI Datahøgskolen - Norway's first private ICT College


Side 28 av 56, 20. Mai 1983

Studiene ved Datahøgskolen starter 5. september 1983

1- og 2-årige studier i datatag på høgskolenivå Heltidsstudier og studier på tiltiden. Studiene lokaliser i Sporveisveien 16 på Økern i Oslo.

☐ Ja takk, jeg vil gjerne ha tilsendt Studieplan 1983/84 for studier ved Datahøgskolen.

Klipp ut og send kupongen til

NKI-SKOLEN Postboks 10 1321 STABEKK

Navn: _____

Adresse: _____

Postnr. sted: _____

Facsimile of advertisement for Datahøgskolen in Aftenposten, May 20, 1983.

NKI decided to establish NKI Datahøgskolen as a private ICT college in 1983. The first three employees were Bjørn Kristiansen, Oddvar Bentsen, and me. We transformed the factory building at Grenseveien 107 into a school building with auditoriums, classrooms, and sixty terminals for our HP 3000 minicomputer. I vividly recall using a shovel and wheelbarrow to clear the basement from crushed bricks and dirt to make room for the minicomputer. Appropriate work for a hardware engineer.

When the first sixty full-time and 120 part-time students enrolled in September, the college was still partly a construction site. We employed Hege Bjarkholm, Lillian Askautrud, Einar Sandvik, and Mona Sætrang in the administration and several part-time teachers with experience from the ICT-field. Agnar Nilsen was engaged as ICT Manager to take care of the HP 3000 computer system we used for COBOL programming. And word processing with HP SLATE, which the students called HP LATE.

The students were motivated, challenging, and close to my age. We were a young team with more enthusiasm than experience. We learned how hard and rewarding it was to be entrepreneurs. And how difficult it was to establish a private college that challenged the public college system. However, without this enthusiastic team, the college would not exist.


Kultur- og vitenskapsdepartementet:

- Datahøyskolen holder ikke mål

CECILIE NORLAND

— Den nyopprettede «Datahøyskolen» oppfyller ikke de krav om kvalitet og nivå som stilles til to-årig høyskolestudium. NKI-skolen har fått avslag på sin søknad om en status for skolen som gir elevene rett til stipendium og lån fra Statens Lånekasse, sier ekspedisjonssjef Per Nyborg i Kultur- og vitenskapsdepartementet. De elevene som begynte på skolens heldagsstudium ihast vil imidlertid få stipendium og lån for dekning av oppholdsutgiftene inneværende skoleår, men neste skoleår må de finansiere på annen måte.

«Datahøyskolen» er underlagt Norsk Datainstitutt, som er et 100 prosent heleiet dattersel-skap av NKI-skolen. NKI har tidligere fått avslag på sin søknad om statsstøtte til skolen, og elevene betaler 25 000 kroner i året i skolepenger.

Bakgrunnen for departementets avgjørelse er at skolen startet opp uten å ha planlagt eller skaffet lærerkrefter til annet undervisningsår, og at skolen selv i en oppstartingsfase drives kun ved hjelp av deltidslærere. — Vi har intet imot deltidslærere, det kan tvert imot være et verdifullt supplement i undervisningen, men vi reagerer på at man kun har lærere på deltid i en fase der skolen skal bygges opp. Når skolen i tillegg bare har studieplan for første og ikke annet skoleår, bidrar dette til å øke uklarheten, sier Nyborg.

Han sier videre at de lærerkreftene som er satt inn ikke kan sies å fylle kravene til høyskole-lærere. Grunnen til at departementet likevel gir stipendium og lån til de som nå har begynt er at man vil hjelpe dem med første skoleår. Fra skolens side har studentene tidligere fått beskjed om at de høyst sannsynlig vil være berettiget til stipendium og lån fra lånekassen. Da skolen startet opp i sommer forelå det ikke nok opplysninger til å avgjøre om studentene ville falle inn under Lånekassens ordninger.

Facsimile of article about declined student loans in Aftenposten November 24, 1983

The toughest shock came when the Ministry of Culture and Science declined our application to join the scheme for public student loans. Because we primarily used part time-teachers. When the news broke, I remember welcoming the TV news reporter Audgunn Oltedal from NRK Dagsrevyen. She retorted, "I'm not here to be nice". However, Tore Krogdahl argued well on behalf of NKI on Dagsrevyen - the most watched news program on Norwegian television. Aftenposten, the leading Norwegian newspaper, broke the negative news on November 24, 1983.

We called an open meeting for all students who expected to receive student loans. Standing in front of more than one hundred hostile students in a stuffed auditorium was not pleasant, but we negotiated an agreement with a bank that offered our students loans on similar terms as they would get in public colleges.

The tension abated, and I still have many fond memories of the first students at Datahøgskolen.

1983 minutes

- February 13. Rolf Falk Larsen won the World Championship in ice skating at Bislett Stadium in Oslo.
- April 15. Ann-Kristin Olsen became Norway's first female police chief.
- July 22. A new freezing "world record" of 89.2 centigrades below zero was measured at a weather station in Antarctica.
- August 7. Grete Waitz won the marathon and became Norway's first athletic world champion in Helsinki.
- September 9. Norway's first AIDS mortality.
- September 20. The Norwegian pop duo the Monroes released its debut album "Sunday People".
- November 6. Scandinavia's first heart transplant was conducted in Oslo.
- December 10. Lech Walesa received the Nobel Peace Prize.

1984 - Changing perspectives

Mother Else Paulsen

Private photos of Else Rigmor Paulsen and her two sons at the Holmenkollen Ski Arena

Our dear mother, Else Rigmor Paulsen (born Bådstøe), died in February of cancer at the age of fifty-two. She was a mild tempered and careful mother and wife. She met father when they both worked at the Osram office at Drammensveien 35 in Oslo. They married in 1956 and moved to an apartment in Eiksveien 51 in Bærum. When I was close to two years old, they moved to a three-room apartment in Flyveien 15 in Luftforsvarets byggelag. I still remember when she came up the stairs in 1961 with my newborn baby brother Frode.

I was not much older the first time she took us to her uncle, where I saw his impressive ski trophies. I was not that excited by the six much smaller brownish medals. At the time, I was not old enough to realize that Johan Grøttumsbråten was the world's most winning Winter Olympian with six Olympic medals, three of them in gold.

Mother was a homemaker who took care of her two sons through Snippen day care, Huseby primary school, and Peersbråten secondary school until we left home to study at NTH in Trondheim. She was artistic, played violin with Bjølsen pikeorkester and Kringkastingsorkesteret, listened to Roger Whittaker on her cassette player, and decorated our mountain cabin near Gålå with traditional Norwegian rosemaling.

Private photo. Mom played first violin for Bjølsen school's girl orchestra at the University of Oslo

Her world was different from ours. It was without computers. She was abroad only once - to attend her sister Lill's wedding with Uncle Arne in Copenhagen. Altogether, her radio and TV-channel options were four.

Private photo. Dad, Aunt Marit, and Grandma Hilda Sofie at Sogn Hagekoloni ca. 1925.

In several ways, Mom preserved raspberries, red currants, blackberries, and gooseberries in the summer. Cherries, apples, pears, and plums in the fall. It was incredible how much fruit, berries, and flowers we got from the tiny garden colony lot at Sogn Hagekoloni. It was established around 1920 by fire chief Ole Paulsen at Hegdehaugen Fire Station. He was Dad's father and the garden colony provided welcome food resources when Norway was occupied during the Second World War.

Much of the berries we picked were frozen for the winter. At that time, few people had private freezers, so we rented access to a cold storage in the basement of an apartment building at Majorstua. I still remember how scary it was to go down there to fetch frozen berries, pork, or reindeer meat from the dressed carcasses the adults sometimes bought from farmers and prepared in our kitchen.

Many of my fond memories of mother are associated with weekend visits to her parents' apartment near Sagene Church (where I was baptised) and the summer house in Ekornveien at Nesodden.

The HÅG chair

Mother's cousin Mary was married to Håkon Granlund who became a good friend of my father. After mother died, he took my father on a European road trip, which obviously was a welcome distraction and experience.

Håkon was an energetic and innovative entrepreneur who started HÅG, an office chair company named after his initials. I remember visiting his impressive Røros Mansion and private fishing dam at Rørosvidda. HÅG soon became a cornerstone factory at the UNESCO World Heritage mining town of Røros. The town became the shooting venue of movie pictures with strong women. Pippi Longstockings, An-Magritt featuring Liv Ullmann, and Ibsen's Dollhouse with Jane Fonda as Nora. Håkon proudly told that Jane rented his Røros mansion as her residence during the filming in 1973.

I also recall enjoyable days with Håkon, Mary, and their children, Erik and Nina, at their summer house at Lake Tyrifjorden. Swimming and catching crayfish in the lake. Close to Utøya. The modest island that later was all around the world. Håkon had built a private fishing dam at Rørosvidda were he farmed trout and built a log cabin. In 1970, we dismantled and transported it on a huge truck to Gålå where it was rebuilt as our mountain cabin.

Erling S. Andersen

In April, NKI was fortunate to engage Erling S. Andersen as Rector for Datahøgskolen. His challenge was to develop Datahøgskolen into a credible and respected institution. He immediately started to recruit full-time and competent academic staff members. Dag-Arne Hoberg was the first. Later came my good colleagues, Johan Havnen, Andreas Quale, Vidar Keul, Tom Sørensen, and Knut W. Hansson. The efforts soon paid off and in July we got the news that our students could apply for student loans.

My old drawing of Erling

Studielån for datahøyskole

ULF PETER HELLSTRØM

Den private Datahøyskolens studenter får anledning til å søke om lån og stipendier i Statens lånekasse for utdanning. Dette fremgår av et brev som Kultur-og vitenskapsdepartementet nå har sendt til henholdsvis Datahøyskolen og Lånekassen. Selv om departementet i sitt brev skriver at man med denne avgjørelse ikke vil stille Datahøyskolen faglig sett på linje med offentlige høyskoler, vil avgjørelsen av mange likevel tolkes som en seier for de private undervisningsinstitusjonene med datafag som spesialitet.

Datahøyskolen er en del av Norsk Data-Institutt A/S, som inngår i de ulike virksomhetene i NKI. Spørsmålet om godkjennelse for at skolens studenter skulle få anledning til å søke om lån i Lånekassen har vært til vurdering i Kultur- og vitenskapsdepartementet i flere måneder. Et eget utvalg har vurdert dette spørsmål.

I sin innstilling konkluderte utvalget i midten av juni at Datahøyskolen har dokumentert et betydelig bedre studium enn det som har vært vurdert for et år siden. Utvalget pekte imidlertid på at Datahøyskolen ikke er likeverdig med de offentlige høyskolene når det gjelder rutiner for ansettelse av fagpersonell, fordi det mangler reglement for vurdering av kompetansen. Det mangler også reglement for oppnevning av censorer.

Norsk Data-Institutt har i sitt tilsvar i slutten av juni lovet at praksis og reglementer på dette område skal komme på linje med det som er vanlig i offentlige høyskoler.

Departementet kommer også inn på forholdet mellom det fast ansatte personalet og antallet studenter, og her skriver myndighetene blant annet at man aksepterer at Datahøyskolen med sin beliggenhet i Oslo kan ha en god mulighet til å benytte høyt kvalifiserte timelærere. Departementet har merket seg at skolen vil rette seg efter anmodninger om endringer, hvis departementet skulle mene at opplegg og planer ikke er tilstrekkelig. Departementet vil om nødvendig komme tilbake til dette. Departementet erkjenner også at det vil ta tid å bygge opp det faglige miljø som Datahøyskolen tar sikte på å skape for studentene.

— Efter en samlet vurdering av saken, finner departementet at studenter, som påbegynner en utdannelse ved Datahøyskolen høsten 1984 eller senere, kan gis anledning til å søke om lån og stipendium i Lånekassen, skriver departementet blant annet.

Den faglige utviklingen ved skolen synes å ha kommet så langt at det er forsvarlig å gi studentene denne adgang til utdannelsesstøtte gjennom Statens lånekasse for utdanning. Departementet forutsetter at det blir foretatt en ny vurdering på faglig grunnlag av Datahøyskolen om to-tre år, skriver departementet.

Forlagt og trykt: Chr. Schibsted, Oslo

Facsimile of article about student loans in Aftenposten July 3, 1984

In July, Erling took Dag-Arne and me to New York, where we dined with Phil Dorn. A regular contributor to the Nordic computer journal *Data*. Then, to the National Computer Conference in Las Vegas and Hewlett Packard's Palo Alto headquarter in Silicon Valley. I started to realize that Erling was an excellent and inspirational boss.

Erling was an active member of the Norwegian Computer Society (Den norske dataforening - DND) and editor for its Nordic magazine *Data*. As chair of the organization from 1985 to 1987, he had regular opinion articles about ICT in Norway's leading newspaper Aftenposten. He encouraged me to join DND, and I learned much from taking part in the Scandinavian NordData conferences and DND's working group on data communication. I also enjoyed a vantage point, since the long-serving Secretary General Kåre Gunnari was the father of my best friend. One of the early DND chairs, Haakon Branæs, was a close friend of my father.

School mergers

NKI Datahøgskolen is not well known as a brand name anymore, but the impact of our pioneer work can be understood through the institution's mergers and name changes:

- 1983 - **NKI Datahøgskolen**
- 1993 - **NHI Datahøgskolen** after merging with Norges Høyskole for Informasjonsteknologi NHI when NKI acquired NæringsAkademiet
- 1995 - **Den Polytekniske Høgskolen** after merging with NKI Ingeniørhøgskolen
- 2002 - **NITH** Norges Informasjonsteknologiske Høgskole as a result of more strategic focus on ICT
- 2014 - **Westerdals** – Oslo School of Art, Communication and Technology after a merger with Westerdals. Both schools were owned by Anthon B. Nilsen Education (ABNU).
- 2017 - **Campus Kristiania** after it was acquired by Campus Kristiania

1984 minutes

- January 20. The Norwegian diplomat Arne Treholt was arrested and charged for espionage in favour of the Soviet Union. He was later sentenced to 20 years in prison.
- February 8. The Winter Olympics in Sarajevo started.
- July 28. The Summer Olympics in Los Angeles started. American sprinter Carl Lewis became the Olympics greatest athlete with four gold medals.
- September 1. NRK P2 started broadcasting as the second national Norwegian radio channel.
- October 31. India's Prime Minister, Indira Gandhi, was killed by her security guards.

1985 - Discovering modems and bulletin board systems

Return to Rio

In February, Arthur and I celebrated the carnival in Rio for the second time. He still teases me for not reaching the top of the Sugar Loaf. But I preferred to come with the Copacabana girl who offered to teach me samba at a local carnival party. I did not speak much Portuguese. Speechless by her stunning appearance when I picked her up at her grandmother's modest apartment. My gorgeous Brazilian date was dressed in a minimal carnival costume and sparkled all over her body with golden glitter. We danced all night. I forgot how little samba and Portuguese I knew.

Unfortunately, I was food poisoned the day before we returned home. It was still allowed to smoke in the back of trans-Atlantic flights. Resulting in a long, miserable, international flight with abdominal pains next to the smoking area.

Academic encouragement

Erling S. Andersen encouraged me to pursue an academic career. Publish articles, give presentations, enrol in relevant courses, and join the Norwegian Computer Society. At Datahøgskolen, he wanted me to teach introduction to computer science, project management, data communications, and operating systems. Therefore, he sent me to a week-long data communication course in Stockholm in March, a data communication seminar in Kristiansand in June, and a Unix fair in Stockholm in October.

In addition, I taught introductory courses in computer science at the Norwegian School of Management (BI).

Computer magazines

The proliferation of computers paved the way for several computer magazines in Norway. I read them all. Contributed frequently with articles, interviews, and suggestions. Datatid was introduced as a magazine for ICT professionals in 1978. PC World Norge was established in 1984. Dataforeningen distributed the newsletter DND-nytt to its members. For twenty years, I read Computerworld Norway every Friday.

It was a kick to see my first article "Tall blir bilder" in PC World Norge. An encouragement to reach out and make a difference.

Datakilden AS

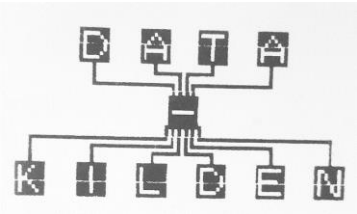


Photo of Datakilden's logo

I have always had an entrepreneurial bone. So, in November, I established the limited company Datakilden AS. At that time, Norwegian entrepreneurs had to invest NOK 100,000 into shares in a new limited company. Almost the cost of a new car. In 2020, it was easier. Only NOK 30,000, the price of an electric bike, was required.

The company income came primarily from the writing and teaching activities I did on top of my full-time work. In hindsight, Datakilden gave welcome additional income, sometimes too much work, but useful business experiences. In 2006, I dissolved the company because I gradually focused more on international activities.

The pager

My father's health started to worry us, so I bought a pager (personsøker) he could ping when he wanted me to call. It was a mobile pocket device which sole function was to receive the telephone number of the person who wanted you to call back. Introduced as a public service in 1984 and terminated in 2003. Made obsolete by omnipresent mobile phones.

Marathon records

Private photo from Oslo Marathon

The Norwegian female athlete Ingrid Kristiansen broke the world records for 10,000 meters (30.59.42) and marathon (2.21.06). And I improved my personal marathon record. However, Ingrid could run the Oslo marathon, go to a movie theatre, and still welcome me at the finish line.

Nearly forty years later, I was proud to see Stian and Marciano finish the Oslo half marathon. Followed them on the marathon's app, which provided features such as live trackers, time per km, rankings, and their pictures that easily could be shared in social media. Interesting and motivating technology we only could dream of when I ran the Oslo marathon in the 1980s.

Oddvar Bentsen

Our students at Datahøgskolen thrived and became attractive for the job market, much because of CIO Oddvar Bentsen. He knew all students by name and always had quick, friendly, and personal comments to them. Something I later found important in online teaching.

20:54 søn. 23. feb. 84 %

Aviser Side 34 av 64, 8. Mai 1985

3800 interesserte til 90 studieplasser:

Data-studenter tilbys jobb

ULF PETER HELLSTRØM

Omtrent halvparten av de vel 60 arbeidssøkende studentene som nå er i ferd med å avslutte sitt toårige heltidsstudium ved den private, NKI-eiede undervisningsinstitusjonen Datahøgskolen har fått arbeide allerede før de er uteksaminert. Datahøgskolen håper at Kultur- og vitenskapsdepartementet i sitt budsjettforslag for 1986 finner rom for statsstøtte til skolen, som uteksaminerer sitt første studentkull denne sommeren.

Datahøgskolen tar sikte på å ta inn 90 nye studenter til høsten. Skolen har allerede mottatt 3800 henvendelser om materiell og opplysninger.

— Hvis vi sammenligner med fjoråret, er dette en klar oppgang. Den gang fikk vi 800 henvendelser som resulterte i 350 søknader om studieplass. Da tok vi inn bare 60 nye studenter, sier informasjonssjef Oddvar Bentsen ved Datahøgskolen til Aftenposten. Undervisningsinstitusjonen eies av Norsk Data-Institutt A/S, som i sin tur eies av den private NKI-stiftelsen.

Ønsker støtte

Den to år gamle skolen mottar foreløpig ingen støtte fra Staten, men har nå søkt om bevilgning. Heltidsstudentene ved skolen har imidlertid anledning til å søke om lån i Statens lånekasse for utdanning. Skolepengene er 27 000 kroner i året, mens skolens administrasjon hevder at kostnadene pr. studieplass i realiteten er 35 000 kroner. Underskuddet får er budsjettert til 1,6 millioner.

Datahøgskolen er et av flere private undervisningstilbud innen data-relaterte fag i Norge. Andre institusjoner er blant annet EDB-skolen/EDB-Høyskolen og undervisningssamarbeidet mellom Norsk Korrespondanseskole og Norsk Data.

Stort behov

Denne type utdanningstilbud har vokst frem de siste par år som et svar på det økende behovet for arbeidskraft med datautdannelse. Skolene har i oppstartingsfasen hatt problemer med å bli akseptert på linje med andre, mer etablerte private skoler innen andre yrkesfaglige studieretninger. Både potensielle studenter og utdanningsmyndighetene vil nok derfor følge med når de første heltidsstudentene nå blir uteksaminert etter et toårig studium. Spørsmålet blir om disse kandidatene får arbeide i dataavdelinger eller andre steder der de får utnyttet sin utdannelse.

Mye bank

Bentsen forteller at vel 60 prosent av de 90 studentene som nå avslutter studiet ved Datahøgskolen er på utkikk etter arbeide. Resten skal utdanne seg videre. Omtrent halvparten av de arbeidssøkende har fått arbeide allerede i selskaper som IDA, Bankenes Betalingssentral, Tandberg Data og Norsk Data.

Datahøgskolen får i økende grad henvendelser fra bedrifter som ønsker å melde sine medarbeidere på deltidsstudiet som også foregår over to år på kveldstid. Mens siktemålet med heltidsstudiet er å utdanne folk til middels krevende oppgaver innen systemering og programmering, tar deltidsstudiet mål av seg til å utdanne folk som senere på sin arbeidsplass kan fungere som bindeleddet mellom EDB-ekspertisen og ukyndige brukere.

Heltidsstudiet skal på sikt bygges opp til å ligge på linje med tilbudene ved distriktshøyskolene, men Datahøgskolen vil profilere sin undervisning på prosjektrettede arbeidsoppgaver som i siste semester foregår hos eksterne oppdragsgivere.

Informasjonssjef Oddvar Bentsen ved Datahøgskolen forteller om stor interesse for studieplasser.

Facsimile of interview with Oddvar Bentsen in Aftenposten May 8, 1985.

Oddvar was the practitioner who implemented Erling S. Andersen's strategies, ideas, and wishes. Together, they were dynamite. He worked long hours and presented himself as the janitor when he answered the school phone in the evenings.

Oddvar continuously tried to quit smoking. One of his defunct attempts was to put his cigarettes in a cover envelope addressed to himself in the morning. Then he spent the whole day waiting for the company truck to return with the mail in the afternoon. Good for him that e-mail and e-cigarettes were not yet available.

Oddvar was missed by all students and colleagues at Datahøgskolen when he died at the age of 55 in July 2004.

PC-LAN and software

Datahøgskolen engaged Scanvest Ring Nettverkssystemer to install its first Local Area Network (LAN) for PCs. Among the first software applications on the LAN were WordPerfect, Lotus123, Turbo Pascal, Dbase II, GrafDoc, and the accounting software Saga Regnskap.

I still recall how Helge Kjeilen and Øystein Moan crawled under our desks to install the network servers, cables, and PC cards to get the network up and running. In 1986 they founded Cinet and in 1997 Øystein became the CEO of Visma which has become a large international ICT company.

Our NKI colleagues in Norsk DataInstitutt opened a store downtown Oslo to sell PC equipment and software. It was no commercial success, but it gave us access to all the new PC-software that entered the market. I was really thrilled by the ground-breaking

opportunities provided by a deluge of new software. I read user manuals as others read novels. Even wrote a compendium about software for microcomputers.

No doubt that this was a technological revolution, the beginning of a new era.

Moving up the road

We moved up the road on September 9. Purchased a house with four bedrooms. A garden with cherries, apples, pears, and plums. The same house where we first met in 1983. We carried our modest belongings from the one-bedroom apartment we rented across the road in Limsteinveien.

Following the Parliament election on radio the same evening, we realized that Kåre Willoch would continue as Prime Minister in Norway. His ambitions to dissolve governmental monopolies and regulations would continue. During his government, Norway had already become a much more open and rich country fuelled by the increasing oil economy. Our national esteem was improving. We were proud when Norway, for the first time, won the European Song Contest with Bobbysocks' Let it Swing. Amazed when A-ha reached the top Billboard Hot 100 in the US. Optimistic when Lillehammer applied to host the 1994 Winter Olympics.

Online bulletin boards and modems

As microcomputers and modems became more available, a few enthusiasts started to set up Bulletin Board Systems at their private computers, enabling people to dial in with modems, download software, and take part in online discussion forums. Among the most renowned pioneers in Norway were Bergen By Byte and Odd de Presno's Saltrød Horror Show. It was also interesting to follow FidoNet which emerged as an international network of PCs running BBS server software.

I was intrigued by the BBS systems' potential and bought myself a 300 bit per second modem for Christmas. This was a turning point in my career because I understood that computers and data communication were the future of distance education. Realized that I could make a difference since I worked at a computer college in a private school with extensive competence in distance education.

1985 minutes

- January 10 and February 6. The Norwegian authors Andre Bjerke and Inger Hagerup died, leaving behind a treasure chest of poetry cherished by Norwegian children and adults.
- April 21. Ingrid Kristiansen took the world record in the London Marathon with 2.21.06.
- May 4. Norwegian pop duo Bobbysocks won the Eurovision Song Contest in Gothenburg with «La det swinge».
- May 29. Thirty-eight people died at Heysel Stadium in Brussels during riots prior to the final of the series winner's cup between Liverpool and Juventus. Another tragedy hit football when a fire on Bradford City's home field and fifty-three people lost their lives.
- October. A-ha topped the charts in many countries with Take on me.

Three 1985 publications in Norwegian

1. Paulsen, M. F. 1985. *Programvare for Mikromaskiner*. Oslo: Datahøgskolen. sider: 40.
2. Paulsen, M. F. 1985. Edb-opplæring i Norge. Norsk *Programvare Index* 1985(2):37-38.
3. Paulsen, M. F. 1985. Tall blir bilder. *PC World Norge*, 1985(1):35-37.

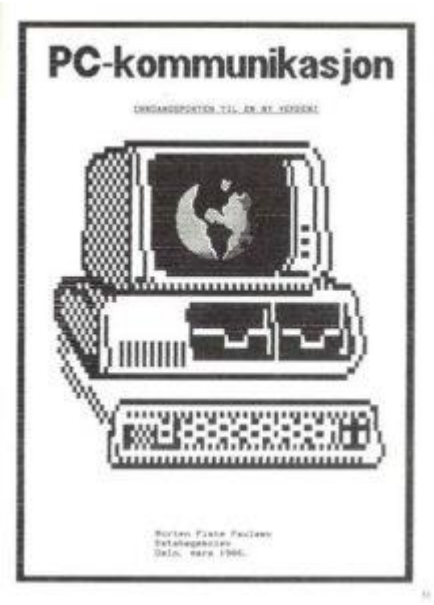
1986 - Designing the first LMS for distance education

At the Soviet border

In March we celebrated my best friend Atle's wedding with Ragnhild in Kirkenes. Used the opportunity to visit the 198 km border between Norway and the Soviet Union at Grense Jakobselv. This was during the Cold War, and many Norwegians had served in the military to protect the area from the Soviets. Mikhail Gorbatsjov had recently become general secretary of the Communist Party, but many Norwegians felt threatened by the communists and their nuclear arsenal.

Just weeks later, on April 26, we experienced the biggest nuclear accident ever when a reactor at the Chernobyl nuclear power plant failed. The Soviet authorities did not report the accident, and Norwegian researchers measured unexplained increases in radioactivity. Norwegian mushrooms, berries, moss, sheep, reindeer, and other game contained unsafe amounts of radioactivity after the accident.

Norddata in Stockholm



Facsimile from my NordData 86 paper

The first NordData conference for Nordic ICT professionals was organized in Helsinki in 1968. Every year, the conference was passed on to the next Nordic country in line. In June, I attended my first NordData conference in Stockholm with NKI's ICT manager, Ragnar Andersen. My presentation was titled PC-communication - The gateway to a new world. It was an enthusiastic account of my explorations of various bulletin board systems using my PC, modem, and communication software.

At the conference, I met Norwegian pundits who I still admire: Arild Haraldsen, Peter Hidas, and Helge Seip. I also met Jacob Palme. The man behind PortaCom developed at the Stockholm University Computing Center. A system for computer mediated communication (CMC) which Kjell Åge Bringsrud and Dag Belsnes tested at the University of Oslo.

Gro Harlem Brundtland had just started her second period as Norwegian Prime Minister, and the Swedes were still in shock after the murder of Prime Minister Olof Palme on February 28. Christer Petersson was later arrested and convicted of the murder but acquitted after being in prison for about 5 months. Palme's killer is still unknown.

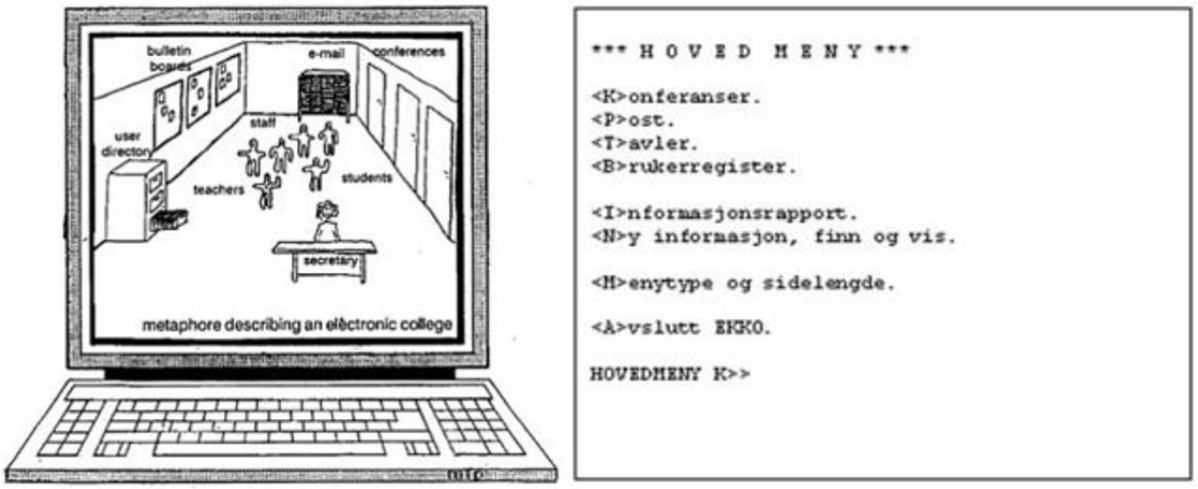
Sweden. Norway’s closest neighbour. Twice our population. The richer and bigger brother we left in 1905. The arrogant best friend we always wanted to trounce. A small country with

international ambitions and influential leaders. Dag Hammarskjöld, the second Secretary-General of the UN. Alfred Nobel, and Olof Palme.

Growing up, I spent much time in the back of my father's Volvos and SAABs. Read Astrid Lindgren. Saw Bjørn Borg play tennis and Ingemark Stenmark excel in slalom. Listened to ABBA and watched Swedish television. Heavily influenced by Swedish culture.

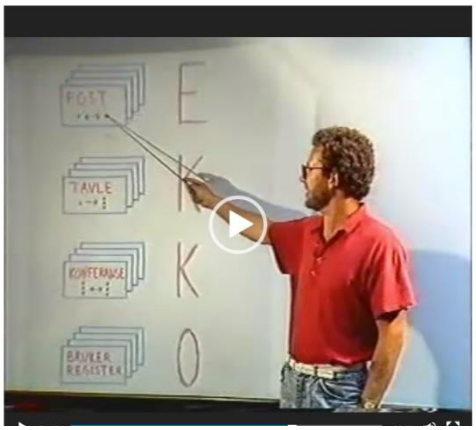
Looking back, Norway's fascination and inferiority with Sweden gradually decreased. Globalization opened our eyes to a variety of cultures. Oil richness and growing successes in international affairs, music, literature, and sports improved our national self-esteem. So, it is fair to say that Norwegians now perceive Swedes more as friends and partners than big brothers.

The EKKO learning management system



Drawing of metaphor for NKI's electronic college and the EKKO main menu

Inspired by my experiences with PortaCom and the PC-based Bulletin Board Systems, I suggested in February that NKI should start to offer online education. In April, NKI's board provided funding for the project.



Screenshot of my 1989 video explanation of EKKO. Still available at www.nooa.no/wp-content/uploads/2020/03/EKKO.mp4

So, I came up with specifications for an electronic college designed for distance education. Termed it EKKO. Meaning echo in Norwegian - an awkward acronym for EleKtronisk KOmbinertundervisning. The figure shows the metaphor I drew to explain the online college concept.

The first version of EKKO was developed in the spring of 1986 by Bjørn Mobæk and Lars Hornfeldt, who were students at the NKI College of Engineering. They developed EKKO in the programming language Pascal on an HP-3000 computer, as part of their final project in the summer of 1986.

It was first used in addition to ordinary face-to-face teaching by students at Datahøgskolen (the NKI Computer College) in the fall of 1986. I remember I posted the notes from my lectures and the assignments on EKKO's bulletin boards. Invited the students to discuss the assignments in EKKO's discussion forums. Asked them to deliver their assignment work via EKKO's e-mail.

To my delight, it worked. And the students were positive about the experiment.

During the developing process, we discovered two more intriguing projects. The EIES project led by Murray Turoff and Starr Roxanne Hilz at New Jersey Institute of Technology and the CoSy project at the University of Guelph in Canada.

The online education resistance

Change is difficult. Advocating innovation could be hard. As a pioneer, I have fought relentlessly for decades to convince educators about the benefits of online education. Pushed boundaries and not always asked for permission. Luckily, challenging fights can result in sweet victories. Monica Johannesen likes to remind me how our ICT educated colleagues first reacted when I suggested that we could communicate by e-mail in EKKO.

EMAIL??? No way, our offices are too close!

It took a few years to get acceptance from ICT people. Decades to convince correspondence teachers and classroom teachers that online education could be a better alternative. At the cursor moment, I realize that resistance increased with the growing success of online education. Because it threatened the status quo.

Summer in Florida and IBM's Boca Raton factory

Summer vacation in Florida. Disney World. Fourth of July in Fort Lauderdale. Drove down to Key West. Cruised from Miami to Bahamas with Scandinavian Sun. A party boat with young Americans having Bloody Mary drinks for breakfast. Swimming pool competitions. How many ping-pong balls could the girls keep in their bikinis? Scarily similar to its sister ship Scandinavian Star. The ship that was set on fire in 1990 on its way from Oslo to Frederikshavn in Denmark. 159 people died in the Scandinavian tragedy.

I was eager to visit the IBM factory that produced the new IBM PC AT. It was, however, harder than expected because of the many IBM PC clones that had appeared. IBM would not share their secrets with foreigners. I was still granted access after several telephone calls and arguments that I would write an article for PC World Norway.

I appreciated the opportunity to visit the factory but must admit that it was less high-tech than expected. Just a few people assembling standard components. I realized why there were so many successful IBM clones. Strange enough, I still remember how the workers were wired with cords to not damage the computer circuits with electric sparks.

Tele-tension in Budapest

From October 17th to 27th, I attended TeleTeaching 86 in Budapest with my colleague Andreas Quale. This was my first visit to an Eastern European country, and the situation felt tense when people gathered in the streets 30 years after the Soviet occupation started on October 23, 1956.

The conference was organized by the John von Neumann Society for Computing Sciences and sponsored by IFIP TC3. The conference theme was Remote Education and Informatics, and I remember meeting Fred Mulder from the Open University of the Netherlands and Sylvia Charp - editor of T.H.E. Journal (Technological Horizons in Education). She encouraged me to submit an article to her journal, and I was thrilled to see In Search of a Virtual School published in the Dec/Jan 87/88 issue. My first article in an American journal where I predicted that virtual schools would dominate future distance education. And listed a dozen computer conferencing systems with examples on how they were used in teaching.

The conference hosts organized a sightseeing tour to Lake Balaton. Halfway there, the bus driver realized that we would arrive after dark and not see anything of interest. So, he took a highway U-turn and stopped at a local tavern. Good local food was improvised, along with plenty to drink. Most of the participants were challenged to sing drinking songs from their home countries. I guess we all have fond memories of Lake Balaton.

The correspondence student

NKI was one of Scandinavia's largest correspondence schools, and I wanted to build on these experiences in my online teaching. I therefore enrolled in the correspondence course: "Essentials in Distance Education". A course offered by the European Home Study Council (EHSC). An organization established in 1968. Merged with the European Council for Education by Correspondence (CEC) in 1985 into the Association of European Correspondence Schools (AECS). And change its name to the European Association for Distance Learning (EADL) in 1999.

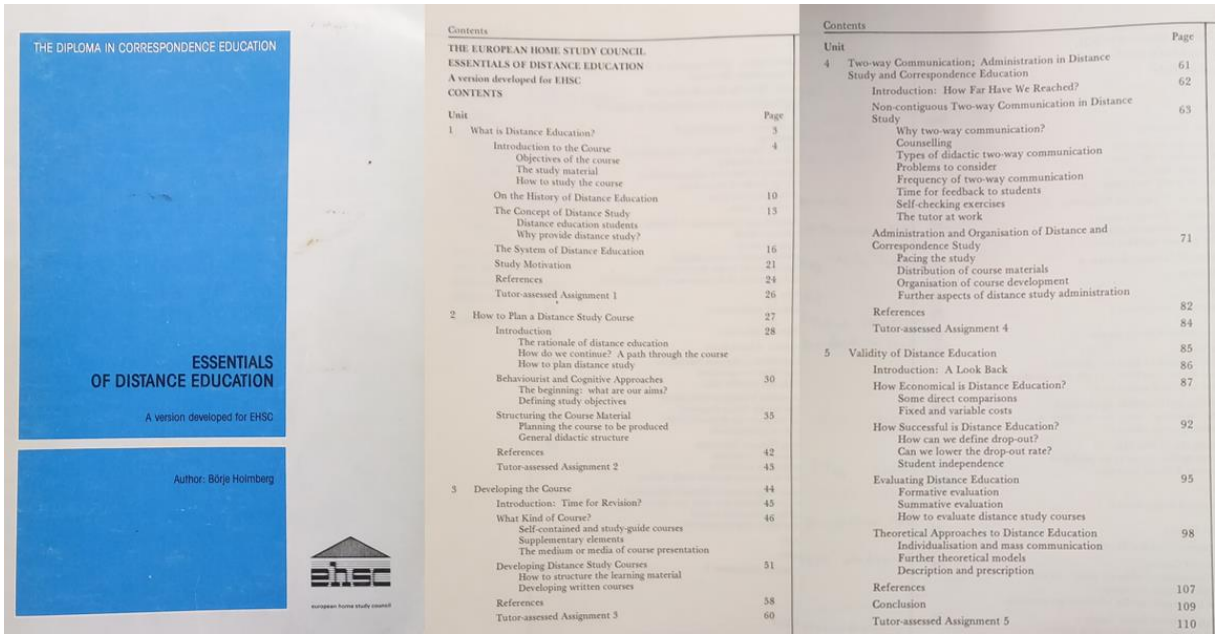
My teacher was the internationally renowned expert and former ICDE President Börje Holmberg.

He was Professor of Distance Education Methodology and Director of the Institute for Distance Education Research at the German FernUniversität in Hagen. Famous for his Theory and Practice of Distance Education.

So, my excitement was immense when I, after a couple of weeks, received the snail mail envelope with his feedback to my assignments. But my disappointment was immense when I realized that I could not read his handwriting.

It was my first and only correspondence course. Which taught me that correspondence students deserved swifter communication via keyboards. That we lacked access to other students. And that distance education was ready for a paradigm shift.

But the content about course development and distance teaching was useful in my online education endeavours.



Contents

THE EUROPEAN HOME STUDY COUNCIL
ESSENTIALS OF DISTANCE EDUCATION
A version developed for EHSC
CONTENTS

Contents

Cover page and table of contents from "Essentials in distance education"

1986 minutes

- January 28. The Space Shuttle Challenger disintegrated 73 seconds after launch, killing the crew of seven astronauts.
- February 28. Swedish Prime Minister Olof Palme was shot and killed. Christer Petersson was arrested and convicted of the murder but acquitted after being in prison for about 5 months. Palme's killer is still unknown.
- April 26. A mishandled safety test at the Chernobyl Nuclear Power Plant killed at least 4,000. 350,000 had to move from the area. Radioactive fallout reached Norway and traces of its radioactive deposits reached nearly every country in the northern hemisphere.

Two 1986 publications in Norwegian

1. Paulsen, M. F. 1986. *Introduksjonshefte til Datahøgskolens Mikromaskiner*. Oslo: Datahøgskolen. Sider: 24.
2. Paulsen, M. F. 1986. Hos IBM i Boca Raton. *PC mikrodata*, 1986(10):42-44.

1987 - Teaching Norway's first distance students online

From correspondence to distance education

In January, EADTU was established. The European Association of Distance Teaching Universities. Eleven founding members had an ambition to become a platform for collaboration with the European Commission. The five European Open Universities and several national organisations. Among them were the Norwegian Association of Distance Education (NADE, later Fleksibel utdanning Norge). The founding meeting was organized by the Open University of the Netherlands in Heerlen. Erling Ljoså attended as chair of NADE. He elaborates on this in Norwegian in his personal account about international engagements and cooperation.

At the same time, I became aware of two more institutions that later became important to me. The International Council for Correspondence Education (ICCE) was established in 1938 and changed name to ICDE in 1982. The Association of European Correspondence Schools (AECS) was established in 1985 and changed name in 1999 to EADL - the European Association for Distance Learning.

NordData 87 in Trondheim

Facsimile from my NordData 87 paper

In June 1987, I attended the NordData conference at the University of Technology in Trondheim. My alma mater. The University of professor Asbjørn Rolstadås. The town of educational innovators like Jan Wibe, Arvid Staupe, Per Borgersen, and Thorleif Hjeltnes. People who were instrumental in establishing TISIP in December 1985. Later pivotal in the development of the controversial Learning Management System Winix (1985-1990) and the innovative NITOL network (1994-2008).

The title of my presentation could be translated to "A Virtual School - Dream Castle or Real Construct?" It included an international overview of computer conferencing systems and some references to educational use of the systems. In addition, it presented our educational experiences with the EKKO system.

The conclusion could be translated to: Some institutions work to develop virtual schools based on computer mediated communication systems. There is still a need for improved quality of content, pedagogy, administration, and social services. But the work has started. My conclusion is, therefore, that virtual schools are no longer dream castles, they are becoming real constructs.

Stian

Stian was born in April. When the water broke, we immediately saw that it was miscoloured. Marith was rushed away to the operating theatre. I was commanded to wait outside. Extremely nervous. Don't ask how long I waited, but the relief was enormous when everything was fine with mother and son.

CD-players had been available in Norway since 1983. We bought the first one to entertain Stian. Torbjørn Egner was among our favourites. The Norwegian playwright, songwriter, and illustrator known for his narratives for children. But "Stius" also got his dose of A-ha, David Bowie, Bruce Springsteen, Stones, and Beatles.

I'm far from a talented singer, but all parents should sing, read, and play music for their kids. We did it a lot and enjoyed it tremendously. The kid easily learned more melodies and lyrics than I could imagine - a gift we both appreciate.

Mom used her marathon skills pushing his stroller for hours. As she did with the kids in the Banehaugen neighbourhood thirty years earlier. Dad pulled him in a ski sledge. As a real Norwegian, Stian should learn to enjoy the outdoor life.

A new generation. So many opportunities. His first six-month itinerary topped the travel log of my first six years. One month old, he joined us for the two-day data communication seminar at the idyllic seafront Hotel Havna. Took part in the evening boat trip around the beautiful Tjøme archipelago. Six months old, he flew with us to Düsseldorf, where we rented a car to see the Rhine valley. Köhln, Königswinter, and Baden Baden. Including a visit to Deutsche FernUniversität in Hagen.

One early memory stuck: A sunny summer morning. Father and son playing under the cherry tree in front of our red house. Sun shining, son smiling. The happiest moment so far in my life.

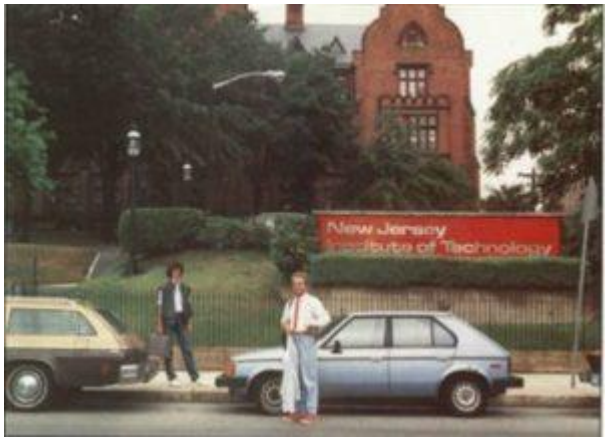
Another unforgettable 1987 memory. My newborn son, in my father's wheelchair lap. Joy and sadness. Preparing to become Pater Familias.

On top of the World Trade Center

In August Torstein Rekkedal, Bjørn Mobæk, and I made a study tour to exchange experiences with the pioneers of online education in the US and Canada. We started with a Sunday in New York. Jogging in Central Park in the morning and visiting the Guggenheim Museum at lunchtime. Then suppressing my fear of heights from the roof of the World Trade Center.

Just a couple of months earlier, West German teenager Mathias Rust landed on a bridge next to the Red Square in Moscow with a Cessna aircraft. We were surprised that a foreigner so easily could navigate an aircraft into the heart of a superpower.

Visiting the online education pioneers



Private photo outside NJIT in 1987

Star struck to meet Starr Roxanne Hiltz and Murray Turoff in their office at the New Jersey Institute of Technology. Husband and wife who were known for their ground-breaking work with Computer Mediated Communication (CMC) and the EIES computer conferencing system. Got hold of the 1982 book Starr Roxanne Hiltz wrote with Elaine B. Kerr: Computer-mediated Communication Systems - Status and Evaluation.

We met Peter Haratonic at the Manhattan office of the New School for Social Research. He told us about their experiences with the EIES system. About their collaboration with Paul Levinson and his company, Connect Ed.

Angela Richards and Cristine Languth welcomed us at a Long Island institution with the overambitious name American Open University. A “virtual campus” started by the New York Institute of Technology (NYIT) in 1984 and based on the Participate conferencing system.

Considered visiting Andrew Feenberg at the Western Behavioral Sciences Institute. They offered the first online college program through its School of Management and Strategic Studies in 1981. But decided to stay on the east coast. So, we rented a car and visited Michael G. Moore at Pennsylvania State University. A choice that later proved important to me.

We stopped to see Niagara Falls. Drove up to Canada and visited Robert J. McQueen, who worked with the CoSy conferencing system at the University of Guelph. The system that the Open University in the UK later chose. Got the documentation from the First Guelph Symposium on Computer Mediated Communication.

We also visited Linda Harasim at the Ontario Institute of Studies in Education (OISE) and learned about her pioneer work. Her work with collaborative learning and with online discourse analysis. Her 1986 book: Educational Applications of Computer Networks.

Teaching distance students online

Ivrig EKKO-bruker:

Bitt av basillen!

Inger Bergland er bitt av EKKO-basillen. Tellerskrittene renner av gårde der hun sitter klistret til dataskjermen på leting etter godbiter – etter å ha meddelt EKKO og lærer Morten F. Paulsen sine oppgavesvar i NKI-kurset Grunnleggende databehandling. I mars gikk hun opp til eksamen og er i full gang med neste datakurs med PC og modem som viktige verktøy.

– Jeg har meldt meg på datakurset som ordinær brev-elev da jeg fikk forespørsel om jeg ville være med på kurset via EKKO, forteller Inger Bergland, til daglig ansatt ved Statens Teknologiske Institutt i Oslo.
– Jeg var ikke sen om å svare ja – og dermed ble visittene i EKKO mange og lange. Etter en stund mestret jeg datakommunikasjonens mysterier bedre og bruker ikke fullt så mange tellerskritt som til å begynne med.

– *Og kurset har gitt mersmak?*

– Ja, absolutt. Den beste undervisning får en selvsagt ved å følge ordinære forelesninger. Jeg har brukt mye tid på annen kveldsundervisning de siste årene, og EKKO var et godt tilbud for meg. Jeg kunne sitte hjemme med oppgavene – og få svar hurtig og effektivt på spørsmål jeg hadde i tilknytning til oppgavene. Dette er mye bedre enn vanlig brevundervisning, der du stort sett er henvist til deg selv.

Det er virkelig blitt et miljø blant studentene i E-kro – til tross for at de færreste har sett hverandre, sier Inger Bergland. Som heller ikke vet hvordan lærer Morten F. Paulsen ser ut – før hun har dette nummeret av Verk og Virke i hånda!

Facsimile of interview with Inger Bergland in the second 1988 issue of Verk og Virke

I continued to use EKKO as an online teaching supplement in all the on-campus courses I taught in 1987. Our interns, Ragnar Børsum and Bjørn Myrvold, were enthusiastic supporters. In the spring we installed a modem pool to handle dial-in connections to EKKO. Suddenly I could use EKKO to communicate from home with my students in their dorms. We were ready for online distance education.

So, in the fall we contacted some of the students who enrolled in NKI's correspondence course Introduction to computer science. Inger Bergland and three others accepted to become our first online students with me as their online teacher.

The first challenge was to help them set up their modems and connect to EKKO. We succeeded together and proved that it was possible to use EKKO for distance education. One student completed all six study units and did well on the final voluntary exam. One completed all study units but did not enrol for the exam. One completed five of the six study units. One completed only the first study unit.

I concluded that technical support was crucial for online education and that we needed more students to create a social environment online.

The devastating disease

Henry Louis Gehrig was a renowned American baseball player who, on his 36th birthday, received a diagnosis that many still know as Gehrig's disease. More known as Amyotrophic Lateral Sclerosis (ALS). A devastating disease that causes the death of neurons controlling muscles. Gradually reducing muscular strength and control. Arms, legs, hands, fingers, and

tongue. The lungs can be attached to a ventilator. The heart continues to beat. Brain, ears, and eyes are less affected. Advanced technology makes it possible to communicate through eye movements.

The Swedish TV-journalist Ulla-Carin Lindquist wrote the touching little book "Ro uten årer". A book about life and death written after she was diagnosed on her 50th anniversary. The Norwegian novelist Axel Jensen struggled with ALS for ten years before he died in 2003. In November, our dear father Jon Flate Paulsen died from ALS at the age of 67.

Father Jon Flate Paulsen

40 år i Osram

Ved en tilstelning i Osram-Fabrikken A/S 24/9 ble økonomisjef Jon Flate Paulsen (59) hedret for 40 års tjeneste i firmaet. Paulsen ble ansatt som 19-åring i salgsavdelingen, men ble etter hvert overført til bokholderiet.

I 1958 ble han hovedbokholder og i 1961 regnskapssjef. I 1962 ble ansvarsområdet utvidet til også å omfatte personalsaker og i 1966 ble han utnevnt til økonomisjef.

Facsimile of anniversary announcement for Jon F. Paulsen, Arbeiderbladet September 28, 1979

Dad's father grew up at the tenant's farm, Flaten, near Børsa in Sør-Trøndelag. That's the origin of the middle name I have passed on to my children. Flate. A name I was not comfortable with as a kid since some people used “Fy Flate” as an acceptable substitute for a harsher curse. A name I first embraced when I started to pursue an academic career.

Dad's mother's family was from Harpefoss in the Gudbrandsdalen valley. A tiny place with a charming name. Harp Falls. Describing the sound of River Lågen when it passed through the narrow river canyon. The Iversen family guarded the railroad gates and tracks when the railroad was extended from Eidsvoll to Otta in 1896. According to my father, one relative was killed when he tried to save his handcar from a passing train.

Dad had fond childhood memories from Harpefoss and the mountains in the area. We often visited his cousins and mother's twin sister there. In 1970 we celebrated his 50th anniversary at the local guest house Grøntuva where he happily signed the property contract for the mountain plot "Måsåplassen". The home of our log cabin at Gålå.

Dad was intelligent, but not handy. When the motor of his first car, a white SAAB 96, died in the Majorstukrysset crossroad, Mom carefully asked: Why don't you open the hood and look at the engine? He typically retorted: Do you think it helps?

Dad finished the obligatory seven years of education at Majorstua Folkeskole, continued with four years of Middelskole at Vestheim and one year office training at the Oslo Kommunale Handelsskole. Then, the Second World War started.

He worked most of his life for the Osram light bulb factory. That's probably why he introduced me to the exciting book about Thomas Alva Edison and his inventions. It probably inspired me to be innovative, study engineering, and read many biographies about famous people in the series titled "Elite serien".

I remember Dad as a wise, humorous, and upright man who smoked South State cigarettes and taught us to be diligent and behave well. He was early grey. I can only recall him as white-haired. In hindsight, I understand that he looked for and supported activities that could improve his oldest son's low self-esteem. He probably saw a little, shy boy who ran fast when scared. So, Dad wisely steered me into athletics.

Bislett Stadium

For many years, Dad took me to Bislett Stadium to watch the yearly international athletics competition. I still recall Terje Pedersen's javelin flying through the 1964 evening air - - - reaching the incredible 91.72 meters new world record. Ron Clarke's shattering 10,000-meter record (27.39.4) in 1965. We witnessed many of the two dozen world records at Bislett Stadium. Lots of good memories with Norwegian role models and world stars like Sebastian Coe, Steve Ovett, Steve Cram, Henry Rono, Ingrid Kristiansen, and Grete Waitz. All announced by the omnipresent speaker, Jan Hemsvik. With the same steady voice that numerous times pronounced my name over the loudspeaker when I took part in local competitions for kids at Frogner, Jordal, and Bislett Stadium.

Dad encouraged me to train in athletics. For many years we were permanent fixtures at the athletics season's closing week competitions at Bislett. Dad as driver and bystander, Hemsvik as speaker, and myself trying all the athletic activities.

My talent was primarily in the 60- and 100-meter sprint. I trained with several talented sprinters in the athletics club Ready. Tom Bysveen, Henrik Gjertsen, Sverre Tysland, and Leif Næss. And Knut Marius Stokke who were four-time Norwegian champion in 100- and 200-meter sprint. It was not easy to receive the baton from him when I ran the last leg of the 4x100 meter relay.

1987 minutes

- February 2. The Scottish novelist Alistair MacLean passed away. His works include The Guns of Navarone and Where Eagles Dare. Both became popular movies.
- August 30. Norway’s first Sunday newspaper issue was published by Morgenbladet.
- September. Norway got a new monetary expression, 1 mong, (equivalent to NOK 3.8 billion), after Statoil's excess costs at the Mongstad oil refinery became known.
- October 19. The New York Stock Exchange dropped 23% on Black Monday. The Oslo Stock Exchange crashed the day after. But the crash did not lead to the usual economic downturn and already a year later the stock exchanges were at the same level as before the crash.

- September 19. Einar Gerhardsen died. From 1945 to 1965, he was the Labour Party's Prime Minister for three periods. With 17 years in office, he was Norway's longest serving Prime Minister since the introduction of parliamentarism. He was often referred to as the Father of the Nation (Landsfaderen) and is generally considered as one of the main architects of the rebuilding of Norway after World War II.

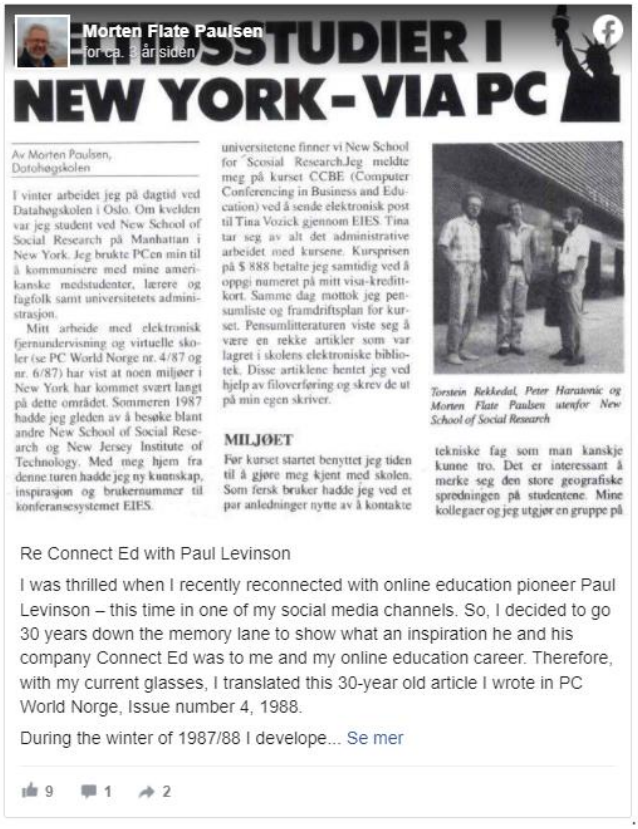
Seven 1987 publications in English and Norwegian

1. Paulsen, M. F. 1987/1988. In search of a virtual school. *T.H.E. Journal*, (Dec./Jan.):71-76.
2. Paulsen, M. F. 1987. Datahøgskolens konferansesystem. *PC World Norge*, 1987(4):32-34.
3. Paulsen, M. F. 1987. Virtuelle skoler. *PC World Norge*, 1987(6):30-32.
4. Paulsen, M. F. 1987. KILDEN - et konferansesystem for DND? *DND-Nytt*, 3(5):16-17.
5. Paulsen, M. F. 1987. KILDEN: Et scenario om konferansesystemer. *DATA* 1987(3):62-63.
6. Paulsen, M. F. 1987. På leting etter en virtuell skole. *DATA-Norge* 3(5):38-48.
7. Mobæk, B. og Paulsen, M. F. Konferansesystemer - En rapport om konferansesystemer for flerbruker datamaskiner. Intern NKI-rapport. 25 sider.

1988 - Attending ICDE's World Conference in Oslo

Studying and teaching at Connect Ed

In the winter of 87/88, I enrolled in the online three-credit course Computer Conferencing in Business and Education. One of several courses offered through the EIES conferencing system by Connect Ed. Paul Levinson, the company manager, was the teacher. His partner, Tina Vozick, handled all course administration. The course had eight study units, each scheduled for a week. Paul introduced each study unit. He explained which part of the curriculum the study unit focused on and introduced some topics for discussion. He motivated the students and moderated the discussions. Students who took an active part in the discussions and submitted a final course report received a course certificate.


Morten Flate Paulsen
for ca. 8 årsiden

STUDIER I NEW YORK - VIA PC

Av Morten Paulsen, Datahøgskolen

I vinter arbeidet jeg på dagtid ved Datahøgskolen i Oslo. Om kvelden var jeg student ved New School of Social Research på Manhattan i New York. Jeg brukte PCen min til å kommunisere med mine amerikanske medstudenter, lærere og fagfolk samt universitetets administrasjon.

Mitt arbeide med elektronisk fjernundervisning og virtuelle skoler (se PC World Norge nr. 4/87 og nr. 6/87) har vist at noen miljøer i New York har kommet svært langt på dette området. Sommeren 1987 hadde jeg gleden av å besøke blant andre New School of Social Research og New Jersey Institute of Technology. Med meg hjem fra denne turen hadde jeg ny kunnskap, inspirasjon og brukernummer til konferansesystemet EIES.

universitetene finner vi New School for Sosial Research.Jeg meldte meg på kurset CCBE (Computer Conferencing in Business and Education) ved å sende elektronisk post til Tina Vozick gjennom EIES. Tina tar seg av alt det administrative arbeidet med kursene. Kursprisen på $ 888 betalte jeg samtidig ved å oppgi numeret på mitt visa-kredittkort. Samme dag mottok jeg pensumliste og framdriftsplan for kurset. Pensumlitteraturen viste seg å være en rekke artikler som var lagret i skolens elektroniske bibliotek. Disse artiklene hentet jeg ved hjelp av filoverføring og skrev de ut på min egen skriver.

MILJØET

Før kurset startet benyttet jeg tiden til å gjøre meg kjent med skolen. Som ferskt bruker hadde jeg ved et par anledninger nytte av å kontakte

Torstein Rekkedal, Peter Haratonic og Morten Flate Paulsen utenfor New School of Social Research

tekniske fag som man kanskje kunne tro. Det er interessant å merke seg den store geografiske spredningen på studentene. Mine kollegaer og jeg utgjør en gruppe på

Re Connect Ed with Paul Levinson

I was thrilled when I recently reconnected with online education pioneer Paul Levinson – this time in one of my social media channels. So, I decided to go 30 years down the memory lane to show what an inspiration he and his company Connect Ed was to me and my online education career. Therefore, with my current glasses, I translated this 30-year old article I wrote in PC World Norge, Issue number 4, 1988.

During the winter of 1987/88 I develope... Se mer

9 1 2

Screenshot of Facebook post about Connect Ed experiences.

Søren Nipper from Denmark was one of 15 students in my class. One interesting EIES feature was that we could list the names of the students that were online. I remember feeling part of an important new movement the Saturday night we were only three students online: Muhammad, Jesus, and myself.

In the summer semester, Connect Ed offered four online courses. Paul Levinson taught Issues in International Telecommunication. Partly from his home office in New York city and partly from his "electronic cottage" at Cape Cod - with three guest experts: Jerry Glenn, Terrence Wright, and me. So, my first international online teaching experience was about telecommunication events and trends in the Scandinavian countries.

More of my experiences from the course are available in this Facebook post.

Free online education

To gain experience with more students, we decided to offer three online courses for free in the spring. Introduction to computer science, Pascal programming, and System analysis. Together, these courses were equivalent to the first semester of the part-time study program we offered to on-campus students at Datahøgskolen. Altogether, 57 course enrolments and 35 course completions in the spring.

The article in the picture is from NKI-Perspektiv nr. 2, 1988. It shows some of the first online students and their three pioneer teachers: Rolf Ingebrigtsen, me, and Lars Eskeland.

The experiences from the spring courses were so positive that NKI offered the same three courses with tuition fees in the fall. We also added the two courses Introduction to business administration and Cobol programming. In addition, we continued to develop a conference named E-KRO (Electronic Cafe) as a social meeting place for prospective students, enrolled students, tutors, and staff.

The courses were offered with fixed start-up dates and paced progression to establish a community feeling and support communication between students. Several of my colleagues were sceptical. They argued that we should allow students to decide when they wanted to start and how fast they should progress through the course. As in correspondence courses.

We had two public telephone lines for 300 bit per second modems and two for autodetection of 1200 and 2400 bit per seconds. Six Datapak channels allowed students to access EKKO via local nodes that provided cheaper communication.

The experiences from our online education courses are well documented in both Norwegian and English. They became a wonderful source for research, projects, articles, paper presentations, reports, and books. Fortunately, I had the opportunity to learn from and work with NKI's research and development manager, Torstein Rekkedal, in this process. His international contacts and reputation opened a lot of doors for me.

NKI tilbyr GRATIS elektronisk fjernundervisning

til deg som har PC, modem og telefon

NKI Brevskolen og NKI Datahøgskolen har utviklet et datamaskinbasert konferansesystem (EKKO) for fjernundervisning. Undevisningen er basert på at studentene kommuniserer skriftlig med lærere, veiledere og medstudenter gjennom EKKO. Denne kommunikasjonen vil være uavhengig av tid fordi teksten lagres i systemet og kan hentes fram igjen når det måtte passe. Den er også uavhengig av sted bare studenten har tilgang til en telefon.

KOMMUNIKASJONS-FORMER

EKKO gir muligheten for overføring av elektronisk post til grupper og enkeltpersoner, deltakelse i både faglige og sosiale elektroniske konferanser, samt distribusjon av informasjon på elektroniske oppslagstavler. Alt dette er med på å skape et faglig og sosialt høgskolemiljø for våre fjernstudenter.

UTSTYR

For oppkobling mot EKKO trenger studentene en PC, et modem og tilgang til en telefon. Det er også nødvendig med et tekstbehandlingsprogram for å skrive inn tekst, og en skriver for å få teksten ut på papir. Skolen vil distribuere kommunikasjonsprogrammet som gjør det mulig å koble studentenes PCer opp mot EKKO.

GRATIS UNDERVISNING

Våren 1988 ønsker vi å prøve ut systemet i større bredde med en gruppe studenter. Vi ser det som viktigere å vinne erfaring med denne typen undervisning enn å tjene penger på kurset. Vi har derfor besluttet at undervisningen i vårsemesteret skal være gratis. Studentene må dog betale de aktuelle lærebøkene og kommunikasjonskostnadene selv.

KOMMUNIKASJONS-KOSTNADER

Kommunikasjonskostnadene bestemmes av telefonsamtalens lengde. Uansett hvor i landet man befinner seg vil det være mulig å kommunisere med EKKO til lokal telefontakst. Dette er mulig fordi studentene får tilgang til skolens Datapak abonnement. Skolen betaler kommunikasjonsavgiftene i Datapak-nettet, mens studenten betaler lokal telefonsamtale til nærmeste Datapak node. Denne noden kan nås over lokaltelefon 0165.

KURSENE

Forsøket dreier seg om de tre første kursene som inngår i Datahøgskolens deltidsstudium. De aktuelle kursene er:
Grunnleggende databehandling (1 vekt-tall), Systemering (2 vekttall) og Strukturert programmering med Pascal (2 vekttall).

EKSAMEN

Kursdeltakere som ønsker det kan gå opp til ordinær eksamen ved NKI Datahøgskolen i Oslo våren 1988. Eksamensavgiften er kr. 400.- pr. eksamen.

HENVENDELSE

De som er interessert i mer informasjon om disse kursene kan henvende seg til Morten Flate Paulsen ved NKI Datahøgskolen tlf. (02) 65 80 25, eller fyll ut og send kupongen.

Jeg har PC, modem og telefon og vil gjerne delta i undervisningsforsøket EKKO.
Vennligst kontakt meg:

Navn: _____

Adresse _____

Postnr./sted _____ Telefon _____

NKI Datahøgskolen, Grensevn. 107, 0663 Oslo 6

Facsimile of advertisement of free online courses in Aftenposten, February 9, 1988

NKI: Vellykket forsøk med elektronisk fjernundervisning

Det omfattende forsøket NKI gjennomføre våren 1988 med bruk av skolens konferansesystem i fjernundervisning ble meget vellykket.

Ca. 20 studenter fra ulike steder i landet startet på hvert av kursene «Grunnleggende databehandling», «Pascal programmering» og «Systemering». De tre kursere utgjør tilsammen første semester med Datahøgskolens deltidsstudium.

Ved semesterets slutt hadde godt over halvparten av studentene fullført kursene.

Forsøket viser at det er fullt muligå drive denne form for fjernundervisning i Norge, forutsatt god faglig kvalitet og tilfredsstillende pedagogisk tilrettelegging.

Lærerne rapporterer at det ennå kan gjøres meget for å effektivisere undervisningen.

Konklusjon: Erfaringene har vært så positive at NKI vil gjennomføre de samme kursene som elektronisk fjernundervisning høsten 1988.

Bak fra venstre, lærerne Rolf Ingebrigtsen, Morten Flate Paulsen og Lars Eskeland. Foran fra venstre, studentene Hans Gustav Engen, Torill Ødeby, Einar Engebretsen, Aksel Thomassen, Alf Sætermo og systemoperatør Bjørn Mobæk.

Facsimile of NKI publication presenting some of the first online students and teachers.

Datakomm 88 in Oslo

In February, DND's Special Interest Group on data communication arranged the conference Datakomm 88 in Oslo. I was on the planning committee with Lasse Berntsen, Kjell Åge Bringsrud, Knut Smaaland, and others. I had a presentation on distance education and data communication. There, I met Bengt Olsen who presented a paper on computer conferencing and PortaCom.

The AECS Conference in Istanbul

In April, the Association of European Correspondence Schools (AECS - later EADL) conference was arranged in Istanbul. The most populous city in Europe. A third of the population on the Asian side of the Bosporus. My first intriguing taste of Asia.

Torstein gave a keynote presentation titled Computer Conferencing in the NKI Distance Education System. Together with several Norwegian delegates, I was amazed by the Grand Bazaar, the Topkapi Palace and Harem, the Blue Mosque, and the Hagia Sophia.

My memories of belly dancing and pictures from the One Thousand and One Nights costumes dinner are precious. Erling Ljoså, Dagny Blom, and Morten Søby were colourful representatives from NKS. Tormod Carlsen dressed as a sheikh. Berit Johnsen and Tove Kristiansen were princesses. Tony Kaye encouraged me to come to OUUK's conference on computer conferencing in the fall.

NordData 88 in Helsinki

The annual NordData conference was organized in Helsinki in June. Finland, a Nordic country drawn between east and west. Still in the shadow of the Soviet Union. Urho Kekkonen had been president for my entire life until Mauno Koivisto took over in 1982.

We boarded the night train in Oslo and arrived in Stockholm early the next morning. Waiting for the ferryboat to Helsinki, we walked around the old city centre, Gamla Stan, with Stian in a stroller. The one-year-old boy whimpered more and more, so we went to the emergency reception at Stockholms Akutten.

Mother and son flew back to Oslo with a hernia. Father continued with the ferryboat passing the scenic archipelagos from Stockholm to Helsinki. To give a presentation titled "Experiences with computermediated communication systems in distance education".

The presentation focused on our work with the EKKO system and concluded: We have experienced that computermediated conferencing (CMC) systems provide new opportunities for distance education. We have discovered challenges that need to be addressed and teaching methods that work. Our work showed that CMC systems can offer and administrate pedagogical and social college environments. We believe CMC systems will be central in future distance education.

The visit reminded me of my first trip abroad. In May 1971, a couple of hundred kids from the four Nordic capitals met in Helsinki to take part in the twenty third Competitions in Athletics and Soccer. Joined the athletic team at the night train from Oslo to Stockholm. With my schoolmates Anne Søby and Tom Bysveen. Along with Tom Inge Ørner, Torgeir Skogseth, and Bjørn Gundersen. Holding my breath during take-off. As my very first flight took us from Stockholm to Helsinki. Where I was hosted by the Öhman family in Kantelevägen. Luckily, they belonged to the Swedish-speaking community since the Scandinavian languages have far more in common with English than Finnish. The only Finnish word I could say to them was kiitos - which is takk in Norwegian and thank you in English.

The ICDE World Conference in Oslo

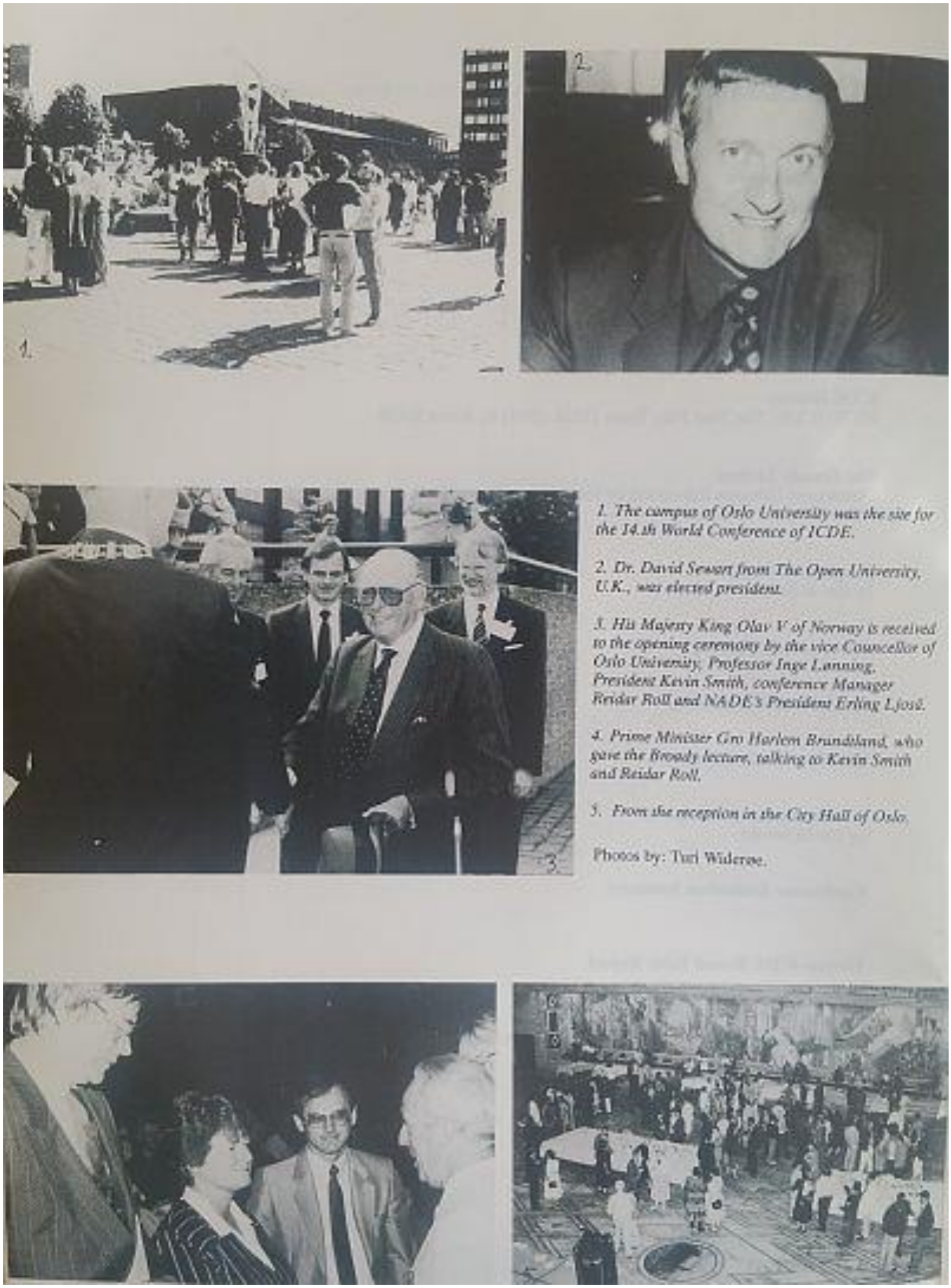
In 1988, ICDE - the International Council for Open and Distance Education celebrated its 50th anniversary. And the 14th ICDE World Conference was held at the University of Oslo, August 9-16. 700 participants from 60 countries. Arranged by Norsk Forbund for Fjernundervisning (NFF, later Fun) - the Norwegian Association for Distance Education (NADE). The organization in which Erling Ljoså was president, Reidar Roll was executive director, and Turid Widerø managed the secretariat.

I was there, giving a presentation titled *Computer Conferencing in Distance Education: Experiences with the implementation of computer conferencing in distance education.* More spectacular was our attempt to erect the world's largest tower cake at Henie Onstad art centre.

Flipping through the old conference proceedings, I was surprised to see so many familiar names. Scholars whose research I have studied carefully. Colleagues I have enjoyed meeting and exchanging experiences with. Among them who have influenced my online education world are: ICDE Presidents Börje Holberg, Sir John Daniel, and David Sewart. Greville Rumble, Paul Bacsich, Tony Bates, Liz Burge, Fabio Chacon, Keith Harry, Michael G. Moore, David Murphy, Som Naidu, Jason Ohler, Bruce Scriven, and Armando Villaroel.

One paper caught my attention. Angela Castro's introduction started: In the last two years, a small silver platter called the CD-ROM, which uses optical storage technology, has made inroads into academic libraries, art galleries, and museums. This small disk measuring only 12.5 centimetres and made from heavily coated polycarbonate plastic, which renders it extremely hard, is capable of holding information equivalent to the content of 1,500 floppy disks, or 500 average sized books.

I also found the paper I wrote with Torstein Rekkedal in the proceedings. Computer conferencing: A breakthrough in distance learning or just another technological gadget?



1. The campus of Oslo University was the site for the 14.th World Conference of ICDE.

2. Dr. David Sewart from The Open University, U.K., was elected president.

3. His Majesty King Olav V of Norway is received to the opening ceremony by the vice Councellor of Oslo University, Professor Inge Lønning, President Kevin Smith, conference Manager Reidar Roll and NADE's President Erling Ljosa.

4. Prime Minister Gro Harlem Brundtland, who gave the Broady lecture, talking to Kevin Smith and Reidar Roll.

5. From the reception in the City Hall of Oslo.

Photos by: Turi Widerøe.

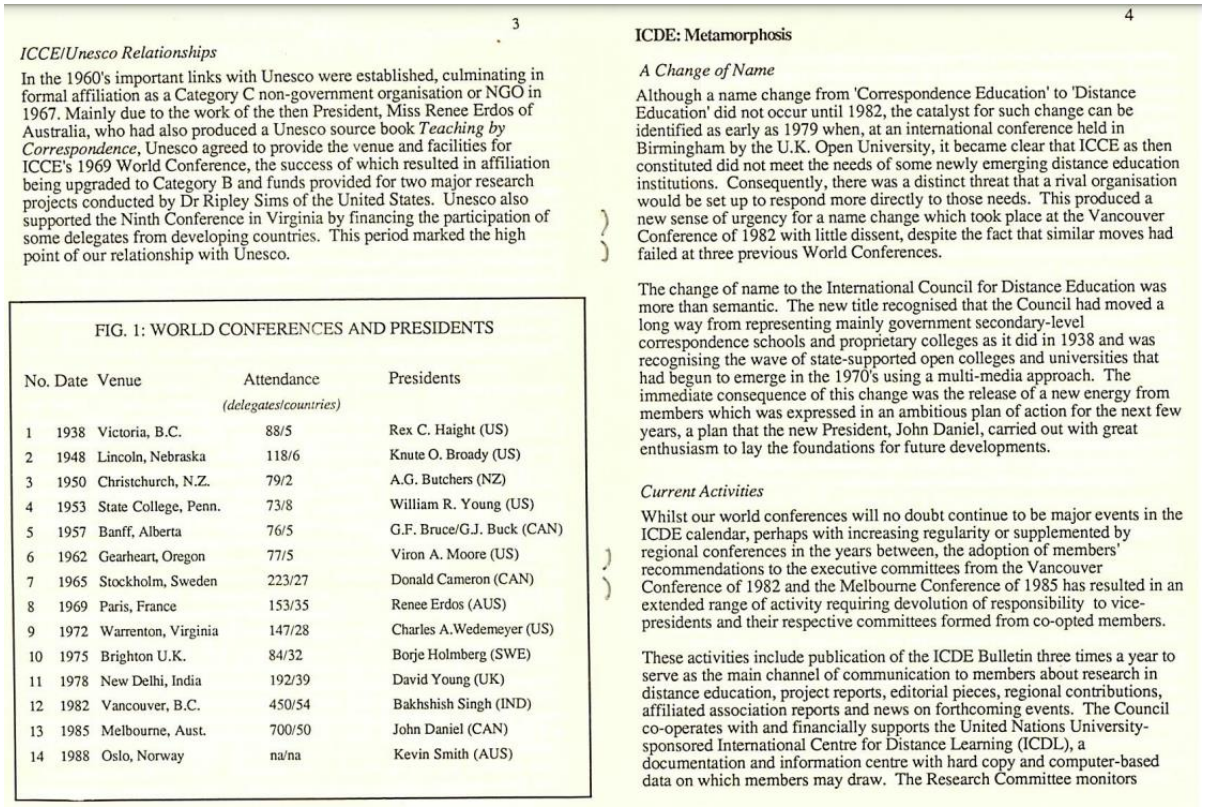
Facsimile of pictures in ICDE's Report from the Fourteenth World Conference

The ICDE secretariat settled in Oslo

The Oslo conference was indeed a breakthrough for ICDE. Our late King Olav was present along with Norway's Prime Minister Gro Harlem Brundtland, who stated that the Norwegian Government would support a permanent ICDE secretariat in Norway.

In August, the ICDE secretariat was established in Oslo with Reidar Roll as its first secretary general. The secretariate shared offices and worked closely with the Norwegian Association for Distance Education (NADE).

Among the employees I remember meeting in the early days of ICDE were Turi Widerøe, who is recognized as the first female pilot in a major airline, and Trond Waage, who later became Ombudsman for Children in Norway. A few years later, I also met Ana Perona who made important contributions as ICDE's Assistant Secretary General.



3

ICCE/Unesco Relationships

In the 1960's important links with Unesco were established, culminating in formal affiliation as a Category C non-government organisation or NGO in 1967. Mainly due to the work of the then President, Miss Renee Erdos of Australia, who had also produced a Unesco source book *Teaching by Correspondence*, Unesco agreed to provide the venue and facilities for ICCE's 1969 World Conference, the success of which resulted in affiliation being upgraded to Category B and funds provided for two major research projects conducted by Dr Ripley Sims of the United States. Unesco also supported the Ninth Conference in Virginia by financing the participation of some delegates from developing countries. This period marked the high point of our relationship with Unesco.

FIG. 1: WORLD CONFERENCES AND PRESIDENTS

No.	Date	Venue	Attendance (delegates/countries)	Presidents
1	1938	Victoria, B.C.	88/5	Rex C. Haight (US)
2	1948	Lincoln, Nebraska	118/6	Knute O. Broady (US)
3	1950	Christchurch, N.Z.	79/2	A.G. Butchers (NZ)
4	1953	State College, Penn.	73/8	William R. Young (US)
5	1957	Banff, Alberta	76/5	G.F. Bruce/G.J. Buck (CAN)
6	1962	Gearheart, Oregon	77/5	Viron A. Moore (US)
7	1965	Stockholm, Sweden	223/27	Donald Cameron (CAN)
8	1969	Paris, France	153/35	Renee Erdos (AUS)
9	1972	Warrenton, Virginia	147/28	Charles A.Wedemeyer (US)
10	1975	Brighton U.K.	84/32	Borje Holmberg (SWE)
11	1978	New Delhi, India	192/39	David Young (UK)
12	1982	Vancouver, B.C.	450/54	Bakhshish Singh (IND)
13	1985	Melbourne, Aust.	700/50	John Daniel (CAN)
14	1988	Oslo, Norway	na/na	Kevin Smith (AUS)

4

ICDE: Metamorphosis

A Change of Name

Although a name change from 'Correspondence Education' to 'Distance Education' did not occur until 1982, the catalyst for such change can be identified as early as 1979 when, at an international conference held in Birmingham by the U.K. Open University, it became clear that ICCE as then constituted did not meet the needs of some newly emerging distance education institutions. Consequently, there was a distinct threat that a rival organisation would be set up to respond more directly to those needs. This produced a new sense of urgency for a name change which took place at the Vancouver Conference of 1982 with little dissent, despite the fact that similar moves had failed at three previous World Conferences.

The change of name to the International Council for Distance Education was more than semantic. The new title recognised that the Council had moved a long way from representing mainly government secondary-level correspondence schools and proprietary colleges as it did in 1938 and was recognising the wave of state-supported open colleges and universities that had begun to emerge in the 1970's using a multi-media approach. The immediate consequence of this change was the release of a new energy from members which was expressed in an ambitious plan of action for the next few years, a plan that the new President, John Daniel, carried out with great enthusiasm to lay the foundations for future developments.

Current Activities

Whilst our world conferences will no doubt continue to be major events in the ICDE calendar, perhaps with increasing regularity or supplemented by regional conferences in the years between, the adoption of members' recommendations to the executive committees from the Vancouver Conference of 1982 and the Melbourne Conference of 1985 has resulted in an extended range of activity requiring devolution of responsibility to vice-presidents and their respective committees formed from co-opted members.

These activities include publication of the ICDE Bulletin three times a year to serve as the main channel of communication to members about research in distance education, project reports, editorial pieces, regional contributions, affiliated association reports and news on forthcoming events. The Council co-operates with and financially supports the United Nations University-sponsored International Centre for Distance Learning (ICDL), a documentation and information centre with hard copy and computer-based data on which members may draw. The Research Committee monitors

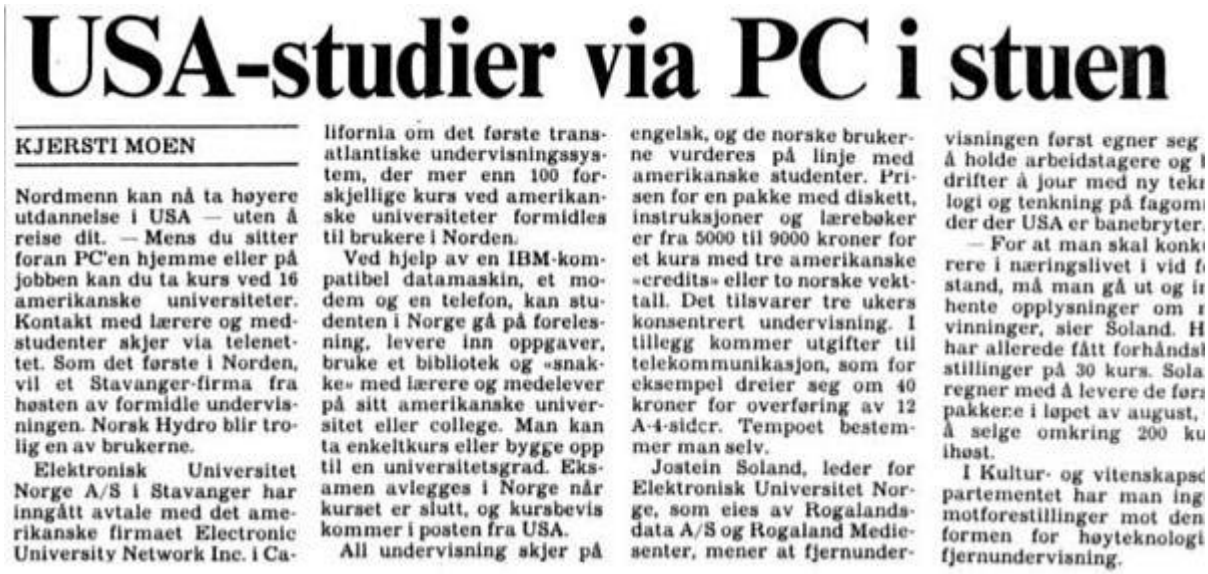
Facsimile of ICDE flier made for the 1988 world conference in Oslo

An electronic university in a mediaeval monastery

Jostein Soland invited me to give a presentation about our online learning experiences at a post conference seminar arranged by Electronic University Norway at the 800 years old Utstein Monastery. We arrived by boat from Norway's oil capital, Stavanger, and slept in the modest chambers that were used by the monks.

I wanted to make a live demonstration of the NKI Online College in the monastery library where the seminar took place. To do so, I needed to connect my PC-modem to the

monastery's only telephone outlet, which was in the main office. Luckily, I found a 20-metre electric cord which could work as a telephone cable extension and climbed outside the metre-thick monastery stone walls to connect my modem to the telephone line. It felt like linking the mediaeval time with the computer age. It was also a boost to hear the American guests of honour from EUN were envious of some of our LMS features and impressed by my live demonstration of our online courses.



USA-studier via PC i stuen

KJERSTI MOEN

Nordmenn kan nå ta høyere utdannelse i USA — uten å reise dit. — Mens du sitter foran PC'en hjemme eller på jobben kan du ta kurs ved 16 amerikanske universiteter. Kontakt med lærere og medstudenter skjer via telenettet. Som det første i Norden, vil et Stavanger-firma fra høsten av formidle undervisningen. Norsk Hydro blir trolig en av brukerne.

Elektronisk Universitet Norge A/S i Stavanger har inngått avtale med det amerikanske firmaet Electronic University Network Inc. i California om det første transatlantiske undervisningssystem, der mer enn 100 forskjellige kurs ved amerikanske universiteter formidles til brukere i Norden.

Ved hjelp av en IBM-kompatibel datamaskin, et modem og en telefon, kan studenten i Norge gå på forelesning, levere inn oppgaver, bruke et bibliotek og «snakke» med lærere og medelever på sitt amerikanske universitet eller college. Man kan ta enkeltkurs eller bygge opp til en universitetsgrad. Eksamen avlegges i Norge når kurset er slutt, og kursbevis kommer i posten fra USA.

All undervisning skjer på engelsk, og de norske brukerne vurderes på linje med amerikanske studenter. Prisen for en pakke med diskett, instruksjoner og lærebøker er fra 5000 til 9000 kroner for et kurs med tre amerikanske «credits» eller to norske vekttall. Det tilsvarer tre ukers konsentrert undervisning. I tillegg kommer utgifter til telekommunikasjon, som for eksempel dreier seg om 40 kroner for overføring av 12 A-4-sider. Tempoet bestemmer man selv.

Jostein Soland, leder for Elektronisk Universitet Norge, som eies av Rogalandsdata A/S og Rogaland Mediesenter, mener at fjernundervisningen først egner seg
å holde arbeidstagere og
drifter å jour med ny tek
logi og tenking på fagom
der der USA er banebryter.

— For at man skal konk
rere i næringslivet i vid
stand, må man gå ut og i
hente opplysninger om
vinninger, sier Soland. H
har allerede fått forhånds
stillinger på 30 kurs. Sola
regner med å levere de før
pakkene i løpet av august,
å selge omkring 200 k
ihøst.

I Kultur- og vitenskaps
partementet har man ing
motforestillinger mot den
formen for høyteknologi
fjernundervisning.

Facsimile of article about the Electronic University Network in Aftenposten, August 2, 1988.

UK Open University in October

In October, I gave a presentation about my online education experiences at the conference Computer Conferencing in Distance Education at OUUK - the Open University in Milton Keynes. The presentation was titled EKKO - A Virtual School.

At the conference, I learned that OUUK was planning to introduce its first online course based on CoSy in 1989.

It was my first visit to the Open University. Milton Keynes, an impressive university campus. Without students. But plenty of course designers, support staff, esteemed academics, and radio and television studios operated in collaboration with BBC. Founded in 1969 by the Labour government under Prime Minister Harold Wilson. A model for many of the open universities that later were established around the world.

Incredible that I later had the honour of attending its 50th anniversary gala dinner, invited with prominent guests such as Sir John Daniel, Robert Wilson, and David Attenborough.

1988 minutes

- June 12. The Norwegian women's soccer team became world champion after beating Sweden 1-0 in the final in China.
- September 15. Lillehammer was awarded the 1994 Winter Olympics.
- October 1. Gorbachev was elected Soviet president.

- November 8. George Bush was elected US president.

Two 1988 publications in English and Norwegian

1. Paulsen, M. F. and T. Rekkedal. 1988. Computer conferencing: A breakthrough in distance learning or just another technological gadget? In *Proceedings of The World Conference of the International Council for Distance Education*, 362-365. Oslo, Norway: International Council for Distance Education.
2. Paulsen, M. F. 1988. Deltidsstudier i New York - via PC. *PC World Norge*, 1988(4):62-64.

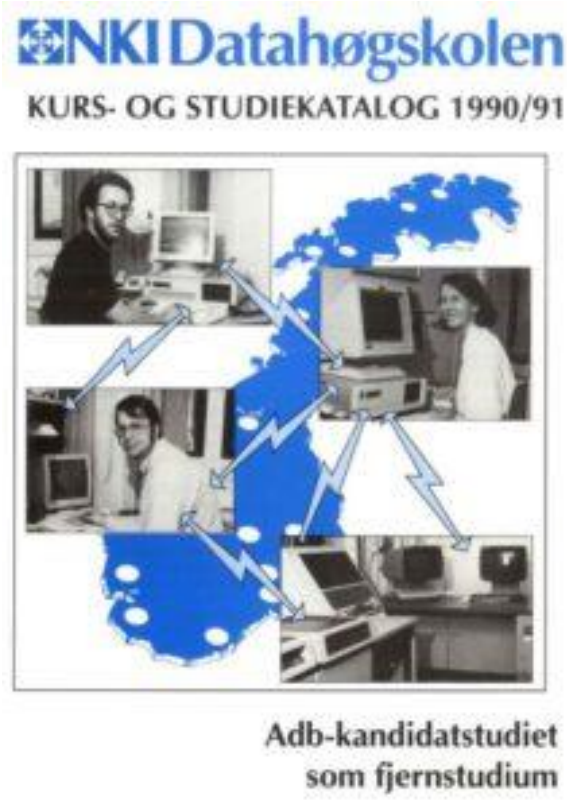
Three 1988 presentations in Turkey, the UK, and Norway

1. AECS, Istanbul 1988: Computer Conferencing: A breakthrough in distance learning, or another technical gadget?
2. ICDE, Oslo 1988: Computer Conferencing in Distance Education: Experiences with the implementation of computer conferencing in distance education.
3. CCDE, Milton Keynes 1988: EKKO - A Virtual School.

1989 - Gaining international attention

Online teaching innovations in EKKO

In 1989, the NKI electronic college had 150 course enrolments in six different online courses. The growing number of courses and students made it possible for us to experiment with various teaching approaches, as described in the following.



Facsimile. Front cover of Datahøgskolen's course catalogue connecting Monica Johannesen, Jan Nergård, and Morten Flate Paulsen

In the Fall 1988, Monica Johannesen taught the Information Systems course. In a course forum, she presented a case and assigned each student a role. The case described a company planning to invest in a new computer-based office automation system. The students were assigned roles as users, accounting officer, project manager, labour union representative, etc. Over a period of about fourteen days, the students were expected to elucidate the different facets of this project, as reflected through their roles.

Ragnar Børsum taught the Pascal and Cobol programming courses every semester since the Fall of 1988. In the Pascal course, the students programmed in Turbo Pascal on their home PC. The program source code was posted to the instructor or shared with the other students in the course forum. In this way, the teacher and the students could download the program codes, change them if they desired, and execute them on their local computers. In the Cobol course he experimented with letting the students access the host computer's Cobol compiler. This was bothersome, but it worked. The important lesson was, however, that distant students could access host computer applications such as compilers, database systems, statistics software, etc.

Henny Lindland used the EKKO online multiple-choice database we developed as a part of the Introduction to Computer Science course, for the first time in the Fall 1989. The students could download multiple-choice questions, spend some time to figure out the answers, and then upload their suggestions and let the database score them.

Grandpa Moste

Private photo of Grandpa Thoralf Baadstøe

I thought about Grandpa Moste when I read Norman Coomb's 1989 article, *Using CMC to Overcome Physical Disabilities* in Mindweave. About online courses with a blind teacher and hearing-impaired students. I realized I wanted to use ICT to make education more available for people with all kinds of social and physical challenges.

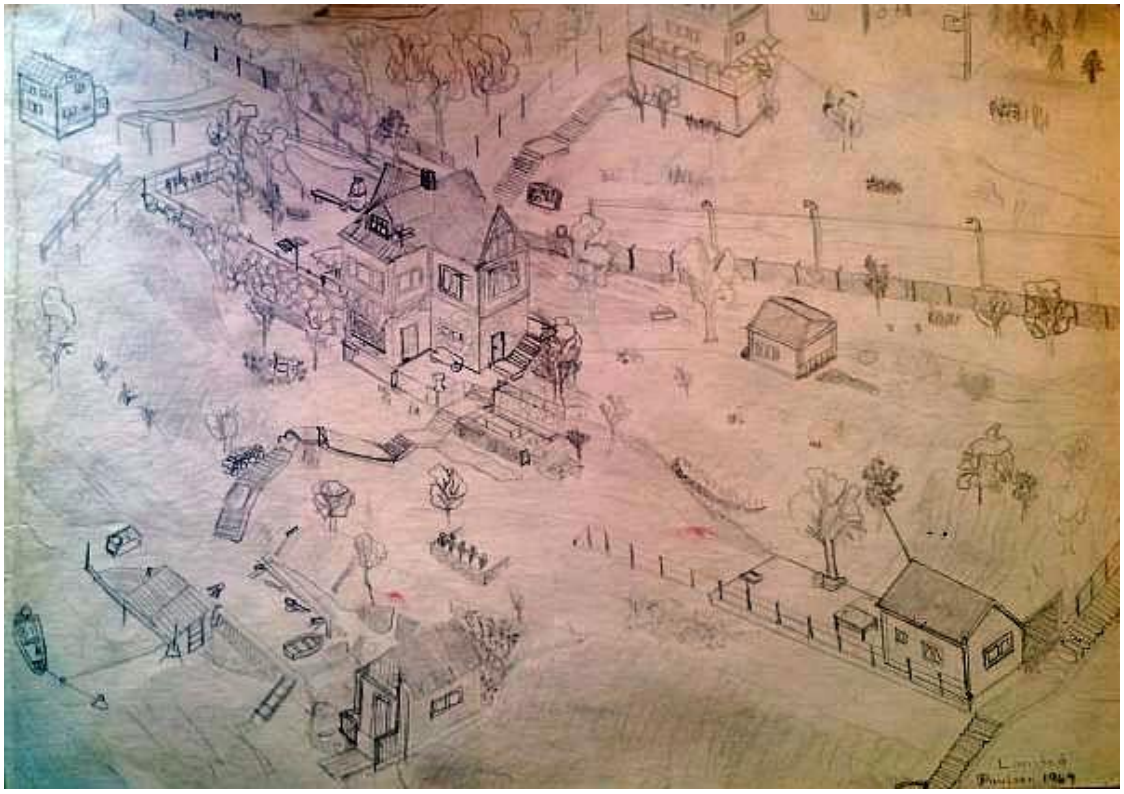
All children and grandchildren in the family called him Moste. The nickname coming out of my toddler mouth when my parents urged me to say Morfar (mother's father).

He gradually lost his hearing, and it became more and more difficult to communicate with him. His hearing aids were primitive and uncomfortable. So sad for both of us that SMS messages, e-mail, and social media communication were not available in his world.

I adored him and missed him a lot when he passed away at the age of 93 in May. He made up scary fairy tales about trolls, showed us the cave they lived in, and explained that trolls only appeared at night because they burst in sunshine. A chubby handyman who made bows and arrows from defunct umbrellas and feathered headgear so that we could dress up as cowboys and indians. An artist who made furniture and fishing gear with the kids.

As a young electrician, Thoralf Baadstøe worked to connect the houses in the Sørkedalen Valley to the electricity grid. At Grøttumsbråten, he was greeted by Petra Jensine (Pedersdatter) Grøttumsbråten. There, the electric sparks were all around my future grandparents.

As a pensioner, he lived six months a year at the Nesodden summer house. My summer paradise. Where I looked up to my older cousins, Stein and Dag. Memories captured in my detailed 1969 drawing. Moste spent hours fishing and smoking his pipe in the tiny rowing boat that fit perfectly around his belly. When the boat capsized, he had to swim ashore with money notes in his pockets—tugging the boat, wearing his cap, looking through his glasses and puffing his pipe.



My childhood drawing of the Nesodden summer house.

Mindweave and Milton Keynes

Back in the United Kingdom. The cultural empire that influenced my generation of Norwegian teenagers immensely. We identified with the Rolling Stones or the Beatles. Loved James Bond and Alistair MacLean movies. Watched countless hours of British TV series on the only TV channel available in Norway. Studied British English (and culture) as our first foreign language. When schools were cut down from six to five days a week, we often spent Saturday afternoons watching the Premier League as passionate supporters of Manchester United, Liverpool, or Arsenal.

In May, I returned to Milton Keynes to attend the MTED Workshop. Gave the presentation *EKKO - Experiences* and learned more about OUUK's first large-scale online course. Using the Canadian computer conferencing system CoSy they enrolled 1400 students in the world's first large-scale online course Introduction to ICT and social issues.

As a follow up of the conference I attended in Milton Keynes the year before, Robin Mason and Anthony Kaye introduced the influential book: *Mindweave: Communication, Computers and Distance Education,* which was published by Pergamon Press in 1989.

I contributed with the paper *EKKO: a virtual school* and read all 31 contributions with great interest.

Among the other prominent pioneers who contributed to Mindweave were Andrew Feenberg, Paul Levinson, Linda Harasim, Søren Nipper, Lynn Davie, Elaine McCreary, Greville

Rumble, Annette Lorentsen, Judith Van Duren, Gary Boyd, Paul Bacsich, Stephen Ehrmann, and Norman Coombs.

NordData 89 in Copenhagen

Copenhagen. The capital of Denmark. Arguably the most important city throughout Norway's history. At least between 1380 and 1814, when our two countries were unified. For many years, Copenhagen international airport was my gateway to the world.

Joined my older cousin Stein on my first visit in 1973. Lodged in the fashionable apartment of an elderly couple he knew from his upbringing in the city. Shocked that they drank the bitter liquor, Gammel Dansk, with Sunday breakfast and ended the meal with cigars.

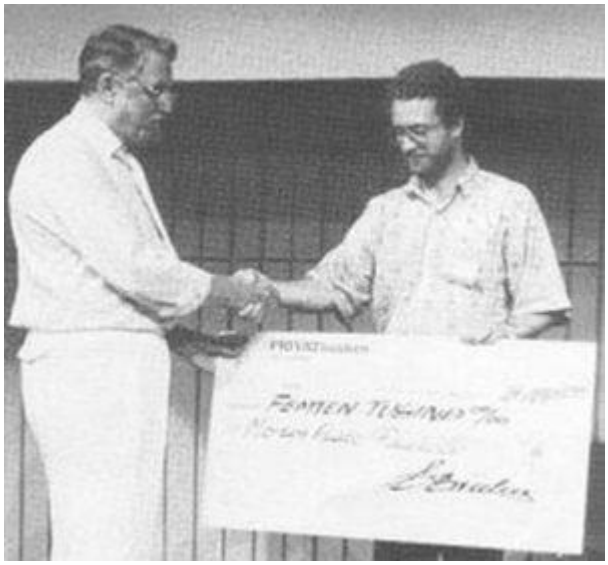


Photo. Erik Bruhn hands over the ckeck for the best presentation

In June, we took the overnight ferry from Oslo to Copenhagen with our two-year-old son. A recommendable journey along the beautiful Oslo fjord. Passed the narrow strait of Drøbak where two torpedoes from Oscarsborg fortress sank Blücher. The German warship that led a flotilla into the Oslo fjord on the night of April 8th, 1940, to seize the Norwegian capital.

Stayed in our friend Sidsel's Klampenborg apartment just north of Copenhagen. Took the kid to the aquarium and the nice Dyrehavsbakken park nearby. Went to the conference located at the Danish Technical University and enjoyed the jazz parade organized by Leonardo Pedersen's Jazzkapell on the campus lawn.

Celebrated with a good bottle of wine after I received the Best Presentation Award for *Trends in international electronic distance education* at the NordData 89 conference. The picture shows the valuable moment when Erik Bruhn, editor of the Nordic journal Data, congratulated me and handed over the prize along with a NOK 15,000 check.

Educational programs on local cable TV channels

During the 1980s, there was a growing interest in local TV channels distributed via cable TV. More and more households were connected. In 1984, NFL (Norske Fjernsynsselskapers Landsforbund) was established as an association for local TV channels. Most members were local and regional newspapers. Our local channel, ABTV (Asker og Bærum Lokal-TV) was one of the first. Started regular programming around 1986. The channels struggled financially since TV commercials were not allowed in Norway until 1991. They had limited resources to

produce in-house content and scarce finances to buy content elsewhere. Many were interested if you could offer free content of general interest.

In this environment, I produced six half-hour TV programmes as supplementary content to NKI's online course Introduction to ICT. All programs were shown several times on many of the local channels.

Screenshots from the six instructional videos

The first programme was initiated by a notice I read in Computerworld Norway. Rumours indicated that Bill Gates should join Microsoft's delegation at an ICT fair at Info-Rama outside Oslo. So, I phoned Microsoft's Nordic headquarter in Stockholm and asked if I could book an interview with him for educational TV.

Too my surprise, Bill agreed. Which made me realize that we can achieve much if we dare to ask.

In the second program, I introduced telecommunication trends, ISDN, and new value-added services. The program also included a video on ISDN (Integrated Services Digital Network) produced by the Norwegian Telecom and an overview of value-added services presented by Anders Fongen.

The third video included Torstein Rekkedal, Henny Lindland, and me talking about our online education experiences. The remaining three programs included interviews with Norwegian ICT celebrities.

Helge Seip focused on ICT and privacy issues. He was an influential Norwegian Politician for many years. In 1980, he was appointed as the first director of the Norwegian Data Inspectorate. From 1989 to 1995, he worked as Data Protection Commissioner for the Council of Europe.

Kristen Nygaard concentrated on his work with Ole Johan Dahl when they invented object-oriented programming and developed the programming language Simula in the 1960s.

Lars Monrad-Krohn talked about microcomputers and his work as a serial ICT entrepreneur. The program also showed Apple's video Knowledge Navigator which gave an impressive prediction of how personal computing works today.

Ups and downs at the end of the decade

On the international scene, it was disturbing to see the huge student led protests at Tiananmen Square in Beijing. We followed the development from the protests started on April 15 until it was forcibly suppressed on June 4 when the People's Liberation Army occupied central parts of Beijing.

We were much more excited to see the symbolic fall of the Berlin Wall in November. After weeks of civil unrest, the East German government sent out a press release on November 9. The travel ban for GDR citizens was lifted and all citizens could visit West Germany and West Berlin. This initiated a wave of optimism for the future of Europe.

Privately, we were happy as parents and delighted to be pregnant again. Three times in two years. Devastated by three subsequent miscarriages. Uneasy with the prospect that Stian could grow up without siblings.

1989 minutes

- January 23. Spanish surrealist painter Salvador Dali died at the age of eighty-four.
- February 14. Ayatollah Khomeini announces a fatwa against Salman Rushdie.
- March 24. Exxon Valdez spilled a huge amount of oil off Alaska.
- April 2. Yassir Arafat became Palestine president.
- April 7. Forty-two lost their lives when a Soviet nuclear submarine sank and caught fire off the Norwegian island Bjørnøya.
- June 1. The first ever papal visit to Norway.
- June 3. Ayatollah Khomeini, Iranian head of state, died.
- October 9. First Sami Parliament opened.
- October 11. Norwegian scholar Trygve Haavelmo received the Nobel Prize in Economics.
- December 22. Nicolae Ceausescu, General secretary of the Romanian Communist Party, was overthrown and executed with his wife December 25.
- December 29. Vaclav Havel became president of Czechoslovakia.

Nine 1989 publications

1. Paulsen, M. F. 1989. EKKO: A virtual school. In *Mindweave: Communication, Computers, and Distance Education*, eds. R. Mason and A. Kaye, 201-7. Oxford: Pergamon Press.
2. Rekkedal, T. and M. F. Paulsen. 1989. Computer conferencing in distance education: Status and trends. *European Journal of Education*, 24(1):61-72.
3. Paulsen, M. F. and T. Rekkedal. 1989. Experiences with the EKKO computer-conferencing system at NKI. *Epistolodidaktika, the European Journal of Distance Education*, 1989(1):66-76.
4. Paulsen, M. F. 1989. *En Virtuell Skole: Del I, Fundamentet i EKKO-prosjektet*. Bekkestua: NKI Forlaget. Sider: 80.
5. Paulsen, M. F. 1989. *En Virtuell Skole: Del II, Erfaringer fra EKKO-prosjektet*. Bekkestua: NKI Forlaget. Sider: 149.
6. Paulsen, M. F. 1989. Det elektroniske universitet kjenner ingen grenser. *Datatid*, 11(1):40-42.
7. Paulsen, M. F. 1989. Den elektroniske høgskolen. *Datatid*, 11(2):60-67.
8. Johnsen, B. and M. F. Paulsen. 1989. Datateknologi i fjernundervisning - voksenopplæring uten grenser. *Nytt om Data i Skolen*, 1989(1):3-7.
9. Paulsen, M. F. 1989. Elektronisk fjernundervisning. *DND-nytt*, 5(5):24-25.

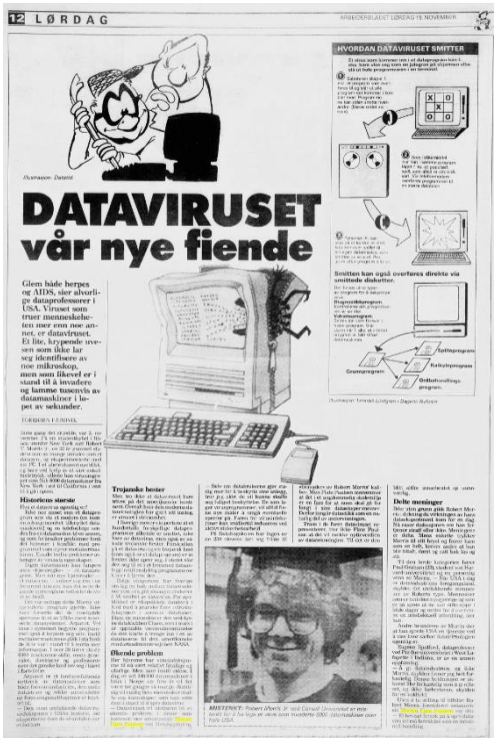
One 1989 presentation in the UK

MTEDE, Milton Keynes 1989: EKKO – Experiences.

Reflections in a dire, Covid dominated 2020

From the cursor moment in 2020, it was devastating to see the latest development in the US. School shootings. The opioid crisis. The growing political divide. The echo chambers and conspiracy theories flourishing in social media. Twitter and Facebook's decisions to flag or hide fraudulent and harmful posts from President Trump. His chaotic presidency attacking decency, allies, science, media, elections, and the legal system. His frightening mismanagement of the corona pandemic.

Remembered the first time I was approached and quoted by a national daily newspaper (Arbeiderbladet, November 1988) as an ICT expert. About computer virus. When I had no idea about the pandemic that loomed ahead.



12 LØRDAG

HVORDAN DATAVIRUSET SMITTER

DATAVIRUSET
vår nye fiende

Glem både herpes og AIDS, sier alvorlige dataprofessorer i USA. Viruset som truer menneskeheten mer enn noe annet, er dataviruset. Et lite, krypende uvesen som ikke lar seg identifisere av noe mikroskop, men som likevel er i stand til å invadere og lamme tusenvis av datamaskiner i løpet av sekunder.

Historiens største

Trojanske hester

Ofrende problem

Dette mener

Facsimile of article in Arbeiderbladet November 19, 1988.

The COVID-19 virus defined 2020 and changed most people's lives. On January 30, the World Health Organization (WHO) declared the outbreak of the disease as a public health emergency of international concern. On March 12, the Norwegian government announced that all schools, kindergartens, and other educational institutions should close. The next day, the Ministry of Foreign Affairs advised against international travels that were not strictly necessary.

Worldwide, the pandemic took nearly two million lives in nine months. Isolated us from family and friends. Made people work from home. Shut down businesses, sports, and culture activities.

Isolating and working from the island Øya in the Norwegian town of Kragerø, I found comfort and distraction by renovating our old fisherman's house and researching my online education archives. Realized that print was more durable than my outdated floppy disks from the 1980s. Found it challenging to meet family and assist next of kin with dire need for help and medical care. Stopped hugging and shaking hands. The first year of my adult life I did not travel abroad. The ICDE, EDEN, and OEB conferences I used to attend went virtual. The Tokyo summer Olympics were postponed for at least a year.

Kragerø Rotary Club hosted the only cultural event I attended. A concert with one of the world's bestselling crime writers. A Norwegian author translated into fifty languages. Vocalist and songwriter for the Norwegian rock band Di Derre. An excellent storyteller, but Jo Nesbø's on-stage anecdotes and song lyrics touched me more than his novels. Unfortunately, so hard to appreciate for all my friends who don't speak Norwegian. But hopefully understand me as I struggle with the English language in these anecdotes.

But challenging times spur innovations. Performing artists staged virtual events. Bands and orchestras started playing virtually together from separate locations. Athletics introduced

digital lights (pace setters) instead of human rabbits to chase records. E-sport saw new opportunities. Magnus Carlsen, the incredible Norwegian World Chess Champion, transformed chess with his virtual chess tournaments.

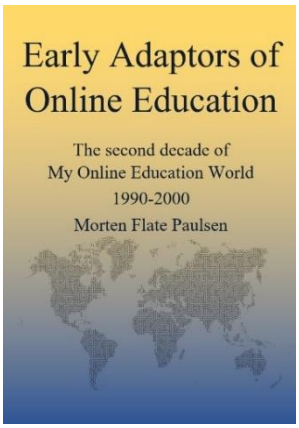
The pandemic prompted Norwegian schools and universities to substitute traditional teaching with online education. For a while, online education was the standard and face-to-face education the exception. I was privileged to head NooA, a completely online school with no need for offices and classrooms. Fortunate to receive a fair share of the online education contingency funding the Norwegian government made available for people who were laid off or furloughed during the pandemic.

Many institutions and teachers made an impressive effort to go online and even the most ardent antagonists of ICT realised that online education could work. Many noteworthy initiatives promoted and shared resources, experiences, and advice from established online education communities. Many course providers decided to substitute their face-to-face seminars with free webinars. A fine offer in times of crisis, but hardly a sustainable solution.

Access to PCs and modems was the greatest obstacle for online education in the 1980s. I wonder why access to online education technology did not seem to be an issue in Norway anymore. Is it so that all kids and adults had access to PCs and the Internet in 2020?

Teams, Skype, and Zoom suddenly became omnipresent communication tools. Personally, I gave an October presentation at a webinar organized by FuN and Utdanning.no. Then two webinar sessions for online teachers in the Sami language in November. Worried that most of the new online education activities seemed to replicate classroom teaching. That too many people started to believe that online education is equivalent to webinars. A perception that disregards decades of experiences and so many of the innovative online education developments that are addressed in my online education chronicle.

Introducing the optimistic 1990s



The second book in My Online Education World compiles anecdotes from the optimistic 1990s. Anecdotes chronicled in isolation and distress during 2021. The decade for early adaptors of online education on the web. A decade of amazing innovations. The decade that introduced PCs with colour- and graphic interfaces. New Internet services opened the world, and the web brought it all together. Search engines provided immediate access to mindboggling sources of information. Online journals, early web-based learning management systems, digital cameras, and personal digital assistants (PDAs). And mobile phones that changed our lives.

My life accelerated in the 1990s. Two formative years as a graduate student in the US. Establishing DEOS as one of the world's first online journals at the American Center for the Study of Distance Education. Struggling with my doctoral dissertation *Teaching Techniques for Computer-mediated Communication*. Visiting Venezuela, Canada, Mexico, and Brazil. Focusing on children and parenthood.

Interesting work with the online journals I edited. Deosnews, Norwaves, and Nettskoleavisen. Publications that resulted in growing networks and welcome exposure in media.

Even though Norway voted against EU membership, the EEA treaty opened many European doors. I had several trips to Brussels and was engaged by the EU Commission as Project Reviewer for the *Directorate- General XIII on Telecommunications, Information Market, and Exploitation Research*. EU funded projects and online education work provided welcome opportunities to visit: Belgium, the UK, Sweden, Denmark, Italy, Germany, Ireland, Spain, and Portugal.

A decade with growing Norwegian self-confidence. The very successful Lillehammer Winter Olympics gave the nation a tremendous boost and inspiration for young athletes in a wide range of sports.

Jostein Gaarder wrote *Sofie's World*. A novel about a teenager entering the history of philosophy. The English translation of the novel was reported to be the world's best-selling book in 1995. Probably an inspiration for the two internationally renowned Norwegian authors Jo Nesbø and Karl Ove Knausgård, who both wrote their first novels later in the decade.

A decade of huge economic growth in Norway propelled by oil drilling in the North Sea. Hence, in 1990, the government established the Petroleum Fund to manage surplus wealth from the Norwegian petroleum sector. The fund was a remarkable success, and the growth introduced a debate about the necessity for budgetary rules concerning the usage of capital gains from the fund.

The healthy economy allowed people and businesses to invest in PCs and internet services. Making the technology more widespread and available in Norway than most comparable countries. A fact that helped Norway become a world leader in online education.