NORDIC LABOUR JOURNAL

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AI and the labour market



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Will we get the artificial intelligence we deserve?

The Nordic countries have a special responsibility to influence the development of AI systems to ensure they are safe, transparent, traceable, non-discriminatory, and environmentally friendly.

EDITORIAL 26.08.2024 BY BJÖRN LINDAHL, EDITOR-IN-CHIEF

We have picked a challenging theme this time: artificial intelligence. Everyone agrees this will have major consequences across nearly all areas, but nobody can predict exactly what might happen.

We are facing a situation similar to that in the 1990s when the internet was introduced.

"Nobody knows what will happen," acknowledges Svein Berg, Managing Director of Nordic Innovation.

"But what we do know is that it will happen fast. As an American researcher put it in the 1960s: The pace of change has never been this fast, yet it will never be this slow again.

We have indeed been thinking about the consequences of AI more or less since the emergence of what is considered to be the first computer, Eniac, in 1947.

Hannes Alfvén, who was awarded the Nobel Prize in Physics in 1970, some years earlier published a story originally meant for his children and grandchildren: The Tale of the Big Computer.

In it, a computer tells the story of how the age of data began. Humans were only a step on the way to the high point of evolution: the computers.

The problem with the human was that she was thinking too slowly. On their own, humans could predict what the weather would be in three days. But it took three days to make that prediction, so it was already outdated by the time it was finished. Without the help of computers, it was not possible to predict the weather.

Of course, you could imagine many humans working together, effectively linking their brains. But it did not work since their way of communicating – through numbers or in writing – was too slow and imprecise, the computer in the story pointed out. In field after field, computer programs have been developed that are faster than humans. When IBM's Big Blue computer finally beat the reigning world chess champion Garry Kasparov in 1997, it was considered to be a milestone in the development of artificial intelligence. Then followed programs that made computers superior in everything from Go to Jeopardy.

Nothing stops these programs from being linked in series to create a computer that can beat humans in all games. But can you link enough programs to make a computer better at all intellectual tasks that humans can perform? If so, this would lead to the emergence of what is known as Artificial General Intelligence (AGI).

With eight billion people who constantly invent new things, this probably cannot happen until computers start building their own computers. The possibilities are almost limitless. In this edition, we look at some aspects of AI:

- Autonomous ferries
- Drones repairing wind turbines
- Programs that diagnose illnesses
- Programs that help us in the office
- · The opportunity for Nordic data servers

Common for all these is that the AI system works quicker than humans can, but things might go wrong if we do not know how to handle the programs. That is why education is so important. In Finland, an AI course has been developed that has become an international success.

In areas where we hand over control to AI systems, a risk analysis must be conducted, which is the core of the new EU AI Act that came into effect on 1 August this year. Developers of new AI systems must be able to document the associated risks.

WILL WE GET THE ARTIFICIAL INTELLIGENCE WE DESERVE?

Some AI systems are already being banned, such as linking facial recognition to public transport, which has been implemented in certain cases in China.

The Nordic countries, with their long history of protecting personal privacy and ensuring good working conditions, have a special role to play in influencing international standards.

To achieve this, it is necessary not only to develop national AI strategies but also a unified Nordic strategy. We gain greater influence by speaking with a collective voice than if we act individually.



Swedish hospital uses AI to the benefit of patients and staff

What are the challenges with AI and which are the good examples that can be replicated? Skåne University Hospital is already using AI to diagnose and treat cancer patients. We look at AI in Skåne from three angles, inspired by the new technology at Skåne University Hospital.

THEME 26.08.2024 TEXT: FAYME ALM

Three voices on how AI works



Niclas Feldt is head of Region Skåne's Department of Digitalisation, IT and MT, Liselott Lading is director of business consultancy at Qinshift and Per Munck af Rosenschöld, is area head of the radiation therapy and radiation physics department at Skåne University Hospital. They represent three different angles on AI.

"AI is nothing new. The concept has existed since the 1950s. When I was at university studying computer and system science around the turn of the millennium, there were courses on AI," Liselott Lading tells the Nordic Labour Journal.

During this year's AI Nordic Powwow, organised by Lund University and Skånemotor, she talked about how AI can contribute to more innovation and business, and which AI tools are already available.



Liselott Lading is director of business consultancy at Qinshift, a company that employs around 3,000 people across several countries.

AI policy is not enough

In her job, she meets many customers who are curious about AI. Some in the private sector are also feeling pressured by the competitive situation they believe they might face if they don't jump on the AI bandwagon and do so in the most advantageous way.

"It stems from a sense of urgency, while others are already tired of AI after hearing about it and reading the headlines. But for those of us who have been in the trade for a long time, the media hype is less important. What matters is what happens in the real world, and more and more real stuff is happening," says Liselott Lading.

It is not enough, however, to develop an AI policy, as some business leaders seem to believe, according to Lading. You need more than that for the technology to function optimally and provide the desired results.

"They believe that by having a policy they have done their job, but in reality they have just addressed one small part of the issue. That is when I bring out the three buckets as I call them, and we can then figure out which of them the company should prioritise.

The three alternatives put forward by Liselott Lading are:

- 1. To use external AI, for instance, ChatGPT.
- 2. To use platforms that the company has already bought and which often contain AI like the ones offered by Microsoft.
- 3. To create AI in-house, and build a company-specific platform.

Efficient AI depends on good data access

Regardless of which alternative the company chooses, the question of responsibility must be solved, points out Liselott Lading.

"AI should be accurate and ethical. It is called responsible AI and involves the various conscious decisions made regarding its use. There is a great difference in the level of responsibility between the marketing department using ChatGPT and using AI as part of a decision-making process.

"For me, it is important that the regulatory framework is in place. You need to know how you want it to work, and that it is about far more than rules. It's about what you want to achieve with your AI. It involves the intentions that should be maintained throughout the entire process, including the actual implementation."

Before you can create AI, you need good access to data. This is where Lading faces the biggest problem among her clients.

"All AI projects are more or less data projects. So you need to secure the quality and access to the data. There is still an incredible amount of data stuck in silos which cannot communicate. That is often where we have to start our work," says Liselott Lading.

Another challenge she faces is clients with a short-sighted perspective of AI.

"Many fail to appreciate the long-term effects of AI, which clearly play a monumental role. There are immense possibilities here, including in the healthcare sector," says Liselott Lading.

Per Munck af Rosenschöld

Cancer patients in Skåne receiving radiotherapy have already experienced a crucial difference because of AI.



"We treat around 5,000 patients a year, nearly everyone with cancer. Half of them receive curative treatment, half receive pain relief," Per Munck af Rosenschöld, professor of radiation physics and area head of the radiation therapy and radiation physics department at Skåne University Hospital, tells the Nordic Labour Journal.

The radiotherapy department is located at Skåne's University Hospital in Lund, Sus, which also has a branch in Malmö. Both cities are in the South-West of Skåne, around 20 kilometres apart.

Patients who have been diagnosed and referred for radiotherapy primarily come from Skåne, Blekinge, and southern Halland. Radiotherapy is a team effort involving doctors, medical physicists, nurses, assistant nurses, engineers, biomedical analysts, and medical secretaries.

"All the hospital physicians in Skåne are employees here with us at radiation physics as Sus, but they are spread out across all of Region Skåne's hospitals, so the organisation is a bit like an octopus," says Per Munck af Rosenschöld.

Implementable methods thanks to AI

Radiotherapy today uses various AI models based on the extensive material documented within Region Skåne, Sweden's southernmost region.



TrueBeam, pictured on the left, is designed to treat cancer wherever it is in the body by delivering precise doses of radiation to tumors. The patient lies on a stretcher under the machine, which can be turned in different directions. Per Munch af Rosenschöld looks into the mylar window that protects the accelerator head against dust and dirt. The radiation comes out of the window when the machine is on, which it is not here. Minna Lerner, hospital physicist, scanned the brain above using three different methods.

"This is input that creates output and implementable methods for radiotherapy."

One of these methods is sCT, short for synthetic Computed Tomography, commonly known as CT scans.

An MRI scanner, which consists of a very powerful magnet, is used as part of the planning process for radiotherapy. Detailed images of the body's internal structures can be created with radiofrequency radiation.

A CT scan, computed tomography, uses X-rays and a computer to create cross-sectional images of the body. The X-rays are sent through the body from different angles, and the computer combines these images into a three-dimensional picture. Both are imaging techniques that visualise the body's internal structures, but they operate in different ways and are used for different purposes.

Now the department has started creating synthetic CT data with the help of AI, trained on earlier data made up of special MRI sequences and CT scans. Using this AI model and an MRI scan, some of the patients can avoid the need for a CT scan.

"It makes it easier to develop an image because the patient only needs to come in once," says Per Munk af Rosenschöld, who says the method is being developed as a Vinnova (Sweden's innovation agency) project in cooperation with a private company in Helsingborg, Spectronic Medical AB.

MRI data is used to map out the patient's tumour and critical organs. Critical organs can include the heart, lungs, spinal cord, and eyes – areas that ideally should not be exposed to radiation during treatment.

Previously, all of this mapping was done manually by doctors, but these AI models have now been developed in collaboration with RaySearch AB in Stockholm, explains Per Munck af Rosenschöld.



RaySearch Laboratories AB is a medical technology company that develops innovative software solutions to improve cancer treatment. In May of this year, it was approved for use with TrueBeam. The company assists cancer clinics by collecting, structuring, and analyzing data through various software programs. Photo: RaySearch.

"The gaming industry has actually been helpful since the high demand has driven the development of computers and graphics cards at reasonable cost. These can be used to handle image data and optimise radiation treatments."

The third method is GE AIR, short for General Electric's Adaptive Iterative Reconstruction. This is a technology which improves image quality while reducing the scanning time the patient is exposed to during an MRI scan. "This model reduces image noise which means patients don't have to stay still for so long while we scan with our MRI camera," says Munck af Rosenschöld.

Mixed skills benefit the patient

The department needs a team with diverse skills and professions in order to offer radiation therapy, including doctors, nurses, radiology nurses, engineers, lab-oriented biomedical analysts, chemists, pharmacists, assistant nurses, and medical physicists, a profession that Per Munck af Rosenschöld himself belongs to.

"We are a technical part of the hospital and it is an advantage to have engineers and hospital technicians who are used to adopting new technology. In many organisations, scientists are far removed from the patients, but not here with us," says Munck af Rosenschöld.

As a researcher, he supervises four PhD students and four postdocs who work on improving the precision of radiotherapy and reducing side effects. Several of the projects utilise deep learning/AI models.

Parallel with his work at Sus, Per Munck af Rosenschöld is also keeping in touch with his Danish contacts.

"I worked in Denmark for several years and have many friends and colleagues there, especially at Rigshospitalet in Copenhagen, in Herlev and in Aarhus."

Long-term strategy based on maximum benefit

The Nordic Labour Journal visited Region Skåne's Department of Digitalisation, IT and MT too, where there is also a great need for different skills when the AI strategy is being formulated.



"The most exciting developments are taking place at the intersection of different competencies. AI is so big and complex that it is extremely valuable to gather various perspectives when we draft our strategy. The technological solutions must work in practice," says Niclas Feldt, head of the department.

In addition to staff from HR, lawyers, technicians, and economists, experts in data protection and privacy have also been involved in creating the new AI strategy for Region Skåne. It is now complete and awaiting approval from authorities higher up.

"We focus on projects that are crucial to the region, not on anyone's pet project. In the short term, there are many standalone concrete issues, but in the longer term, we need to put together a learning plan. The strategy will be in place for several years and focuses on utility. The emphasis is on practical, everyday AI," he says.

Johan Åhlén, head of AI, adds a rhetorical question:



"Where do we have the most to gain?

"We must look after taxpayers' money. That is why we would like to apply AI to areas where it can have a beneficial economic effect as quickly as possible."

Rather than reinventing the wheel, Region Skåne wants to make use of AI solutions others have already had success with. One example being looked at is from the British National Health Service, which has managed to reduce the number of missed appointments by 30 per cent through the use of AI.

"It involves targeted measures using AI, ranging from extra reminders to offering patients free transport in certain cases. Summing it all up, there are huge gains to be had by preventing patients from missing appointments," says Johan Åhlén.

Another example is being able to inform patients about the expected waiting times at hospital emergency departments. For those with less acute conditions, this can mean avoiding unnecessary time spent in the waiting room.

Then, of course, there are examples in Sweden like the radiotherapy department at Skåne University Hospital.

Patient perspective for all

As chief medical officer at the hospital, Ulrika Pahlm works with patient safety and operational security. She sees the potential AI has to help employees avoid repetitive and tedious tasks and to assist with complex analyses.

"We already know why we should be doing this at this time. Now we need to understand the benefits for the entire chain and how we can use AI to help deliver better care for patients." Ulrika Pahlm believes the arrival of AI is perfectly timed and points out that those who make decisions first will succeed sooner – and that is why the time to invest in AI is now.

"In healthcare, we have more work than we can handle. We need to increase accessibility. But as we know, all change is difficult. We have been doing things the same way for generations. Now we need to think differently and act accordingly," says Ulrika Pahlm.

Niclas Feldt agrees:

"New technology can create unease and fear, and many believe AI is here to take their jobs. We want to show how people and AI together can harness the benefits."

It is crucial to communicate this to employees and patients, believes Ulrika Pahlm, who often says this about change management:

"We do it for the patients and the patients are us – our friends, relatives, neighbours and colleagues."

Strong safety measures a hindrance

A stumbling block for AI development in the region is that in Sweden, data sharing between the 21 regions is not permitted.

"The privacy aspects at the national level offer no guidelines, so each municipality and region spends time and resources on interpreting legislation and often arrives at different conclusions.

"So far, we cannot share data between the regions. Here, we have incredibly strong safety measures. Finland and Denmark have come much further. We could have too, if only the strong safety measures did not hold us back," says Niclas Feldt.

The rules do not, however, stop Region Skåne from establishing collaboration for AI development, and here AI Sweden plays a crucial role.

"They are the spider in the web," says Johan Åhlén.

New skills are needed

One precondition for efficient AI is digital maturity among employees, and the Department of Digitalisation, IT and MT at Region Skåne has recently conducted a digital maturity assessment in collaboration with Ängelholm Hospital.

"We need to look at what we need to work with in order to offer the right skills development," says Niclas Feldt.

The department will also recruit new personnel with AI skills and has set money aside for this.

"We are an attractive employer and expect to receive many applications, both internal and external, for these services," he says.



Nordic Innovation at 50 - AI important now, but where are we in 2073?

"Everyone" is talking about AI these days. Nordic Innovation's 50-year-old history shows that they were engaged in AI projects as early as the 1980s.

THEME 26.08.2024 TEXT AND PHOTO: LINE SCHEISTRØEN

Last year Nordic Innovation turned 50. It was marked by the publication of "Innovation in the Nordics 1973 - 2023", a history of the organisation's life presented in book and digital formats.

The chapter about the 1980s has the apt title "The Global Tech Race". Information technology was a hot theme internationally and in the Nordics. The history talks about how Nordic Innovation played an important role in promoting Nordic computer technology through several innovative projects. Between 1985 and 1989, 130 million Norwegian kroner (€11m) were awarded to 50 projects.

The same chapter tells the story of "Early AI in Finland" which is about a development project for the use of AI technology in cancer treatment.

What about the next 50?

When Nordic Innovation turned 50, the organisation did not only look back but used the opportunity to ask: "How do you think the world will look 50 years from now, in 2073?"

We put the same question to Svein Berg, CEO of Nordic Innovation. His answer:

"If we have the same rate of development, only faster, it is hard to predict how the world will look in 50 years from now. And that is perhaps just as well?" While it is of course difficult to say something concrete about the future, Berg believes one thing is certain.

"The fact that developments are happening at an increasingly rapid rate," he says.

Must bring Nordic added value

Svein Berg is originally from Svolvær in Norway. He became CEO of Nordic Innovation in 2017. When his period is over in March next year, he will be leaving Nordic Innovation – perhaps even earlier if a new leader is hired before that time.

Before joining Nordic Innovation, Berg held various positions in Innovation Norway. He went from innovation from a Norwegian perspective to a Nordic perspective.

Nordic Innovation only engages in activities where there is Nordic added value. And what do they mean with Nordic added value? This is how they describe it on their website:

Nordic added value is for instance creating a strong Nordic market, testing and spreading Nordic solutions, developing or strengthening common Nordic guidelines and standards or strengthening the Nordic brand internationally.

"We look for areas where we can make societal change. We do not, for instance, look for companies that want to develop a slightly improved filleting machine – although that too is important. It is not a project that will change the Nordic region," adds Berg.

He points out that the Nordics in several areas gain advantages by working together. One of many examples is the development of an electric aircraft.



Several major Nordic airlines and Nordic Innovation collaborate on the development of electric aircraft. Illustration: Heart Aerospace

"No single company can do this alone. That is why we have brought the players together and helped finance the cooperation.

Good at collaborating?

We take it for granted that we are good at collaborating in the Nordics, thinks Berg. But this is not necessarily straightforward, he says. Last year, when Berg was a guest on Innovation Norway's podcast, he was asked: "Are we in the Nordics good enough when it comes to collaboration?"

Berg's answer:

"No. We overestimate our own knowledge about the opportunities that lie on the other side of the border. We more or less speak the same language as the Swedes and Danes. Not the same language as the Finns and Icelanders, but we think it will be just so easy to talk to a Swedish company. But traditions in Norway, Denmark and Sweden, how we approach a collaboration project, differ.

"We tend to underestimate the historical working methods in the different Nordic countries. So even though the languages seem to be similar, we have some way to go before we have the same opportunities as you have internally in a country."

Must be onboard the AI train

Berg thinks it is natural to talk a lot about AI these days. He also believes it is right that the Nordics jump on the train of development when it sets off. It is still perhaps not right to strive to be in the driving seat when it comes to development, according to Berg.

He thinks it is more important that we learn how to use AI in ways that make work processes more efficient, for instance.

Nordic Innovation has set up the Nordic Ethical AI Expert Group, comprising 23 Nordic experts tasked with developing an action plan for how the Nordic region can become a leader in ethical AI. The group was also asked to present some recommendations and presented the results of its work just before the summer.

Berg believes AI has created an increased need for critical thinking.



After nearly eight years as CEO for Nordic Innovation, Svein Berg will be leaving later this year or early next year.

"Do we allow ourselves to be dazzled by the huge potential in AI and fail to see the risks that are not being sufficiently considered, he asks, and follows up with another question: "What is the alternative? If we want to be part of the global competition, we cannot opt out. But we need to find a responsible way of doing this thing."

A lot more AI coming

Right now, Nordic Innovation is making a plan for what the organisation should be doing in the coming years. And although much of it will be happening after Berg has left, he is certain much of the plan will be about far more than AI.

"The green transition, digitalisation and internationalisation will be the main priorities," he says.



Danish AI cuts wind turbine downtime

Danish Reblade uses AI to help drones land safely on wind turbine blades to carry out repairs using robot technology. The company also uses AI to recruit the best talent from around the world.

THEME 26.08.2024 TEXT: MARIE PREISLER, SCREENGRAB: REBLADE

When a wind turbine blade needs repairing, two specialists – known as rope technicians – must climb 130 metres up inside the turbine tower and out through a hatch before lowering themselves down to the blade on a rope while carrying tools and materials.

It is a dangerous and time-consuming job, especially when there is a lot of wind – which is often the case where wind turbines are located. There is also a shortage of rope technicians. That is why Danish startup Reblade has used AI to develop robot and drone technology, making it possible to land very precisely on turbine blades even in heavy winds.



Frank Kjerstein and André Alexander Westergaard examine the erosion on a wind turbine blade. Screengrab from AI Denmark's video about Reblade.

The drone can then quickly find and repair the categories of surface erosion damage that most often appears on blades, cutting wind turbine repair downtime.

"Our solution cuts the wind turbine's downtime by 90 per cent, because the drone and the robot technology speeds up repairs and because the wind turbine operator does not have to wait for a rope technician to become available. There is a global shortage of rope technicians," explains Reblade cofounder and CEO Frank Kjerstein.

AI secures safe drone landing

You need a special mindset and a lot of experience to hang from a rope at great heights for 10 to 12 hours at a time while fixing a wind turbine blade. Many rope technicians want to carry out different tasks when they get older. As a result, there is only a small group of experts who cannot keep up with demand, says Frank Kjerstein.



Modern wind turbines are huge. A service technician is checking out one of Statkraft's wind turbines at Stamåsen in Sweden. Photo: Mathias Kjellsson, Statkraft.

This was the challenge he and his partner André Alexander Westergaard decided to take on when they founded Reblade together in 2020.

"There were already alternatives to rope technicians, including a large robot weighing 180 kilos that also hangs from a rope. But we have developed a lightweight drone that can fly up and land exactly where the repair is needed. We use AI to make it precise enough."

Thanks to AI technology, Reblade's drones can carry out precision landings no matter how strong the wind, weekdays and weekends, and the drone does not get tired or make mistakes.

Reblade's drones and robot technology have been made to proactively repair damage to the leading edge of wind turbine blades and to fix three out of five categories of wear on the blades.

Rope technicians are still needed for the other two categories of blade erosion, so the drones are not putting them out of a job. They are still needed to carry out a range of tasks, underlines Frank Kjerstein.

"Ours is also a green solution. We help increase the production of green energy and to reach the aims of the green transition, thanks to fewer days of turbine downtime."

AI attracts specialists

The company develops and builds the drones in the town of Mørke in Jutland, and has had no problem attracting specialised labour. Reblade today employs 15 people from around the world, most of them engineers with AI knowledge.

"Attracting and retaining highly specialised labour is a challenge for many Danish companies, but not for us – despite being a small startup without a well-known brand, situated in a small town in Jutland."



Reblade raised their profile after winning the Danish Industry Foundation's AI prize worth \pounds 27.000. Photo: AI Denmark.

Reblade has seen how AI has become a magnet for international experts.

"When we advertise new positions, we get many applications from the best people in the world. They want to work in a technologically exciting company, and the fact that we develop drones and use AI solutions in a complex high-tech system provides completely different recruitment opportunities.

"Our flat organisational structure and quick decision-making that allows each of us to make an individual impact every day, is also very appealing.

AI is only a small part of Reblade's drone technology, but having AI as part of the job description is clearly an asset, believes Frank Kjerstein.

Employees in companies that only develop software can often work from home or from a completely different part of the world. Reblade's engineers physically work with the drones, so they have to be in the workplace. This means employees move to Denmark from around the world.

Reblade is one of 120 companies that have been offered a specific development and implementation programme in collaboration with a university.



This is how a Reblade drone lands on a wind turbine blade. Illustration: Reblade.

Reblade employs people from many countries, including Ukraine, India, Malaysia, Russia, Mexico, Pakistan and Egypt.

AI helps recruitment

Nearly all the employees are different types of engineers. Most are mechanical engineers, but there are also robotics engineers, software engineers and control engineers. Most of them have comprehensive knowledge of AI.

Reblade also uses AI in recruitment, says Frank Kjerstein.

"We typically get 70 applications for each job. Using AI, we have created an employment platform allowing the applicants to interview themselves on video which AI then turns into a text that we can read through to efficiently pick the best candidates. Based on the AI-generated transcript, we choose the videos that are most relevant for in-depth assessment and only watch these."

The highest-qualified and most relevant candidates are then given some professional tasks to solve.

Small and medium-sized Danish companies are generally lagging behind in their use of AI, and many struggle to attract specialists. Frank Kjerstein therefore advises all to get on the AI train, also to improve their chances to recruit the right specialists.

A changing labour market

Just five per cent of small and medium-sized companies in Denmark use AI, according to a 2019 report from McKinsey and the Innovation Fund Denmark. It predicts that AI will lead to major changes in the Danish labour market and that there will be a major shortfall of specialists with sufficient special skills to exploit the big potential of AI.

The report says several Danish universities excel in AI research and help advise Danish companies. One of these is Aalborg University, which has advised Reblade on AI use in drones.



Finland wants to teach the world more about AI

In the 1990s, Finland performed magic with mobile telephony and technology. Now the country wants to become a leader in artificial intelligence. The message is being spread around the world through a Finnish training program that has already taught a million people elementary AI.

THEME 26.08.2024 TEXT: BENGT ÖSTLING

Finland was the home of Nokia. For several years in the 1990s, Nokia was the world's largest mobile telephone manufacturer. In 2017, Nokia was Finland's biggest company in terms of turnover. Mobile technology turned many Finns into millionaires – before companies like Apple took over.



The mobile as school troublemaker

But the tone has changed. The Finnish and other Nordic governments are now trying to fight mobile addiction in schools as the handsets are considered to interfere with students' education.

Finland's top ranking in the OECD's international PISA survey, which tested students' knowledge in mathematics, reading and natural sciences, is but a memory. Students' learning levels have fallen, and issues with concentration and discipline have increased.

The government is planning legal changes to limit the use of mobiles during school hours and improve Finnish students' focus on education.

A worried business

Finnish students receive on average 200 notifications a day on their mobile. Girls in particular spend a lot of time on social media – up to six hours every day.

The Finnish Chamber of Commerce supports a tightening of rules in schools and wants to ban mobiles during breaks as well. The problems later show up in working life, as people display difficulties adapting, mental health issues and lowered productivity, the Chamber of Commerce points out. Yet others argue the mobile could be a tool and part of the digital skills students should learn in school.



Mika Lintilä is now an MEP for the Centre Party. He was par of the previous government which was more enthusiastic about AI. The present government is more sceptic. Photo: mikalintila.fi

World-leading?

Yet there is no sign of Finnish hostility towards technology. Finland cannot become the biggest in AI but might become the best. And AI is definitely very important for employment and export.

The former government's Minister of Economic Affairs Mika Lintilä expressed ambitious goals for how Finnland should efficiently exploit its limited resources.

"Our goal is to become one of the world leaders in adapting artificial intelligence and new ways of working," Lintilä said. He is now an MEP representing the Centre Party.

He was talking about leveraging digitalisation to improve Finland's competitiveness and utilise AI and robotics to manage changes to the labour market.

Improved services in all areas

In everyday life, artificial intelligence is often seen through new and improved services, said minister Lintilä when the development of a national AI programme began.

"In healthcare, artificial intelligence can analyse all medical data in seconds and make diagnoses more accurate."

AI also means that shipping routes, energy use and maintenance can be optimised, causing as little inconvenience as possible for people and the environment.

Consumers deal with AI every time they use a digital service to find a hotel quickly, or film and music that fits what they enjoy, according to Lintilä.

Clean, sustainable, efficient and digital change

The vision for the government's Artificial Intelligence 4.0 programme is that by 2030, Finnish industry should be clean, efficient and digital.

The aim is to navigate the dual transition successfully, addressing both the challenges of industrial digitalisation and those of the green transition. One goal, which has also been achieved, is to expand education within the sector and make sure people who are already in the labour market have the necessary skills.

More knowledge for all

During Finland's 2019 Presidency of the European Union, the education programme "Elements of AI" was launched.

The aim is to "demystify AI" and present its basic elements to make it understandable for all. The course was created by the University of Helsinki together with the education company MinnaLearn.

Finland made the course freely available for all Europeans translated into all of the EU's official languages. So far, more than one million people across 170 countries have taken it. The online course combines theoretical texts with practical exercises with a sprinkling of maths and should take around half an hour to finish.



Elements of AI is a course that works well both on mobile and on PC. In 2019, the course was named the world's best online course in computer science, among Class Central's 1167 online courses. Photo: MinnaLearn.

Anyone can sign up for the course, which has been launched in cooperation with universities and colleges in all of the language areas that grant study credits when the course has been completed.

At least one per cent need to know AI

Minna Learn has further developed "Elements of AI" from 2019 and created further courses on the topic. The aim is to educate one per cent of the world's population for the future labour market. Finland has already reached three per cent.

In the final chapter of the course, the aim is explained: To find new ways of distributing welfare for all rather than creating an AI elite who have exclusive access to the newest technology – which would lead to greater economic disparity.

How society adapts to changes brought about by AI is an issue built on democratic principles. They are political, not technological, the course points out.

A common good rather than improved fakes

The overall outlook on the future is surprisingly positive – but attention must be paid to the effects on society. AI should be used to achieve a common good. The aim of the course is to teach students how to avoid algorithmic discrimination and work towards curbing inequality rather than increasing it.

Students must also learn how to approach everything they see with a critical eye. The aim should be to develop AI technology that helps identify fakes, not improve them. It is also necessary to introduce regulations to protect human privacy against new violations, ensuring such violations result in significant penalties.



The team at MinnaLearn has worked on the AI course together with the University of Helsinki. Photo MinnaLearn.

There is also a hidden agenda, revealed by the course organiser in the final chapter. It is about the joy of those 'aha' moments. The hope is that participants will continue to learn more about AI and keep track of developments, particularly regarding its proper application.

"Whenever you feel like there are risks we should discuss, or opportunities we should go after, don't wait for someone else to react."



"Develop a Nordic AI strategy or get overtaken by multinationals"

The Nordic region should develop a common strategy for ethical AI. That is the conclusion from an expert group that has studied Nordic collaboration on artificial intelligence.

THEME 26.08.2024 TEXT AND PHOTO: BJÖRN LINDAHL

The Nordic region should develop a common strategy for ethical AI. That is the conclusion from an expert group that has studied Nordic collaboration on artificial intelligence.

Denmark, Finland, Norway, Iceland and Sweden already have their own national AI strategies, which individually establish how the new technology should be used ethically.



The Nordic AI reports. All can be downloaded by clicking the respective countries here (in original languages): Danmark, Finland, Sverige, Island, Norge.

"But the absence of a unified Nordic approach leads to missed opportunities for regional synergies and collaboration. We could address common challenges more effectively together," says Olivia Rekdal, an advisor at Nordic Innovation, who has participated in The Nordic Ethical AI Expert Group.

The group has put forward five proposals, which in addition to that of developing a common Nordic strategy are:

- 1. Establish a Nordic centre for ethical and responsible AI.
- 2. Collaborate on large language models, so that also the smaller Nordic languages can benefit from AI.
- 3. Integrate AI and ethics in education.
- 4. Develop a standardised method to assess the environmental impact of AI.

"We asked 23 of the leading AI experts in the Nordics to look at ethical AI and identify what can be done on a system level in the Nordic countries. They have agreed on five recommendations and at the end of August we have been invited to meet the Nordic ministers of digital affairs," says Svein Berg, the managing director of Nordic Innovation.



Svein Berg, the managing director of Nordic Innovation.

For every recommendation, there is also a plan for how it could be executed. Initially, the Nordic Centre for AI could be a virtual organisation. Berg is careful to point out that it would not compete with national innovation organisations or businesses.

Nor will the centre perform research on AI, but be a hub for experts, researchers, political decision-makers and people working with company ethics. The centre will focus on helping Nordic businesses integrate ethics into their AI through practical application-driven programs.

One thing everyone involved in AI agrees on is that there is a need for more education to meet the demand for expertise.

"We have discussed extensively in the expert group how to identify barriers to making the Nordics a leader in ethical AI. Competence and access to talent are two obvious ones," says Olivia Rekdal.

Both Berg and Rekdal say the development is progressing rapidly.

	Rank *	Nam	e	0 Market Cap 0	Price 0	Today	Price (30 days)	Country
Å.	1	Ć	Apple	\$3.430 T	\$225.64	• 0.49%	m	USA 📲
Ŷ	z		NVIDIA	\$3.139 T	\$127.63	• 3.14%	\sim	USA 📲
Ŷ	3		Microsoft	\$3.082 T	\$414.74	+ 0.19%	~~	USA 📲
ф.	4	G	Alphabet (Google)	\$2.038 T	\$166.55	▲ 0.64%	m	USA 📲
Ŷ	5	a	Amazon	\$ 1.853 T	\$176.63	▲ 0.28%	m	USA 📑

The world's five largest companies ranked by market value. 9,430 are part of the index. They are collectively worth over 110,251 billion dollars. The five largest tech companies make up 13,542 billion dollars – more than eight per cent. The figures are from 22 August 2024.

"Eight of the largest companies on the American stock index are now tech companies. That's where value is created and where welfare is created. That is why it is crucial that we keep up, but it does become a kind of race.

"It's extremely important that we also have Nordic AI companies. If we don't invest in educating the workforce, other players, like Microsoft, will take over and set the agenda," says Olivia Rekdal.

As one example, she mentions how Microsoft is set to invest 34 billion Swedish kronor (\mathfrak{C} 3bn) in Sweden, but that there is no corresponding government spending. This is not about the Nordics trying to develop a faster and thinner computer chip or generative computer programs like ChatGPT or Microsoft Copilot.

"There are so many other parts of the value chain where Nordic enterprises can take part," she says.

"We don't have to be the best at AI, but we can become the best at using AI. This development will impact all sectors and businesses, like when the internet emerged," says Svein Berg. He also sounds a warning.

"Are we blinded by the huge potential? Does this mean we don't see the dangers? But then the question is: What are the alternatives? We are already on the hamster wheel. We have to participate in international competition, but we have to find a responsible way of doing it."

One of the major advantages enjoyed by the Nordics is access to high-quality data. This is important for training AI programs, such as those being used for diagnosing diseases. Sweden was the first country in the world to introduce personal numbers, back in 1947.

"We have fantastic health data in the Nordic region. We have advocated for making this data more widely available. Finland has legislation making health data available for research and innovation. In the other Nordic countries, it is only available for research. It is difficult for innovators to get hold of this type of information." But is it not naive to think we can grant Nordic companies access to this information without foreign companies being able to purchase it at a later stage?

"Dilemmas emerge in many cases of innovation. Sometimes it is an advantage for a company situated in the Nordics to be acquired. We have looked at the figures: Growth companies that are acquired by foreign capital experience higher growth in the Nordics than those that remain in Nordic ownership. The companies are not bought and then moved abroad. This is a myth.

"We have also been working with what is called Nordic Smart Government & Business. It started with company registers and business agencies exploring the possibilities for seamless financial information exchange between the Nordic countries.

"Over time, the national statistical agencies and tax authorities have also joined in. The goal is to make things easier for businesses. Ernst & Young has estimated that this could save 25 billion euro per year in the Nordics," says Svein Berg.

But there are also negative aspects of AI – such as its high energy consumption.

"Isn't it true that a search for information on AI uses ten times more energy than on the internet?" Svein Berg asks.

"Yes," replies Olivia Rekdal.

"There are estimates that by 2024, 30 - 40 per cent of all energy will be used by ICT. I believe this will become a major issue," she adds.



The Norwegian automated ferry that can be operated as easily as a lift

A wide range of new workplaces could become available in the wake of autonomous ferries.

THEME 26.08.2024 TEXT AND PHOTO: BJØRN LØNNUM ANDREASSEN

Artificial intelligence, sensors and electric engines – researchers at the Norwegian University of Science and Technology NTNU have fit it all on a prototype autonomous ferry and launched it in the Trondheim fjord.

It is the world's first prototype of an autonomous ferry capable of carrying passengers.

"We have a long coastline and extensive waterways. It can become easier to reach more areas with autonomous ferries that can carry people. It might be too expensive to build bridges to certain areas. A ferry can also be moved, while bridges can't. This is an extra tool in the planners' toolbox," says associate professor Morten Breivik.



"Passengers will be able to press a button to choose where they want to go, nearly like in a lift. Elevators also used to have operators in the past," says Breivik.

The researchers envision autonomous ferries with restaurants or other cultural activities onboard, and some that would offer sightseeing for tourists.

Making use of skills

"Your imagination is the only limit for how an autonomous ferry can be used," says Egil Eide. He is the project leader for Millampere 2, the prototype ferry in Trondheim. He had the original idea for an autonomous ferry.

"People with maritime skills can use their knowledge in many places. They don't need to be out on a boat for days on end, in a day and night shift pattern. They don't need to be away from their families but can work in control rooms from where autonomous ferries will be run. There is a prematurely ageing workforce among seafarers in Norway, but they will experience fewer health issues in an onshore control room," he says.

A control room is operated by a person with maritime skills. They can monitor several ferries, using cameras that transmit real-time images, GPS technology and telephony contact. Multiple screens allow an operator to carry out several jobs with different ferries from the same control room.

"The job in a ferry control room can be compared to that of air traffic controllers. Autonomous ferries can therefore make it possible to live or work in more places near water," says Breivik.

Testing with tourists

Milliampere 2 is now travelling back and forth across the Trondheim canal between the city centre and the train station area.

Egil Eide has had a "summer job" onboard the ferry, which has carried 2,000 passengers over the summer months. The aim is to carry out further tests on the ferry's autonomous systems. The prototype is soon ready to be tested without an onboard operator.

"We have set up a control room on one side of the canal where the operator can use instruments and screens to monitor the ferry while it is operating. You can also see the ferry through the control room window, but the big step forward now is to finish the automation of the ferry," he explains.

Tourists Georg Gradl and Ulrike Schwarz-Boeger have been catching the ferry.

"A ferry without a captain really seems to be a good idea. It is incredible that you can just push a button. We are after all used to doing that in lifts," Ulrike points out too.



Georg Gradl and Ulrike Schwarz-Boeger (from the left) are among the tourists who have tried the ferry.

"Imagine pushing a button to choose which island or harbour you want to travel to," she says, happy with her test trip.

"Today's trip was absolutely fine and I felt safe onboard. The ferry didn't travel too slowly either," says Georg.

Already in use

An autonomous city ferry is in daily operation in Stockholm, as the world's first commercial autonomous ferry. MF Estelles runs several times an hour between Kungsholmen and Södermalm in the city centre.



MF Estelle leaves dock in Stockholm. Photo: Morten Breivik/NTNU.

"It is good to see that what started out as a somewhat crazy idea seven years ago has become a reality, and is now in a commercial phase," says Eide.

The Norwegian shipping company Torghatten runs MF Estelle in Stockholm and is behind the initiative which has been branded Zeam. It is an acronym for Zero Emission Autonomous Mobility and a reference to a service that "seamlessly" connects the city.

The technology that makes the ferry autonomous is developed by Zeabuz, a Trondheim company. Zeabuz is a spinoff company from NTNU.

Control room as a separate project

The experts explain how personnel with operational and safety responsibilities monitor the running of boats. Ole Andreas Alsos is head of research for the control room.



Ole Andreas Alsos is working on control room development.

"In major cities like Amsterdam, such micro-mobility can occur within a network that meets the need for efficient flow in people transport. We are researching how the operator can take control and steer an autonomous ferry when necessary," he says.

Alsos and his group are studying how the operator in a safety centre can carry out the tasks. Central personnel should be able to take over and handle all kinds of unwanted situations that might occur onboard or near an autonomous ferry.

"So far, several sea captains have been allowed to try controlling the ferry. Such an operator can take action if a passenger asks, or if a sensor onboard the ferry tells the operator to take over control."



Iceland ditches crypto mining for AI: "A great opportunity for Nordic data centres"

The number of data centres has increased rapidly in Iceland in the last few years. Critics say they mostly serve crypto mining, which is not considered the most useful way to use valuable green energy.

THEME 26.08.2024 TEXT: HALLGRÍMUR INDRIÐASON

However, according to data centre leaders, they have now moved from crypto mining to serving artificial intelligence. It is a rapidly increasing change which also creates opportunities, not only in Iceland but in the Nordic region as a whole.

Eyjólfur Magnús Kristinsson, CEO of atNorth which runs data centres across the Nordics, says that by 2020 – 2021, the industry realised that AI services were starting to grow rapidly.



Eyjólfur Magnús Kristinsson, administrerende direktør i at-North.

"Back then, we didn't know what we know now. In 2022 we started to get an increased number of requests from customers who were asking about this kind of service. These were mostly startup firms and high-tech companies closely connected to AI. In 2023 it simply blew up and the big increase is still ongoing."

Crypto mining only the beginning

At the same time, crypto mining has decreased. Kristinsson says that there is not a direct connection between the two.

"In general cryptocurrencies now enjoy a stronger position and the environment around them has matured. In 2022, our company decided not to make new deals or renew current deals on crypto mining.

"Icelandic data centres started to offer that kind of service because it was the best way to reach 10 MW use of energy so the national distributor, Landsnet, would consider the company to be a big energy user."

That allows the company to connect to the public energy distribution system directly instead of buying it in wholesale. That electricity is also delivered at a higher voltage.

"It was never our idea to offer crypto mining services, and since we have now reached that limit with other services we don't need the mining anymore."

The AI service that the data centres provide is not different from other services.

"What is different is the client's demands. Data centres that were built only three years ago are not capable of servicing AI, simply because requirements on cooling and energy density are so much larger than for other data centre services."

Kristinsson says the AI process is still in its early stages.

"We're still moving forward with all kinds of services and technology. Now, for example, many are using ChatGPT or Microsoft's Copilot. And we're already seeing this having a huge effect.

"I have personally moved my internet search from Google to ChatGPT and I haven't used Google Translate for months. This transition is ongoing. Only when the enterprise adoption is fully finished will we know for sure what we have. For now, we can only guess. But this is very exciting and will change much of how we do our work today."

AI services moving to the Nordics?

This change in the environment calls for changes to infrastructure, which Kristinsson says is a relatively simple task. It also creates an opportunity for data centres in Iceland and other Nordic countries. "The clients working with AI are not as dependent on location as most other clients. In Europe, most data centres are operating in the so-called FLAPD area, which is Frankfurt, London, Amsterdam, Paris and Dublin.



Et av de datasenter på det vanligvis kjølige Island, som at-North drifter.

"This is because the clients are near Europe's larger population centres. That is not an important factor for the AI sector because the latency speed doesn't matter nearly as much. So the AI sector is moving their data centres to areas that are more convenient for this type of processing."

The Nordic countries are, according to Kristinsson, the most convenient for that.

"The climate is cool, the portion of renewable energy is high and the population is not dense. Also, especially in Denmark, Sweden and Finland, there are very sophisticated remote heating systems which can be connected to the data centres and reuse heat created from the data processing.

"So we can make a very good product around AI in the Nordic countries. This represents a big opportunity for these countries."

atNorth intends to leverage these opportunities. They already run seven data centres in Iceland, Denmark, Sweden and Norway, and three more will open next year – two in Finland and one in Denmark.

Kristinsson points out that some forecasters believe 50 per cent of all AI workload will end up in the Nordic countries in the next two to three years.

"Of course, we don't know if that will happen, but the opportunity is there."



Everyone talks about AI, but is it not just more digitalisation?

What is the difference between artificial intelligence and normal digitalisation? What will be the consequences for the labour market? Will it lead to more jobs or fewer?

NEWS 26.08.2024 TEXT: BJÖRN LINDAHL

These are big issues but they are highly relevant. During the week-long political gathering in Arendal, Norway, more than 100 events centred around artificial intelligence.

Yet there did not seem to be a common understanding of where Norway stands when it comes to AI. There was a broad range of opinions:

Can Norway become a digital developing country? was the title of one event.

How can Norway take AI into the future? was the title of another.

Many of the events had titles that reflected concerns about what AI will lead to. But there were also those who were (somewhat provocatively) impatient.

"It is important to protect personal integrity, but how will Norway become a leading AI nation if all our energy goes into regulations and putting the breaks on developments?" ran the headline for one of the events.

The Nordic Labour Journal followed a few of the events online and it did not take long before the question I asked at the beginning of this piece was raised:

"What is the difference between ordinary digitalisation and AI?"

At the event "Are Norwegian businesses ready to use AI?", the head of cloud engineering at the IT company Tieto, Kent Inge Fagerland Simonsen, gave the following answer:

"Artificial intelligence is an umbrella term for a number of computer programming models that appear human to people and require large amounts of data for training, rather than being specifically designed algorithms."

In other words, AI is not about new technology – like when steam power replaced muscle power and sailboats during the first industrial revolution, or when digital tools replaced analogue tools like typewriters or cameras using film.

Artificial intelligence is about building computer programs in new ways, enormous amounts of computing power, faster ways of moving information and staggering amounts of money.

Microsoft has spent more than nine billion euro developing their Copilot AI program. It comes in different variations – for ordinary office work, coding and much more.

ChatGPT started the debate

What made everyone talk about AI, however, was ChatGPT. Launched on 30 November 2022, the virtual assistant could generate text, images and video from prompts by the user.

What is known as generative AI are programs like ChatGPT that learn patterns and structures from their training data and then generate new data with similar characteristics.

It is still a long way from computers being able to think for themselves, known as Artificial General Intelligence (AGI), which is typically defined as the level of intelligence a machine would need to understand and learn all the intellectual tasks that a human can perform.

After 100 million people were using ChatGPT in just two months (it took TikTok nine months in comparison), warning voices were sounded in March 2023: 1,000 researchers and well-known business people, like Elon Musk, called for a moratorium for six months on the further development of AI until the risks could be better understood.

A new kind of debate

That was more than a year ago, and now the debate is more about how to find enough skilled people and whether there will be a shortage of the type of computer chips needed for AI.

There are also questions about how much energy AI needs and the inherent weaknesses in some computer programs. One issue is how generative AI models have a tendency to "hallucinate".

This means that AI models give incorrect answers, or different answers to the same question. One characteristic of the new digital assistants is that they are not particularly humble. Answers are given without reservation.

Considering the millions of people using ChatGPT, Copilot and other AI programs, there are still not that many examples of AI being a direct danger to humanity or causing a dramatic impact on unemployment rates.

This is not to say there are no challenges, however. Yet people's ability to adapt is considerable. What once seemed revolutionary, quickly becomes everyday.

What is Copilot?

Copilot for Microsoft 365 is one of the programs that most ordinary workers will come across.

These are some of the tasks Copilot can perform:

- Summarise information from many different documents.
- Transcribe meetings.
- Help create graphs and presentations.

Microsoft's own marketing points out:

"It is not like you can just kick back, press a button and let the co-pilot do your job for you. As the name suggests, this is not an autopilot, but an assistant who supports you from the sidelines. Copilot works *alongside* you."

Examples of tasks that Copilot should be able to do, according to Microsoft:

- "What is the most important thing to have happened on my team during the holidays".
- "Summarise the long email thread that I have just been copied into".
- "Gather all the documents from the previous year where this particular project is mentioned".



Bodil Åberg Mokkelbost, Heine Skipenes, Hanne Jensen Moe and Silje Reiten Blichfeldt have studied how Copilot has worked on NTNU.

A group of researchers at the Norwegian University of Science and Technology (NTNU) have looked at what has changed since the university began using Copilot for Microsoft 365. The report has eight main findings, which can be summarised like this:

Copilot...

- 1. ...is excellent when you already know what you want it to help you with.
- 2. ...can influence the exercise of authority.
- 3. ...processes enormous amounts of personal information in new and uncontrolled ways.
- 4. ...is in constant development.
- 5. ... is still in its infancy...
- 6. ... but already influences the entire organisation.
- 7. ...can be used to surveil and measure efforts and behaviour.
- 8. ...sometimes works really well.

Heine Skipenes, Silje Reiten Blichfeldt,

Image: Second Second

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The researchers write:

"Copilot is good at extracting the essence from large files and presenting it in a new, more focused document. This is the kind of task that could easily take several days to complete, but Copilot does the job in just a few minutes. This allows you to get started on tasks more quickly because you get immediate assistance when you need it.

"These kinds of everyday time-savings are why AI is expected to significantly boost office productivity."

Norwegian employers' organisations have asked the analysts at Economics Norway to consider the economic benefits that can be had from AI. The analysts say more use of generative AI could increase value creation in Norway by 2,000 billion Norwegian kroner (€171bn) by 2040. But AI can be used nearly everywhere – surveying processes, in autonomous vehicles, health diagnostics and more.

The report concludes that other advanced digital technologies and types of AI can increase value creation in Norway by 3,600 billion Norwegian kroner (€307bn) in that same period. That means the total increased value creation could reach 5,600 billion kroner (€479bn) in the next 15 years.

There are also risks

The new technology also presents risks, albeit on a more manageable level. The NTNU researchers describe some of them:

Copilot can give you incorrect answers or false conclusions. This is particularly true when it does not have enough information to work with, but it can also happen when it does have access to good information. It is important to be aware of this and have mechanisms in place to identify and correct such errors.

Large organisations handling the personal information of many people often save documents temporarily or share them internally before they are properly archived. Copilot will then have access to such documents and can use them in different settings or for purposes other than those that were originally intended.

What happens to personal integrity? And how is the relationship with the employer affected?

"The employer can assess employees' performance based on information from files, documents, Teams chats, email correspondence, Teams meetings, emotional expressions (emojis), transcriptions from meetings with automatic recording, etc. Employees have no way of knowing if this is happening."

Since Copilot is under continuing development, it is a demanding tool. A company must actively decline any expansion or new tools being added. This is not something that only concerns the IT department. Copilot is also about organisational development – and all organisations should have an exit strategy:

"It is important to have an exit strategy so that the organisation retains control over its own technological future. There should be plans in place for how to migrate data, functions and services to a supplier if necessary.

"Such a strategy can help reduce the risk of downtime or data loss. It also strengthens the organisation's bargaining position with the supplier since it is not locked into a single system."

Mixed Nordic reception for EU traineeship directive

Once again, the European Commission is proposing regulations on matters that the member states manage best themselves, argues the Swedish parliament. It is now submitting a "yellow card" against the Commission's proposal for an EU directive on better conditions for trainees, put forward in spring 2024.

NEWS 22.08.2024 TEXT: KERSTIN AHLBERG

The governments of Denmark and Finland largely share the Swedes' view on the substance but do not reject the proposal quite as categorically.

The directive has two objectives. First, member states must ensure that trainees do not receive lower pay and other working conditions than regular employees in the same workplace unless it is objectively justified.

Second, the member states' authorities should use inspections and controls to prevent regular employment from being "disguised" as traineeships, ensuring that workers do not end up with worse conditions than they rightfully should enjoy.

The proposal lists several circumstances that authorities should investigate to determine whether a supposed internship is actually regular employment. For example: Does the job include a learning or training component? Is the traineeship period unreasonably long? Or does a disproportionately large share of the employer's workforce consist of trainees?

The Swedish parliament argues that the directive is not needed at all – it offers no added value. The proposal does not take into account the vastly different conditions and needs of different member states, the parliament argues.

Therefore, in June, it decided to submit a reasoned opinion, a "yellow card," explaining that the proposal violates the principle that the EU should only adopt regulations if a goal cannot be achieved as effectively by the member states themselves.

Both the Danish and Finnish governments, however, express their support for the proposal – in principle. However, in substance, they largely raise the same objections to the content as the Swedes do. All three countries point out that traineeships are an important component of both vocational and academic education and argue that the directive should not interfere with national education systems.

Denmark and Sweden stress that it is the sole responsibility of member states to design their education systems and that the EU does not have the competence to intervene in this matter.

They all also underline that the social partners are the ones who establish wages and other employment conditions covering trainees and that it is primarily the social partners, not authorities, who oversee the enforcement of these conditions.

For the Nordic countries to support the directive, it cannot limit the social partners' scope of action.

Sweden is the only country to have issued a yellow card against the directive. In the upcoming negotiations on the proposal, where Sweden will of course participate, the Nordic countries are likely to largely align their positions – despite the differing tones in their respective statements.



Young Norwegians increasingly unhappy with working life

The 2024 Working Life Barometer shows more people are struggling financially, more fear losing their jobs or becoming ill and many young people are unhappy with working life.

NEWS 15.08.2024 TEXT: LINE SCHEISTRØEN, PHOTO: NTB KOMMUNIKASJON

Since 2009, the Norwegian Confederation of Vocational Unions YS has published the Working Life Barometer which examines the state of the workforce. This year, there has been a special focus on the effects of the cost of living crisis.

Researchers Helge Svare and Karl Ingar Kittelsen Røberg from the Work Research Institute (AFI) at OsloMet presented the results from this year's barometer during a seminar at the political gathering Arendalsuka.

Fearing the future

This year's survey shows that many young people are unhappy at work, and may feel their job is not interesting.



The Working Life Barometer takes the pulse on working life in the Nordic region. This year's results were presented during a seminar at Arendalsuka. Photo: Liv Hilde Hansen, YS

For workers under 30, the results are significantly worse across several barometer indicators related to working conditions, stress and coping in 2024 compared to previous years.

- 59 per cent of those under 30 say they are happy with their job.
- 64 per cent of those under 30 say they have an interesting job.
- The feeling of being pressed for time at work has diminished, especially for young people under 30.

"Many of these results are the lowest ever since we started publishing the barometer 16 years ago," the report authors write.

Young and vulnerable

The researchers have discovered increased concern about being excluded from the labour market. Workers also increasingly worry about their health. Over the past five years, there has been a decrease in the percentage of people who report having a low risk of poor health leading to reduced work capacity.



We are less content with our jobs than before according to the YS Working LIfe Barometre.

The barometer shows that people who have been unemployed earlier experience being at greater risk of disability, unemployment and other forms of social exclusion. Those under 30 stand out from other groups also here.

- 27 per cent of employees under 30 fear becoming incapacitated within five years.
- 28 per cent say they fear becoming unemployed.
- In 2009, 5 per cent feared becoming incapacitated, while 19 per cent feared losing their job.

AFI researcher Karl Ingar Kittelsen Røberg calls the results dramatic, especially for the under-30s group.

"We see a trend where young people have a negative attitude to their own situation. They work more, they are pessimistic about their own health, are afraid of losing their job and are less happy with their work situation," said AFI researcher Karl Ingar Kittelsen during the presentation of this year's barometer.

Struggling economically, working more

16 per cent of the respondents in the 2024 YS Working Life Barometer say they are struggling economically.

"The cost of living crisis continues to impact households. Many are struggling economically. Only 45 per cent of the respondents consider their private economy to be good," writes YS leader Hans-Erik Skjæggerud in the introduction to this year's Working Life Barometer.



Many have increased their income by working overtime and extra shifts, according to the YS Working Life Barometer.

Younger workers in particular experience problems. Nearly 25 per cent of under-30s say they see their economic situation as "bad" or "very bad". Only 6.4 per cent of the over-60s say the same.

The survey also asked what steps workers have taken to address the cost of living crisis. One in five have chosen to work more to make ends meet. Nearly one in three say they have taken on one or more extra jobs.

Alarming

YS leader Hans-Erik Skjæggerud said the results from this year's Working Life Barometer must be taken seriously.



YS leader Hans-Erik Skjæggerud (left) and AFI researcher Karl Ingar Kittelsen Røberg. Photo: Liv Hilde Hansen, YS

YOUNG NORWEGIANS INCREASINGLY UNHAPPY WITH WORKING LIFE

"It is not only worrying but alarming when so many – especially young people – say they are not happy at work and that they believe they are at risk of being excluded from the labour market," he said.

Skjæggerud also pointed out that a lot of good work is being done to improve the situation, but underlined that further efforts are needed.

"If not, it will have major consequences for the Norwegian labour market, and we cannot solve the challenges we are facing. The welfare state cannot support that many people ending up on benefits," said Skjæggerud.

He highlighted measures aimed at improving working environments, with a special focus on psycho-social issues and increased focus on health and safety. He also believes it is important to facilitate further and continuing education.