

Think.

An inquisitive magazine from Umeå University × No. 1 2019

**LOW EU INTEREST DESPITE
UPCOMING ELECTION**

**CLIMATE EFFECTS
ON HUMAN HEALTH**

**DESIGNING ETHICAL
GUIDELINES ON AI**

**TERRORISM TAKES
NEW FORMS**

WHAT'S
BEYOND
DEMOCRACY?

FOCUSING ON AN EVER-CHANGING

EUROPE



UMEÅ UNIVERSITY



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Think is the Umeå University magazine focusing on research. This issue specialises in Europe and the current state of affairs and future prospects for Europe and its citizens – in a year when we are in the middle of a European Parliament election and the Brexit enforcement.

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Europe in transition

The EU and Europe are very much in the limelight in 2019. In April, Brexit becomes reality as the UK ultimately leaves the

European Union. How will this impact the future of the Union? Will other states follow the British example, or will the EU form a deeper cohesion between the remaining countries? What other consequences may come out of Brexit? The future path will no doubt be indicated as a result of the 2019 European Parliament election in May.

Populist and nationalist tendencies can be spotted in most European countries, and how will this affect the future of the EU and the idea of democracy? There is a definite risk that the European playing field will change.

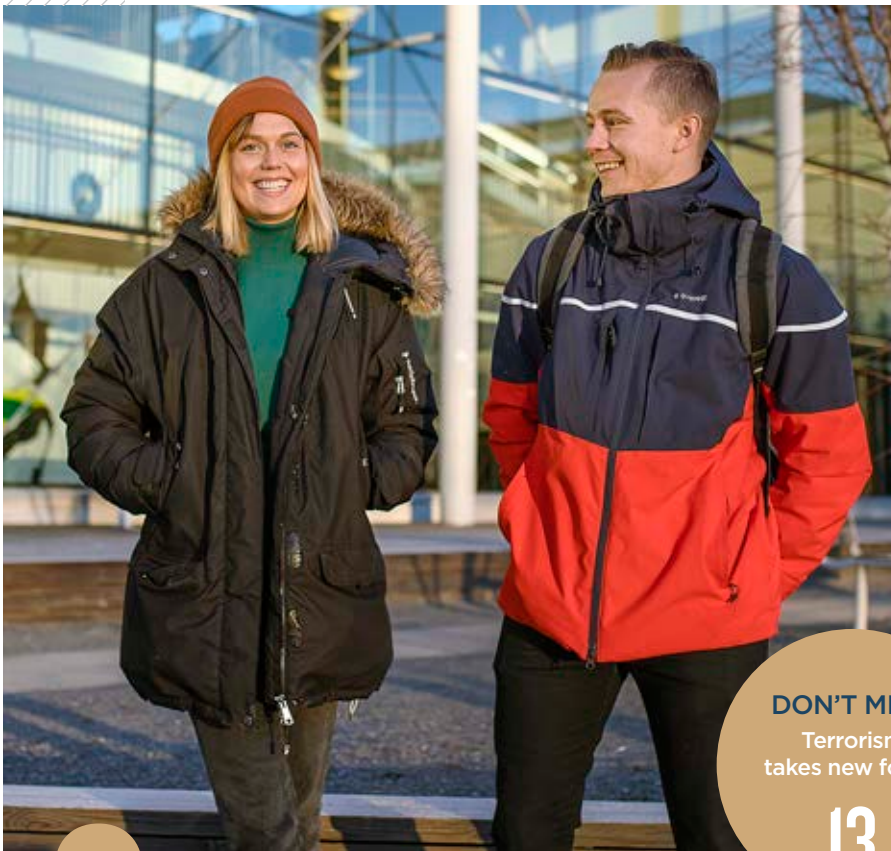
CONSEQUENTLY, IT is natural that all eyes of Umeå University are on Europe and the EU in 2019. Many of our international students come from other European countries, not least through exchanges with Erasmus+, and university researchers have many collaborations with researchers at other European universities. So, what effects is Brexit likely to have on the future development of the EU regarding student mobility and research collaborations?

DECISIONS MADE on the EU level often have a direct affect on the development of our university, education and research, and our abilities to elaborate on interdisciplinary collaborations. Simultaneously, it is important that we as a university – and Sweden as a nation – can actively take part in and affect these decisions, through contributing with investments in knowledge and research in socially important European areas.

IN THIS issue of Think, we throw some light on Europe and questions of both future development, and on how already executed decisions affect our organisation. Some of our researchers share their research output, ideas and experiences on topics such as artificial intelligence, gene-edited plants, European popular culture, health, student mobility, security, European future development and the perception of Europe. Read and be inspired!



Hans Adolfsson
Vice-Chancellor of
Umeå University



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OPEN DOORS TO EUROPE

Students Alexandra Sandström and Christian Esselin chose two rather unusual countries for their exchange studies.



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ARTIFICIAL INTELLIGENCE FOR HUMANS

Sweden is investing hugely in artificial intelligence. At Umeå University, research in AI is partly specialised in ethics and social affairs. In the forefront is Virginia Dignum, an internationally renowned researcher and one of the experts who is drawing up the guidelines and recommendations for the European AI strategy.

Text: **Mikael Hansson** Photo: **Mikael Hansson, Mattias Pettersson**
Illustration: **Jenny Sjödin**

Voice command in mobile phones, search engines on the internet, support systems for health care personnel and vehicles using driverless technology are some examples of applications where AI has already made progress. The development of a society where artificial intelligence (AI) permeates work, education and people's lives has only taken its first small steps. One of the greater initiatives to stimulate basic research, education and faculty recruitment in the field is Wallenberg AI, Autonomous Systems and Software Program – shortened WASP – which is also the by far greatest Swedish research programme of all times.



Virginia Dignum

“There is huge potential in combining research on AI and research on autonomous systems. Both fields will affect future society,” says Virginia Dignum, professor at Umeå University.

She is one of the first recruits to Umeå within the research programme, in which she in turn leads the research group Social and Ethical Artificial Intelligence.

“My position at Umeå University makes it possible for me to look at societal, ethical and cultural consequences of AI. I will for instance be studying methods and tools to ensure that AI systems are formed not to violate human values and ethical principles,” she says.

This could, for instance, be designing methods that take these aspects into consideration in a design and development

process, but also developing AI based methods that make sure the system acts in an expected manner based on societal legal frameworks and norms.

“It is of critical importance to study more multidisciplinary, where humanities and social sciences are combined with science and technology. AI can no longer be seen as a purely technical or computer science discipline. It is per definition interdisciplinary,” explains Virginia Dignum.

VIRGINIA DIGNUM is prominent in the international research community within artificial intelligence, and she has an active role in several international initiatives revolving policy and strategic

SEK 3.5
billion is the total budget for Wallenberg AI, Autonomous Systems and Software Program.



Taking the Swedish lead with 5G

Together with four other stakeholders in Umeå, Umeå University is taking part in creating a unique arena for 5G. The investment provides first-class conditions for accomplishing research and education at the leading edge, which will contribute to new solutions for future digital society on a regional, national and international scale.

A full-scale testing ground creates new conditions for research in for instance automation, artificial intelligence, big data and Internet of things at all faculties at Umeå University and encompasses scientific fields such as life science, science and technology, social sciences and the humanities.

"As a 5G university, we can better take our responsibility in the digital transformation by delivering new knowledge obtained through research, and in a better way prepare students for the labour market to come. Umeå 5G also yields added value through local collaboration with other project stakeholders, as well as the region and the world," says Katrine Riklund, Pro-Vice-Chancellor of Umeå University.



Nobel Peace Prize to honorary doctor

Denis Mukwege, honorary doctor at Umeå University, is the 2018 Nobel Peace Prize laureate for his struggles against sexual violence in DR Congo. Photo: Mattias Pettersson



guidelines for AI research and applications.

She has also been appointed by the EU Commission as one of 52 experts from academia, civil society and industry to present guidelines and recommendations in European AI strategy.

"It's a large-scale task. We are all experts, but in different areas. It's a big challenge to come up with a coherent and concrete setup of recommendations that can be accepted by the member states and the Commission itself," says Virginia Dignum.

The recommendations from the high-level expert group will be included in the European Commission's next five-year plan and in the EU's forthcoming Multiannual Financial Framework 2021–2027. ✕

Deepening insight into AI

Computer scientist Helena Lindgren coordinates the Umeå University's strategic work with the major investments made within the AI research area in Sweden. Research in Umeå is specialised in intelligent systems that should cooperate with and be of use for people in various contexts, which includes both ethical and technical aspects affecting people in their everyday and society in general.

"This is why we need to be driven in the research that develops, educates and enhances the capabilities of AI in society, both in terms of system development, to implement AI wisely and regarding the regulatory framework that manages how AI may be used," she says.



Helena Lindgren

Drugs in bugs

Residue from over 60 pharmaceuticals have been detected in riparian insects and spiders, which also affects animals who feed on them. To create awareness of pharmaceutical residue spreading through sewage systems, researchers at Umeå University are taking part in a "Spider hunt" outreach project.

"With the help of 30 schools all across Sweden, we are hoping to get a better image of the presence of drug residues in spiders in Swedish waters," says chemist Jerker Fick.

Popular medical proficiency test

Interest has been huge for the proficiency test for medical doctors trained outside of the EU/EEA. A test arranged by Umeå University on national orders. On two occasions, the number of places on the test has been doubled.



Director-General of the WHO new honorary doctor

Dr. Tedros Adhanom Ghebreyesus, former Umeå student and now Director-General of the World Health Organization, is new honorary doctor of medicine at Umeå University. Photo: Mattias Pettersson

Aspen genome mapped

Researchers from a number of countries, Umeå included, have together mapped the entire genome of the tree aspen. This project took nearly ten years.

New exercise app to reduce male incontinence

Researchers at Umeå University have designed a mobile app – eContinence III – to help men exercise their pelvic floor muscles. The app is available in several languages and also for women.

"After prostate cancer surgery, urinary leakage is commonly triggered by

coughing or physical activity. Pelvic floor exercises can reduce incontinence faster. Through a first study, we want to test if the app can facilitate pelvic exercises before and after such an operation," says Eva Samuelsson who leads the project.



ART INSPIRED BY PHYSICS AND ARCHITECTURE

Black holes, dark matter, gravity, space, time and motion are phenomena that fascinate researchers and artists alike. In the exhibition Entangle / Physics and the Artistic Imagination, fourteen internationally recognised artists present paintings, installations, fashion, sculpture, film digital artworks and photography inspired by particle physics.

What is a home, and what does belonging mean for a person who is constantly on the move?

Artist Ângela Ferreira is interested in post-colonial issues and how architecture and built environments bear traces of history, politics and ideology. In Pan African Unity Mural, she presents sculptures and murals in different spaces inside Bildmuseet.



The exhibitions **Entangle/Physics and the Artistic Imagination** and **Pan African Unity Mural** are open until 14 April 2019.

Installation from the Bildmuseet exhibition Entangle / Physics and the Artistic Imagination. On wall: © Keith Tyson, Selection of Studio Wall Drawings 1999–2017, 2018 Foreground: © Carey Young, Missing Mass, 2010. Photo: Mikael Lundgren

BELIEVES IN A CHANGE IN GMO LEGISLATION

When the European Court of Justice equalled genome-editing with GMO, plant scientists were in for a shock. Their work is important in our ability to sustainably produce food, and Stefan Jansson, professor of plant physiology at Umeå University, believes the law will change.

Text: Inger Nilsson Photo: Johan Gunséus



According to the EU Court of Justice, genome-editing, when using the gene-editing scissors CRISPR-Cas9, and alter or remove genes in DNA, should be counted as GMO, a genetically modified organism.

“How can you forbid something that can’t be defined, or suggest supervision when no one can distinguish what is GMO and what isn’t,” says Stefan Jansson. “The law must change.”

ACCORDING TO him, a large proportion of animal feed around the world is already GMO. But in the EU, there are strict regulations when it comes to GMO.

“Europeans don’t trust the EU. The authorities have established there is no risk. Still, countries say no. In other matters, countries adhere to experts’ reports, but GMO has become a poisoned topic. The EU Commission can try the case again, but refrains to because of resistance in the European Parliament,” says Stefan Jansson. “We need to solve the problem of providing the impoverished population with food in a sustainable way.”

The US and South America, for instance, have a different approach and grow GMO crops, which can be produced more rationally.



Stefan Jansson

“When the EU invests in increasing food production for Europe, plant breeding is never mentioned. People think it means GMO, and are instantly reluctant. It makes no sense. The main opponents are the eco-movement and the organic farmers.”

IN STEFAN Jansson’s own research, the current legislation doesn’t have that great an impact.

“We are able to use GMO in laboratory research, but taking it out is a no go. Those affected are the ones who should implement the research results in reality. EU funding bodies don’t want to pay for crops that can’t be cultivated here. That research would favour American farmers instead, and to protect our own, trade barriers are required.”

Stefan Jansson believes decision-makers need to get to grips with this.

“They seem to realise that things have gone mad. We need to be able to feed people without ruining this planet. In my impression, politicians will change their

minds about CRISPR-Cas9, hopefully soon. Never before has the time to change legislation been more favourable.” ✕

GMO and genome-editing

GMO is when DNA is transferred from one organism to another. In risk assessments of GMO, only harmless organisms are allowed. But in reality, GMO cannot be allowed regardless of how favourable or harmless it is assessed, according to Stefan Jansson. Since the law was passed in 2001, nothing has been accepted.

In July 2018, the EU Court of Justice interpreted the law: all plants genetically modified by the gene-editing scissors CRISPR-Cas9 fall under GMO legislation. In the US, the situation is reversed. Critical voices say that if no foreign DNA has been inserted to genome edited plants, they should not be classed as GMO.



**HEALTH RISKS
MAY INCREASE DUE TO
EUROPEAN CLIMATE
CHANGE**

Cardiovascular disease
Lung and respiratory disorders
Kidney disease
Infections
Mental illness



**Maria
Nilsson**

independent scientific information on climate change and health.

RISING TEMPERATURES HEIGHTEN ILL-HEALTH

Cardiovascular disease, respiratory disorders, infectious diseases and mental illness are some examples of the health issues that can be correlated to climate change in Europe.

This according to Maria Nilsson, docent at the Department of Epidemiology and Global Health at Umeå University.

Text: **Mattias Mitz**

Photo: **Mostphotos** and **Ulrika Bergfors**

Illness due to climate change is sadly a fact already, even for Swedes and Europeans.

“World temperatures increase and extreme weather becomes more common. Research in the health consequences have been conducted for years, but the effects are now deemed more serious than previously anticipated,” says Maria Nilsson.

MARIA NILSSON and her research team conduct research on the health effects of climate change, but also on how more healthy societies and lifestyle changes can have a positive effect both on the human health and our climate. Maria Nilsson is also one of the members of a European team of experts that will provide EU decision-makers and member states with

THE REPORT that the experts are now working on gives a rather gloomy image. Climate change has both direct and indirect effects on health, and the more vulnerable individuals are older people and people with chronic diseases. Cardiovascular disease, infectious diseases, kidney disease, lung and respiratory disorders are diseases that can develop and increase due to climate change. Drought risks affecting the access of water and food supplies. Extreme weather events such as flooding can lead to mental illness.

Despite Maria Nilsson literally living in the midst of the consequences of climate change and finds it important to increase awareness, she is also a firm believer in not spreading the feeling of hopelessness.

“It’s incredibly important to not lose hope. We need to see the seriousness in the issue, but also use research output to act correctly. To slow down climate change, emissions need to be heavily and rapidly reduced and our societies need to be made resilient to the already existing effects to protect human health. But climate issues can’t be solved by individuals alone. It requires comprehensive and international political decisions for a quick transition to a fossil free future,” says Maria Nilsson. ✕

OPEN DOORS TO EUROPE

Thanks to Erasmus+, Umeå University students have good chances to study a term in another European country. Alexandra Sandström and Christian Esselin – are two of the students that have grasped the chance to see more of the world. Both of them chose rather unusual countries to study in. But why is it remarkably more popular to travel from Europe to Umeå for your exchange than from Umeå to Europe?

Text: Jonas Lidström Photo: Mattias Pettersson, Wikimedia Map: FreeVectorMaps.com



Alexandra Sandström travelled to Turkey to get to know the country's culture, history and social structures.

Christian Esselin was the only student in the summary who made an exchange to the natural beauty of Croatia.

The European exchange programme Erasmus recently celebrated its 30th anniversary. Nowadays, it goes under the name Erasmus+. Since its start, the process of travelling on an exchange has been simplified and exchange agreements with other universities have multiplied.

Heidi Hansson is Deputy Vice-Chancellor of education and internationalisation. For her, studying abroad is of great importance to both the individual student and the University in general.

“The first benefit is the new perspective. When completing your studies, you can’t have gone through with blinders on and only have one dimension to your training. You need to have seen more of the world and look at your training from various aspects,” she says with determination.

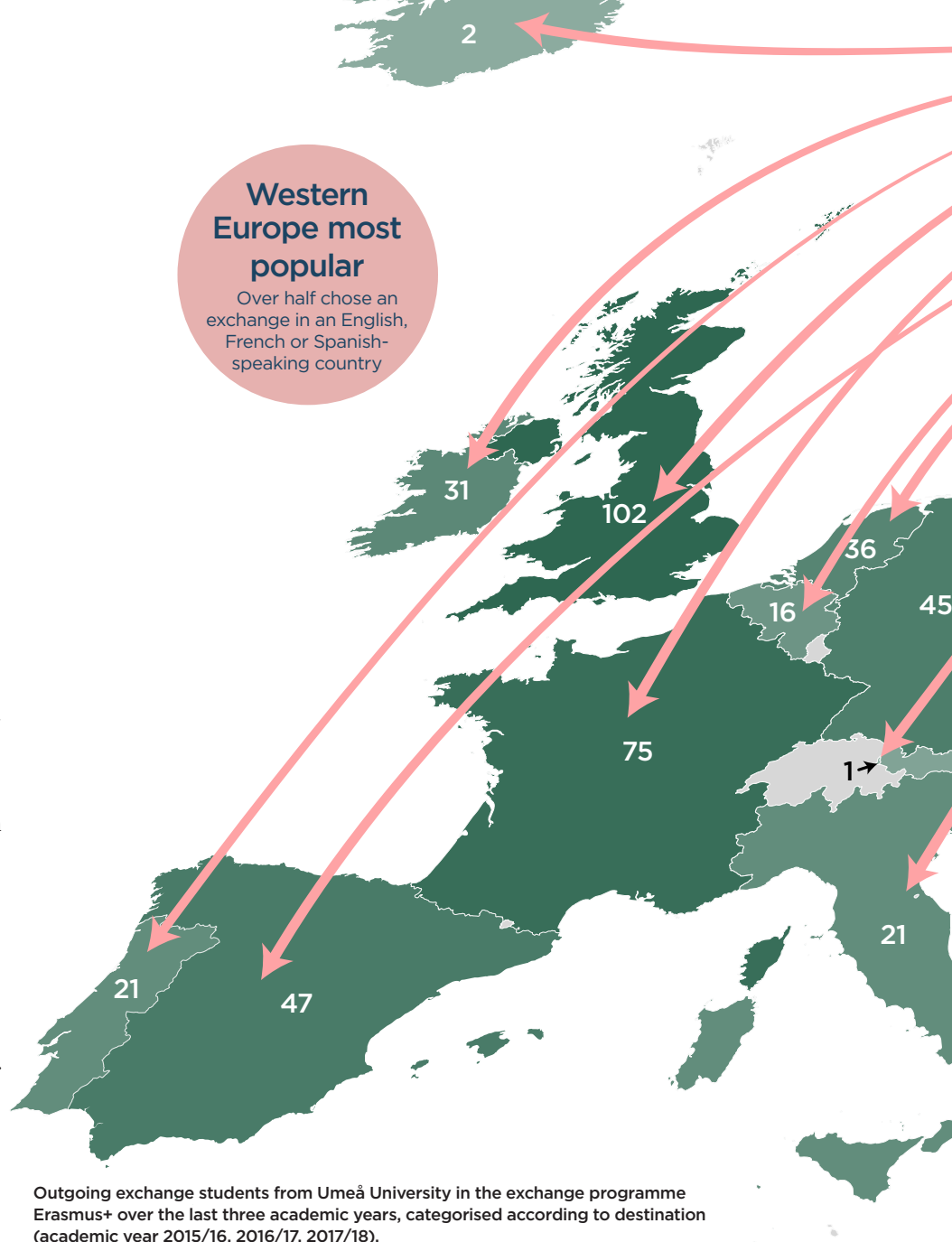
“There are various ways to achieve that. But one pleasant way is by travelling.”

For the University, the positive effects are noticed more gradually,” says Heidi Hansson.

“In the long term, this changes our culture of educating students, both by integrating the international perspectives that students bring in and through the process of what happens when students travel out and then come back.”

Per Nilsson is an international strategist at Umeå University’s International Office. He has long followed the development and sees evident differences between student generations.

“The students who have now started studying at Swedish institutions of higher education were primarily born around



Outgoing exchange students from Umeå University in the exchange programme Erasmus+ over the last three academic years, categorised according to destination (academic year 2015/16, 2016/17, 2017/18).

the turn of the millennium. In general, they seem to have a much lower interest in Erasmus exchanges compared to those born in the 1970s.”

IN THE Umeå University overall statistics of exchange students, there are currently three incoming exchange students for every outgoing one. Per Nilsson does not see any easy solution to breaking this trend and increase students travelling.

“From a Swedish perspective, I think it will be difficult to increase the number of outgoing students studying at least 90 days abroad, which is the prerequisite for Erasmus+. A certain level of increase is possible, but trebling the number would

be hard,” says Per Nilsson. “Although, we see an increased interest in internships abroad.”

HEIDI HANSSON lays out a wider perspective on the issue, and suggests that Sweden has long had too much focus on programmes.

“The main focus has been for everyone to take a degree programme, complete your degree and get a job. Based on that, exchanges not always deemed important.”

Some claim that it can be difficult to receive credits for your Erasmus exchanges in their Swedish education. But Heidi Hansson contradicts this strongly.

“I claim that’s a myth. It’s so rare.” ✕

Umeå

Who was Erasmus?

Desiderius Erasmus, also known as Erasmus of Rotterdam, was a Dutch humanist who lived 1469–1536.



Christian Esselin

studies Business Administration and Economics with an international specialisation



What made you study in Croatia?

I'd heard good things about Croatia in general, what a beautiful country it was and its comfortable climate. And when I decided to train for an Iron Man, I thought Croatia would be an optimal place.

What did you study in Zagreb?

I studied at Zagreb School of Economics and Management. It was a very small and cosy university. Teachers had good English and you could get plenty of help and support should you need it.

What benefits do you see from studies abroad?

It's great to experience these cultural differences, meeting people who may say "Why would you think that? That's not how we think. We see it in this way instead ..."

Zagreb, Croatia

Istanbul, Turkey

Erasmus+

Erasmus+ is the EU programme for international cooperation and exchange. Higher education is one of the fields. Students are provided an opportunity to study and practise in another European country, and teachers and staff are offered a chance of skills enhancement and exchanging experiences with colleagues in other countries. There is also a section for studies and practise in countries outside of the EU.

Sources: ec.europa.eu and Wikipedia

Alexandra Sandström

studies Public Administration



Where did you spend your exchange term?

I spent it in Istanbul, Turkey, at Sabanci University. When I was scouting for places to go, this was the most different one. Istanbul is a cool city with lots of history. Since I'm studying public administration

and have a vested interest in politics, I thought Turkey was particularly inspiring due to the political situation.

Are you pleased with your stay in Turkey?

It was incredibly rewarding. Particularly socialising with my fellow exchange students. I grew particularly close to students from Spain, Hong Kong and Singapore. And there's so much to see and do in Turkey. It's a country with many sides to it.

MEANS OF TERRORISM BECOME MORE POISONOUS

“At the same time as there is a threat of terror in Europe, the use of biological, radiological or nuclear weapons are rare. The trend is pointing towards easier methods and subjects,” says Per-Erik Johansson at Umeå University.

Text: **Mattias Mitz** Photo: **Mattias Pettersson** and **Mostphotos**

Per-Erik Johansson is director of the European CBRNE Centre in Umeå.

“Discussions are raging internationally and active threats from various organisations and individuals exist.

But the question is: How scared do we need to be? From a community perspective, what we need to do is be aware that something could happen. Beside an increased awareness,

we need education, strategies and the right equipment to handle a potential attack,” he says.



Per-Erik Johansson

The European CBRNE Centre at Umeå University trains weapons inspectors in chemical, biological, radiological, nuclear and explosive substances for assignments in war

zones. Assigned by the EU and Swedish authorities, the centre also designs training for members of the civil society such as those in healthcare, the police force and emergency services, who are the group running the highest risk of coming across these substances.

ACCORDING TO Per-Erik Johansson, there are, just like in all trades, trends also in the field of CBRNE. Novichok, the series of nerve agents, is one of the latest substances that has been used in an act of terror or assassination, most recently on a former spy in Salisbury, the UK. VX and Sarin are other examples of substances used in war, terrorist attacks and isolated murders.

A fair few dangerous substances are being handled by civil society and although some land in the wrong hands,

it is extremely rare that incidents occur, according to Per-Erik Johansson. This could be down to the fact that biological and radioactive substances are too complicated for terrorists to handle. Huge resources are required to take of an act of terror using this type of substance.

Instead, explosives or firearms are used.



A GROWING problem in Europe is that individuals handle harmful substances. For instance, people have mixed toxins in the kitchen sink to produce a substance for suicide, which ultimately also puts emergency staff at risk.

Per-Erik Johansson considers the awareness of these issues high at present, both nationally and internationally. Umeå University also plays an important part in this work.

“Umeå really is the capital of Sweden when it comes to knowledge in CBRNE. The University has both labs and specialist competence. Also the Swedish Armed Forces and the Swedish Police hold their national training and development here. Together, we are also well-established when it comes to pursuing issues like these on an EU scale,” says Per-Erik Johansson. ✕

The European CBRNE Centre

The centre at Umeå University coordinates EU funded research on and training in chemical, biological, radiological, nuclear and explosive substances.

Partnership between:

Umeå University, the Swedish Defence Research Agency, Region Västerbotten, Umeå municipality, the National CBRN Defence Centre and the Swedish Fortifications Agency.

TERRORISM TAKES NEW FORMS



Several forms of terrorism have so far spread across the Western world. Now, there are signs that the last, so-called religious wave, is changing.

“We see evidence of bloodier terrorist attacks towards soft targets — many performed at home by lonely, merely loosely organised individuals,” says Veronica Strandh, researcher in violent extremism at Umeå University.

Text: **Camilla Bergvall** Photo: **Ulrika Bergfors** and **Mostphotos**

“These methods also spread the notion of everyone being targets — an attack can take place everywhere, to anyone. This causes insecurity in society.”

Terrorism is not something static, instead dominating ideologies, targets and methods have shifted through history. Since about thirty years back, we are in the middle of a religious wave, which at the start of the 21st century resulted in several mass assaults, for instance the ones in Madrid in 2004 and London in 2005.

“That was the culmination of a series of well-planned attacks by organised terrorist groups that master sophisticated means and can coordinate their attacks. Several large-scale attacks were also aimed at vulnerable infrastructure such as trains,

busses and underground traffic,” says Veronica Strandh.



Veronica Strandh

BUT IN 2015, something happened — the means of attacks shifted. The incidents in Stockholm, Nice, Manchester, Berlin and Paris are all examples of so-called homegrown terrorism.

“That’s people who have been radicalised at home, and who use simplified methods — such as trucks, weapons and home-made bombs — to perform attacks on soft targets.”

The advantages are many. Finding these individuals is challenging for security agencies. Terrorists strive after huge media exposure, and few images are more dramatic than those after a shooting or an explosion.

BEHIND MOST of the current mass assaults in Europe are Jihadist groups inspired by and various ties to for instance the Islamic State and Al-Qaeda.

“I believe that small and fragmented attacks will be frequent also in the future. A scary scenario being discussed is how terrorists start using drones equipped with weapons or bombs. Another fear is of more advanced cyber attacks against hospitals, for instance.”

How do we prevent violent extremism?

“The most important measure is to eradicate the breeding ground for extremism, particularly on a local level. A good life protects against most forms of radicalisation. Municipalities have an important task here,” says Veronica Strandh. ✕

LOW INTEREST IN THE EU ALSO IN ELECTION YEAR

Despite the EU election in 2019, Swedish interest in the EU from both political parties and the population in general is still low. But without the UK, the May election can turn the balance of power in the most important parliament in Europe, if you ask political scientist Johan Hellström.

Text: **Bertholof Brännström** Photo: **Mostphotos** and **Mattias Pettersson**

Johan Hellström is docent in political science specialising in political parties and governments in Europe. He has no great expectations of this year's election to the European Parliament being greatly noticed, neither in political debate nor in the media.



Johan Hellström

by political parties. This despite half of all subjects in the Riksdag and municipal councils relating to issues that have been decided in Brussels or Strasbourg.

The study shows that out of 52 issues that the government elect would reach decisions on at EU level, basically no party had clear views in more than a few of these issues.

JOHAN HELLSTRÖM believes that political parties are strategic in not prioritising European issues.

"As long as citizens aren't interested, political parties don't want to invest in the issues. The EU is no election winner, and that means not wasting energy on it from a political stance."

At the same time, we have reached a Catch 22. If parties are lying low regarding the EU, these issues remain in the dark in the media, with the consequence that citizens know less and are ill equipped for engaging.

"But Sweden is not unique. In most member states, the interest for the EU is rather low. The exceptions are Germany, France and the UK, where the EU debate has been lively for years," says Johan Hellström.

"EU debate is most often driven by critics. The same happened in Sweden at the start. At that point, the discussion was mainly Yes or No to the EU, which is uncommon today."

A STUDY from Lund University prior to the Swedish election in 2018 also shows that EU topics are downgraded in priority

Less than 1 per cent of all statements made by Swedish politicians regard the EU and European cooperation.



But there are obviously exceptions. Great events, like the wave of refugees in 2015, and the joint EU response to this, created both commitment and debate. The same goes for EU decisions that directly affect individuals – such as copyright and weapons laws.

"Those issues can cause temporary involvement," says Johan Hellström.

OVER THE last few years, the EU project has more distinctly been questioned from right-wing populists. In Hungary and Poland, this is evident in the governmental policies, and in the UK, as you know, the



criticism led to a referendum and decision to leave the EU.

And Brexit may also be the most influential event in this year's EU election. Without the many UK members, the power will shift within the European Parliament. Surveys show that the EU group Socialist & Democrats will be the biggest loser, all the while the Alliance of Liberals and Democrats for Europe and the conservative Eurosceptics in Europe of Nations and Freedom, and Europe of Freedom and Direct Democracy seem to be the biggest winners. ✕

Towards a bright and global future

When I reflect on the future and opportunities of growth of Västerbotten County, my thoughts are rapidly torn. Not because of our ability to grow, but rather because the opportunities are so many.

What makes me most convinced of a positive development of the county, is our great ability to act on a European playing field. Year by year, Västerbotten has strengthened its international position within research and industry development. We are represented in several large, global networks and the EU more often turns its attention to our part of the world. The question at hand of a European Arctic and what it will mean has contributed, also the OECD report about Northern Sparsely Populated Areas from 2017. But what it all boils down to is the competence and capacity for action from the stakeholders in the region, not least the University.

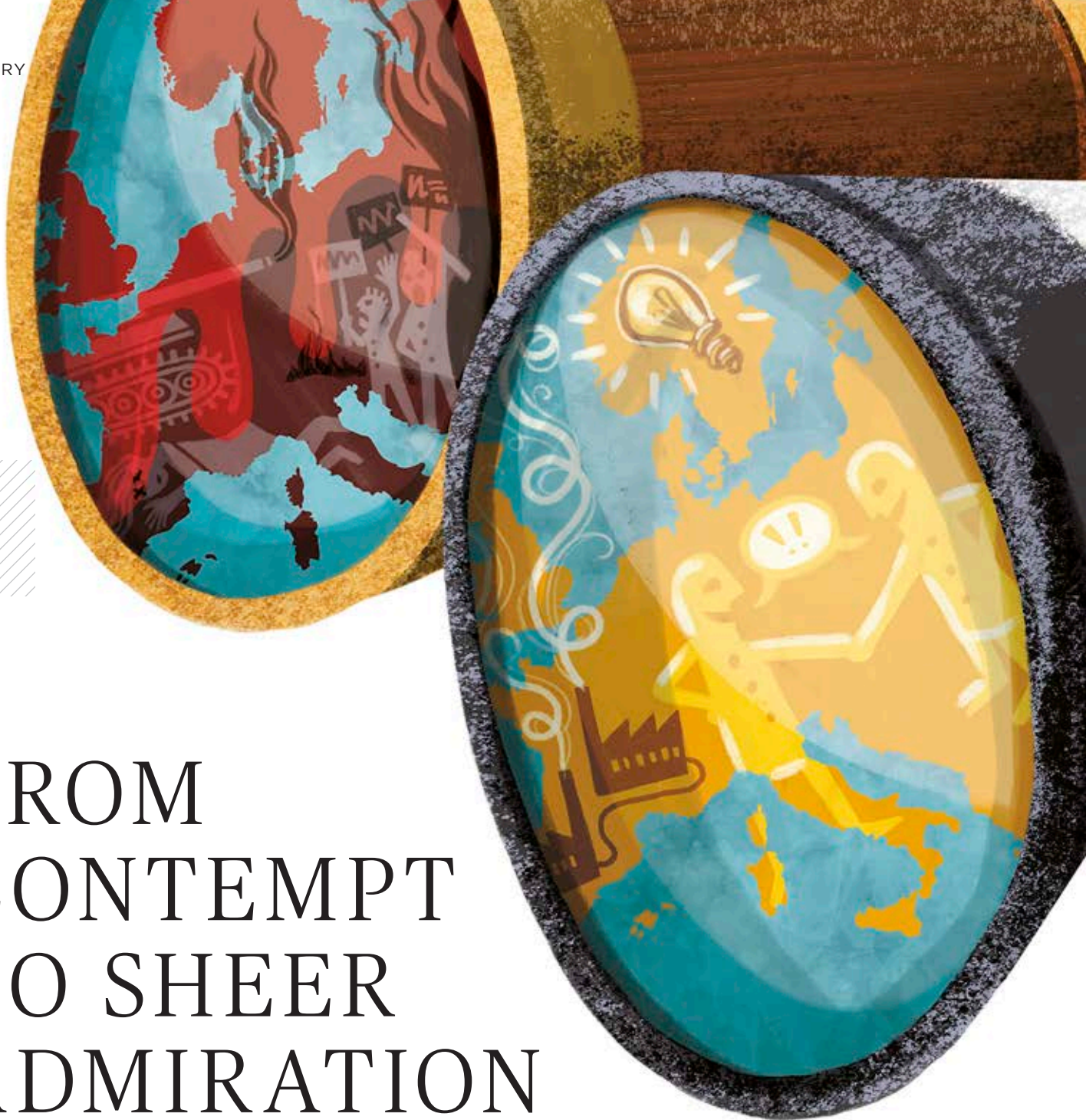
UMEÅ UNIVERSITY is an engine for regional growth. Not least because there is a regional outreach assignment, but also because there is capacity and ability to build sustainable and smart global networks. This has resulted in Umeå University being able to acquire structural funds from the EU in a competitive market. Through the ability to form partnerships, the University has gained access to more funds than only the traditional research fund Horizon 2020. This has meant that the University has built up a stronger ability to act in several forms of regional development. This is one of the reasons why the future for Västerbotten is bright. We are several strong and wise stakeholders that need to act together to evolve.

VÄSTERBOTTEN AND northern Sweden has plenty of specialist abilities, as well as some great challenges. This is a complex issue and difficult to understand on a national scale. But that makes the unison voice of Västerbotten in Europe even more important. Also, the cohesion in Europe is increasingly tougher, a natural effect not least of Brexit, which will require the regional level to make ourselves prepared not to miss out on resources, insight and opportunities to make an influence. The regional municipality that has been formed provides even better conditions for strengthening regional collaboration with the University. We have the excellence, and the resources. Wasting these is not an option. ✕



ERIK BERGKVIST
regional council member
at Region Västerbotten

Photo: Patrick Trägårdh



FROM CONTEMPT TO SHEER ADMIRATION

— how the Iranian image of Europe has changed

The Iranian approach to Europe has fluctuated over the centuries. From very positive to extremely negative and back again.

“Today, there is a large and growing middle-class in Iran that wants to be a part of the global village,” says Mohammad Fazlhashemi.

Text: Mikael Bergling Illustration: Felicia Fortes Photo: Mattias Pettersson

Mohammad Fazlhashemi

Background: Born in Teheran. Moved to Sweden in 1977. Completed his doctorate in history of science and ideas at Umeå University in 1994. Since 2013, he is professor of Islam theology and philosophy at Uppsala University. Beforehand, professor in history of science and ideas at Umeå University. Member of the Umeå University Board.





hand, people say that introducing modern technology and industrialising will be sufficient, and on the other hand, others also want political and social reforms.”

In 1906, the royal family finally agrees to make Persia a constitutional monarchy, with a parliament and public elections (for men of a certain income).

What did the clergy have to say?

“At the start of the 20th century, several prominent religious leaders speak warmly of the constitutionalism. One person writes that it is in the essence of Islam, another that the urge for deliberation in the Koran is the same as parliamentarism.”

Many hope that a transition from autocracy to constitutional monarchy will lead to a rapid modernisation solving most societal issues.

“Shortly afterwards, World War I breaks out. Many of those who previously spoke warmly of Europe become increasingly critical of liberalism, which they think causes chaos.”

In the interwar period, the approach to Europe shifts again.

“In 1925, a new dynasty seizes power through a coup d’état, with the help of the UK. Yet, the new Germany, when it protrudes from the shadows, is what renders the biggest attraction. The totalitarian and authoritarian Europe becomes a role model, which is further reinforced by Germany among other things helping to extend infrastructure. The ceiling of the newly built central station in Teheran is even decorated with a swastika.”

“Just like in Europe, people’s freedoms and rights are impeded. Many are imprisoned due to their political views. The King is developing a very anti Muslim agenda. Women and men are ordered to follow European dress codes, which disallows women from wearing hijabs in public.”

DURING WORLD WAR II, Iran, which Persia is now called, is occupied by allied forces and the Nazi-friendly King is forced to abdicate.

After the war, the country goes through democratisation. Although, after having nationalised the oil industry in 1953, the Iranian democratically elected management is removed from office in a coup d’état supported by the US and the UK, among others. Shah Mohammad Reza Pahlavi takes power. Making Iran a dictatorship – again.

Many Iranians choose anew to turn their backs to Europe and the Western model.

In 1979, the Shah is dethroned in a revolution and replaced by an Islam regime that has ruled the nation ever since.

What is the current Iranian view on Europe?

“There is no one unison view. But many people have a positive approach to Europe. In Iran, there is a rather large, well-educated middle class that is both young and growing, yearning for freedom and life in the global village.” ✕

Mohammad Fazlhashemi is professor of Islam theology and philosophy at Uppsala University. Through his research, of for instance the Iranian press, travel reports, preaching and books from 1850 until 1980, he has studied the shifting approach to Europe and Europeans in Iran.

“The idea of Europe fluctuates gravely over time. Yet, there are few nuanced and well-balanced images that are generally portrayed, instead it is the extremes.”

One example Mohammad Fazlhashemi presents is how an official Persian messenger from the 1680s, after having visited a number of European capitals, bore witness to the abnormal, underdeveloped and barbarous Europeans. At the beginning of the 19th century, the image of the Europeans is reversed, which results in wealthy Persian families beginning to send their sons to Europe to study.

“Even diplomats and tradesmen travel here. Going back they take with them new technology, but also stories of technological and scientific development, financial prosperity and political rights. It’s often an incredibly embellished, exaggerated and bright image of Europe.”

“For instance, reports convey how clean and tidy Europe is. One person writes that you can hardly find any litter in London, and another one writes how the King of England may not lay a finger on his servants without a court order.”

Why did they write that?

“I think they wanted to influence the own regime. But cracks in the facade soon appear. On the one



NORDIC NOIR TRENDSETTING IN EUROPE

Katarina Gregersdotter, senior lecturer at the Department of Language Studies at Umeå University, is a part of the EU funded project DETECT – Detecting Transnational Identity in European Popular Crime Narratives – with the aim to study the formation of Europe’s cultural identity.

Text: Inger Nilsson Photo: Ulrika Bergfors



Who takes part in the EU project?

I’m the only Swede. The others come from Denmark, Romania, Hungary, France, Spain, Germany, Northern Ireland, Greece, Italy and Belgium. The Danish group is also focused on Nordic Noir. They are media researchers and will primarily study film and TV productions. My focus is on literature.

Why this specialisation?

I’ve studied Nordic and Anglo-American crime fiction for years, and this is what I’ll primarily be doing in DETECT. There is an informative purpose. The objective is to reach as many people as possible, through for instance public conferences, film viewings, a digital platform to help students and teachers with an extensive corpus of crime fiction productions in Europe. Even mobile apps. Several researchers work with production companies and authors, for instance.

What’s your approach to a common European cultural identity?

Criminal stories, which we’ve chosen to focus on, spread well across borders, now more than ever. In novels and TV series, we’ve chosen themes such as class,

ethnicity, location, history and gender. How are these themes presented in different countries? How is class discussed in Hungary compared to in Germany? How can a country’s history be described, and how present is it in crime fiction? What is included from Henning Mankell’s stories about Wallander when it is filmed for a UK audience? Some study co-produced film and TV series like the Danish-Swedish *The Bridge*.

What time span are you focusing on?

We’ve pinpointed the time after 1989 – the fall of the Berlin Wall – and onwards. Many political, cultural and geographical changes have taken place since. But texts older than that are still re-issued and there are constantly new screen versions of Agatha Christie’s books, for instance, so they also fit the time span.

Do genres spread differently across Europe?

Beside English-speaking criminal genres, I would say Nordic Noir has the greatest

spread. Henning Mankell’s books about Kurt Wallander hit the roof, and of course, Stieg Larsson’s incredible popularity. Many Nordic authors now sell their work to large portions of Europe. It has become somewhat of a trendsetting genre. Many countries want their own “noir” genre, like Italian Noir. They don’t sell as well, but it might just be a question of time. ✕

More about DETECT

One focus is to investigate if there is a common international European cultural identity, and, if so, what that would be. Some keywords in the DETECT project are ethnicity, class, gender, sexuality, geography/location, genre, trans-culturalism and history, nationality, transnationalism, globalisation, consumption, spread, production and marketing.

Societal issues in focus at AIMday

Every year at AIMday, organisations and the industry get to discuss questions that they pose to researchers at Umeå University.

“The day provides participants with the chance to link up with new contacts and gain new insights for their work,” says Johanna Gardeström, one of the organisers.

For two of the participants at the last AIMday – Anna-Lena Pogulis and Magnus Jacobson at the Swedish Association of



Local Authorities and Regions (SKL) – the concept was brand new.

“For us, AIMday is a new and impressive concept.”

As partners in discussion they had political scientists Jessica Wide and Anders Lidström. The meeting is likely to result in a literature review, through which SKL hopes to find strategies to prevent threats to our elected, political representatives.

Photo: Mattias Pettersson



Photo: Mostphotos

Gut bacteria tell stories of parents' environment

Eggs and sperm are not the only routes to transferring information from one generation to the next. Also your gut bacteria can reveal secrets, according to a study at Umeå University.

When germ cells fuse together this forms a new genetic construction for the off pring. Most of the information for how the off pring should be built is encoded in the DNA and will not change remarkably by external influenc s.

Although, recent studies have shown that both egg and sperm can also transfer the effects of various lifestyles and environments, such as obesity. Umeå researcher Per Stenberg can now show that gut bacteria can transmit information about the parents' environmental disturbances.

“It was exciting to receive our first results describing a whole new path for transferring properties to your off pring, other than through egg and sperm.”

Strengthening research in a norm-critical field

Ann Phoenix, University College London, will be spending parts of 2020 at Umeå University as a holder of the Kerstin Hesselgren visiting professorship.



Generous EU grant to young sociology researcher

What consequences can an insecure labour market have on young people and families in Europe? Sociologist Anna Baranowska-Rataj is studying health and well-being through life, and has been granted SEK 15 million from the European research council, ERC, to investigate how transitions to unemployment can lead to mental illnesses in individuals and how it can spread within the family.

Photo: Przemysław Chrostowski



Further EU grants to graphene research

Graphene, an element consisting of a single layer of carbon atoms, has many unusual and highly interesting properties. It is flexible and very light, and a good conductor of electricity and heat. It is now the third time Umeå physicist Alexandr Talyzin receives EU grants for his research on the super material. His research specialises in streamlining energy storage capabilities through graphene-related materials.

Photo: Mattias Pettersson

A woman with dark hair, wearing a black t-shirt, blue jeans, and a long olive-green coat, is walking on a paved city street. She has a thoughtful expression on her face. In the background, other people are blurred, suggesting a busy urban environment.

LOOKING BEYOND DEMOCRACY

Text: Abrak Saati Photo: Johan Gunséus

Some say that citizen faith in democracy started to crumble as a consequence of the global financial crisis from 2007-2008; democratically elected governments' inability to handle the crisis, not least in Europe, paved the way for a disillusioned crowd of people now questioning the democratic system entirely.

If it is the death of liberal democracy we are witnessing, what can come out of that? What will post-democracy be? Imagine if the doomsday prophecies about the death of democracy, and the parallels that are often made between today and Europe in the 1930s, are not necessarily correct. Imagine if there could be something on the other side, an alternative form of government that is neither authoritarian nor totalitarian, and that could even, based on the views and needs of the citizens, prove superior to the democratic system of government.

Several alternatives have been presented. In the wake of Brexit in the UK and the election of Trump in the US, a form of meritocracy – meaning that power is earned – has begun to see the light of day. Epistocracy. "Rule of the knowledgeable". So, what does this actually suggest? In short, the underlying reasoning is of the idea that one-man/woman-per-vote is honourable, but in reality, this system does not generate politically well-reasoned results due to each citizen not being politically able enough to reach these decisions. That's why the right to vote should be limited. An idea is that citizens can earn the right to vote, as well as deserve the benefit of running for political candidacy in elections, only after having passed a test of proficiency proving their competence.

To me, epistocracy comes off as not only unfair, but also authoritarian. Objections that are consistently rejected by spokespersons who use the reversed argument: "if anything, it is unfair that the uneducated and uninterested population should have this much power to influence decision-making that is unprofitable for the learned."

If you ask me, the democratic system houses other values than only instrumental ones – in other words democracy is good in itself. Democracies provide citizens with a sense of dignity – that your views, and your vote, is valued by decision-makers and that there are mechanisms in place to protect individuals. And if the main problem with democracy is that citizens are generally politically uninterested, and hence politically ignorant, shouldn't aimed initiatives to come to terms with this be initiated as a first step, far before the democratic project is thrown overboard?

Abrak Saati

is a researcher at the Department of Political Science at Umeå University. She studies the development of democracy in different parts of the world, among others in North African countries affected by changes as a result of the Arab Spring in 2011.

Abrak Saati discusses more alternative future scenarios at: www.blogg.umu.se/forskarbloggen You can also comment on and discuss the subject further on the blog.

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Longer versions of texts found in this magazine are available online: www.umu.se/en



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