

# Aktum.

FOR EVERYONE WORKING AT UMEÅ UNIVERSITY • NOVEMBER 2018 • NO. 2

Meet Abrak Saati

## *Safeguarding democracy*



### **Prior learning**

The real value  
of qualifications

### **The Co-op model**

Studies coupled  
with work

### **THEME Education**

Fine-tuning  
students' skills

### **A day at work**

Back to school for  
head teachers



UMEÅ UNIVERSITY

## Firstly...

### Fruit of knowledge

In the book *World of Medieval Learning*, author Anders Piltz describes the continuous questioning as what signified academia in not least Bologna. Not only debatable matters were discussed, but also those items that were already in firm belief.

Scholars were interested in knowing why the seemingly obvious was indeed obvious. This questioning, inspired by Pierre Abélard's Sic et Non method and the Bolognese mock trials, gave rise to the second most important method of education, *disputatio*, considered second only to *lectio*.

In the book, Anders Piltz describes how Bolognese lecturers toed the line through a rigorous control and fine system. The lecturer was fined if he started or ended lectures late. The lecturer had to approve the syllabus for the year with the audience. The lecturer needed to stay within the set limits in each subject. Violations were punished according to a fixed tariff.

Another unacceptable wrongdoing was to avoid difficult questions or imperceptibly try to rush past troublesome sections. And to be on the safe side, the lecturer had to leave a deposit from which the fines were subtracted.

The particularly lousy lecturers were snitched on by hired scouts. Complaints from two students were enough for a Vice-Chancellor (appointed by the students, of course) to intervene according to the regulations 'to punish doctoral insubordination'.

From our pre-school years to university studies, we all have strong memories of our teachers. They have always been subject of continuous analyses. Of hair style, body odour and eccentric peculiarities. Of tone of voice, handwriting and qualifications. And there are surely many memories of behaviours that would have fallen under punishable categories in the Medieval Bolognese scale of penalties.

That was then, this is now. Education and teaching is still the core of a university. At different levels and in various contexts. This goes for students, but also many lecturers, who beside leading educa-

tions and teaching in various ways can also take part in in-service training to develop as a teacher. In this issue of Aktum, education and teaching is in focus.

Enjoy the read! ●



**PER MELANDER**  
ACTING EDITOR-IN-CHIEF

“Bolognese lecturers toed the line through a rigorous control and fine system.”

## Contents



- 3 Artificial intelligence**  
Reaching intelligence on a human level is a long way away
- 4 Validation**  
What is the real value of an education?
- 6 The Co-op method**  
Students combining studies with paid work
- 11 Making a fresh start as a teacher**  
Back to the whiteboard after five years
- 12 New projects improving teaching**  
The Centre for Educational Development has a lot on
- 13 Outlook**  
What funding system renders the best research?
- 14 Profile**  
Reflections on how life could have panned out
- 17 A day at the Head-teacher Training Programme**  
Learning new things each time
- 21 Signed**  
Dieter Müller: The market cannot control everything
- 22 From the archives**  
Music legend turning Umeå University down
- 24 Finally...**  
Kalle Grill about the need for teaching ethics



## Aktum.

**Publisher** Gunilla Stendahl, Head of the Communications Office  
**Address** Communications Office, Umeå University, SE-901 87 Umeå, aktum@umu.se  
**Editor-in-chief** Per Melander  
**Editorial board** Mattias Grundström Mitz, Anna-Lena Lindskog, Ola Nilsson, Eva Stoianov, Ingrid Söderbergh, Anna Lawrence, David Meyers  
**Translation** Anna Lawrence, David Meyers **Cover photo** Johan Gunséus  
**Design and repro** Inhousebyrå, Umeå University **Printing** Taberg Media Group  
**Any questions about distribution?** Please contact Sara Mejtoft, +46 70 148 50 50

### [aurora.umu.se/aktum](http://aurora.umu.se/aktum)

On the intranet Aurora, you can read previous issues of Aktum in digital format.

### [www.aurora.umu.se/en](http://www.aurora.umu.se/en)

On the intranet Aurora, you will find the latest news for people working at Umeå University.



# Artificial intelligence changes our society

**The development of a society where artificial intelligence (AI) permeates work, education and people's lives has only taken its first baby steps. Researchers at Umeå University are now gathering to strengthen the university's role in this venture.**

**VOICE COMMAND IN** mobile phones, search engines on the internet, support systems for healthcare personnel and vehicles using driverless technology are some examples of applications where AI has already made progress. As this technology matures, AI will become increasingly more of a 'digital assistant' that adapts to our daily needs.

"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 on regulatory frameworks that manage how AI should be used," says Helena Lindgren, senior lecturer specialising in AI research.

**AS ONE OF THE** more high-profiled persons within the AI venture at Umeå University, Helena Lindgren coordinates the University's strategic work with the major investments made within the AI research area in Sweden. It involves investments in machine learning, which includes deep learning, and methods for explaining the results that these methods generate, so-called explainable AI.

"One of the objectives is to raise society's AI competence, such as through continuing education and professional development of currently employed persons. It's very important for Sweden as a nation, as well as its companies and organisations, to be able to take the next step in digital development."

There are currently over 30 researchers at Umeå University that are engaged in the development of AI in different areas. Two prominent professors have recently been recruited and a larger number of doctoral students and postdoctoral researchers are employed, many of them funded by the Knut and Alice Wallenberg Foundation, which have allocated millions of krona to research within AI in Sweden. The investment is made possible through the Wallenberg Autonomous Systems and Software Program (WASP), where Umeå University is one of five partners. The Kempe Foundations also contribute funding to eight postdoctoral researchers in autonomous systems.



Helena Lindgren, coordinator of Umeå University's AI work.

PHOTO: ELIN BERGÉ

"Big data, autonomous systems and AI are also high on the agenda at the international level, and it is beneficial that our university is involved and contributes with skills and development," says Hans Adolfsson, Vice-Chancellor of Umeå University. "Since we are a comprehensive university, we have good opportunities to utilise a full spectrum of future applications within AI."

**PROFESSOR THOMAS HELLSTRÖM** researches intelligent robots and is well aware of the major challenges with AI. He emphasises that all the sensational and flashy headlines around AI are likely to lead to an overconfidence of technology. At worst, it can lead us to use unintelligent AI for things that require significantly more advanced intelligence, such as the ability to understand, reason, value, and make moral considerations.

"Despite all this, there is a long way to go until we reach intelligence on a human level, and something called machines with artificial consciousness," says Thomas Hellström. ●

INGRID SÖDERBERGH



Thomas Hellström researches intelligent robots.

PHOTO: MATIAS PETERSSON

Study counsellor  
Francine Ferretti Horst  
talks about validation  
of prior learning.



# Validation

– useful for individuals and society

There are many parties in Sweden involved in validation to map, document and acknowledge an individual's actual competence, his or her 'prior learning', that is.

**TEXT:** Anders Skogebrandt **PHOTO:** Per Melander

**THE TERM 'PRIOR LEARNING'** includes all knowledge, regardless of how it was acquired. But how is validation carried out in practice? On 25 September, forty odd people gathered for a cross-border exchange of experiences with speakers from the Swedish Council for Higher Education (UHR) and Korta vägen.

Organising course instances is one part of the ongoing Prior learning project in Umeå for 2016–2018. The project is linked to a large national pilot project coordinated by UHR. Points up for discussion are for instance organisation, processes and communication. The objective is to increase the opportunities for people to gain access to higher education through continuous processes for validation of prior learning, and to shorten the study period to make individuals avail-

able on the Swedish labour market at a faster pace.

**VALIDATION IS AN AREA** in change where topics such as funding, quality assurance, and law and order are central. A national organisation for the assessment of general entry requirements is taking shape at the same time as a few universities will implement VALDA, a new issue-tracking system for validation.

"It'll be exciting to see the outcome of the Government proposal for increasing the opportunities to access higher education, *Tillträdespropositionen*, and the outcome from the validation delegation," says Maria Nylén, project manager. "There are loose plans for a continuation of the pilot project, but that's something time can only tell." ●

## About prior learning at Umeå University?

- Prior learning is a prioritised section in the 2018 action plan.
- A reference group for validation is to be set up at Student Services.
- An alternative selection has been drawn up to increase the opportunities for admission through prior learning (which the Bachelor of Science Programme in Civil Engineering specialising in Building Technology is first to use).

# AIMday delves into democracy

**A day with democracy on the agenda. Researchers and members of the public discuss democracy issues in mini workshops.**

On 20 November, it is time for AIMday again. A day where organisations get to test their questions on Umeå University researchers and find answers together. The theme this time is democracy.

“A lot of people are interested in integration and equal opportunities. But the questions concern everything from digitalisation to how the rural parts of Sweden can gain attraction,” says one of the organisers, Anna Sandström Emmelin at the External Relations Office.

Researchers are able to sign up for what questions they want to discuss. Each question will be matched with interdisciplinary groups and discussed for an hour in a mini workshop.

“We hope that discussions on one common challenge will lead to new collaborations and continued development. Those who wish can also apply for pilot study grants to take their ideas to the next level.” ●



## New web takes over on 13 December

**A LOT HAS HAPPENED** in web development over the last ten years. That's why the University needs to renew its content and navigation structure on the web based upon our visitors' needs and what modern web solutions can offer. It has also been necessary to exchange the outdated web publishing system Infolgue.

The new web should give an attractive image of Umeå University. It should be simple, efficient and effective to demonstrate the high quality research and education that the University provides and our development of people and society.

The idea behind the new web is to refine the content and divide it into three separate websites: external visitors, students and staff. To create and maintain pages, web editors, content managers, information owners and function editors are being appointed.

A few parts of the new web have already been launched: a new startpage, new pages for Research and About us, the staff directory, Work with us and a new student web.

The old umu.se is being shut down on 13 December. Find out more on Aurora, search: 'new web 2018'.

## Social Science and Arts celebrate 50 years

**THIS AUTUMN** and winter, both the faculties of Arts and Social Sciences will celebrate their 50th anniversaries. The Faculty of Social Sciences calls it Jubilee Week, held on 16-23 November. This will include cake in the Lindell Hall, open lectures and a day devoted to teachers. Not to forget the symposium *Digitalisering, demokrati och deltagande*. The Faculty of Arts is also offering open lectures, publishing a collection on the theme 50 years, and a Jubilee Banquet on 6 December.

Even if 50 years is not that long, there are perspectives to gather from the discussion behind ever establishing an institution of higher education in the 'Great Woods of the North'. Among them the relatively low educational level of the inhabitants of Norrland, and the large shortage of among others dentists, doctors, teachers and lawyers in the region.

So if you hear things going on around campus this winter, you now know why.

## Figuratively speaking **Erik Domellöf**



# 82

Bengt Lagerkvist in Umeå previously worked as paediatrician. Now, he has turned 82 and can call himself Umeå University's oldest student. In September, he presented his Master's thesis in literary studies. He finds it stimulating to study at the University together with inquisitive youngsters and is surprised that so few from his generation take the chance.



“When companies want competent students and the students want a job to test their skills, Co-op is a good opportunity for both parties to become acquainted and evaluate each other,” expresses Emma Hörnfeldt from Svevia, and prospective civil engineer Jesper Lakso.

# A collaboration worth building on

How do you solve the construction industry’s scream for labour, student’s work placement needs and the growing demand for societal benefits in the University’s educational offerings? One solution is to focus on Co-op (Cooperative Education).

**TEXT:** Lena Holmberg **PHOTO:** Mattias Pettersson

**T**HE CO-OP MODEL means that educational institutions and employers cooperate to allow students to combine their studies with paid periods of work. This year, a dozen regional construction companies have, for the first time, taken on the concept together with the Bachelor of Science Programme in Civil Engineering. And everyone is positive.

“Co-op feels like a good way to market ourselves to the students, demonstrate what

we do and hopefully recruit some new employees,” says Emma Hörnfeldt, site manager at Svevia in Umeå.

**SHE THINKS THAT** the Co-op initiative has arrived at the ideal time. The building trade is screaming for skilled workers, especially in construction. To offer students a kind of mini-trainee programme already during the period of education increases the chances of being able to employ them on day one after graduation.

“Furthermore, I think it’s very important,

even for the students, to obtain this realistic aspect early on for future jobs,” explains Emma Hörnfeldt.

**ABOUT HALF OF** the class has received a Co-op placement. Most come directly from secondary school or have worked with something completely different before. Such as Emma Hörnfeldt’s adept, former postal worker Jesper Lakso.

“I’m so glad that I began studying last year! When I applied for civil engineering, I was somewhat disappointed that the pro-

gramme did not offer any work placement. Now, I've worked for eight weeks at Svevia, and have gained very useful experience and insights into how the construction industry works."

**HIS PLAN IS TO** become a supervisor or site manager. But to become good, it's important to learn the operation from the ground up. That's why Jesper Lakso has been out in the field and tried everything practical, from switching culverts to repairing barriers on the E4 motorway. A more managerial role is awaiting next year – and he is looking forward to planning his own commission.

"To me, Co-op is an awesome bonus and an extra carrot to succeed in school. It's encouraging to get a foot into a company where I would like to work in the future."

**PROGRAMME MANAGER** Fredrik Häggström states with satisfaction that the Co-op students feel very motivated and, thanks to their newly acquired experience, participate more actively in lessons. He also sees the collaboration as an excellent opportunity to capture the construction industry's views on the education.

"We want to make sure that we actually offer what companies are requesting today, and not knowledge that was relevant 20-30 years ago."

**AT THE SAME TIME,** he acknowledges that he was a little nervous at the beginning. The programme was understaffed. Could they handle more work?

"Thanks to the university's co-op coordinators, Katarina Henriksson and Anna-Lill Drugge, it has gone really smoothly," continues Fredrik Häggström. "They have done everything from booking meetings between companies and students to holding courses on writing a CV."

With the support of this resource, the civil engineering programme hopes to continue to invest in Co-op.

"I think there would be very gloomy faces in the next class if they didn't get the same chance," concludes Fredrik Häggström. ●



"Co-op is currently in place at four programmes within the Faculty of Science and Technology. But we also see great opportunities to develop the concept in studies in the social sciences and humanities," says Co-op coordinator Anna-Lill Drugge.

## 5 questions

for **Peder Tjäderborn,**

head of the Student Services



PHOTO: PER MELANDER

### 1 The Government has appointed you as one expert in a governmental investigation on how to prevent cheating on the Swedish Scholastic Aptitude Test.

"That's right. I was nominated by the Association of Swedish Higher Education (SUHF) that aids the investigation appointed by the Government. The results of the investigation will be presented in May 2019. The group of experts also consists of representatives from the Swedish Council for Higher Education (UHR), and lawyers."

### 2 Why is it important to fight cheating?

"It's about maintaining people's confidence for the test as a tool of selection for higher education. It's unacceptable to buy yourself a study place using test results that you haven't achieved fair and square and hence deprive another applicant of that place. As the admissions system uses results to make the selection, there is also a risk that the trust in this system is indirectly tarnished."

### 3 In what ways do people cheat?

"Thanks to coverage by Swedish Television, we know that those who cheat buy an earpiece that enables transmission of results submitted by a group who have gained access to the test in advance. The ongoing trial that started this spring when the Police caught cheaters in the act will probably provide more details on how this cheating takes place."

### 4 Is one idea to introduce body searches?

"Yes. The investigation will look at the legal and practical conditions for performing body searches. It's a coercive measure regulated by law and a deviation from the protection against body searches that the constitution allows. It's regulated when, how, to whom and by whom this coercive measure may be used. If it is appropriate to use to prevent cheating remains to be seen."

### 5 What alternatives are proposed if body searches are disallowed?

"UHR has proposed other measures such as jamming equipment to prevent the use of earpieces. But that's also regulated by law and can't be used in all situations. In the last three years, the handling of the test, before and during the test day, has also been revised to minimise the risk of the test getting into the wrong hands. Test coordinators at the universities, test constructors at Umeå University and UHR have jointly made good efforts in preventing cheating." ●

PER MELANDER

## Current Co-op companies

Balticgruppen, NCC Sverige, Peab Anläggning, Peab Sverige, Ramböll Sverige, Selbergs Entreprenad, Skanska Sverige, Svevia, Sweco Structures, TM Konsult, Tyréns and WSP Sverige.



# *Academic support*

Students and doctoral students at the University should get the most out of their studies. A method to reach that goal is to provide extra support for students – and their teachers. The solution is spelt: the Academic Resource Centre.

**TEXT:** Inger Nilsson **PHOTO:** Mattias Petterson



Moreish fresh start.  
Monica Näslund, Swedish  
teacher and language consultant,  
is pleased about the Academic  
Resource Centre's assignment.

**T**HE ACADEMIC Resource Centre (ARC) at Umeå University has their offices in the University Library. And increasing numbers now utilise the services they offer.

“We’re making a fresh start, which feels exciting and meaningful,” says Monica Näslund, Swedish teacher and language consultant at the ARC since a few years back.

This fresh start means that staff at the ARC will for instance focus on getting closer to the students, into courses and study programmes.

“We’re contacting departments to let them know we exist,” says Magnus Olsson, librarian at the University Library and one of the teachers at the Centre.

A new offering for the autumn is our drop-in academic writing sessions for the Medical Library as well as a series of drop-in sessions of academic writing in English. They’ve also refurbished their offices to get the peace needed for studying and working.

“We want to provide a calm and cosy environment,” says Monica Näslund.

**ACT OFFERS WRITING TUTORS**, guidance on study skills and reading technique. They also provide tips on how to take notes and how to prepare for oral presentations – all free of charge. Those who want assistance in English can get that too. Students and doctoral students can get help in writing a report or get suggestions on how to find information. You can also email questions or book private counselling. In total, the Centre has 6.5 full-time academic writing specialists.

“We provide guidance, but the students or doctoral students need to do the hard work themselves and gain understanding of the text production,” emphasises Magnus Olsson.

Magnus Olsson is one of those who also holds lectures at the Balcony in the University Library on Tuesdays and Thursdays. The lectures are focused on the writing process, academic writing or information searching. Doctoral students can get guidance in writing an introduc-

## THEME *Education*



Elsa Reimerson, Daniel Nylén and Monika Diehl advocate the Academic Resource Centre.



Magnus Olsson counsels students.

tory chapter of a compilation thesis. Beside lectures and drop-in sessions, ARC also organises workshops, among others in writing.

“As a teacher, I think it’s easier to integrate the students’ specific studies if I gain access to the course. We’re keen on working with writing workshops in the departments’ own premises, but we have a hard time getting time in their schedules,” says Monica Näslund.

**AN IMPORTANT PART** of the education is if university lecturers gain support in helping the students in their own subjects. Some state that they’re not Swedish teachers, but that they’re interested in helping students and in return get neat texts from students and doctoral students.

Elsa Reimerson, Daniel Nylén and Monika Diehl are lecturers who use the Academic Resource Centre.

“Previously, I only had a vague image of what the Academic Resource Centre was, but now I often send my students there,” says Monika Diehl, teacher at the teacher education.

She sees room for improvement in the writing capacities of many students and thinks ARC can be of help. Monika Diehl together with Monica Näslund and Helen Hed from ARC also reacted to the shortcomings by writing a report on what the press, other institutions of higher education and researchers write about people with writ-

***“The Academic Resource Centre isn’t just a helpful resource for those who are stuck. You don’t have to wait until you run into problems.”***

ing disabilities, the teacher education and democracy. They’ve presented the report to the rector and deputy rector of the Umeå School of Education (USE).

“It felt incredible. Because this is an issue of democracy,” says Monika Diehl. “How can you be expected to defend democracy if you can’t express yourself in writing? It’s about trust in the teaching profession. If qualified teachers cannot write, this results in a downward spiral of further children not learning to write.”

Monika and Monica gave teacher students who just started their programme a text with the task to write a review, they had been given the text in advance to give them the chance to look up any difficult words.

“There are plenty of good students, but many of them still had problems with the

language in the task. We compiled and commented on their results and our assessment is an indication of what kind of help they need. And we need to help them – I don’t want them to give up. All educations can use this. Our workshops have been full and I think there could be more of us at ARC who provide language support to students.”

“I found out about the Academic Resource Centre from my colleagues. It’s a good complement to the skills needed,” says Elsa Reimerson who teaches political science, and social science at the teacher education. “The help they provide is great for everyone, for instance when it comes to information searching and academic writing. The ARC isn’t just a helpful resource for those who are stuck. You don’t have to wait until you run into problems.”

**DANIEL NYLÉN** at the Department of Informatics has also been helped by the ARC. After a course, many students have expressed desires for support in holding oral presentations. Now, the ARC can present their offerings early on in courses.

“I often recommend the Academic Resource Centre to my students,” says Daniel Nylén. “They’re professionals and can adapt their material with aimed activities depending on subject field. And I can sense positive effects in the students.” ●

READ MORE: [www.umu.se/en/student/we-can-assist-you/academic-writing/](http://www.umu.se/en/student/we-can-assist-you/academic-writing/)

# Making a fresh start as a teacher



How do you return to teaching after a long break? Erik Lindenius is senior lecturer and teacher at the Department of Culture and Media Studies. After five years as faculty programme director at the Faculty Office of Arts, he has now returned to teaching.

**TEXT AND PHOTO:** Per Melander

**AFTER FIVE YEARS,** Erik Lindenius chose to make a teaching comeback. In his experience, the most evident change on his return was the digitalisation of education.

“When I started as faculty programme director everything wasn’t located in learning platforms as it is now. Thanks to the new Ladok, all administration will be digital. On a more personal note, my kids are now autonomous teenagers, which means I’m able to be more flexible.”

**A GUIDE IN** Erik Lindenius role as a teacher has always been to make things understandable.

“As a public official, I strived to simplify and make all the administrative structures more explicit. And I continued to produce the popular science podcast *Mediespanarna*.”

“I’m now returning to senior lectureship for the creative freedom it gives me. And because I can see in the eyes of students when something is changing, I’d like to define the role of the teacher as the one who helps students change. That’s who I want to be.”

**Have you got any educational obsessions?**

“I’m a bit of a hybrid from my appointments as senior lecturer and civil servant. To me, it’s important that our educations are coherent.

That there is a connection through programme syllabi, course syllabi, lectures and examinations for students and colleagues.”

**Do you have any role models?**

“An important catalyst that made me reapply for a lectureship was a number of committed teachers that I met through my role as faculty programme director. They are my role models.”

**What makes a successful day as a teacher?**

“A successful day for me could be to make plans with colleagues, meet students and then finish off the day by recording a podcast. Although, an optimal day would be to only have to focus on one of those things per day.”

**TO A CLOSING QUESTION** on what he wishes was different, regarding prerequisites and resources, Erik Lindenius expresses a wish to change the outdated resource allocation between faculties.

Only time can tell if his prayers will be answered. ●

## THEME *Education*

Eva Svedmark, director of the Centre for Educational Development, UPL.

# High pressure on educational development

**The implementation of digital written examinations, the completion of a programme in sustainable development, and development of educations for large groups of students in a new high-tech auditorium. These are some of the projects that the Centre for Educational Development (UPL) is launching next year.**

**THE INSTITUTION-WIDE** organisation Centre for Educational Development (UPL) mainly consists of teaching and learning courses for higher education, workshops and seminars for teaching staff at the University. Beside this, the organisation is also in charge of the institution-wide systems used in education, such as Cambro, Moodle, UmuPlay, etc. UPL also customises educations for members of staff according to needs.

“Our offerings at UPL are great and in steadily increasing demand, which we appreciate. Teaching and learning in higher education and professionalising the academic role of the teacher to promote learning is an internationally growing field and that’s why we have reinforced the centre with three new senior lecturers,” says Eva Svedmark, senior lecturer and director of UPL.

On the side of the regular organisation with courses and digital system support, UPL also takes part in a number of educational development projects such as digital written examinations and Room for Learning. Currently, nearly 400 of the university’s teachers pass through UPL each year. It is everything from in-service training of teachers at first-cycle courses and programmes,

but also training in doctoral student supervision. Among the ongoing projects, the development of digital written examinations is in prime focus at the minute. Currently, there is an ongoing pilot project and the idea is for the examination method to be implemented at the entire university during autumn 2019.

**ANOTHER PROJECT BEING** launched in the next year is the course Education for sustainable development. The course has been developed by UPL and the Faculty of Science and Technology and is now offered as a pilot course for teachers at that particular faculty.

“This is an ambitious education in sustainability from various angles and with basis in the United Nations’s 17 sustainable development goals. In the future, UPL wants to offer the course to teaching staff across the entire University, as an essential part in strengthening first-cycle courses and programmes in this area,” says Eva Svedmark.

Information and communications technology, ICT, is an important part of a teacher’s qualifications now. According to Eva Svedmark, technology often offers methods to conduct teaching of high quality. She can also sense a different technology acceptance

now than a mere five years ago. For instance, nearly all programmes use a virtual learning environment today, which was far from obvious earlier.

Digital support for education doesn’t just take place in online distance learning. A third area that UPL will work on in 2019 is a new set of instructions suitable for the new auditorium Aula Biologica, a lecture hall with architectural and technical solutions that enable flexible learning for larger groups and with greater variety than just lectures. The auditorium will be completed by autumn 2019 and is being built on inspiration from the Royal Institute of Technology in Stockholm and several American universities with similar solutions.

**EVEN IF NEW TECHNOLOGY** is fun, Eva Svedmark also sees problems with the technical development in education pedagogy.

“Technology should be used in education where it provides new levels of learning and enables or improves the quality of education. It’s important that new methods and solutions have a basis in educational science before taking too great leaps into the unknown. Umeå University should absolutely be in the forefront of developments in this field in both Sweden and globally. Although, we should make sure that teaching is based on science, not just when it comes to content,” says Eva Svedmark. ●

**MATTIAS GRUNDSTRÖM MITZ**

# Core funding generates the best research output

Applying for grants in competition or through core funding — what system renders the best research? A study from the Royal Institute of Technology turns our perceptions inside out.

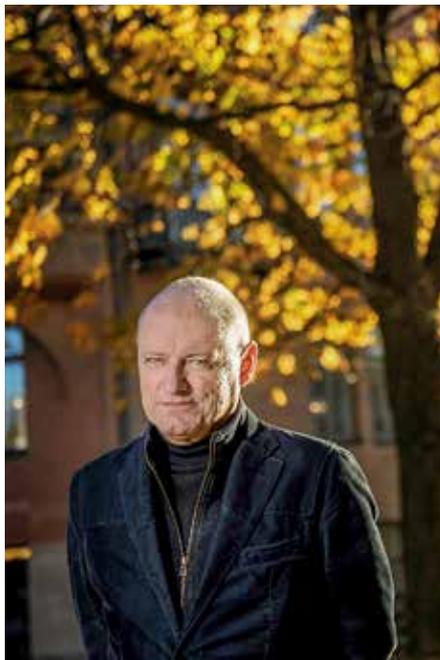
TEXT: Christer Gummesson, Campi PHOTO: Marc Femenia

**N**EARLY 60 PER cent of all Swedish research funding is applied for in competition between researchers at various higher education institutions. If a larger portion of the money was instead allocated to each higher education institution through direct government funding, the chance of producing prominent research output would remarkably increase, according to Ulf Sandström, expert in research policy, and who has studied what funding systems give the most value for money.

The study maps 18 national funding systems. By comparing differences in funding, resource allocation and university autonomy, the research team has tried to identify what factors affect efficiency — how much research output do you get for your financial input? The answer goes against prevailing conceptions, suggests Ulf Sandström, researcher at the School of Industrial Engineering and Management at KTH.

“The prevailing ideology of increased competition leading to researchers performing better gains no support in our study. On the contrary, we’re able to show that systems with a high proportion of core funding lead to quality increases, and the research generally has a better impact.”

**THE STUDY HAS** looked at how our influx of money into different national systems affect the production of highly cited research publications. Countries with a high proportion of core funding can get a remarkably better return on investment, in certain cases even 20 per cent more highly cited articles than those based on a high proportion of competitive research funding.



Ulf Sandström, researcher at KTH and expert in research policy.

An explanation of this difference, according to Ulf Sandström, may be that researchers who apply for funding in competition first and foremost go for safe bets — projects in popular and well-established disciplines with research findings that don’t stand out.

“Many limit their research to mainstream and feasible projects. They seem scared to test new waters and try unusual hypotheses due to the risk of missing the chance of being granted funding,” says Ulf Sandström.

Other factors than funding models also play a part. According to the study, efficient research systems are characterised by a well-developed evaluation culture stimulating researchers to spread their output.

## Facts:

The study was based on R&D costs according to OECD statistics and data on core funding from each respective country for the period 2000–2009. Academic publishing statistics for 2002–2011. The study Funding, Evaluation, and the Performance of National Research Systems was published in the Journal of Informetrics.

“People ought to be aware of the value of publishing, where and how to get published and also incentives to lead researchers in the right direction,” says Ulf Sandström.

**THE CONTROL AND** management of universities is a complex, but important piece of the puzzle. Top-down universities do not constitute a propitious environment for efficient use of research funding. The more power concentrated to university management, the worse the return on investment gets, according to the study.

“This is due to the culture and climate of the workplace. If you experience the management controlling you and the trust in researchers diminishing, this affects your motivation and creativity. You may not even be able to participate in the project that interest you the most.”

Sweden is one of the countries that, according to the study, fails to secure high quality research due to an inefficient use of resources. Ulf Sandström’s advice to decision-makers is to increase the proportion of core funding.

“In due course, this will unmistakably get the ball rolling. Let’s think about it: with an optimal system, we may get as much as 20 per cent more out of our research funding,” he says. ●



# Why don't we safeguard our democracy more?

“I meet people from other parts of the world, people that over everything else want democracy in their home countries. And then I look back at what’s happening in Europe and at home in Sweden.”

TEXT: Inger Nilsson PHOTO: Johan Gunséus

**A**BRAK SAATI SAYS “No one that I’ve talked to from other continents, can understand that we don’t safeguard democracy more than we do – we who already have it.”

Abrak Saati is a researcher at the Department of Political Science at Umeå University who finds herself in the middle of an international postdoc project funded by the Swedish Research Council. The project bears the title ‘How can constitution-building processes in post-conflict states and in states in transition from authoritarian rule contribute to enhancing democracy?’ Besides work at her own department, the research is also conducted at the British Institute of International and Comparative Law in London, and at the American Bar Foundation in Chicago.

**LONDON IS FINE**, Abrak Saati goes there every month, but Chicago posed a problem.

“I was supposed to be there from January until May 2017, the flight was booked and an apartment was rented, but then Trump’s travel ban for citizens from, for instance, Iran kicked in. As I was born in Iran, I have an Iranian citizenship, but I’ve lived in Sweden since I was

three years old, so I also have a Swedish citizenship. When the travel ban came, people with double citizenships – like me – weren’t granted access into the US. Now, I can travel to the US with a visa. As a matter of principle, this is tricky. My views are split when it comes to travelling there as long as this policy is still in place.”

Abrak Saati came to Sweden and Umeå in 1985, where she grew up and went to school. It’s now a part of her profession as a researcher to follow the democratic development around the world.

“The older generation remembers wars and undemocratic rule. Younger people – my students alike – have other frames of reference. They take democracy for granted. Most of us haven’t experienced anything other than democracy and know that we can regularly vote for our political representatives. If you don’t know what democracy is, and particularly, if you don’t know what it ISN’T, then you can’t stand up for or defend it. Young generations in other countries are willing to fight for democracy – whereas young Swedes are willing to sell their votes.”

**THE DIFFERENCE IN** perception in the older population in comparison to youngsters isn’t just something ►

*“I want to contribute to the greater good, even if I don’t have all the answers myself.”*



### **Abrak Saati**

**Does:** researcher at the Department of Political Science.

**Hobbies:** exercising, hanging out with friends, and travelling.

**Favourite dishes:** I must say the Persian cuisine after all.

**Latest book or film:** “How Democracy Ends” by David Runciman — very thought-worthy. I’m a fan of space movies, I watched Apollo 13 for the tenth time the other day.

**Countries I’d like to visit:** My bucket list of places to see is limitless. But at the top are Switzerland, Nepal, Tanzania, Lofoten in Norway and I’d happily return to France and Paris.

**Dreams of:** Many things, but primarily a different political ruling in Iran. It would be extremely valuable to be able to return unbounded and experience the country.



Abrak Saati has experienced in her own encounters. She can also refer to a study in the US that says that two thirds of people in the age span of 70-80 find democracy important, whereas the corresponding number for 20-30 year-olds was only one third.

“There is a Swedish study from 2011, that shows how 21 per cent of young Swedes in the age of 18-29 could consider selling their rights to vote. 26 per cent of this category think it would be ‘good’ or ‘very good’ to have one strong leader running Sweden without having to worry about elections. This concerns me and I’d like to ask these individuals who claim they’re prepared to sell their votes or those who are prepared to see a ‘strong leader’ run this country, what they think such a future would have in store for us.”

Swedish politics has noticeably changed in the last decade.

“There have been right-wing populist parties and extreme movements previously too, so I’m not surprised they exist now as well. After this election, it’ll be interesting to see if other parties in the Swedish Riksdag will live up to their promises during the election campaign – not letting the extremist parties gain influence, that is. So far, Sweden has been relatively unique in Europe in not having let extremists in on any decision-making.” (Editor’s remark: this text was written after the election but before a government had been formed).

**ABRAK SAATI IS WORRIED** that it is remarkably easy to get rid of democracy.

“It’s alarmingly easy to abolish democracy in Sweden. As it stands, our fundamental rights, such as freedom of speech, freedom of association and freedom of religion, can be abolished through only two decisions of ordinary majority in the Riksdag with a mandatory new vote in between. In other countries, for instance Germany, it’s constitutionally protected that decisions conflicting against human rights, and against democracy, are disallowed. In other countries yet, there are constitutional courts making sure that new laws are not legislated if they go against the constitution. In my mind, the Swedish constitution should be revised.”

**IN HER RESEARCH**, Abrak Saati has studied the North African countries that went through changes during the Arab Spring in 2011. Tunisia seems to be the country that has prospered the most. Albeit, all is not tip top, according to Abrak Saati’s impressions from her field studies onsite last year.

“The euphoria has settled in Tunisia. It’s worrying when even some politicians, who took part in writing the new constitution, think it may have been better in the past. Democracy requires time and patience.”

Abrak Saati sees three reasons to why democracy no longer has a strong foothold.

“Previously, the mass media had an important role as ‘guardian’, but now extreme

views are spreading through social media. During the Arab Spring, hope arose that social media could have a positive impact on democracy, but there is a downside too. Another reason is that our standard of living has improved over many years. Now, it isn’t improving at the same pace, which makes people disappointed in politicians. A third reason is that many stable democracies were established in an era when these states were more ethnically homogenous than what they are today. Some people welcome the change, others don’t. And populist parties have been quick in exploiting concerns and dissatisfactions.”

“Every day, I think about what my life could’ve been like had I stayed in Iran. Every year, I celebrate the day in May that I came to Sweden. Choosing Umeå was very much due to my father having studied here in the 1970s. He lived at Fysikgränd, but thought it was too cold in Umeå and moved on to the UK, completed his studies and then moved back to Iran.”

Abrak Saati’s family came to Sweden at the beginning of the 1980s as several relatives still lived here.

“Umeå is a progressive city full of life. I’m a restless soul, but thanks to my work I get to see more of the world, one of those places is London, but also countries where I do field studies, such as Tunisia. I really like conducting research. It’s like laying a puzzle, often together with other researchers somewhere else in the world. I don’t think I’d be able to do research on just anything. I want to contribute to the greater good, even if I don’t have all the answers myself.”

**ABRAK SAATI SPENDS A LOT** of her time working, sometimes even too much.

“I’ve become better at finding that balance between work and spare time. You produce better results if your brain is allowed to recover sometimes. That’s why I exercise, it’s the best way of clearing my thoughts. It becomes even more important to exercise when you have bad moments at work, I find. It literally feels as if your brain expands after an intense training session. I used to go running, but I had problems with my feet. Now I bike, both on roads and indoors at IKSU.”

Also in her spare time, she is reminded and worried about the future of democracy.

“When I voted on election day, I saw families who brought their kids. A little girl was begging her dad to let her vote. ‘You can vote in twelve years,’ he answered. That made shills run down my spine thinking: will she really be able to vote when she grows up? And will it be a fair election?” ●

A day at the Head-teacher Training Programme

# Back to school



Peter Högstadius and Björn Ahlström at the Centre for Principal Development are packing to go to Piteå to meet participants in the Head-teacher Training Programme.

## A day at the Head-teacher Training Programme



▲ Björn Ahlström and Peter Högstadius meet head teachers from all over Sweden.



▲ Head teachers at the education in Piteå.



**Educations for school leaders such as head teachers and principals have long been offered at Umeå University. Since 2009, the Head-teacher Training Programme is a credit-awarding second-cycle programme.**

**TEXT:** Inger Nilsson **PHOTO:** Mattias Pettersson

**SIX INSTITUTIONS** of higher education offer the programme, but to cover for the needs across the nation, Umeå takes responsibility for Northern Norrland and Southern Götaland.

“Our organisation is the biggest out of the six higher education institutions that offer the programme,” says Helene Ärlestig, head of the Centre for Principal Development. “Counting all the 27 courses we are responsible for, all at various levels in their training, nearly 800 course participants are active this autumn.”

The course is offered over three years consisting of twelve course instances, two per term over two to three days of residential education. This means a lot of travelling for the teachers at the Head-teacher Training Programme at Umeå University, particularly since Skåne,

Blekinge, Öland, south Småland and south Halland are included in the catchment area.

“All higher education institutions weren’t allowed to offer the Head-teacher Training Programme,” says Peter Högstadius, lecturer at the Centre for Principal Development. “That’s why we also took care of regions in south Sweden.”

Beside Umeå University, the other universities offering the programme are University of Gothenburg, Karlstad University, Mid Sweden University, Stockholm University and Uppsala University.

**IF YOU WORK AS** a head teacher, and was hired after 15 March 2010, it is mandatory to take the programme, given that you haven’t previously taken an older version of the education. You must start the education within a year of taking your new role and you must complete

## FACTS

The Head-teacher Training Programme is an in-service training at academic level providing new insights, creating networks and starting processes for development. The studies cover 30 credits and three fields: school law and exercise of public authority, management by objectives and results, and educational leadership.

Teaching primarily takes place through two- to three-day-long sessions with overnight stays, individual work from home, and course literature. Head teachers need to devote around 20 per cent of their working hours to the education over three years. The training is a part of a head teacher's work assignment.

The objective of the training is for the participants to gain sufficient knowledge to

- take responsibility for students and children getting equal and legally certain education,
- create the conditions for goal attainment on individual and organisation level, and
- be responsible for developing the organisation as a whole.

Source: The Swedish National Agency for Education



▲ Team work is a part of the head-teacher training.



the education no later than four years after taking on your role as head teacher. To be accepted, you currently need to work as head teacher, be head of a preschool, or be deputy head teacher.

In the middle of all travelling, from Norrbotten in the North to Skåne in the South, Aktum spent a day with the Head-teacher Training Programme. In Piteå.

Peter Högstadius is process leader for a group and follows it from start to finish, while the subject expert Björn Ahlström is accompanied by different process leaders each time he meets a course group.

Peter Högstadius has also worked as head teacher, and his assignment at the programme has been twofold, first between 1990 and 2001, and now since 2012. He should perhaps have already retired, but he is needed as staff resources are scarce. Björn Ahlström has worked on the programme since 2011.

"I'm spending six weeks on the programme this academic year," says Björn Ahlström, who came to the course in Piteå as a subject expert for students on the third year of the programme.

The subject was 'Steering towards goals and results through systematic quality assurance procedures', and the participants, who travelled from Kiruna in the North to Lima in Dalarna in the South, participated in lectures and workshops.

**THE COURSES ARE OFTEN** offered in Umeå, but for this occasion, Björn Ahlström and Peter Högstadius took the car from outside the Department of Political Science, more specifically the Centre for Principal Development in Umeå, and travelled to Piteå. The three-day-course covered Tuesday to Thursday. ▶

## A day at the Head-teacher Training Programme



▲ Course participants share experiences from their schools.

All in all, there are 25-30 members of faculty and staff working with the Head-teacher Training Programme at Umeå University. They represent a number of occupational groups.

“It’s an interdisciplinary centre, but we’re understaffed,” says Helene Ärlestig hoping that more people will be interested in working with educational leadership issues. The programme is growing, at the same time, we’re in a generational change. We’re trying to find staff interested in leadership from other departments such as the departments of Education or Sociology.

**THERE’S A GREAT** turnover of head teachers, and hence they are scarce. This spring was the first time that the Swedish National Agency for Education received more applications to the Head-teacher Training Programme on a national scale than they were able to admit. For each term, the Swedish National Agency for Education has 550-700 applicants to distribute over the six universities.

“Not only head teachers at public schools can apply for the programme, it’s also open to private schools and adult education, which means more applicants,” says Björn Ahlström.

Among the head teachers in Piteå, a majority work at primary schools. But the rest

range from head teachers from preschool to adult education.

Schools register their applicants to the Swedish National Agency for Education who in turn distribute participants to the universities that have expressed their interest and been approved by the same agency. Universities get to register their interest every six years. Participants are expected to use 20 per cent of their working hours to complete the education. The Government pays for the universities’ costs related to the education whereas the schools pay for the participants’ salaries during the education. The schools also pay for travel and accommodation to course instances and course literature.

“I like this education and want to complete it even though I moved from the region,” says Karin Flygar. She worked in Tärnaby for ten years and has been head teacher for three years, but in December last year she moved back home to Lima. “It’s handy to learn more about law, not just the Education Act. I also like that lectures are mixed with teamwork.”

Annelie Lindgren Skjemstad is head teacher at the village schools in Näsåker and Resele in Sollefteå municipality and likes the fact that course participants come from different places, schools and stages.

“We sometimes visit other course participants at their schools to take a closer look at a particular decision they’ve made. Those types of exchanges are always interesting.”

**THE IDEA IS FOR** everyone to complete their training and file for their degree certificate after completing the twelve course instances. That’s why regular check ups in the form of examinations are made.

Although courses are offered all across Sweden, teachers do not travel every week. Twice per term, the teachers at the programme have travel-free weeks during which they plan practical details and discuss the content of the education. The idea is to reach equivalence in the education and a high minimum quality level.

“We also learn from these courses,” says Peter Högstadius. “We compile reviews after each meeting and perform a more in-depth survey after a year. We are open for discussion, without prestige. That’s a condition for high quality.”

“I learn something new at each new encounter,” Björn Ahlström agrees. “The course participants are the experts and can tell us about reality. They are our peephole into the schools.” ●

PHOTO: MATTIAS PETERSSON



# The market cannot control everything

*“For it is the combination of research and education that is the foundation of the modern university.”*

**IT'S NOT BEEN** long since the discussions at Swedish universities were focused on Massive Open Online Courses (MOOCs), which were expected to revolutionise universities' methods of teaching and also compete for students. According to the MOOC website, eight such courses were launched by Swedish universities this year, by Lund University and Chalmers, to be specific. So the revolution did not occur, but does it mean that it will not happen in the future? Nobody knows, of course, but the increasing digitisation and ideas of lifelong learning mean that there will also be expectations in the future that universities are engaged in flexible and distance-independent education.

**IN SUCH A CONTEXT**, one may wonder why students would select a course from Umeå University if the competitors have names like Harvard and Stanford. We can definitely compete with advanced IT education and high quality institutions, but at the same time, I believe that other universities can accomplish this as well. In my opinion, we also need to highlight what is unique with the University – such as the research carried out at departments, units and centres – even stronger than the university's education. In other words, I think that the starting point for education should not only be what the market demands, but above all what the university's researchers can offer in terms of research-based expertise.

**THE DIVISION BETWEEN** research and education in Sweden, which is responsible for the need of such discussions, has always surprised me and I think it is a major obstacle to raising education to a new level. For it is the combination of research and education that is the foundation of the modern university, which is sometimes associated with Humboldt's university ideal. This contrasts with prior university notions to educate students for an uncertain future by providing them with methods to solve advanced problems, rather than just looking back in time.

If the University's departments succeed in living up to such an ideal, we can deal with global competition by offering education in areas where there we have strong research. One can only hope that the Government Inquiry on Governance and Resources (Styr- och resursutredningen, STRUT) and future policy makers realise this and pave the way for greater integration of research and education, ultimately for the benefit of students and society. ●

**DIETER MÜLLER**  
**DEPUTY VICE-CHANCELLOR**

“Stories about 1968 often forget how much of the commitment was unpolitical and rather related to our way of interacting with each other and our fellow creatures. Protests and public opinion was just as much about building up as tearing down. Certainly, the period was characterised by both naivety and romanticising revolution, but the basis contained strong commitment and hopes for a better world both near and far away. What started as demonstrations against a reform in education ended with students taking seats in the democratic bodies of the universities. That's a legacy worth cherishing.”

**Heidi Hansson**, Deputy Vice-Chancellor



PHOTO: MATTIAS PETERSSON

**Read more in Swedish: [www.umu.se/sidan68](http://www.umu.se/sidan68)**



PHOTO: WIKIMEDIA

# Thanks, but no thanks!

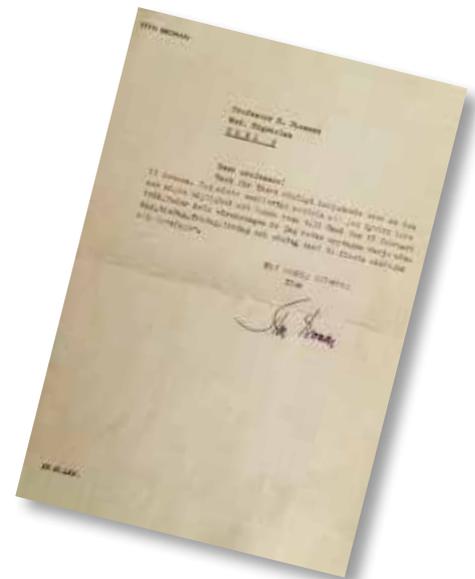
If Sten Broman (1902–1983) had lived today, he would have been called a music icon. He had no problem turning Umeå University down.

With his distinctive Scanian accent, his home-designed colourful suits, his musical know-how and his well-poised sarcasm made success in the Swedish TV shows he took part in. Even viewers that so far hadn't cared about classical music seemed to like him.

And no wonder Umeå's higher academic community yearned for him to act as an attraction for public events.

**THE RESPONSE FROM** Sten Broman, however, was frosty to say the least in his letter to Herman Diamant, ear specialist, professor and prominent liberal profile:

*“Mr Professor,  
Thank you for your invitation on 11 December. I must regretfully say that I have no opportunity to travel to Umeå on 17 February 1966. I am already otherwise engaged every Monday, Tuesday, Friday, Saturday and Sunday, as well as most Wednesdays and Thursdays.”*



A busy man, this Sten Broman. He probably didn't rate the new university city in the north very highly either. It could not be determined from the story whether or not Sten Broman had ever ventured north of Uppsala (where he was born). Neither if anyone made any further attempts to get him to Umeå. Probably not. But he sure would have attracted a good audience. ●

**MATS ROSIN**

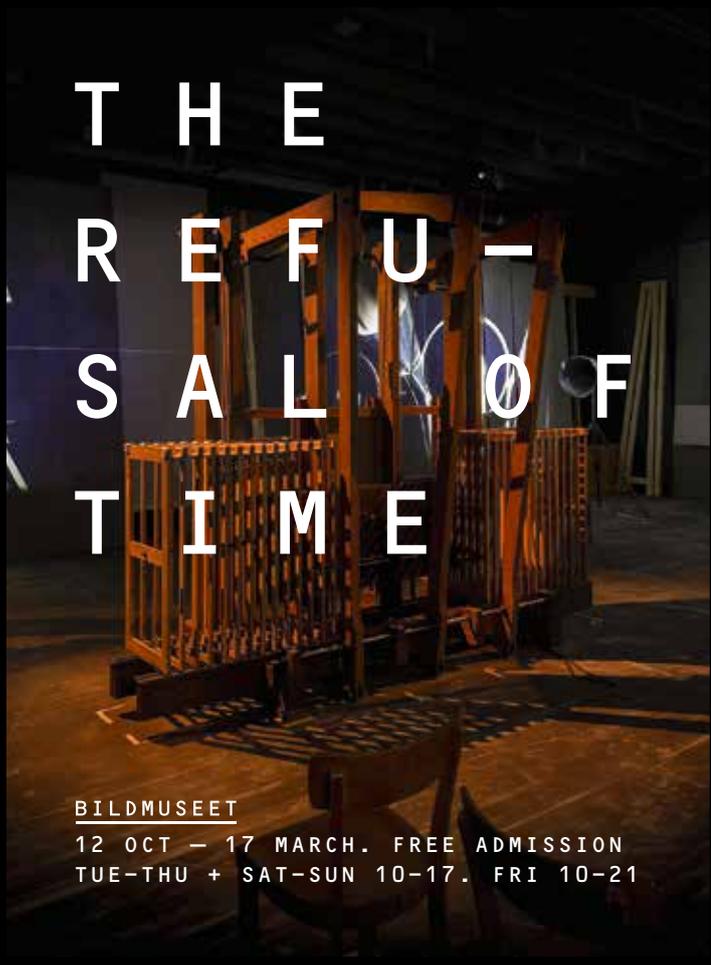


# EN- TAN- GLE

PHYSICS AND THE ARTISTIC IMAGINATION

BILDMUSEET

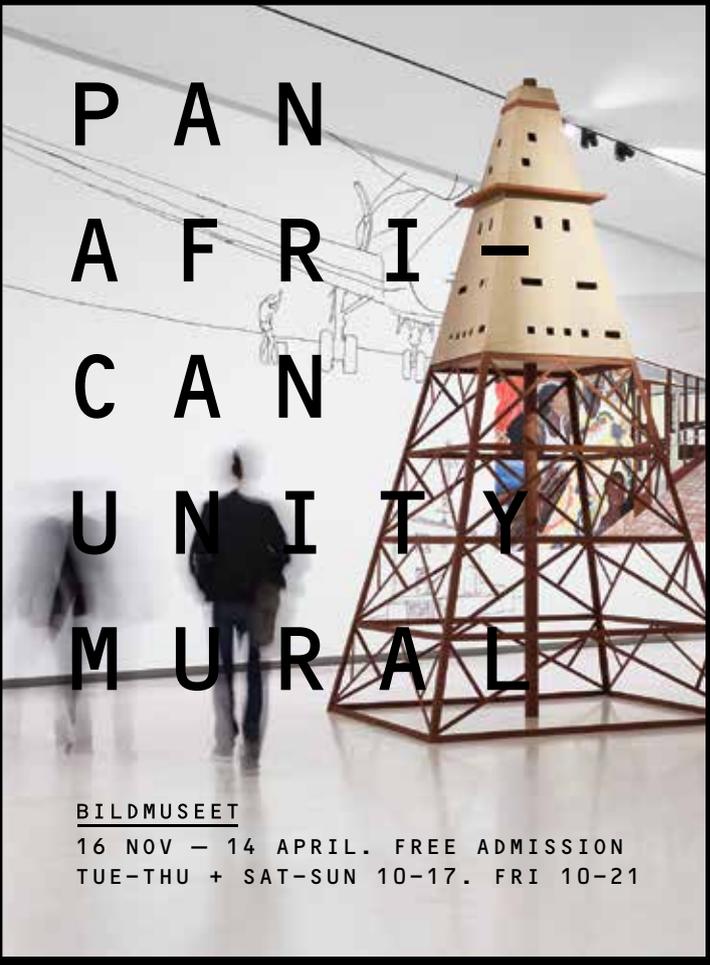
16 NOV – 14 APRIL 2019. FREE ADMISSION



# THE REFU- SAL OF TIME

BILDMUSEET

12 OCT – 17 MARCH. FREE ADMISSION  
TUE-THU + SAT-SUN 10-17. FRI 10-21



# PAN AFRI- CAN UNITY MURAL

BILDMUSEET

16 NOV – 14 APRIL. FREE ADMISSION  
TUE-THU + SAT-SUN 10-17. FRI 10-21



PHOTO: PER MELANDER

## *Learning ethics – a requirement*

**S**CANDALS OFTEN ARISE when personal gain and comfort is premised over fundamental ethical considerations. Paolo Macchiarini's trachea transplants at the Karolinska University Hospital have, of course, become a classic example in academia. Paolo Macchiarini had his employment and funding from Karolinska Institutet (KI) and was long defended by both representatives of KI and by The Lancet, where his results were published despite its flaws. With so many people involved, this shows system shortcomings that go way deeper than a single individual's character.

Some other recent scandals are the Volkswagen manipulation of car emission data, the comprehensive tax evasion and tax planning revealed in the Panama Papers, and Cambridge Analytica's unlawful harvesting of personal data and political manipulation. In Sweden, there will be no Nobel Prize in Literature awarded this year as a result of the Swedish Academy's passivity regarding financial misconduct and allegations of sexual assaults.

Scandals such as these tarnish the confidence in community institutes and social trust. This makes regular people more inclined to confer undue advantages and be less inclined out of solidarity to contribute to maintaining systems that in the long run benefit us all. Distrust in a political and financial elite in the long run leads to distrust in democracy as a social structure.

A potential remedy is education, particularly educating students that are deemed likely to hold future important positions in society. This is recommended by the international Poznan Declaration describing the causes and effects of corruption and how to counteract it. Two of the authors of the declaration are professors Lennart Levi and Bo Rothstein. In a DN Debate (31 October 2016) they encouraged Swedish higher education institutions to 'ethically secure' their educations by including case study-based ethics education.

**ETHICS TUITION CAN** be pursued in two ways. Firstly, people with relevant experiences and/or good character can reflect on tough situations that can arise in working life. Secondly, prevalent academic practice can be applied and taught by teachers with theoretical knowledge in the subject. An advantage of this approach is that the teacher can present and explain a wide array of theories about rights, obligations, responsibilities, risks and consequences, as well as analyse both theories and tangible cases based upon established methods in the research field.

Umeå University lacks correspondence to the mandatory ethics elements that are standard at KTH, for instance. We also lack equivalence to the centres of expertise on ethics that exist in other parts of the country. However, I'm one of a few philosophers studying and teaching ethics at courses and programmes in philosophy, and also at the teacher education and at the Medical Programme. Colleagues at Umeå University with influence over education should therefore take into consideration if ethics should be included in your educations, and if such tuition should be given by non-professionals or academic experts in the field. ●

**KALLE GRILL**

**Kalle Grill** is docent and senior lecturer of philosophy and director of the Bachelor Programme in Philosophy and Social Analysis.

Would you like  
to write an Aktum  
column?

Get in touch with the  
editorial board!  
aktum@umu.se