When Professor Christopher Redman of the University of Oxford landed at Tallinn Airport in Estonia’s capital city for the first time and headed for the university in Tartu, he was amazed to see 200 kilometres of motorway running mainly through fields and forests with such sparse habitation. Upon arriving in Estonia’s second biggest town, the university town of Tartu, he was beaming, as after the uninhabited nature he was welcomed by Tartu in all its beauty.

This experience is very characteristic of Estonia and relates a little of the chance to see untouched nature as well as city lights. Estonia has a unique landscape, of which 50% is covered by forest, and there are more than 1500 islands in the surrounding sea. We have four amazing seasons, and during the coldest period of winter it is possible to drive along the longest ice road in Europe, which runs for 24–27 kilometres.

In addition to beautiful and pristine nature, Estonia is a country of innovation. According the US journal Wired, the highest number of successful start-ups per capita is in Estonia. This is where the globally used Skype and revolutionary TransferWise, GrabCad, and Fortumo were created.

The Internet is so common in Estonia that most daily activities are done online. A total of 96% of income tax declarations are submitted online, where it takes only about 10 minutes, 98% of bank customers perform banking transactions digitally, and establishing your own company online takes only 20 minutes.

For more than 10 years the parliament here has been elected electronically, and Estonia was the first country in the world to issue e-residency and the Digi-ID digital identity card, which enables foreigners to use the same e-services that Estonians do from anywhere in the world.

Each town in Estonia is unique: Pärnu has a beautiful coastline, Viljandi is known as the centre of folklore, Tallinn is famous for its beautiful Old Town, Narva is known as the town on Europe’s eastern border, and Tartu is Estonia’s only student town and the centre of intellectual activity. However, all of these towns have something in common – the University of Tartu operates in each of them.

The centre of university life is Tartu, where in 1632 the Swedish King Gustav II Adolf founded the university. As the university buildings are spread around town, Tartu is one big campus. The students heading from one study building to another give the town its unique and youthful glow, which is appreciated by tourists, locals, and foreign students.

Did you know?

Estonia has had one of the world’s highest literacy rates for centuries. The literacy rate was already over 90% 100 years ago, and today it is 99.8%.
Old traditions and youthful student life come together in Tartu. Thousands of local and international students of several higher education institutions keep student life and the townscape vibrant. This is illustrated by a small walk around Tartu, where out of nearly 100,000 citizens every fifth person you see is a student.

More than a hundred higher education academic buildings make Tartu a large university campus. The furthest academic buildings are about three kilometres away from those in the town centre, but the compact town and good light-traffic roads make it quick and easy to move around on foot or by bike. Modern student dormitories are also a few minutes’ walk from the town centre and the best student events.

When the weather is warm you can see an impressive bicycle park and the bustle of students near the University Main Building. This is when student life gathers behind the Town Hall Square, in Pirogov Park, where students prepare for lectures, enjoy each other’s company, or have a small picnic and a few beers to take time off from studying. There are also unique cafes where students and lecturers love to come together for joint discussions and meetings during daytime and evenings.
There are nearly 60 student organisations and associations in Tartu, as well as culture and hobby societies which offer a chance for self-education, new acquaintances, and the opportunity to see student life from a new perspective.

Several student traditions make life in Tartu exciting. One of the most significant events is the great parade through the town, which takes place twice a year: on the anniversary of the national university on 1 December and on Walpurgis Night, when the mayor of Tartu hands over power to the students for one night and academic student organisations open their doors to all for a celebration.

The Tartu Autumn and Spring Days hold events across town, offering fun and entertainment to participants as well as onlookers. There is a boat race in which hundreds of students in costumes defy cold water and try to finish first, box-climbing, where the person to climb the highest tower of beer cases is the winner, the student extreme race through the town, a quiz series, jumping into River Emajõgi with self-made flying machines, and many other events.

Among other sights, the University of Tartu museums and historic study buildings offer a chance to broaden your cultural knowledge. In the attic of the Main Building is a lock-up, which was used in the 19th century to discipline students who broke the rules. The lock-up punishments lasted from one day to three weeks. Today, the lock-up is open to visitors. The University of Tartu Art Museum is the oldest and most unique museum in Estonia. This is the only museum of antique art in Estonia which has an authentic 19th-century Pompeian interior.
The University of Tartu is the birthplace and heart of higher education in Estonia. In the course of nearly four centuries it has become the driving force of Estonian academic spirit, culture and innovation, and the symbol of Estonian higher education.

The face of the University of Tartu is that of its students, researchers, and lecturers. Here are Estonia’s best students and educators who have the ambition to change the world in their field of work.

**Students soon realise that they will not only acquire book smarts but also necessary life skills. By the end of studies and student life, which are enriched with experience, we will have given our graduates extensive knowledge and valuable acquaintances across fields, and by including students in the management of the university we will provide them with leadership experience which will help the majority of graduates in Estonia succeed professionally in Estonia and abroad.**

The University of Tartu is an internationally renowned, strong research university where students and researchers have a study and research environment comparable to the world’s best universities. Thanks to world-class opportunities, several scientific discoveries have been initiated that serve the interest of the individual and society. These include the probiotic *lactobacillus fermentum ME–3* and the discovery of biomarkers associated with mortality, which will be valuable indicators in the future for assessing a person’s health and appointing the best treatment, representing a huge step forward in the development of personalised medicine.

**Our aim is to conduct research and develop cooperation which has global influence and will guide Estonia’s development. This is why we continue developing our infrastructure to be an innovative, practical, and value-adding research and development partner to enterprises in Estonia and other countries. University of Tartu researchers have, for example, developed the Fits.me virtual dressing room service. This Estonian start-up was purchased by one of the world’s largest e-commerce companies, Rakuten, which will continue to develop the enterprise also in Tartu. The photo studio and lab will remain in Tartu, and the university’s researchers will continue to contribute to its work.**

University of Tartu researchers are contributing to the construction of the world’s most powerful research facility, the European Spallation Source in Lund, Sweden. Our researchers were the first of all the partners to sign the agreement for development of neutron radiation research equipment. This ensures the continuous contribution of the university’s researchers to world-class science in various fields of research: materials science, technology, engineering, biochemistry, biomedicine, biology, and geology, but also applied and fundamental physics and chemistry.

**The strength of the university and results of our researchers are demonstrated by research cooperation with numerous research facilities from Europe to Asia, the University of Tartu’s position in the top 3% of the world’s best universities, and the high percentage of our researchers in the top 1% of the world’s most cited researchers.**

The university also fulfils its highly responsible role as Estonia’s national university. Behind the university’s six columns the wide world and Estonian home are strongly entwined, and, in addition to world-class education and research work, the university develops research about Estonia and its people, as well as Estonian language education.

**Did you know?**

University of Tartu campuses in Tartu, Tallinn, Narva, Pärnu, and Viljandi are introduced via a virtual tour, which is unique in Europe, at virtualtour.ut.ee.
Our researchers have participated in large-scale international research cooperation projects which have introduced the University of Tartu to the world. For example, our researchers have built a “Mars house” in cooperation with colleagues from France, Austria, Belgium, and the Czech Republic. This uniquely designed house unpacks itself within minutes and can be used in disaster areas or for research in extreme conditions. The first Mars house is a step towards a future in which it will be possible to send this packed house to Mars with a rocket, and people will be able to live on our neighbouring planet in it.

A few hundred metres from the centre of Tartu, at the Maarjamõisa site, is the university’s medicine and technology campus, where the university’s partners can use the laboratories and knowledge of researchers. The research conducted here includes, for example, the unique intervention technique developed for young drivers which will be used by the Mercedes-Benz Driving Academy chain in their US and Canadian driving schools.

Photo: Bruno Stuberauch
The University of Tartu is historically linked to many great figures of the world, either through research or diplomatic relations. Our goal is to be open to Estonian society and all our foreign guests by offering a chance to look back in history and an innovative look ahead to the future of Estonian education. We have hosted many royal heads of state, high officials from Europe and Asia, and the best intellectual, cultural, and sports figures.

In 2014, Crown Princess Victoria and Prince Daniel of Sweden visited the University of Tartu. Rector of the University of Tartu Volli Kalm presented the Crown Princess with a shawl made by UT Viljandi Culture Academy Lecturer Christi Kütt.

In addition to various university museums, Estonian culture is held high and introduced to the world by several internationally renowned University of Tartu choirs and folk dance groups whose concerts are popular in Estonia and abroad. They often come together on stage; thus, the University of Tartu choirs and dancers offered a cultural experience with a concert performance celebrating the 95th anniversary of the national university, which included a poetic visual production by students of the Viljandi Culture Academy.
A widening worldview, the ability to see beyond borders, and the desire to have an international influence drive the University of Tartu to aim higher. Thus, internationalisation is one of our main goals, which is fulfilled in all areas of the university’s activities, from study work to research and development of cooperation.

It is dedication and quality that have made us the only Baltic university among the top 3% of the world’s best universities for years (QS World University Rankings, Times Higher Education World University Ranking).

The University of Tartu’s influence is demonstrated by its vast network of foreign partners, with more than 70 partner universities from nearly 30 countries. These include the world’s top universities, such as the University of Helsinki, Moscow State University, Uppsala University, Lund University, Hokkaido University, and many others with whom we have active cooperation and student and researcher exchange programmes. Cooperation with top universities gives our students and staff the opportunity for self-improvement around the world.

Today, the University of Tartu is Estonia’s most international university, with researchers, lecturers, and students from all continents. People from India, China, Indonesia, Morocco, Germany, Turkey, USA, Italy, France, Georgia, and elsewhere bring world experience to Tartu and give the local students an opportunity to study in an international environment without leaving Estonia.

The growing number of English curricula in areas of priority to society brings more and more foreign students to Tartu every year. In this globalising world, we think it is only right to offer higher education in English as well, so that the new generation of ambitious young people can be competitive experts in their field, not only in Estonia but also on the international labour market.

The University of Tartu teaches beyond lecture halls and laboratories, as with MOOCs we have taken our quality of instruction to a new level. We are the first university in Estonia to develop free online courses similar to those primarily offered by the world’s top universities, such as Cambridge and Stanford. This is an excellent opportunity to study with the professors and lecturers of the University of Tartu anywhere in the world and receive a diploma from the University of Tartu without travelling to Estonia.

Did you know?

One of the most impressive population-based genetic data collections in the world is at the UT Estonian Genome Centre, which has collected health, lineage, and genetic data on nearly 52,000 Estonians. Among the top 1% of the world’s most cited universities and research institutions in 9 areas of research, the university also boasts 23 researchers among the top 1% of the world’s most cited researchers (Thomson Reuters Web of Science).
University of Tartu researchers organise hundreds of conferences every year to discuss topical issues and introduce the latest research results to international researchers. Each month representatives from international universities visit us and these meetings often grow into long-term and prolific cooperation. International guests and conferences are indicated by the flags waving in front of the University of Tartu Main Building.

When University of Tartu students sent the first Estonian satellite, EstCube-1, into Earth’s orbit, they confirmed that the University of Tartu provides access to the possibilities of the world. With this act, the students made Estonia the 41st space country in the world. ESTCube is a prime example of what students can achieve if lack of experience is compensated by great enthusiasm.

The ESTCube project yielded 29 bachelor and 19 master’s dissertations, 5 doctoral theses, and 4 start-ups, and became the basis for almost 20 research articles, as well as 53 presentations.

Our students have contributed to scientific discoveries for which patents are being sought. Students at Professor Alvo Aablo’s smart materials lab are developing artificial muscles, i.e. plastics which move under low electrical voltage. These so-called artificial muscles are three times faster than real snails and they have several potential applications, including space technology.

Doctoral students are involved in the process of developing gelatine scaffolds for skin cells. The aim of their research – performed in cooperation with materials scientists, doctors, cell biologists, physicists, and chemists – is to create materials with properties that enable full recovery of the damaged tissue when transplanted, such as in the case of large burns, and which can be used to grow the complete tissue in the laboratory using healthy cells from the patient’s own body.
Studies and research at the University of Tartu take place in four faculties: the Faculty of Arts and Humanities, Faculty of Social Sciences, Faculty of Medicine, and Faculty of Science and Technology.

This is the meeting point for active students from Estonia and abroad who have diverse backgrounds and the wish to change society. At their *alma mater*, students meet lecturers and researchers, incl. international researchers, who are opinion leaders in society, role models, and discoverers, and whose research work is considered significant all over the world.

Each person’s experience with the University of Tartu is unique, which is why you need to experience it yourself and create your own connection to the university.

**Did you know?**

UT has more than 3400 employees, incl. 1700 academic staff, of which 206 are professors, 13 500 students, more than 1000 international (visiting) students, and nearly 1300 doctoral students. University of Tartu is the biggest in-service training provider in Estonia. There are more than 1600 in-service training courses with more than 35 000 students a year.
The software engineering professorship I currently hold was created in 2007 thanks to a EUR 400 000 donation by Swedbank. To this date, it remains the only privately funded professorship in Estonia.

But let’s start from the beginning. My wife is Estonian, so the idea of coming to Estonia was somehow natural. But this was not the main reason per se for moving to Tartu. I was happily settled at Queensland University of Technology in Brisbane, Australia, and on my way to securing a professorship back there. However, I felt that in Brisbane I was poised to be the next “shopkeeper”, that my main responsibility would be to maintain and incrementally improve an already established academic capacity.

When I learned about Swedbank’s software engineering professorship, I was tempted by the idea of coming to a place where the research capacity needed to be built from scratch. A place where I would have the possibility to start new curricula and to revamp existing ones. A place where I could develop links with young and growing IT companies. All of those possibilities seemed so exciting. And in retrospect I can say that it has indeed been very exciting.

I appreciate the ambition of Head of the Institute of Computer Science Jaak Vilo, with whom we share the ultimate goal of making our institute one of the top computer science departments in Europe. We might not get there in our lifetime, but this is the kind of ambition that keeps me awake. And sharing this ambition with others keeps me motivated.

Looking back, I can say we have made a lot of progress at our institute, especially with respect to internationalisation. We have gone from two international students in 2008 to more than 100 today. We have gone from two international staff to nearly 25. We have gone from not having any research groups with a significant international projection to having about a half a dozen of them today. I can safely assert that our research capacity is now comparable to that of computer science departments at mid-tier universities in Western Europe. The challenge now is how to become a top computer science department.

Internationalisation is a means to increase quality. It creates competition, thus motivating students to give their best. Internationalisation also enriches the learning environment by bringing in people with diverse viewpoints and experience. It allows students to create connections that can be very useful in their careers. And internationalisation increases the value of our graduates in the job market, as it allows them to be competitive not only in Estonia but also abroad.

Some may say that the latter is a disadvantage, as some graduates might find jobs abroad and leave. This argument, however, is easily dismissed. If we can produce more valuable employees for the worldwide market, we are also producing more valuable employees for Estonian companies. It is up to the Estonian companies to pick up the challenge of retaining this internationally valuable talent in order to become more competitive in the globalised world in which we live.
Truth be told, my older brother visited Tallinn some years ago and spontaneously told me to check out the universities in Estonia. I seldom tell this story because it is a boring one. Before that, the few times I had heard anything related to Estonia were about individuals such as Baruto, Mart Poom, and Gerd Kanter. Funnily enough, I knew roughly that Estonia was in the Baltic Sea region, but I was not entirely sure of the country’s exact location.

Why UT? It was a no-brainer for me, as the University of Tartu is the highest-ranked university not only in Estonia but in the Baltic Sea region as well. Tartu’s reputation as a student town was nonetheless interesting to me, as life in the capital does not interest me at all since I come from one of the busiest cosmopolitan metropolises in the world. Subsequently, I went ahead with my application, which was a cakewalk, and was accepted pretty quickly. I encountered no complications or bureaucratic hassles.

The environment was completely new and I have to admit that I took a while to adjust. To name a few reasons, these included a completely different language that sounded like Elvish to me, a homogenous society, and classmates that came from entirely different backgrounds, especially those from the post-Soviet states. It really is not that difficult to adapt to the environment.

There are essentially two affiliated bodies at UT that help you adjust in Tartu: the Erasmus Student Network (ESN) and the University of Tartu’s International Student Ambassadors. I am a member of the latter, which promotes internationalism and multiculturalism by contributing blog articles and organising several events annually.

One of the praiseworthy things here is that classes are considerably small. Cramming into a lecture hall with hundreds of students is uncommon, at least for the international students. The classes usually accommodate 25 to 30 students, and hence Q&A sessions are quite common. This is definitely a win.

I have a few words of advice for employment opportunities after graduation and these are: make contacts, expand your network, be a likeable person, and be proactive in purposeful clubs, events, and competitions. Your chances are definitely better if you come from an IT background; nevertheless, if you devote your time to the right kind of people and activities, opportunities will find you.

The University of Tartu is not your typical run-of-the-mill academic institution. It is a down-to-earth intimate university which tries its best to be your friend instead of a bureaucratic stumbling block. At the end of the day, I feel justified in choosing the University of Tartu.

KEN SABURI
International Student Ambassador from Singapore
Alumnus of the School of Economics and Business Administration
I am an ethnologist. My job is to travel and exchange ideas with people. I go to Siberia and northern Russia and notice what troubles people, what makes them laugh, and what they think is the meaning of life. To be honest, it is strange even to call it a job. I roam around with hunters in the swamps and thick forests, and at night in the hunting cabin I can listen for hours to their fascinating, deep stories which occasionally include some truth. I am lying in my bed, the fire is crackling in the fireplace, and I simply take in the wisdom of the indigenous people. But I believe this is an active way of quenching my thirst for knowledge.

Researchers of the arts and humanities are often engaged in things that many do not even consider to be science. For example, the work of my colleagues might include reading, going to the theatre, watching films, listening to music, or playing computer games. Many humanitarians have replaced travel with spiritual pleasures and reflection, trying to gather knowledge in this metaphorical way.

However, academic life is not only about pleasure. For me, research work is responsible liberty. I have always been able to choose my own research topics. This does not mean that I only work on something that I happen upon randomly or something that just pops into my mind.

Intellectual excitement and society’s needs meet naturally in good humanities research. There are important issues and exciting questions everywhere – you need to notice them and find the answers. Many political and economic, regional, and global problems have a cultural background and an understanding of that might help discover clever solutions.

The arts and humanities combine cultural specialties, international thinking traditions, and people’s everyday fantasies. It is not possible to understand Estonia without comprehending the whole world; it is impossible to understand a nation without the individual. This field of research brings together the universality of thinking and the singularity of human experience. Travelling the world, reading books, or watching television can all help us understand in their own way the similarities and differences between people and cultures.

Culture is never simple, nor is its development determined. A cultural researcher must always be prepared to turn astonished into understanding. Such sincere comprehension helps to stand up for minorities and the weak. This goal might seem too general and vague – fighting for tolerance and understanding. But the fundamentality of intolerance which arises from misunderstanding sometimes occurs very easily, explicitly, and sharply. Understanding small things can help expand harmony between all people.
When I finished high school I was not entirely sure which field of study I would like to specialise in: for a long time I considered biology, but at the same time I was interested in languages and cultures. In order to figure things out and break the routine, I did not go to university right away and instead moved to Portugal for a year to work as a volunteer. While living in a multicultural environment I realised that linguistics was the right field for me – all I had to do now was find the right specialty. This, as it turned out, was classical philology.

Truth be told, the choice was somewhat unexpected, as I had never considered studying Latin and ancient Greek. But the mystery of the languages, the ancient aura of antiquity, and the literature and mythology which influenced the entire European culture suddenly seemed so fascinating and studying them so necessary that learning any other European language without knowing the antique seemed impossible.

During my studies I have come to the conclusion that I made the right choice. Reading, translating, and analysing texts might seem tedious, but there is actually much more to my studies, starting with the interesting knowledge about law, history, habits, beliefs, and nature that the texts which are thousands of years old might hold.

We also learn outside the classroom: there are study trips – in 2014 we visited Rome, in 2015 Copenhagen – which give a practical dimension to the knowledge gained in lectures. Some projects that I have found interesting were the Researchers’ Night at the University of Tartu Art Museum, where I introduced the health tips of ancient Greece while surrounded by copies of antique sculptures, and various conferences which I have helped organise.

Third-year students get more practical training, as they are given the position of teaching assistants who give practice lessons to freshmen. This gives students the chance to test and develop their teaching skills. Starting from autumn 2015 I am a teaching assistant of ancient Greek language. This opportunity makes me quite excited.

In my last year of bachelor’s studies I am also a tutor outside studies. I mostly help international visiting students who have decided to spend part of their studies in Tartu. Since my time in Portugal I have been more interested in meeting people of different nationalities, and tutoring is a great opportunity to meet students from all over the world and at the same time make their life in Tartu easier.

The first step has been made, and the positive energy I get is invaluable. When new friends keep thanking you for helping them find the way to the dormitory, recommending a good store for necessities, answering their questions and solving problems, this feeling is the best reward.
I graduated from the Paediatrics Department in the Faculty of Medicine at the University of Tartu in 1978. After a one-year residency at the Tallinn Children’s Hospital, I became a paediatrician. I worked as a paediatrician in Võru and Tartu, and later in life I worked in the field of clinical research in England at the pharmaceutical company Pfizer.

Life itself led me to research work. While working as a paediatrician, I realised how many problems there are which we cannot explain and do not know the answers to. Patients were not left untreated because of this, but I was not satisfied with treating one disease this way and another that way because that was how it has always been done. I wanted an answer to the question why we do it that way.

In 1995 I defended my doctoral thesis at the University of Tartu, and for my post-doctoral studies I went to the United States of America. Since then my research has been closely related to clinical trials and primarily pharmacokinetic and dynamic studies. Along with great, enthusiastic co-workers from Estonia and abroad, we have tried to figure out how to use the existing medications in an optimal way in a situation wherein the antibiotic resistance of bacteria is increasing and the number of new antibiotics is decreasing.

We have described the pharmacokinetics of various antimicrobial medications and proposed the most suitable treatments for different patient groups. We have first and foremost been interested in those patients who do not usually participate in the trials of pharmaceutical companies, such as children or patients who need intensive care. This research has helped us understand what kinds of factors influence how antibiotics and other medications react in the body and how children differ from adults in this respect.

I sincerely hope that in the more distant future our knowledge of how medications act in the body and affect the body is sufficient enough to simulate the kinetics of medication with computers and by that significantly decrease the need to conduct human trials. We still have a long way to go, because there are too many things that we do not know or understand yet. This is one of the bittersweet aspects of science – the more you find out, the more you realise how little you actually know.

Modern medical research is international teamwork. Research has introduced me and my colleagues in the medical sciences to extremely intelligent, interesting specialists with thorough knowledge of their field from all over the world. In today’s Internet age it is possible to discuss matters with researchers from New Zealand, America, and Europe at the same time. The skill to communicate with people from different cultures and have a reasoned discussion about your viewpoints is essential for researchers of today. I believe this is what has taken the University of Tartu’s Faculty to the top 1% of the most cited universities in the research field.

The importance of clinical research in medical science must not be underestimated. No matter how important the disease mechanism or human gene discovered in the laboratory is, it is not possible to use it to treat patients before clinical trials have been conducted. It is in clinical trials where a small country like Estonia can participate successfully – we have an excellent medical system.
I came to study medicine at the University of Tartu because I wanted to challenge myself in a highly competitive specialisation while remaining loyal to my hometown for a few more years. I dismissed the alternative choice – law – after I had talked to a few doctors and lawyers about their everyday work. At that moment I felt that medicine was more suitable for me.

Five years later I am working and doing my practical training as an assistant doctor in the emergency medicine department at Rakvere Hospital. I am happy with my choice. I feel I have studied something practical – the acquired knowledge allows me to participate in treating patients as a member of the treatment team. When I am inspecting the stomach I am reminded of my practical training in anatomy, instructing nurses reminds me of the pharmacology lectures, and when I talk to family and close ones on the phone I recall the communicational psychology seminars.

In addition to sharing theoretical knowledge, the lecturers at the Faculty of Medicine are open to the students’ initiative and wish for a hands-on approach. So, under the watchful eye of my supervisors, I have taken part in an autopsy, arterial and intravenous cannulation, touched a freshly removed gall bladder, and calculated the fluid balance of patients in the intensive care unit.

They say you might get what you wish for. So I asked my coursemate who was involved in research whether I could be a helping hand in the laboratory. A week later I was already extracting RNA from blood samples. A year later I made a poster presentation at a conference for specialists. When you read scientific articles and delve deeper into a narrower topic – for a research paper or essay – it is easy to find yourself at the limits of human knowledge. From there on you get curious – perhaps I could be the one to expand these borders one day.

I have been socially active since high school. Thus, it was natural that already in my first year I joined the student council of the Faculty of Medicine. I am currently chair of the organisation for the third year. Representation duties have taken me to the ministry, front page of the newspaper, professors’ offices, and public debates. But the thing I value the most is the acquaintances – companions-in-arms for life. Together we can change quite a few things.

I am glad that in a few years I will be graduating from the University of Tartu’s Faculty of Medicine. In addition to practical studies with clear results, there is a challenge here for everyone, whether in research, civil society or practical training – there are never enough good fighters on the battlefront.
I am a geographer who studies how the contemporary spatially and socially mobile society functions. My research is based on datasets received from mobile phones. This is an innovative method which creates fear in many people in relation to surveillance and privacy, but in fact mobile data does not infringe the privacy of individuals more than the data from a census or surveys. Mobile data is just psychologically more complicated.

Studying the information society is very topical in geography. Information technology has developed rapidly, which is why human behaviour has changed in many aspects, as have political, economic, and administrative consequences. The development of information and communication technology has also changed the geography of human activities, such as the concept of distance and proximity, where distant things might become close in the “digital networks” and geographically closer might become distant.

In the early years of the Internet, theorists believed that the development of ICT would decrease travel, because in order to communicate, people would no longer have to meet each other. Today, mobility studies reveal the opposite – people who communicate more travel more. It is quite clear that it is now impossible to comprehend, plan, and manage society without knowing the rules of how the information society functions.

The latest application in my research is the “smart city”. The concept of the smart city tries to create a thought-out and well-planned society where new technologies and innovation models help to organise life in a reasonable and environmentally friendly manner. The mobile phones we study are the sensors for the smart city, and one of the partners for development of our sensor is, for example, Eurostat.

Mobile-based behavioural data enables us to organise the logistics of an individualising society.

In my field of research, interdisciplinary cooperation is essential, and thus social science, computer science, and natural science are all represented and work together in our mobility lab. Together we are able to do things which would not be possible within one field alone. For example, we are developing the smartphone-based software YouSense, which helps explain how a person’s spatial behaviour depends on genes.

I have learned a lot myself from my eight-year “mobile digital footprint”, such as how boring and routine an ordinary work week can be: work–home, work–home, shop, school, work–home… This makes you want to break the routine and do something interesting every day.

The mobile track also gives a good overview of trips abroad. In my case it turns out that I have travelled too much and in too many countries – also at the expense of my family – as this is the life of a geographer. This is how material gathered for research also helps to see oneself from a distance and improve, and this is, after all, one of the broader goals of science.
As the daughter and grandchild of University of Tartu graduates I have heard stories of Tartu – the magical student town – since I was very little. When I visited my grandparents in Tartu as a small girl and walked around the town I realised that in the future this town must have a place in my life.

Therefore, choosing the university was easy. My interest in the scientist’s profession and respect for humankind and nature brought me to biology. Through a child’s eyes, scientists always seemed to be able do-gooders who knew everything about everything. I remember that whenever I was asked to write what I wanted to be when I grew up, my answer was: “a natural scientist”.

After applying, I had to choose whether to study gene technology or biology. Biology was more appealing, as there are many cool field practices and practical classes, and there is more emphasis on learning about nature. The decision was also easier because the curriculum overlaps with the curriculum of gene technology, so I knew it would not be a problem to continue in that field for master’s studies.

I believed that in addition to the laboratory, a true scientist has to know some things about nature as well, and biologists are those who can do field work outside and conduct tests in laboratories. It is no problem to go chase bats at night and find a diagnostic method for a women’s disease during daytime.

I did not regret my choice. As it turned out, in addition to awesome summer practices, biologists as people are a crazy bunch in the best sense, of course. Freshmen alone have plenty of interesting and unique events in their first autumn semester which create community spirit. There have always been biology students who also take responsibility for university-wide matters.

I am also one of those who in addition to studies contributes to student organisations. My personal development has been greatly affected by the Student Council, Travelling Biolab, and the Bioscience Students’ Association.

The popular scientific Travelling Biolab helped me gain a better understanding of my specialisation and demonstrate how great it is in high schools. The Student Council helped me comprehend the general organisation of the university and explain the problems in the context of my curriculum. Among many other things, the Bioscience Students’ Association gave me a chance to learn team management and event planning as head of the team for popularising science.

When I presented at high schools, I developed my presentation and communication skills. In addition, each organisation provided me with numerous acquaintances which will be useful in all aspects of life. I believe that in addition to the choice of specialisation, joining these organisations was the second good choice I made in my university life.

The University of Tartu is a place of opportunities, and it has immense potential to develop people. There are so many inspiring people everywhere in the university who constantly encourage you. All you need to do is get out there and take what you can from the spirit of Tartu.
I graduated in sociology at the University of Tartu, defended my master’s thesis in media studies at the University of Oslo, and my doctoral thesis in sociology in Tartu again. For my post-doctoral studies I was at the Institute for Advanced Studies in the Humanities at the University of Edinburgh. I was Professor of Media Studies for five years at my alma mater, and since 2015 I hold a professorship of sociology. I can consider myself a social scientist with a broad profile and diverse (international) experience.

The social sciences as a whole can be described as broad-based. Diversification of research topics, finding new niches, and the quick growth of internationalisation have been the development trends of recent years. The changes and acceleration of social life caused by the rapid development of technology have an especially strong effect on social sciences.

It goes without saying that compared to antique history or geology, for example, the research objects in social sciences change remarkably faster. But how fast? And what does this mean for researchers? A good example is the international EU Kids Online project, which studies children’s Internet use habits and the related opportunities and risks. The research group of the University of Tartu’s Institute of Social Studies is also involved in the project. The project team cooperates successfully with students who help gather and analyse data and cover the topics related to the project in their graduation or doctoral theses.

Because data in the field of new media expire extremely fast, the report on the EU Kids Online project results had to be written during the period when the survey comprising children and their parents from 25 European countries was still underway. So while data was being collected, the report structure was drafted, analysis commands were written in the statistics program, and tables and figures were designed which were then filled with numbers immediately when the data arrived.

The results of the survey and corresponding recommendations were eagerly anticipated by policy makers, ICT enterprises, journalists, teachers, parents, and other stakeholders. This in turn means that in addition to scientific articles, books, and presentations, researchers need to communicate their results in general media. Some of us blog and/or “tweet” about our research results – all for the dialogue with society to be as quick, immediate, and efficient as possible.

It is also characteristic of the social sciences that a notable part of the research is done at society’s direct request, such as when researchers respond to the European Union or Estonian institutions’ project calls or offers from entrepreneurs.

By making recommendations based on the research results we can in some way influence social reality and further research directions. All of the above makes the life of a social scientist responsible and intense but tremendously exciting.
LIINA HIRV
Student of Law

After finishing high school, I took a year off even though it seemed a risky move to me and my close ones – you never know if you want to continue studying. I went through with it because I had a specific challenge for the year. At the time I had been elected to lead the Estonian School Student Councils’ Union, and, to be honest, I was not quite sure what I wanted to study either.

During the year I figured it out. As I was involved with representing the students’ opinions in legislative processes, I realised how important it was to have knowledge about the legal system, how many hidden nuances there are, and how much it actually regulates our lives. Thus, I decided to study at the University of Tartu’s School of Law.

The first lesson – probably in every specialty – is acquiring the skill to study. What does it really mean to study by yourself so that you are not just memorising the given material but you understand what is taught and you learn to doubt and question? If at first the general introductory subjects might have seemed boring, they actually helped to systematise the material and see the bigger picture.

Everything that future law students imagine and expect from their studies comes after that: specialised subjects, cases, court visits, and international moot courts where students of the School of Law have won top places for Estonia and thus demonstrated the quality of university studies.

Personal motivation determines a lot in your studies – why one or the other specialty is chosen and what the aim of the studies is. Law is quite a prestigious field of study, and often people make their choice based on economic reasons. However, it seems to me that two types of students are successful: those who are very ambitious or those with a very strong sense of mission. Both traits are formed after you have had a closer look at this world. This belief is the reason I participated in the University of Tartu’s student shadow programme to take interested high-school students with me to university for a day and show them the different sides of studying law.

In my first semester I joined the European Law Students’ Association, which gave me my first professional community. We organised several professional events together and got to know the everyday work of those who practise law. This experience helped me adjust to university life: for example, I met law students from other years who told me what to expect and how to make better progress in my studies. In the second semester I decided it was time to contribute to the general development of the university and quality of studies, and I ran for member of the Student Council and the board of the Student Council. It was definitely an important experience and an opportunity to contribute to the development of studies and the university as a whole.

Looking back, I think that university life is exactly what you make of it. For me it was very diverse: I feel I have gained a lot – not only academically – and I believe I have given back to the university in return. The University of Tartu and its student body enable you to do all of this and perhaps a bit more so than anywhere else.
There are no spheres of life without University of Tartu alumni. The university alumni comprise 99% of Estonian doctors, dentists, and pharmacists, 40% of the members of the parliament, 60% of the ministers in the government, 87% of the Estonian Bar Association, 100% of judges, and 95% of prosecutors.

A diploma to certify the quality of studies and the enterprising spirit gained from the university support them in establishing their own companies as well as advancing in their career – this is why 83% of the University of Tartu master’s studies graduates are leaders and experts in Estonia and abroad. We have a great number of alumni, more than 70 000, and nearly all of them can name a fellow student from their studies who is today a leader and decision maker.

Their successful careers have not made our graduates forget their alma mater. Many of them support current students by sharing their personal experience through practical training or mentoring programmes.

For example, after a long career at the European Commission and the experience acquired there, Siim Kallas has found his way back to the University of Tartu to teach as a visiting professor at the School of Economics and Business Administration, where he gives lectures on international finance and modern problems in the public and private sector.

Top Estonian entrepreneur Kuldar Leis has also joined us in developing the university’s entrepreneurship.

We connect our alumni through a social network unique to Estonia which can be found at utalumni.ee.

With this we wish to emphasise the exclusivity of our graduate community, create more active graduates already during the students’ studies, and promote multilateral interaction and cooperation between students, graduates, and the university.

Through the site, graduates can find their former schoolmates, have a say in the university life, and keep posted with the most important events at their alma mater.

Did you know?

The university reputation survey by TNS Emor verified that for the seventh year now the most reputable university in Estonia is the University of Tartu.
The University of Tartu hosts a number of traditional events, where alumni love to participate and see the new generation of students. Once a year, we invite the alumni to participate in a golf tournament for the University of Tartu Rector’s Cup and an exciting tennis tournament.

The Career Café is a chance for alumni to share their experience from their career and life after receiving a diploma from the University of Tartu with students. With this event we want to support the students’ awareness about career planning, broaden their understanding of career options, and encourage entrepreneurship. The guests of these inspiring career cafés are graduates of the university with varied learning and work experience, including well-known cultural figures, politicians, sportspeople, and entrepreneurs. One of the first guests of the Career Café was graduate of the School of Law and member of the European Parliament Kaja Kallas.

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The author of the lithography “Bygone Times” (1972) is one of the most interesting abstract artists in Estonian art, Endel Kõks (1912–1983), a former student of philosophy and psychology at the University of Tartu. He emigrated from Estonia due to the war in 1944.
My initial plan was to study philosophy at the University of Tartu after high school, but my brother convinced me to study mathematics, of which my knowledge was above average. During my first year of bachelor’s studies I “killed time” by studying and took many second-year subjects. So at one point I was able to focus more on enjoying university life, for which Tartu, as the student town, is the best place in Estonia.

In my master’s studies I specialised in computer science, as I felt that I worked well with computers too. There I met Professor of Bioinformatics Jaak Vilo. I remained in his workgroup and additionally studied molecular biology, statistics, and new methods for researching the human genome.

From the knowledge gained at the university I value most the capability for analytical thinking and the skill to handle problems systematically, which both developed during master’s studies. This has a lot to do with the University of Tartu’s world-class lecturers, who managed to make even otherwise dry subjects interesting.

After master’s studies, my job counselling banks at PricewaterhouseCoopers, and working together with Professor Vilo at EGeen, I realised that my work and projects in Estonia had been exhausted. As the University of Tartu diploma is valued all over the world and my work experience gained in Estonia was diverse and vast, I applied for a job in London, and in 2007 I started working at Deloitte, a consultation company whose clients include Europe’s major banks and insurance companies.

The next 4–5 years of my life were that of a typical London city worker – long workdays – and during one week I travelled to at least three different corners of the world to solve problems for clients. This was a very interesting period that gave me an opportunity to learn a lot and see how companies which are big on the global level have managed to grow so big, as well as what problems have come along with it. But this also came to an end.

I did not have to look far for a new challenge, as the whole concept of TransferWise emerged from real-life needs. When I moved to England, created a bank account, and made transactions, I had to admit that these were outdated processes where transfers were expensive and customer-hostile. The rest is history.

Through all this, the University of Tartu was the first milestone in my professional development. The University of Tartu’s education, analytical thinking, and scientific research methods, to be more precise, come in handy every day as I am developing TransferWise.
In 2011 our graduate Kristo Käärmann and Taavet Hinrikus founded the global online money exchange and transfer service TransferWise, which was announced the best e-service of 2013 in Estonia and also won the Best MiddleWeight Startup Award at the European Tech Startup Awards.

In 2014 Richard Branson, a renowned British entrepreneur, invested in TransferWise. In the same year TransferWise was given the Financial Times’ Boldness in Business Award, which has previously been awarded to major companies such as Twitter, Apple, and Google. In June 2015 they received the title for best startup founders at the European Tech Awards. Since Skype, no other Estonian enterprise has been as successful in the tech world as TransferWise.
Faculty of Arts and Humanities

- Three of the faculty’s specialisations are represented in the QS World University Rankings by Subject (2015): philosophy (placed 151–200), English language and literature (201–250) and modern languages (251–300).

- The traditions of the Tartu-Moscow semiotic school formed and led in the 1960s by Juri Lotman continue here.

- The College of Foreign Languages and Cultures is the only institution in Estonia that provides intensive study of the 25 most important European languages.

- Archaeologists are carrying out an archaeological study which is the largest in Estonia in the past decades, and is mapping the route of Rail Baltica – the railway connecting the Baltic states.

- Each academic year, an outstanding person from the Estonian cultural sphere is given the title of Visiting Professor of Liberal Arts in order to use their creation and cultural activity to develop the spirituality and creativity of university members and non-credit students. The position has also been held by world-famous composer Arvo Pärt.

Faculty of Social Sciences

- Communication and media studies is the highest ranking (101–150) University of Tartu specialisation in the QS World University Rankings by Subject (2015) for the third year now.

- University of Tartu law students are the only ones in Estonia who have made it to the regional finals of the European Union law and European Human Rights international moot court competitions.

- The Vega Fund is created by the Faculty of Economics and Business Administration’s Idea Lab and SEB bank to finance students’ knowledge-extensive ideas with up to 50 000 euros every year. Among others, they have supported teams who discovered a way to use sweat to assess the efficiency of a sportperson’s training session and developed an automatic control tool for music teachers based on mathematical algorithms. Thanks to a cooperation partner from the USA, the tool will reach markets all over the world.

- Education scientists are leading projects that promote innovative studies in Estonia. For example, the Quantum Spin-Off project took nanotechnology, the entrepreneurship of modern science, and high technology to students in general schools. In the course of the projects, students were introduced to nanotechnology topics, incl. the making of artificial muscles and manipulating nanoparticles.

- For three years in a row, Andres Kuusk, research fellow at the School of Economics and Business Administration, has won the Mind Sports Olympiads world championship. In the women’s league, student Madli Mirme was world champion in 2014.
Faculty of Medicine

- Sterilised rubber gloves and the plaster cast were first put into use at the University of Tartu, which was an international centre for medical education and research already in the 19th century. Several medical research fields such as comparative and descriptive embryology have developed here, and the world’s first pharmacology laboratory was opened here.

- Studies and research are conducted in a climate lab which is one of a kind in the Baltic states, and where people’s endurance in various climate conditions, incl. desert heat, is researched.

- In conjunction with New York scientists, University of Tartu scientists received a 2.5-million-dollar research grant from the prestigious Avant-Garde Awards to evaluate the efficiency of intervention methods for preventing the injection of drugs. The research is conducted in New York and Tallinn.

- In 2014, in cooperation with the French developing partner VF Bioscience, the probiotic ME-3 was added to Reg’Activ food supplements which lower the cholesterol level. The capsules are sold in pharmacies in Estonia, France, Belgium, Denmark, the Philippines, and since March 2015 also in the USA.

Faculty of Science and Technology

- In cooperation with the German Aerospace Centre and Estonian farmers, researchers are developing a new method to measure crop and grass height from a satellite. The German Aerospace Centre’s TanDEM-X satellite can measure height from 700 km in space with an accuracy of about 10 cm.

- Entrepreneurial students of the faculty are promoting resource-efficient thinking at the University of Tartu. As part of the “Take It from the Tap” project, students are installing 40 tall faucets in academic buildings to make filling bottles with tap water more convenient. The “Environmentally Friendly Gym” project is installing 10 exercise devices in the university’s sports building. Training on the machines produces electricity for the gym’s sound system and lighting.

- In the first half of the 19th century, long-time Director of the Tartu Old Observatory Professor Friedrich Georg Wilhelm Struve measured the longest meridian arc, which helped determine the shape and size of the Earth. The Russian-Scandinavian arc measurement known as the Struve Geodetic Arc is in the UNESCO World Heritage List. Struve was one of the first in the world to measure distances between stars.

- University of Tartu researchers are developing an innovative laundry-washing system which would enable one to do laundry without washing powder and which would decrease water contamination. This idea earned the Estonian team 3rd place among 700 teams at Europe’s largest cleantech business idea competition, Climate-Launchpad 2015.