MORE THAN A PROJECT
Media Design student Isabel Wagner made a short documentary about the war in the Ukraine. In the film, she tells very personal stories.
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MORE THAN JUST A ROOM
How RWU graduate Johannes Rupfle discovered a previously unknown chamber in the world's most famous tomb.
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THE MAGAZINE OF THE RAVENBURG-WEINGAREN UNIVERSITY

KONZEPTE

MORE THAN JUST LECTURES
The development of teaching methods is also about space and rooms. What do they have to look like in order to teach and learn well?
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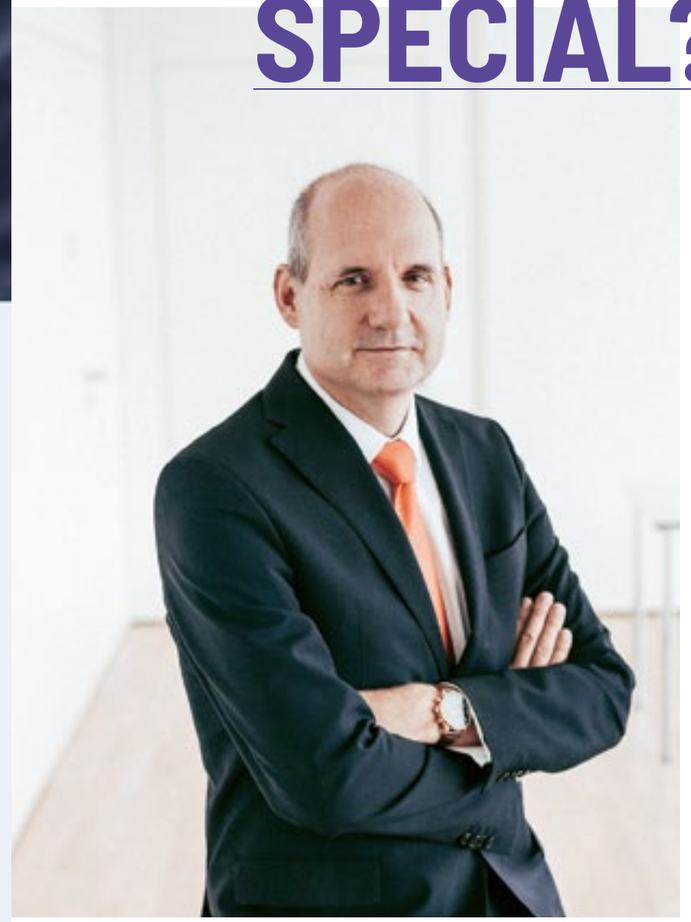
WHAT MAKES US SPECIAL?



Dear readers,

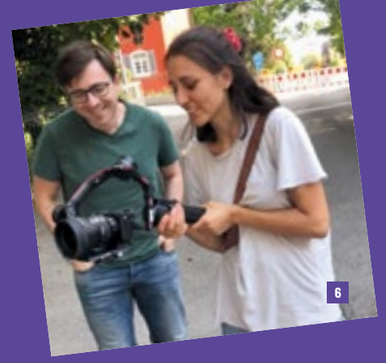
what makes us special? This is the question people ask themselves in view of the incomprehensible superiority of neural networks. It's the question companies are asking themselves in the face of global competition. And it's the question we ask ourselves as a university of applied sciences.

After reading this magazine, apart from the quantitative facts—study programs, teaching, laboratories, practice, employability—a qualitative factor is part of my answer to the initial question:

A student collects voices about the war in the Ukraine with her media technology know-how. A professor digs deeper into a previously unexplained physical phenomenon until he can comprehend it mathematically. A staff member reports about her joy in supporting students on their way at the RWU. A mayor advocates mutual understanding in times of heated online debates. A student keeps a team together with her presence and many conversations in Corona times. A staff member invents a scholarship format that enables children and young people to take instrumental lessons.

Just a few examples. And it may sound like circular reasoning: What is special about the RWU is the RWU. Nevertheless, I am convinced that it is above all the people who make us special. It's searching and having ideas, questioning, speaking one's mind and listening, it's dialogue at eye level, respect and tolerance. That makes us special.

Professor Dr. Thomas Spägele
Rector



PERSPECTIVES

STUDY

CAMPUS

RESEARCH

THAT'S WHAT'S IN HERE!

You can also find our magazine digitally at www.rwu.de/konzepte
And here's the way to the German version:

PEOPLE

INTERNATIONAL

Isabel Wagner studies Media Design at the RWU— a program in which no limits are set to your own creativity and where it's possible to work with almost any medium. She decides to make a short documentary about the war in Ukraine. She talks to people from Weingarten and Ravensburg. Very personal stories are told.

"FIVE LIVES — ONE WAR". MORE THAN JUST A STUDENT PROJECT

Text: Lisann Gauß

We meet on February 21st 2023, three days before the first anniversary of Russia's invasion of the Ukraine. "At the beginning of the project, I asked myself the question: If the film is released in six months — will anybody still care?", Isabel Wagner tells us.

Yes, it very much does. Even more than a year later, the Ukraine war is still present, in everyday life, in the media. In her documentary "Five Lives — One War", Isabel Wagner gives a voice to people from Weingarten and Ravensburg whose lives have been affected by the war. Five different stories are told, which are nevertheless connected with each other and each in its own way with the war in the Ukraine. The result is an emotional short documentary that shows that the war does not only affect the people in the Ukraine, but also those right here; that the war can both, divide and unite.

ABOUT THE IDEA

The film was made in the context of a project seminar. "It was our first big project during our studies," says Isabel, who is studying Media Design at the RWU. She had little film experience up to that time. The semester before, she took a film course in which they made a film together as a group. "I knew I wanted my project to be a film. You go out, get to know new people and their stories," Isabel reports. This time, the 23-year-old is responsible for the entire process on her own: from script and direction to production, editing and montage. She only has support during the shootings, where a fellow student helps her with cameras, tripods and lights.

How did she come up with the topic of the film? "The war was everywhere in the media in spring 2022," Isabel answers. This also raises the question of how the happenings are connected to Weingarten and Ravensburg. The personal connection then results from the filming and the conversations. Isabel is touched by the people's fate. She wants to give them a chance to tell their stories.

ABOUT THE PROTAGONISTS

Anastasiia Kudina has to flee from the Ukraine and builds up a Ukrainian community (UA Hub) in Ravensburg to support her country from a distance. After her arrival, she is taken in by Leo Durosov, who has already been living in Germany since 2019. He is Russian and now confronted with the brutality of his home country. Sophie Traudt and Dirk Loose also try to help, each in their own way: One organises fundraising events in Weingarten; the other is also active in the local Ukrainian community and helps where he can. And finally Viktoriia Voloshyna, who lives in Ukraine and experiences the war first-hand every day. The documentary explores the question of what happens when these different backgrounds and resulting opinions collide.
At the beginning, Isabel does a lot of research. The contact to Anastasiia Kudina is made through Klemens Ehret, who as a professor is also in charge of the entire project. Through Anastasiia, Isabel gets to know the other protagonists. The fact that they all come from Weingarten and Ravensburg is a coincidence. Isabel first talks to each of them to hear their stories. Then she prepares interview questions. "Of course, I thought about which topics would be interesting and what I would like to talk about. After the pre-interviews, I adjusted my questions again," she says.

ABOUT THE STORY

"The story developed in the editing process," Isabel continues. The goal is to show as many perspectives of the war as possible. Basically, the film focuses less on the political aspects and more on the personal stories of the protagonists and their emotions.
Which story took you away the most? "Each story touched me in its own way. Some are perhaps more emotional than others. But Viktoria's story touched me the most. I didn't expect it to be like that," Isabel answers. Viktoriia Voloshyna studied one semester at the RWU and now works as a project manager in the Ukraine.
She is the only one Isabel Wagner cannot talk to in person. The interview is held as a video phone call. At the time, the 23-year-old is in Kiev. "Viktroiia is literally in this fight," says Isabel. In the film, the Ukrainian reports that she has already lost two of her friends in this war. "Viktoriia and I are the same age, and when she told me that friends of hers, young people our age, had died – that was terrible to hear. That was also the first time I asked myself what it would be like if friends of mine suddenly died in a war. Or what it would be like if I were in such a situation. It's the first time you realize the full extent of the war," says Isabel, visibly moved.

ABOUT THE RELEVANCE

"At the beginning of my project, I wouldn't have thought that the topic would still be so relevant and present more than a year later," says the Media Design student. During her conversations she realised what a proud and patriotic people the Ukrainians are.
The entire process lasts about six months – from the idea and the concept to the preparations, the shooting, the editing and the post-production – until the finished film is uploaded to YouTube. Isabel works on it for the entire semester. She had shot so much and had a lot more material. "Unfortunately, not everything made it into the film," she says, "it couldn't have been just a short documentary."

ABOUT THE REACTIONS

The reactions have been positive all the way through. The actors and actresses have been happy with the result and glad to have the opportunity to tell their stories. Isabel is pleased that her documentary was promoted by the university as well as by the city of Ravensburg and the Schwäbische Zeitung. "This has given the whole topic even more attention," Isabel explains. "So it's not just a student project, it also has added value for society as a whole." The protagonists all have a personal connection to Weingarten and Ravensburg – which shows the relevance of the topic here. Isabel Wagner receives only positive feedback from fellow students, family and friends: "Everyone felt the film was very touching."

ABOUT THE FUTURE

The Media Design student will now complete her practical semester at a film agency that mainly produces documentaries. "I really wanted to do that," she says. "It gives you the opportunity to meet new people and hear their stories – that's what interests me the most. You get deep insights. What people tell you gets on the screen."

Click here for the documentary:

"Each story touched me in its own way. Some are perhaps more emotional than others. But Viktoria's story touched me the most. I didn't expect it to be like that."

Isabel Wagner is 23 years old and comes from Konstanz. She studies Media Design at RWU since the winter semester 2020/2021. In her free-time, Isabel goes bouldering and makes music.

Simon Kempf is 24 years old. He grew up in Mühlheim near Tuttlingen and studied Mechanical Engineering Development and Production in Konstanz. He came to RWU for his master's degree in Product Development in Mechanical Engineering. His greatest sporting successes were the 60th place at the World Championships, 13th place at the Ischgl Stage Race and 7th place at the Alpentour Trophy where he also stood on the stage podium twice.

THE PATH TO SUCCESS

Studying and professional sport—can these two things be reconciled?

Text: Marie Stachelscheid

Is it possible to manage studying and professional sport? The 24-year-old Simon Kempf can provide an answer to that. He is studying Product Development in Mechanical Engineering at RWU. He is also active as a competitive athlete in the mountain bike marathon, a sport that belongs to the Olympic discipline of cross-country. The race lasts more than three hours and usually takes place in mountainous terrain.

Marie Stachelscheid: Have you been cycling professionally for a long time?
Simon Kempf: I got into competitive cycling during my A-levels. In the last three years, I have been able to develop myself on a sporting level in a semi-professional mountain bike team.

MS: What excites you so much about this sport?
SK: My favourite thing about cycling is always discovering new areas and pushing my body to the limit. It's an ideal way for me to balance my studies because you can switch off completely.

MS: How do you manage to combine both things so well?
SK: I invest around 20 hours a week in bike training. Good time management is very important. Thanks to considerate fellow students and professors, it also works well if I miss a lecture because of a race. In everyday life, it means that I often study in the evening when I'm training during the day.

MS: You did your Bachelor's degree in Konstanz. Why did you decide to come to RWU for your master's degree?
SK: Due to the numerous projects during our studies, we have a very good connection to practice here. In addition, the area around Weingarten is perfect for cycling and I'm often out and about in the Allgäu.

MS: What are your goals for sport and studying?
SK: This semester is my last semester of lectures before I write my master's thesis in the winter semester. After that, I don't know exactly where I'll go professionally. In terms of sports, my focus is mainly on difficult Alpine races, especially the Alpentour Trophy, a four-day stage race in Austria. I also want to ride the newly introduced World Cups and compete in the World Championships in Scotland.

As these lines are being typed, thousands of students are sitting in lectures and seminars, in libraries and colloquia, doing one thing: acquiring knowledge. No matter how glamorous their achievements and degrees, they are still doing it before they enter the world of work. Sooner or later, it will lead one or the other back to the university bench after all.

THE HALF-LIFE OF KNOWLEDGE

Knowledge decays. Based on the radioactive decay process, the theory of the half-life states that of the knowledge that is considered certain today, only half will be valid in a few years and decades. With new findings from science and research, old knowledge becomes obsolete. Sounds plausible at first glance. 20 years ago, a computer, Photoshop and a solid knowledge of image manipulation were needed to remove an unwanted person from a photo but nowadays a bored 13-year-old can do it with an index finger stroking the screen of a smartphone.
But how is the "decay" of knowledge defined? Is it a thesis that has been falsified by new scientific knowledge? Is it knowledge that becomes obsolete through technological advances? Or is it rather the application of knowledge that changes? Science does not agree on these questions. Suitable measurement methods are lakking. Even the analogy to radioactive decay cannot always be transferred one-to-one. One thing is clear, however: Our society changes every day and with it work processes, programs and technologies.

How can we keep up with the pace of further development? New knowledge must be brought into the world of work. In this case, the German labour market cannot rely on the succession of young recruits who constantly bring fresh know-how with them. After all, Germans are not busy bringing children into the world. Demographic change shows that we have to think differently. Lifelong learning is the motto: If fewer new recruits come along, the existing ones have to be optimally trained. Further education and training are moving into the limelight. And this is where the universities come into play.

ARE YOU STILL STUDYING OR ARE YOU ALREADY LEARNING?

Text: Vivian Missel

Our globalised world is changing at a rapid pace. New scientific discoveries are changing the world of work. In order to keep up with the innovations, not only operating systems and databases have to undergo regular updates, but also the homo sapiens. Lifelong learning and continuing education are the watchwords.

DON'T FORGET ABOUT CONTINUING EDUCATION

Universities are used for studying and research – of course! The third core task of universities is less present: academic continuing education. So far, only a few programs have been established at universities. The state government of Baden-Württemberg wants to change that. It sees the political responsibility for securing continuing education in the sciences with the universities. Because, in the words of Minister President Kretschmann: "Continuing education is the key to giving people security and new opportunities in times of change".

With a sum of around 13 million euros, the so-called "third mission" at Baden-Württemberg universities is to be promoted. The project Hochschulweiterbildung@BW is a follow-up to the educational mission which provides for the qualification of alumni into retirement. To put it in business jargon: After the successful completion of the undergraduate education through bachelor's and master's studies, the after-sales service steps in. Re-qualification in the form of further education and training follows after a degree program. The university thus becomes a place for lifelong learning.

RWU UNTIL RETIREMENT SEPARATES US

RWU is already one of these places. With the Akademie für Wissenschaftliche Weiterbildung Bodensee-Oberschwaben (AWW), RWU is home to a central continuing education institution that focuses on academic continuing education in addition to undergraduate teaching and research. There are currently two part-time master's programs at RWU. Besides Management in Social and Health Care, International Business Management & Sustainability is offered.

In addition, the master's degree programs Autonomous Driving, Electromobility, Hydrogen and Fuel Cell Technology and Artificial Intelligence can be taken in cooperation with other universities. "We have a very differentiated higher education landscape in Baden-Württemberg. That's why it's good to drive this topic forward in a network and to make strong offers for students and companies by joining forces," says Professor Dr. Sebastian Mauser, Vice Rector at RWU for Studies, Teaching and Quality Management.

"There is a clear trend towards short formats such as contact studies and micro degrees," says Christina Schmidt, regional and subject networker for academic continuing education in the project Hochschulweiterbildung@BW at RWU and HTWG Konstanz. RWU is also working to expand its offerings and offer compact, low-threshold continuing education formats. "In times when traditional educational and professional biographies are in upheaval, short formats are an easily accessible offer," explains Christina Schmidt. "The smaller-scale offerings such as micro degrees not only take into account a wide variety of life situations but also serve the fast pace and multiple reorientations of work areas and tasks."

Lifelong learning in all its forms and varieties is essential to keep pace with changes in the world of work. But it is not only the "what" that is constantly changing. At the latest since the market launch of ChatGPT, the "how" has also been the subject of lively discussion. So it is not only uncertain what those students sitting on the lecture bench today will learn in their future continuing education courses but also how. One thing is certain, however: it is never too early, never too late to (continue) learning.

Tamara Härle is 26 years old and studies Automotive Engineering PLUS Teaching Post at RWU. She started her training as an automotive mechatronics technician directly from secondary school and decided to study after her master's examination in automotive engineering. Even without having the Abitur.

For a long time, studying at a college or university was reserved exclusively for high school graduates. However, more and more universities accept job qualifications and allow students to study without a high school diploma. This is also the case with Tamara Härle.

The trained automotive mechatronics technician and master craftswoman was looking for a new professional perspective due to an accident to her right hand. She could no longer work in the workshop, so her supervisor suggested: "Why don't you become a professional school teacher, you always had it in you with the trainees anyway?" She waves it off, you need a high school diploma for that what she doesn't have.

But her boss's sentence sticks in her mind and she can't get it out of her head. She informs herself, pores over brochures, talks to various counselling centres. Tamara learns about the possibility of studying without high school diploma and takes a closer look at the Automotive Engineering PLUS Teacher Post program at RWU.

"Maths had been on my mind for a few days, the last time I had it was at Realschule," Tamara says. But she didn't let that stop her. Through a friend, she was able to take a look at lecture content. She looked at the notes and said to herself, "Let's try it!"

THE REQUIREMENTS

"We are happy to welcome people without high school diploma to our university,"says Marina Schneider, staff member of the Student Service. However, not everyone can study at a university without an high school diploma; certain requirements must be fulfilled.

In principle, a completed advanced vocational training examination makes it possible to study at a university. "This can be a master craftsman's examination or a Fachwirt," explains Marina Schneider. "With this type of university entrance qualification, the doors are open for all fields of study." Another option is to take an external aptitude test and in some cases a technical secondary school is also recognised. "However, these cases always have to be examined individually."

So there are a few ways to get a place at university without an high school diploma. A total of 45 students are currently taking advantage of this option at RWU.

"EVERYTHING IS GOOD FOR SOMETHING"

Tamara is now in the fifth semester of her studies. The start was bumpy, mainly due to the Covid pandemic. The change from working life to studying was also a financial challenge. "When you come from a job, you already have a certain standard of living," says Tamara. Flat, motorbike, dog—the change to student life was not so easy.

In the meantime, the initial waves have subsided and Tamara is sure that things are going in the right direction with her studies: "Studying opens up perspectives for me that I wouldn't have had before." Without the accident, she would probably never have had the idea of studying, she says. "Everything is good for something."

HIGH SCHOOL-DIPLOMA? I DON'T HAVE ...

Text: Vivian Missel

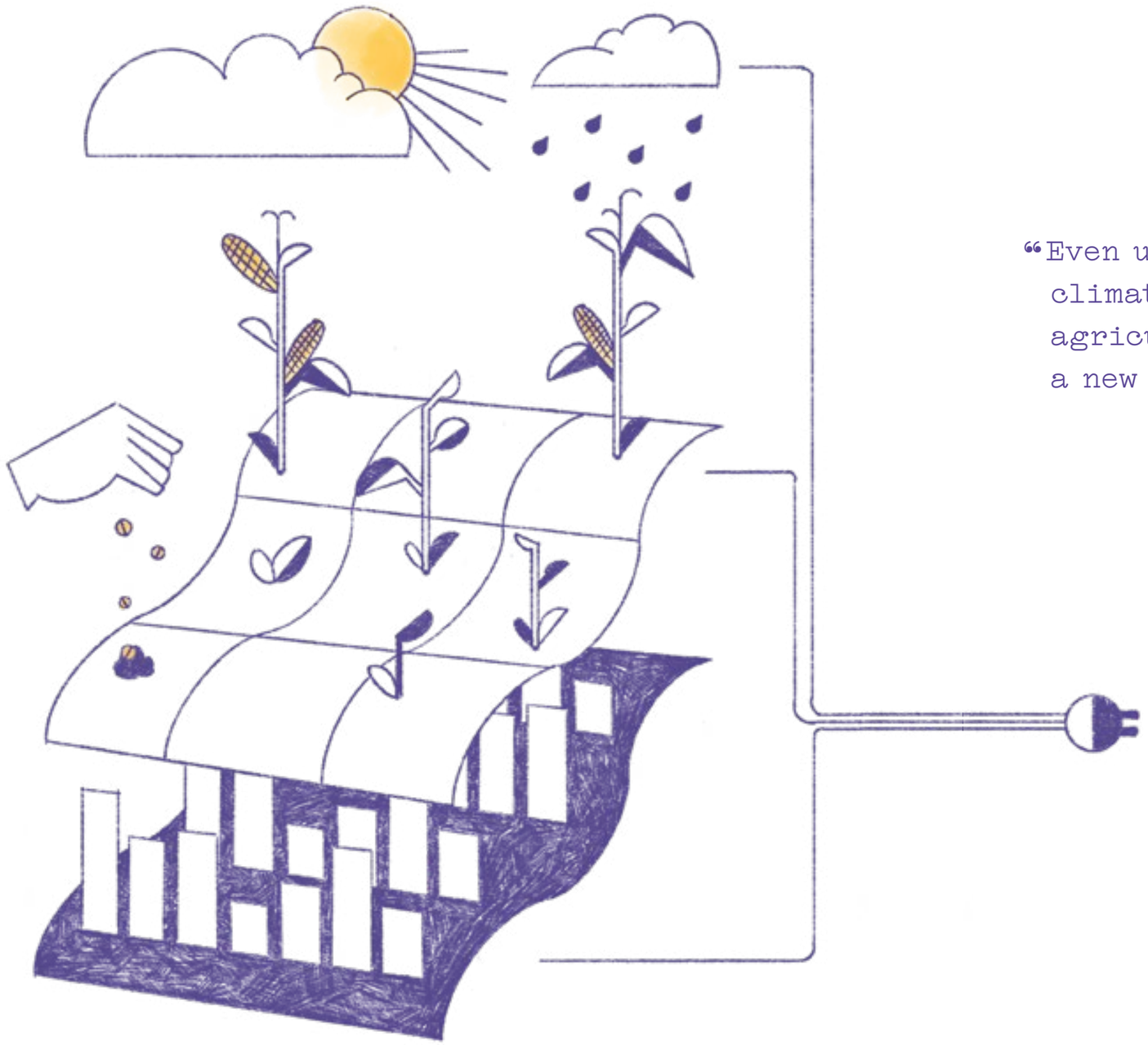
STUDY

Climate change poses major challenges for our agriculture. Artificial intelligence can help to make agriculture fit for the future. Four students from the master's program in Digital Business developed an AI-supported model that generates data-based weather forecasts and thus determines the optimal time for sowing.

IF YOU SOW TOO EARLY IN MARCH, IT'S OFTEN A WASTED EFFORT

Text: Vivian Missel

We read the weather forecast to see if we should wear sunscreen or if the weekend hike will be a flop. For our agriculture, however, the weather is of existential importance. The optimal time for sowing the crops has a considerable influence on the quality and quantity of the harvest. Particularly in times of climate change, precise forecasts are needed to predict extreme weather situations such as heat, drought, heavy rain and hail and to keep potential damage to a minimum. This is where artificial intelligence comes into play.



> “Even under optimistic climate scenarios, agriculture has to face a new climate reality.”

AGRICULTURE WITH TRANSPARENCY

“Even under optimistic climate scenarios, agriculture has to face a new climate reality,” says Luca Koroll, Digital Business student at RWU. Together with Imanuel Eisenbacher, Laura Frey and Johanna Frank, he has developed a model that makes agriculture measurable. “During our research, we noticed that many farmers rely on farming rules and many years of experience, some of which has been passed down through generations,” says Luca Koroll. Due to changing weather conditions as a result of global warming, he says, it is becoming increasingly difficult to rely on centuries-old knowledge. This basic idea inspired the students to develop an AI-based model that offers more transparency for agriculture as part of the subject “Innovation and Transfer Competence” in the Digital Business degree program.

The model is based on three components: Hardware, software and user interface. A sensor device is placed on a field and measures at ten-minute intervals various parameters, such as soil temperature and moisture. “We found out in discussions that these two parameters are crucial for sowing maize,” Luca explains.

The device is equipped to resist wind and weather as it was specially developed by the students for outdoor use. The measured real-time data is transmitted to a receiving station via LPWAN technology – which is similar to mobile radio in its functionality. “Of course, there is no WLAN in the field so we decided on LPWAN because it can also send data packets over several kilometres.” In the receiving station, which is installed near the buildings, incoming data is processed and forwarded via (W)LAN to a central server. This bundles all incoming data from participating farmers.

In addition to the collected data from the field, the server gets external weather data such as air temperature, dew point and UV index from a public interface. “The AI-based system merges the forecast data with the measured field data and derives so-called weather rules from it.” The decision-making system can match these rules with the collected wather data and determine, for example the optimal time for sowing maize. In the final step, the data is presented on a dashboard in a user-friendly way.

(APPLICATION) FIELD WITH POTENTIAL

The students tested the project in cooperation with farmers from the region. Field data and forecast data were collected, evaluated and generated over a period of two months. What was the farmers’ summary? “Some were enthusiastic, espe cially younger farmers,” Luca says, “ others were reluctant but liked the concept and benefit from the collection and aggregation of weather data alone.” In a final survey, around 66 percent of respondents could imagine using this type of forecast on a daily basis.

Luca and his team see great potential for agriculture. “With the help of artificial intelligence, yields could be significantly increased despite changing weather conditions,” says Luca. Even inexperienced farmers could draw on existing experience. “By collecting the data, we generalise the knowledge that is in farmers’ heads and make it usable for everyone.”

Emine Kalin is 29 years old and lives in Bad Wurzach on the edge of the Allgäu. She is a trained administrative assistant. She dropped out of her studies to become a senior administrative officer during her corona period and started at RWU's Student Service in 2021 instead. After two years in the Admissions Office, she moved to the Examinations Office in the summer of 2023 – "a new adventure", as she says.

I RELATE WELL WITH PEOPLE

> "Home is where my family is. And I am me."

Christoph Oldenkotte: Emine, why did you decide to work at a university?
Emine Kalin: Studying wasn't the right thing for me, I spent too much time alone on the computer, I missed the contact with people. But here in the service area, there are always people, applicants, students, many international students. I enjoy giving them advice. That's why I also like to go to fairs and tell people what you can do here at this university.

CO: And, what can you do? What makes RWU special?
EK: Not only the RWU, the whole system is very flexible. No matter where you start your path, all paths lead to studying. We are five girls in my family and each one has taken a different path. One sister trained as an optician, then did her master's degree. She can study. Another went to secondary school and is now a teacher. A third one learned geriatric nursing, now she is studying nursing education.

CO: You work in the student service, where you also have to deliver negative news, whether it's that there is no place to study or that the degree was not achieved. How do you deal with the reactions?
EK: In the student service, we are the first point of contact for everyone at RWU. If you don't know where to go with your concerns, you come to us. Really unpleasant situations don't happen that often. Sometimes people just don't understand what we're allowed to do and what we're not allowed to do. For example, when parents call about student records, we are not allowed to give any information. We are not even allowed to say whether their child is studying here. Even if you explain it, some people are just stubborn. I listen to them, let them talk, sometimes you just have to let it out. It has nothing to do with me personally.

CO: Sounds very confident.
EK: When you grow up in a big family, you know how to deal with conflicts. I get along well with people. I have a smile on my face not because I'm always happy but because I don't have to give my problems to anyone.
My four sisters and I, we had a brother. He was the youngest and he died in an accident when he was three. A lot of things become unimportant. You grow from it.

CO: What do you do in your free time?
EK: I read a lot. As a child I went to the library three times a week. Then I was a huge fan of manga, anime and K-drama. When I first read Korean manga, I thought it was like a Turkish series. The people and the cultures are very similar. Then I even travelled to Korea with my sister. Now I've set my sights on the classics, I'm currently reading "Anna Karenina" by Tolstoy. I have already read everything by Jane Austen. Or Jane Eyre by Charlotte Brontë which is also like a Turkish series, a lot of drama, a lot of emotion.

CO: You were born in Germany, you are Muslim and you wear a headscarf with confidence. Would you say that the headscarf changes the way you are noticed?
EK: I decided it myself and I am the only one of my sisters who wears it. The people who were against me wearing a headscarf the most were my parents. Precisely because they feared that I would be judged negatively according to my appearance. When I wore it in public for the first time, a strange woman came up to me and said that it looked very good on me. That made me happy. At the airport, I'm always being checked. A headscarf and a nose ring seems to be a suspicious pattern. Otherwise I haven't had any direct unpleasant reactions to my headscarf. But of course there are people who have prejudices.

CO: What does the headscarf mean to you?
EK: For me, the headscarf has nothing to do with male dominance and oppression. I was asked by teachers at school if I was being forced to do it. For me, it was a free decision. For me, the headscarf is a symbol of my religion. The way you wear it is something cultural and it depends on how you interpret the Koran.

CO: Where is home?
EK: There is a Turkish saying: "Memleket dogdugun yer degil, doydugun yerdir", "Home is not where you were born, but where you get fed". My grandfather was the first from our family who came to Germany as a guest worker. He always wanted to go back to Turkey. Only when the grandchildren came into the world the homesickness faded away.
When we are in Turkey, we are called "the Germans" and in Germany we are foreigners. I will always be a German "with a migration background", even though I was born here and have only one passport, a German one. Home is where my family is. And I am me.

The university didactics department at RWU deals with the development and implementation of new forms of teaching, among other things. Again and again, it's also about the details: What does a room have to look like and how does it have to be equipped so that teaching and learning can be done well in it?

LEARNING IS CHANGING (AND SO ARE YOU!)

Text: Jochen Weißenrieder

RWU is shaping the future. Okay, maybe that wording is a bit big but the sentence is true in two aspects. On one hand, the students at the practice-oriented RWU are, after all, the creators of tomorrow. Secondly, with the new DidaktikZentrum, RWU is shaping the learning necessary for this. In this case, we understand "designing" as creating the actual, physical, spatial framework.
What exactly is happening there? First of all, the Faculty of Electrical Engineering and Computer Science made rooms available so that high didactic projects at RWU could spread out. Rooms were set up that correspond to the RWU's applied research approach, namely rooms for experimentation. Here, for once, experiments are not done with large machines, flows, funds or feelings but with the learning settings themselves. "Settings4all" is what the university didactics has called it. From agile, creative and cooperative forms of learning, to digitally supported or immersive learning, to simply learning side by side, everything is supposed to be possible here.
Okay, let's take this slowly and with structure. Why all this, what exactly and where do we go from here?

WHY? LEARNING IS MULTIFACETED

As a university of applied sciences, we assume that learning happens while doing. You could also call this a constructivist understanding of learning. People do not learn just by listening and reading or by being "taught". People have to actively gain the competences consisting of knowledge, skills and attitudes themselves. To do this, they have to get involved and, for example, do mathematics themselves, work out the phases of a strategy process or moderate discussions.
As a small and fine face-to-face university, contact between the learners (and teachers who are actually also always learners) is particularly important to us. Because learning is also a social process. In exchange with others, we reflect on the facts and learning itself in a completely different way, or to put it more precisely: better.

WHY ELSE? FUTURE COMPETENCE

Learning is better when it happens actively and in exchange. These aspects become even more important when you think of what is now called (for example by the OECD) "future competence". This term is meant to bring together all the facets of knowledge, skills and abilities that will be needed to deal with the problems of tomorrow. Acting in heterogeneous groups, ethical attitudes or agile project methods are just a few terms here that scratch the surface. But it is clear: These are competence facets that cannot be learned in the quiet of videos.

WHY OTHER ROOMS?

Even though problem- or project-oriented learning, group work and giving presentations are forms of learning that have actually been used for 30 years or more, they now — one might almost say finally — need different spatial conditions. For one thing, the proportion of these "modern" forms of learning is increasing. The good old lecture is increasingly moving into the ether and the exchange that takes place here in the buildings between students and experts (which is, after all, one of the most important roles of lecturers at an university of applied sciences) is becoming more important. On the other hand, fixed benches and tables were already rather impractical for some forms of learning in the past. It's not a question of changing everything, just that the diversity at the university has to adapt to the diversity of teaching and learning forms.

WHAT NOW? FIRST APPROXIMATELY LIKE THIS

New spatial possibilities were already realised in the DidaktikZentrum last year. The aim was not to become a model for other spaces. The aim is to experiment with spatial conditions in a curious way. There are so many questions that have not yet been answered at all in connection with the furnishing of teaching-learning spaces: Which teaching can be realised with other furniture? What furniture is needed to realise other teaching? What can be combined well? What do teachers need to be able to develop new concepts for new spaces? And of course, much more.

AND WHAT EXACTLY?

The DidaktikZentrum already has the LearningLab with integrated Immersive-Learning-Lab as well as the Learning Café and a Studio. The LearningLab is a teaching space designed for agile, creative and collaborative events. The space is not front-facing (in fact, there is no front at all); the focus is on working in teams. High, mobile tables and bar stools provide a certain basic activation and enable a quick change of setting. Whiteboards for all teams are an example of working material that is available to everyone present at all times — this not only provides space, but also the opportunity for active participation.
In addition, the LearningLab has excellent digital equipment. Screens not only for the teacher, tablets for everyone present and good WLAN ensure that work can also be done digitally together on site.
The integrated Immersive-Learning-Lab goes one big step further. The class set of VR glasses is made use of by the personnel and technical infrastructure. A small team lovingly takes care of the integration of existing and the development of new application possibilities of the virtual world for learning in the here and now. From practising one's own presentations in front of a large audience to virtually dismantling a racing car to "body swapping in counselling situations", more is made possible here than some people can imagine.
In the Learning Café, RWU has provided students with comfortable seating niches and other work furniture thanks to project funds. Here, students find opportunities to work on their learning material as a group or alone, even outside of regular classes.

AND WHERE IS IT GOING?

Together with the faculties, the expansion and renovation of the DidaktikZentrum continues. Other lecture halls in the building are to be made more flexible and interactive. Teachers who reach their limits in other rooms will be given more freedom to work actively with students here. In addition, the rooms are to be used as a learning café at certain times. From maths support to Power Point courses to writing advice, students will be looked after here by the university didactics in future. Or students can work on their own, preferably in inter-faculty teams, to find solutions for the future.

The integrated Immersive-Learning-Lab goes one big step further. The class set of VR glasses is made use of by the personnel and technical infrastructure.

Jochen Weißenrieder was born in Ravensburg in 1979. After studying Sociology, Psychology and Economics which he completed with a master's degree in Augsburg, he first worked as a consultant for the Danish company Ramboll Management Consulting where he was responsible for evaluating labour market and education programs. After another four years at the Humboldt University in Berlin, he moved back south with his family. He now lives in Constance at Lake Constance with three children and his partner. Since 2017, Jochen Weißenrieder has been working at RWU as an advisor for university didactics.

WHAT'S YOUR PASSION?

Text: Vivian Missel

Study time is not just lectures and homework. Rather, it is a time of discovery. Many students get involved in student initiatives. Whether it's Formula Student, where racing cars are constructed and sent into the race, or strengthening LGBTQIA+ rights with buntPLUS. Whatever you're passionate about, you'll find it here.

CLUB F.A.I.R.

Club F.A.I.R. is a platform for social commitment on and around campus. F.A.I.R. stands for family, work, individuality and law. In particular, students with children or with caregiving responsibilities are supported by the student initiative. In addition to a parents' forum, the F.A.I.R. club has created the annual family festival.

C.I.S.

The Council of Indian Students is an association of Indian students at RWU. C.I.S. supports the arrival of new international students in Weingarten as well as general questions about studying. With events such as the Diwali Celebration and the Cricket Tournament, the students want to bring the Indian way of life and culture to Upper Swabia.

FIRST RESPONDER

Students, staff and teachers from RWU and PH Weingarten are involved in the First Responders. With the motto "Rescue around the university campus", the students bridge time-critical emergencies until the rescue service arrives. The first responders also provide first-aid services at student parties. Knowledge is refreshed and expanded in regular training sessions.

HOUSE OF MAKERS AND ENGINEERS (H.O.M.E.)

The H.O.M.E. is a creative maker space on the RWU campus. Ideas can be put into practice here whether it's a project for the university or a start-up. The Maker Space is an open studio for everyone who likes to tinker, screw and develop. In the rooms of the H.O.M.E., there is also the Repair Café (see below).

HUNGER AND BRAIN

The student initiative Hunger and Brain deals with topics that move our society. It regularly organises lunchtime lectures during lunchtime on topics such as artificial intelligence, sustainability or inclusion. Interesting excursions are also on the agenda.

REPAIR-CAFÉ

Throwing things away was yesterday. At the Repair Café, the fight against our throw-away society is declared. Broken things can be repaired in the fully equipped studio. Workshops are offered regularly to teach you how to repair things: bicycles, mobile phones, screens and much more.

UMWELT-AG

The aim of the Umwelt-AG is to make the campus and the universities more environmentally friendly and to raise awareness of sustainability among the students. With concrete actions and projects such as campus clean-ups, DIY workshops, an exchange cupboard or the community garden, the members actively stand up for environmental protection. No matter how well or unwell you know about sustainability, everyone is welcome to join.

WE4WI

As a sub-group of the student council, the WE4WI team supports students from the fields of Internet and Online Marketing as well as Business Information Systems at their start of their studies. In addition, they organise barbecues and other activities where first-year students can get to know each other and make contacts.

ACADEMIC SAILING CLUB BODENSEE-OBERSCHWABEN (ASCBO)

The ASCBO is a sailing club open to all who are interested. Here, a colourful bunch comes together who shares a passion for sailing. With a sailing boat and catamaran on the Lake of Constance, even newcomers can learn to sail.

FORMULA STUDENT TEAM WEINGARTEN (FSTW)

The Formula Student Team designs and builds racing cars and takes part in international competitions with them. The FSTW is one of the largest university groups at RWU and welcomes students from all study programs.

KREAKTIV

The student consultancy kreaktiv advises small, medium-sized and large companies in the region. Students from all faculties at RWU and PH Weingarten have the opportunity to supplement theoretical knowledge learned during their studies with practical experience in companies. Further education and training are just as much a part of kreaktiv as joint events.

USTA

The Independent Students' Committee has set itself the task of promoting joint activities at RWU and networking students with each other. Whether it's organising the XXL party, helping out with the first-year days or the clothes swap – here you can get involved in a variety of ways.

BUNTPLUS

buntPLUS is the LGBTQIA+ representation of students at RWU and PH Weingarten which stands up for students of the queer community. In order to create more awareness and tolerance towards the LGBTQIA+ community, buntPLUS organises various diversity actions.

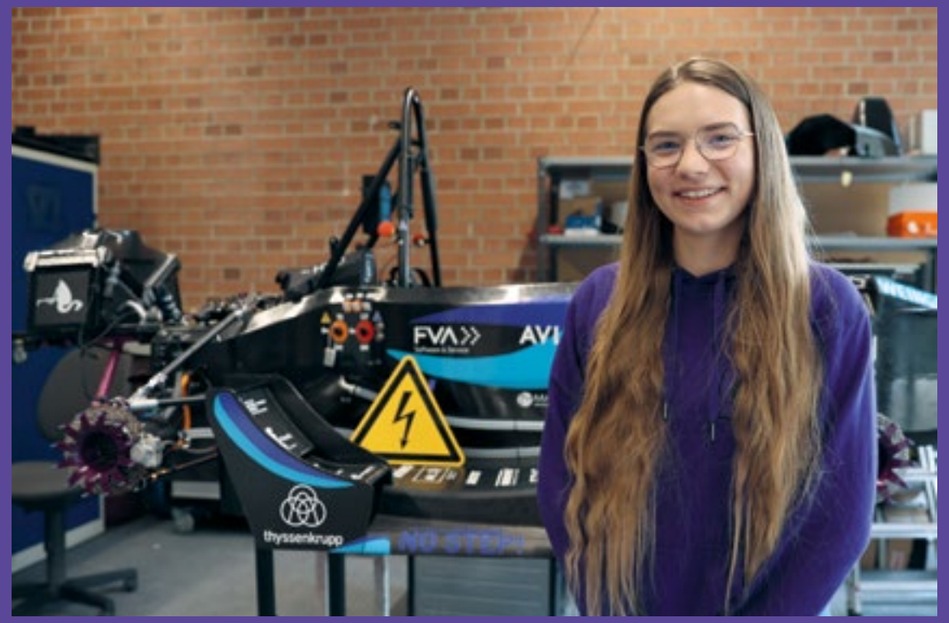
Whether applying for an internship or your first job: Birgit Demuth from RWU's Career Service advises on questions about applications and careers.

MS DEMUTH, WHAT DOES A SUCCESSFUL APPLICATION LOOK LIKE?

BE INFORMED!
During the application process, a company tries to get as much information about you as possible. After all, they don't want to hire just anyone but someone who fits in with the company. You should also inform yourself about the company – about its products, philosophy and values. What qualifications is the recruiter looking for? What attitudes and worldview fit the company and its corporate identity? You should understand what you are applying for. If you know the questions, you can provide the appropriate answers.

BE AUTHENTIC!
The topic of self-marketing, or as I prefer to call it: self-presentation, is an important factor in a job interview. Nowadays, recruiters no longer ask: Where are your weaknesses, where are your strengths? But rather: to tell them about yourself. You can prepare well but you have to know how to prepare. Self-marketing is not about adapting yourself for a job. It's about knowing yourself. This includes reflecting: Who am I and how am I? What am I good at? What excites me? Where do I want to go? But also: Why does the job attract me? What points of contact do I perhaps already have with the company? This is also where your hobby comes into play. A company is not interested in whether you like skiing or hiking. But competences can be derived from your hobby: Someone takes responsibility, someone is reliable, someone is socially committed. These are things that you can't read out of school grades and certificates.

BE CREATIVE!
We all know that phrases like "Hereby, I apply ..." sound boring. A well-worded introduction is the first step. It's okay to be cheeky sometimes. A student who came to me for advice, once wrote as her first sentence: "If you're looking for someone to make coffee and copies, I'm the wrong person." And that worked. She got the internship at a large car manufacturer. From there, as with a book, the beginning has to be catchy. An 08/15 application letter bores the recruiter and if you only exchange the names of the contact persons, you will be unmasked immediately. Originality is not the only important thing. You shouldn't just talk about yourself in the cover letter but focus on your own motivation. That's why I like to call the cover letter a motivation letter.



I CREATED MY OWN RESPONSIBILITIES

Lisann Gauß: Sara, you are studying Applied Psychology. How did you end up in the Formula Student Team, of all things?
Sara Klink: A good friend who also started to study at the RWU was interested in the group and simply took me to a meeting. At that time, there were already other team members from Faculty S. That's how it all happened. It was really helpful for me because at that time, due to Corona, the lectures were only held online. That's how I met the first new people who showed me Weingarten and the student life. I felt in good hands there.

LG: What are your tasks in the team?
SK: In my first season, I was the "team psychologist". I organised workshops for new team members so that they could get to know each other because they had no other opportunities due to the lockdown. We were fortunately allowed to work in the lab during the whole time, even if only on a limited basis. I also offered an online meeting once a week, kind of a "worry box". I kind of created my own tasks and responsibilities. Since I wanted to be a contact person for all team members, it was important for me to be there in the lab as often as possible in order to create a base of trust.

LG: How did you become team leader?
SK: In the beginning, I supported the former team leader in her tasks. When she left, the question was whether I would like to take over this job. And so, since the season 2021/2022, I am the team leader in the area of organisation. Among other things, I'm responsible for management and marketing, I take care of the contact with the university and partly with the sponsors. The organisation also includes team events, trips, barbecues and the roll-out. All in all, it's about ensuring that the team can work on the car without any problems or interruptions throughout the season.

LG: Does this activity also help you in your everyday student life?
SK: Working in a team and also as a team leader has given me a lot of self-confidence. Before, I didn't like presenting in front of many people at all. Now I often have to stand in front of people and explain something, sometimes even justify it. In the meantime, that's no longer a problem for me.

LG: How much time does your FS work take up?
SK: Everyone invests as much time as they can or want to. I personally spend a lot of time in the workplace for example, simply because I want to be there as a contact person. I really like it and we are often there to learn together. We often go on trips together, visit other teams, we have barbecues in the summer. We like to compare the team to a little family because we spend a lot of time together in private, apart from everyday university life.

LG: Do you also have the chance to work on the racing car yourself?
SK: I'm interested in how the technology works. In all that time, I've built up a certain basic knowledge by simply asking questions in the garage. I also attend the technical meetings. You get to know a lot and learn a lot there. In the meantime, I've learned how to weld and solder. I help out where I can.

LG: How big is the Formula Student Team this season and how are you organised?
SK: Our team now consists of 40 to 50 students. We have flat hierarchies so that everyone can participate where he or she wants. You can decide for yourself how much time you want to or can invest. Besides me, Jonas is part of the team lead for the 2022/2023 season, he is the technical director. The team is divided into several sub-teams. For example, there are teams for aerodynamics and dynamics, the chassis and powertrain, but also for management. We are financed by sponsors who either give us external financing or support us with material and production services.

LG: What are your goals for this season?
SK: Unfortunately, we couldn't finish our car last season, so we couldn't compete in the events. This was due to the fact that we built an all-electric race car for the first time which we had only little experience in before. That's why we couldn't score any points in the dynamic disciplines on the track, but at least in the static disciplines. We were happy with that. For the current season, we definitely want to get the car on the track and participate in every discipline. Another big goal is to drive an endurance race, all the way through the 22 kilometres. That's much easier said than done: The cars are prototypes so things can always happen, for example the car just stops and you don't know why.

LG: How is the Formula Student competition regulated in general?
SK: There are about 100 pages of regulations where everything is written down, a bit like Formula 1. Among other things, it says that only students are allowed to be team members. That means that we are not allowed to hire professional engineers. The drivers also have to be students. It's not regulated what the car has to look like but there are certain minimum requirements that it has to fulfil, for example what the minimum dimensions of the car have to be, what the frame has to be able to do and much more. These requirements are tested at the events. Only when we have passed all the inspections there are we allowed to drive the car at the race. Then we've done a good engineering job.
The competition has its own world ranking

FORMULA STUDENT

is an international engineering competition for students which was founded in 1981 in the USA by the Society of Automotive Engineers (SAE). The aim of the competition is that teams from colleges and universities develop and construct a single-seater racing car each season which then competes in international competitions. Another goal is to put the theory taught at colleges and universities into practice. The students are supposed to gain experience in teamwork, time and project management in general, in development, construction and manufacturing as well as the economic aspects of car building in particular. The Formula Student Team Weingarten at the RWU exists since 2008.
The season starts at the beginning of the winter semester. Every season, a new racing car has to be designed and built. After the conception, design and production phase, the car is presented to public at the roll out. This is followed by the test phase, after which the events start in the summer at which the FS teams from the universities and colleges compete.

“We like to compare the team to a little family.”

Sara Klink is 23 years old and studies Applied Psychology at RWU since 2020. She comes from Mühlingen near Stockach. Her hobbies – apart from Formula Student – are sports of all kinds and sewing.

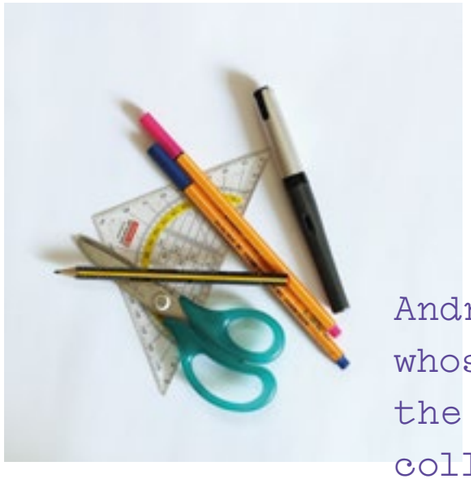
list. You can collect positions in the races and points in various disciplines in each event. There are seven disciplines in total: four dynamic (Acceleration Potential, Energy Efficiency, Autocross and the Endurance test) and three static (Engineering Design, Cost Analysis, Business Plan Presentation).

LG: What happens to the old racing cars when the season is over?
SK: The regulations say that you have to build a new car every season. The racing car must always have significant changes to the car from the previous season. We have a cooperation with the car museum in Wolfegg, there are some old cars exhibited. Unfortunately, the really old cars from the early days don't exist anymore. The last combustion car is to be exhibited at the RWU.

LG: How do you see the future of Formula Student? Will there maybe only be Formula Student Electric (FSE) in the future?
SK: The Formula Student Team at the RWU has built racing cars with combustion engines for 13 years. We have decided to only build electric cars from the season 2021/2022 onwards. We want to move with the times. For our future engineers, this is of course an advantage; but at the same time, it's also a big challenge. In any case, it's good to gain experience in this field during your studies. Our sponsors support us in this development. They have made this shift possible and much easier for us. The entire Formula Student business is switching more and more to electric vehicles. There are events that only allow electric vehicles, for example in Switzerland. Of course, combustion cars always evoke a bit of nostalgia with their noises and smells. But after you've driven an electric racing car for the first time and seen what it can do, you're thrilled.

LG: What is so special about the FSTW to you?
SK: We are open for students from all courses of study, we don't only need mechanical engineers. We don't always take ourselves too seriously and we really have a lot of fun. And it's important to us that you can manage your engagement in the team and your studies at the same time; your studies should still be your main task. From a psychological point of view, it's also exciting for me to see and experience how the different team members develop over the years.
Technically, the team is known for its lightweight construction: For the combustion engine, we hold the record for the lightest four-cylinder at 164 kilos since 2019.

LG: Why should every student join a university group at the RWU?
SK: I can recommend it to everyone to get involved alongside their studies. It's also good for your personal development if you don't just attend lectures and then go home and learn. During your studies, you have the opportunity to try out many different things and you should take advantage of that. I think I'm a good example because when I started studying Applied Psychology, I didn't think I would be in a racing team. I haven't regretted it for a second.



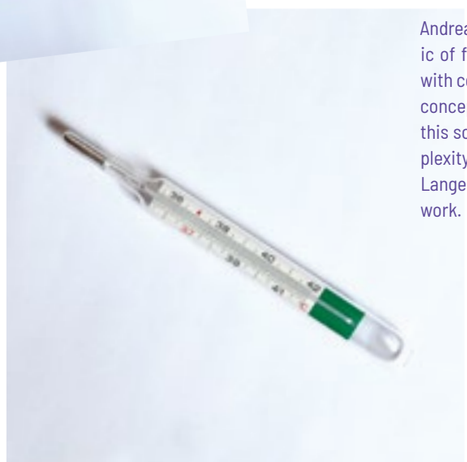
Andreas Lange is sociologist whose field of research is the family. Together with colleagues, he has developed the concept of “Doing Family”.

THAT LITTLE BIT OF HOUSE-HOLD

Text: Christoph Oldenkotte

That little bit of housekeeping does it all by itself, says my husband.” Johanna von Koczian reached number 16 in the German charts with this hit song in 1977. A song from a different time – you would think. But has this role model really changed so much? Isn’t the subliminal “don’t act like it” reproach still in the room, entering the house every evening when the supposedly productive part of the family returns from the efforts of gainful employment and gets into the slippers? In the end, it doesn’t matter whether it’s the woman or the man who does the housework and care work.

Andreas Lange is sociologist and has been working on the topic of family since his doctorate in the early 1990s. Together with colleagues in Munich and Bielefeld, he has developed the concept of “Doing Family” over the past 20 years. To explain this social constructivist approach which describes the complexity of family work in our “late modern society”, Andreas Lange first looks at the historically changing value of family work.



If you ask Andreas Lange about his definition of family, he thinks for a moment and then says: “There are two basic elements: First, the generational relationship, in other words a caring and a provided generation. And second, shared places, so multilocality, there is no longer one place.”

Andreas Lange was born in 1960 in Überlingen at the Lake of Constance. He studied Sociology and Psychology at the University of Konstanz where he also worked as a research assistant in the research area society and family. He completed his doctorate in 1993 with a thesis on child life in the countryside. In 2003, Andreas Lange completed his state doctorate and subsequently worked as a policy officer for family sciences at the German Youth Institute. He is an active publicist and, among other things, has been co-editor of the Zeitschrift für Soziologie der Erziehung und Sozialisation since 2007. Since 2010, Andreas Lange is a professor of sociology in the fields of social work, health and care at RWU.

FAMILY IN AN ENVIRONMENT OF INCREASING CONTRADICTIONS

In the process of the industrialisation, according to Lange, a reinterpretation of the concept of work took place. From then on, what earned money was considered work. He quotes the household scientist Uta Meier-Gräwe: “It was a momentous move by the male architects of national economics when, in the course of the transition from an agrarian to a capitalist industrial society, they summarily denied all caring activities the predicate of being productive work.” Lange is slightly milder in his assessment of this process; instead of a “move” he speaks of a “non-intentional process”. So, there is less assumption of intent in his interpretation.

“At the same time,” Uta Meier-Gräwe continues, “there was a natural law justification of women’s responsibility for housework and care work which has since been attributed to them by nature, often declared as a ‘labour of love’ and thus as a non-economic activity.”

At least in the BRD, this model has endured in the post-war period. Even if the devaluation of care work was not brought on purposefully, in a kind of conspiracy, it obviously suited the male part of the population and was defended with vehemence. Just look at Bundestag discussions from the 60s and 70s and the condescending reactions of the majority male members of parliament to speeches by female parliamentarians.

In the 1980s, cemented role models and family models began to crack. Andreas Lange says: “Family has to be managed in an environment of increasing contradictions”. And these contradictions are still increasing today. Some examples: The gross national product is rising, at the same time the gap of social inequality is widening. Digitalisation and new media offer breath-taking possibilities but at the same time control and excessive demands go hand in hand with them. The capitalist economic system provides seemingly limitless goods and services while at the same time the logic of growth causes the exploitation of nature and people. According to Lange, the economisation of all areas of life is evident in the “bullshit language of management which also takes over the interpersonal spheres in a permanent culture of evaluation, ranking and rating.”

IF SELF-CARE DISAPPEARS, SOONER OR LATER THERE WILL ALSO BE NO MORE CARE

One of the most intense areas of tension permanently arises between the family and the employment system. The central factor here is the quantity and quality of time. Although average working hours have decreased, more people are involved in the world of work. Together with more and more atypical working hours, families are faced with complex arrangements and time problems are becoming evident. For example, the German Institute for Economic Research calculates that mothers with young children are employed for about 14 hours a day if their care work is included in the total work done.

According to Lange, the education system is the most time-hungry of the family’s environmental systems. In a society of “educational panic”, both everyday family life and family communication are largely guided by the requirements of daycare and school. “This school-based occupation of everyday life is most obvious in the handling of homework. These become battlegrounds of parental ambitions and the scenes of many small emotional dramas. “Families as they live today,” says Andreas Lange, “can hardly escape overload as adults try to do justice to their jobs and look after their children and the household themselves.” They make the necessary time for themselves by putting their own needs aside and not getting enough sleep, for example.

It is in the processing of these fields of tension, in the execution of these countless micro-processes of family life management that the family is constituted as a form of life. Andreas Lange calls this "Doing Family". On one hand, there is the logistical side, the organisation of times, spaces, resources and finances. On the other hand, families also have to establish themselves as communities which involves subtle processes of emotional regulation. This is the identity-oriented side of family work. "Both are challenging and involve a high mental load. And both are – still – mostly done by the mothers. Doing family today is complex and sometimes leads to parental burnout," says the sociologist. Even if these services are provided privately, Lange criticises, they should not be declared a private matter. Rather, the care work performed in families is "of fundamental social importance."

A RADICAL RETHINKING OF THE "THREE-CYCLE MODEL OF THE LIFE COURSE"

The non-recognition of care work as "real" work has multiple consequences. If people are overburdened by excessive demands in the sphere of employment and the private sphere, they can no longer provide self-care. But if this self-care falls away, sooner or later there will also be no more care. Despite the willingness of private actors to make sacrifices, the reproduction, in other words the recovery and maintenance of the system, no longer works. The increasing signs of wear and tear on exhausted families reveal the limits of this arrangement; Andreas Lange speaks of a "reproduction crisis".

But how do these analyses become practical benefits? "Our results flow into practice in various contexts," explains Andreas Lange. On one hand, proposals are formulated for family policy. These include for example making working hours more flexible and reducing them. Or it is about the demand to radically rethink the "three-cycle model of the life course" – that is the succession of education, working life and retirement – because it no longer corresponds to our society of long life. As a basic pattern of biography, it is about a combination of educational, gainful and care work in different mixtures and with flexible transitions – regardless of gender.

The other scenario in which the research results have a concrete impact is in teaching. "Here, in the degree programs of our Faculty of Social Work, Health and Nursing, we train the people who will work in and with families tomorrow," says Andreas Lange. "By sensitising them to the field of tension of family, our results flow indirectly into the work with families."

WHICH ACTIVITY HAS WHICH IMPACT ON OUR SOCIETY?

Despite all the change, all the contradictions and problems, Andreas Lange is not a pessimist. If he is to develop a scenario of the family in 2035, it is an optimistic one. In the 2030s, for example, family discourses would no longer revolve around the forms of living together but an open acceptance of living together would take hold. Lange calls this "pragmatic living arrangement". The high-paced working life will be made bearable by reducing working hours, especially for people with care responsibilities and by companies offering other family-friendly measures. Artificial intelligence and overarching mediatisation would serve to subtly orchestrate and coordinate the diverse activities of family members inside and outside the household.

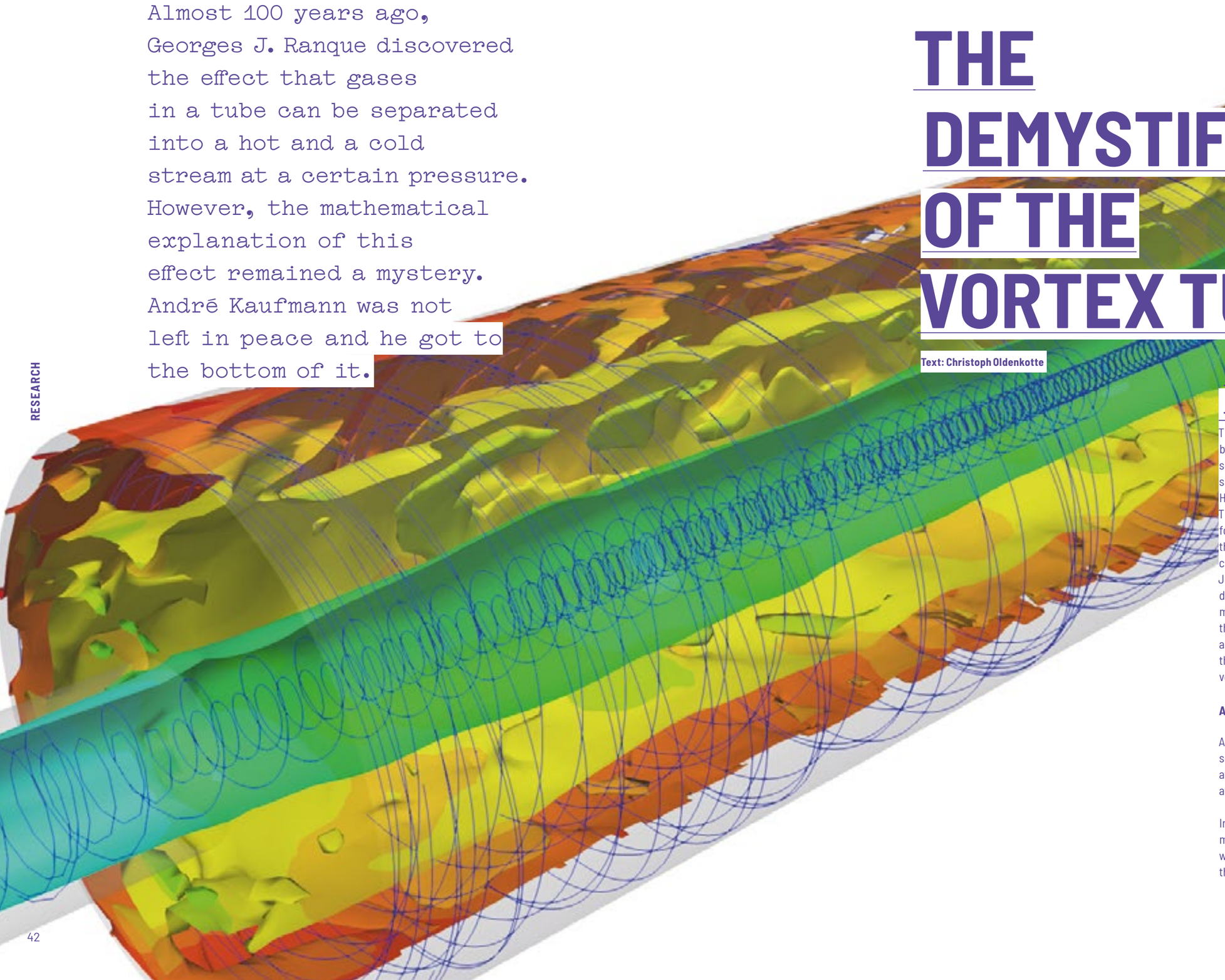
An important step towards a gender-equitable way of life seems the upgrading of care work as socially relevant work with all the political, economic and social consequences that go with it. For example, the author wonders why he earns more as the press officer of a university than his wife who works as a specialist for language and inclusion in a day-care centre. Which of these jobs is of greater importance to our society? The answer is obvious.

This lack of honour also speaks for itself in the hit song quoted at the beginning. It doesn't help that the lyrics are undoubtedly based on a certain irony which says: The guy who is explaining the world to me right now unfortunately has no idea about reality. Has so much really changed?

Almost 100 years ago, Georges J. Ranque discovered the effect that gases in a tube can be separated into a hot and a cold stream at a certain pressure. However, the mathematical explanation of this effect remained a mystery. André Kaufmann was not left in peace and he got to the bottom of it.

THE DEMYSTIFICATION OF THE VORTEX TUBE

Text: Christoph Oldenkotte



If you blow into a pipe with the right pressure and at the right angle, cold air comes out on one side and hot air on the other. The phenomenon has been known for almost 100 years. The effect has been used for decades, for example for cooling in production processes. But no one has understood the phenomenon yet. It was not possible to physically calculate what exactly happens in the Ranque-Hilsch vortex tube.

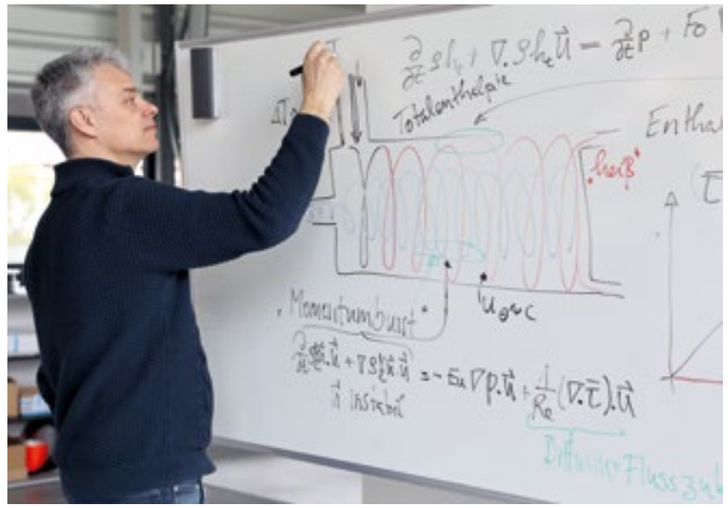
The tube got its name from its discoverer. In 1928, Georges J. Ranque found out that gas could be divided into a hot and a cold stream with this device. Rudolf Hilsch improved the design based on Ranque's discovery and delivered the first scientific publication in 1946.

Just knowing that it works but not how – that gave Professor Dr André Kaufmann no rest. In 2014, he began to get to the bottom of the matter with students as part of project work and thesis projects. "I thought it would be done with one or two papers," he says today. But at a certain point, the attempts of explanation always failed. The last step, the computational reconstruction of the process in the Ranque-Hilsch vortex tube, was missed by all attempts.

A SET OF FIVE COUPLED DIFFERENTIAL EQUATIONS

André Kaufmann's ambition is aroused. In 2020, he dedicates his research semester to this question and first compiles what results are available so far. In a first step, he works through all these theses one after the other and proves experimentally that they are not true.

In the second step, Kaufmann then approaches the problem mathematically. He orients himself on a solution approach from the 1970s in which reference is already made to the viscose effect. This involves the creation of heat through rubbing. And he notes that this effect is



**André Kaufmann studied Physics in Bonn. In Toulouse, he completed a master's degree in Fluid Mechanics and a doctorate on the subject of two-phase flows. He then worked as a development engineer for direct petrol injection at Siemens and later as a group leader in the calculation and design of exhaust gas turbochargers at Continental. Since 2009, André Kaufmann is professor at the Faculty of Mechanical Engineering.
He teaches combustion engines, fluid mechanics and thermodynamics and heads the study program Automotive Engineering.**

not taken into account in the existing terms. "As a rule," says Kaufmann, "the diffusion effect, the heat conduction, is so much stronger than the viscous effect that the latter is simply left out. In the standard models, the viscous effect does not take place." But Kaufmann calculates that in the boundary layer, on the inside of the pipe, the viscous effects are much greater than the diffusion effects. And suddenly the calculation adds up.

You may not imagine that André Kaufmann has simply developed a formula and now casually calculates a result on his pocket calculator. There are no numbers in the mathematical equations and terms on his whiteboard, only symbols and Greek letters. In his language: "It's a set of five coupled partial differential equations that you have to solve simultaneously." For months, he occupies a quarter of his Faculty's computer clusters for his simulations. Models of the boundary layer are created with a resolution of a thousandth of a millimetre. This is how it was finally possible to reproduce the effect computationally.

"YOU SHOULDN'T BELIEVE EVERYTHING JUST BECAUSE IT'S WRITTEN IN A BOOK."

This knowledge does not change the way the Ranque-Hilsch vortex tube works: The gas rotates in the tube at the speed of sound, at 340 metres per second. The result is a ear-splitting noise comparable to a plane taking off. The cold air escapes through a small, centred outlet on one side of the tube, the warm air through a large outlet on the other side. The temperature difference is up to 70 degrees Celsius. Even if everything remains the same, André Kaufmann's findings can now be used to calculate the configuration of the apparatus and optimise its efficiency.

André Kaufmann has proven that the effect only occurs in the tenth of a millimetre along the inside of the pipe. The size of the pipe does not change the effect. Only the pressure at which the gas is injected has an influence. "The temperature difference increases up to 10 bar," says Kaufmann, "but after that not much more happens."

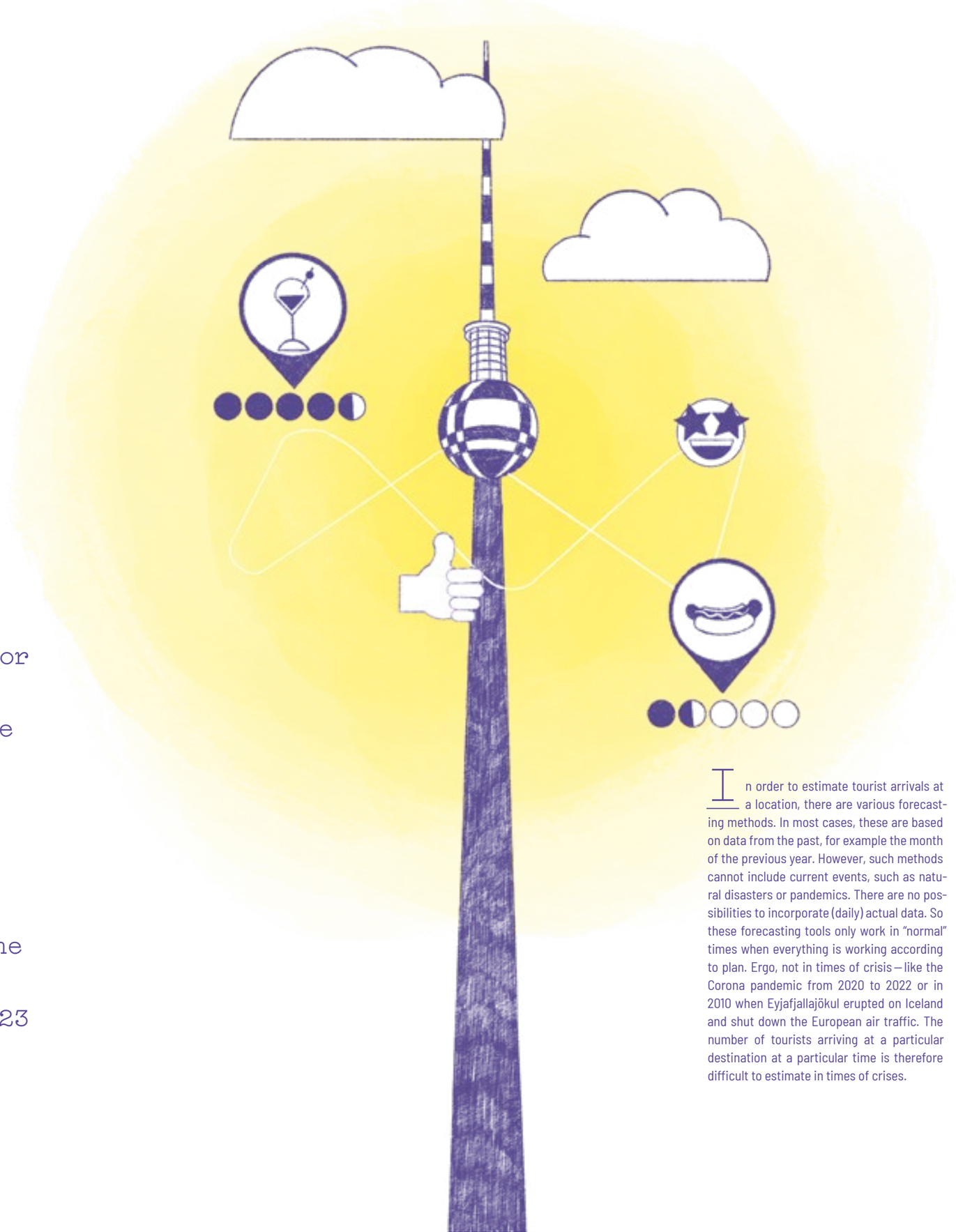
The Ranque-Hilsch vortex tube is used in very different contexts, for example when cooling is needed at a very concentrated point or on materials that cannot be cooled with oil or in sterile environments, then nitrogen is used as a gas. "Further developments are imaginable," says Kaufmann, "for example in cooling suits for firefighters."

André Kaufmann wanted to publish a paper with the results of his research. But it was too extensive. So he made a book out of it, entitled "The Ranque Hilsch Vortex Tube Demystified". Even though he has unlocked an almost 100-year-old mystery, the researcher is modest: "Strictly speaking, we have not produced any proof. There could be other mechanisms that cause the effect and that my calculation does not reflect. But we can now reproduce it computationally." At least this satisfies his restless inquiring mind; he can tick off this unsolved question. "You have to get to the bottom of things," André Kaufmann says, "you shouldn't just believe everything just because it's in a book or on the internet."

SOCIAL MEDIA AS A SCIENTIFIC METHOD

Text: Lisann Gauß

Wolfram Höpken is professor of Business Informatics and Head of the Institute for Digital Change. Together with students, he has developed a new approach to estimating tourist arrivals. The team promptly won the BestPaper Award at the Tourism Conference ENTER23 in Johannesburg.



In order to estimate tourist arrivals at a location, there are various forecasting methods. In most cases, these are based on data from the past, for example the month of the previous year. However, such methods cannot include current events, such as natural disasters or pandemics. There are no possibilities to incorporate (daily) actual data. So these forecasting tools only work in "normal" times when everything is working according to plan. Ergo, not in times of crisis – like the Corona pandemic from 2020 to 2022 or in 2010 when Eyjafjallajökul erupted on Iceland and shut down the European air traffic. The number of tourists arriving at a particular destination at a particular time is therefore difficult to estimate in times of crises.

THE ENTER CONFERENCE

is an international conference for e-tourism which has been organised by the IFITT (International Federation for IT and Travel & Tourism) since 1994. Thematically, it deals with IT applications in the tourism industry. The theme of this year's conference was "Inclusive power of e-Tourism: connecting culture, technology and sustainability". The contributions are blindly peer-reviewed and the results are published in an anthology.

THE INITIAL SITUATION – TOURIST ARRIVALS IN TIMES OF CRISES

Global crises have a direct impact on the tourism sector – as we have experienced ourselves in recent years – be it due to restricted mobility routes, entry regulations or border controls. Tourism professionals ask themselves: How bad is the current collapse? There are official statistics, among others on tourist arrivals, for example from the World Tourism Organization. However, these are first published after half a year or even later. Therefore, the tourism experts cannot give any daily updated information on the number of tourists who are on the spot at a certain destination.

"Our basic idea was: If the same number of tourists always gave feedback on social media or online rating platforms in percentage terms, you could draw conclusions about the number of tourists on site from this volume," explains Wolfram Höpken. The approach is based on the evaluation of the feedback volume, so-called user generated content (UGC). Finally, the research question was: Does UGC in the form of online ratings enable a short-term estimation of current tourist arrivals in case of extraordinary fluctuations in demand – with a higher accuracy than classical forecasting approaches such as the seasonal naïve forecasting method?

FIRST CONSIDERATIONS – BACHELOR'S THESIS

The first considerations for this method came up in the context of the bachelor's thesis of co-author Nadine Liedtke who is studying Business Informatics at RWU. In her thesis, the student implemented the approach in concrete terms. For the ENTER conference, the paper was revised again by Wolfram Höpken and Nadine Liedtke together with Dominic Regitz who also studies Business Informatics at RWU and Matthias Fuchs from the European Tourism Research Institute (ETOUR) at Mid-Sweden University.

The conference contributions have to deal with a real existing tourism problem and solve it. A clean scientific paper and methodology as well as validated evidence of successful application are also requirements. "I've probably already published a total of ten papers at ENTER conferences that were based on student work," Wolfram Höpken says.

THE DATA ANALYSIS – BERLIN FROM 2010 TO 2020

The idea was born and the team tested the hypothesis using Berlin as an example. First, numerous data was collected and analysed: Firstly, tourist arrivals in Berlin in the period from 2010 to 2020; secondly, Tripadvisor data for the same period. By analysing the volume of reviews on Tripadvisor, it was possible to draw conclusions about the number of tourists who were on site in Berlin at any given time.

The data was prepared for two time periods: 2010 to 2019 (before the crisis) and the entire period from 2010 to 2020 (including the beginnings of the Corona pandemic). The newly developed approach was compared with a conventional one, the seasonal naïve forecasting method. This forecasting approach incorporates the long-term trend as well as seasonal fluctuations for its predictions.

The comparison shows: In non-crisis periods, both approaches were at about the same level and were able to predict the number of arriving tourists with about the same accuracy. In "normal" times, the newly developed approach thus works just as well and reliably as other, classic forecast approaches based on data from the previous year. In times of crises, however, the approach works better than others. To be more precise: by 26 percent. Compared to conventional methods, the approach does not provide predictions or forecasts but almost daily estimates. It picks up the tourist feedback from online platforms today and estimates tourist arrivals from the day before based on it. Data from UGC can thus overcome the problem of missing time series data. "Based on the feedback volume on one day in December, for example, we estimate tourist arrivals from the day before," explains Wolfram Höpken.

THE METHOD – USER-GENERATED CONTENT

About the methodology: The estimated number of tourist arrivals was compared with the real number of tourists who were on site in Berlin on the respective days. Since the estimates refer retrospectively to the previous day, the concrete numbers of the respective day from the past can be referred to and compared with these for the comparison and scientific validation. Thus, on the one hand, there is the estimated number of tourist arrivals, for example from the 4th of December 2018 which can be compared with the concrete numbers of tourist arrivals from the same day. Through this comparison, it is possible to check how accurately the approach works. On this basis, the approach can be applied in the present and, in a kind of real-time monitoring, tourist arrivals can be estimated in real time on the basis of feedback or UGC from the previous day. In this way, it is also possible to generate up-to-date statistics of tourist arrivals to specific destinations. "That is the great advantage of this novel approach, that it can give arrival figures almost on a daily basis," says Wolfram Höpken.

If this method was applied to the entire period of the Corona pandemic (2020 to 2023), the discrepancy with classical approaches would be even larger as these do not include crisis-related slumps because: Crises such as pandemics or natural disasters obviously cannot be predicted.

CONDITIONS – TOURISTS AND SOCIAL MEDIA

However, a requirement for this approach is a certain amount of data from UGC, from feedback given. The approach therefore only works for places where there are actually tourists on site who potentially provide feedback. Vice versa, no estimations can be calculated for less touristy places as the amount of UGC data is too small.

Berlin as the capital of Germany, as a well-visited and highly frequented tourist city is particularly well suited for this analysis. "In a further step, we could apply the approach to the Lake Constance region for example and compare these results," explains Wolfram Höpken. The Lake Constance as a tourist region attracts a different group of clients compared to Berlin: "The tourists in the capital are largely business travellers and young people who make extensive use of social media and online platforms. In comparison, the classic Lake Constance tourist is on average older and therefore less affine to IT," says Wolfram Höpken about the two tourist groups. One assumption would be that the classic Lake Constance tourist does not give any feedback at all. The percentage of those who give feedback would be lower. Thus, the feedback rate would also be lower and would fluctuate more. "The approach would therefore have to be applied to various tourist regions in order to check how valid the results are overall. And also to answer the question of whether this approach only works in big cities or also in other, more rural regions," Wolfram Höpken summarises.

Wolfram Höpken was born in Hagen in 1966. He studied Computer Science at the FAU Erlangen-Nürnberg and completed his dissertation at the TU Darmstadt. He then worked for several years in the tourism and IT sector. Since 2008, he is professor for Business Informatics and the Head of the Institute for Digital Change at RWU. His research focuses on business intelligence and data mining, semantic web & interoperability and ICT systems in tourism.

THE RESULT – UGC AS AN INDICATOR

A final result of the study: Tourist feedback seems to be a good indicator to express the number of tourists who are on site. The percentage of tourists giving feedback on online review platforms, such as Tripadvisor, is relatively constant: On average about 15 percent give feedback on such portals. This percentage is admittedly relatively small. Nevertheless, the projections calculated on this basis are very accurate and reliable.

Click here for the paper:

Christoph Oldenkotte: Mr Mayor, how do you remember your own studies?
Clemens Moll: Positive throughout, full of learning and work-intensive but also a social time. I enjoyed my life as a student very much. I didn't only learn.

CO: Was the career goal of becoming mayor already clear at that time?
CM: I was already interested in local politics as a young person and looked into what qualifications were needed for it. Let's put it this way, I didn't want to rule it out.
One day in my hometown, a firecracker exploded in front of the church during a service. The mayor was also sitting in the church. He went out, grabbed the boys who set off the firecracker and slapped them. I thought: How is this possible? I was really horrified and I realised that there must be another way. You could say that the firecracker in front of the church was the spark that made me decide to become mayor.

CO: Would the path to the legislature also have been possible for you, for example the path to a parliament as a member of the state or federal parliament?
CM: No, I would be too far away from the people. You don't see any results. Well, you discuss the general direction, you decide on funding programs and so on. But here in local politics, I also see the cycle path at the end which we struggled for in the local council. And in these processes, I come into contact with all kinds of people every day. I encounter the entire spectrum of life in our society.

CO: Almost exactly one year ago, you started as Lord Mayor of Weingarten. What surprised you this year?
CM: I was mayor of Amtzell for twelve years before that and I knew Weingarten well. So I knew pretty much what I was getting into.
What I had to learn is that in a larger town, some things simply take more time. Let's take photovoltaics on urban land. We would like to expand this but we need external capital. So there is a citizens' energy cooperative, a great thing. But until the PV is on the roof, so much has to be regulated, rightly so of course but I'm sometimes a bit too impatient for that. On the other hand, there are formats like "Town Hall meets School". I hear that a fence is missing at the football field. We built it immediately without any bureaucracy and the fence is up and running.

CO: We have experienced a media revolution in the last decades and we are still in the middle of it. New communication channels change the relationship between people, they also change the relationship between citizens and institutions. What does that mean for a city administration?
CM: The readers of the classical media are becoming fewer, people inform themselves differently. Of course, we as a city administration also have to react to this. We have to rethink the ways in which we reach citizens. And of course social media channels play a role in this. We have to explain on different channels what we are doing and why.

CO: But these social networks are not a one-way street.
CM: Yes, of course, something will come back. But you have to put up with that. We have to interact.

CO: Is it not only the institutions that have to relearn communication but also the citizens?
CM: Of course, people are often too quick to write something somewhere. Even on our citizen info app, sometimes messages come in that make you think .... I always say, remember: there's a person at the other end! Unfortunately, that is too often forgotten. But when you look at the citizens as a whole, there aren't many who use a bad tone but they are loud.

CO: In this context, do you have any understanding for the students' argument that the complaints of a few residents on campus seem to carry more weight than the interests of an entire student body?
CM: Our society works because we show consideration for each other. On the one hand, in a democracy the majority decides. On the other hand, there is protection for minorities. In this way, we have to look for solutions together. I also believe that out of 7,000 students, 6,900 follow the rules. So we are talking about the few complaining about the misbehaviour of the few. Yes, we have to deal with that but I am sure that we will manage to reach a mutual understanding. Above all, we have to break out of a loop of mutual accusations, we have to steer the discourse in a differentiated direction, we have to build trust. Then the troublemakers will be exposed.

CO: What do you associate with the still relatively new label "university city"?
CM: The university town has many faces. It's not just a question of "party yes or no?" It's about the questions of how do we dovetail business with the universities? How do we implement the innovative power of the universities in our city? How can we make better joint use of infrastructure? For example, a citizens' event was held in the refectory. It all has to grow together more, become more self-evident so that the universities are at the centre of urban society.

CO: You are close to the everyday challenges of our time. How do education and training have to develop in order to prepare young people for them? Is it also about a kind of personality development?
CM: Of course, studying is a time when a lot happens also in the development of a personality. But I don't see this task with the universities. At that age things may already have gone wrong.
For example, I am a fan of a compulsory social year in which all young people serve the community for a year, a useful year in many respects, also in terms of personality development. Life is not a wish list. Sometimes you have to tackle.

> "Above all, we have to break out of a loop of mutual accusations, we have to steer the discourse in a differentiated direction, we have to build trust. Then the troublemakers will be exposed."

Clemens Moll was born in 1980 in Leutkirch in Allgäu. He grew up and went to school in Bad Saulgau. After graduating in administration in Ludwigsburg, he worked for the district administration offices in Biberach and Tuttlingen and for three years as a full-time local chief executive in Nabern near Esslingen. While working, he completed a Master of Business Administration degree at Steinbeis University in Berlin. He was mayor of Amtzell from 2010 to 2022 and was elected mayor of the city of Weingarten in 2022. Clemens Moll is married and has three daughters.

SOMETIMES YOU HAVE TO TACKLE

Johannes Rupfle is 32 years old and grew up in Lindau at the Lake Constance. He likes to do a lot of sports and is enthusiastic about technology. After training as an electronics technician, he studied Automotive Engineering at RWU and completed two master's degrees in Mechanical Engineering at the Karlsruhe Institute of Technology and in Energy and Environment at the Instituto Tecnólogico de Buenos Aires. Today, he is working on his doctoral thesis on the topic of continuous monitoring of wind turbines at the Technical University of Munich and is involved in the "Scan Pyramids" project to discover and research a new chamber in the Cheops-Pyramid in Egypt.

MANY ROADS LEAD TO GIZA

Johannes Rupfle—from automotive engineering student at the RWU to the discovery of a previously unknown chamber in the Cheops-Pyramid in Egypt.

Text: Vivian Missel

It is dark in the tunnel, the path leads straight down into a black hole. The air tastes humid and musty. What might be waiting below? No one has been there for months. Only 70 metres to go—half of it is already done. Johannes Rupfle crawls on all fours into the interior of the Great Pyramid of Giza, also known as the Cheops-Pyramid.

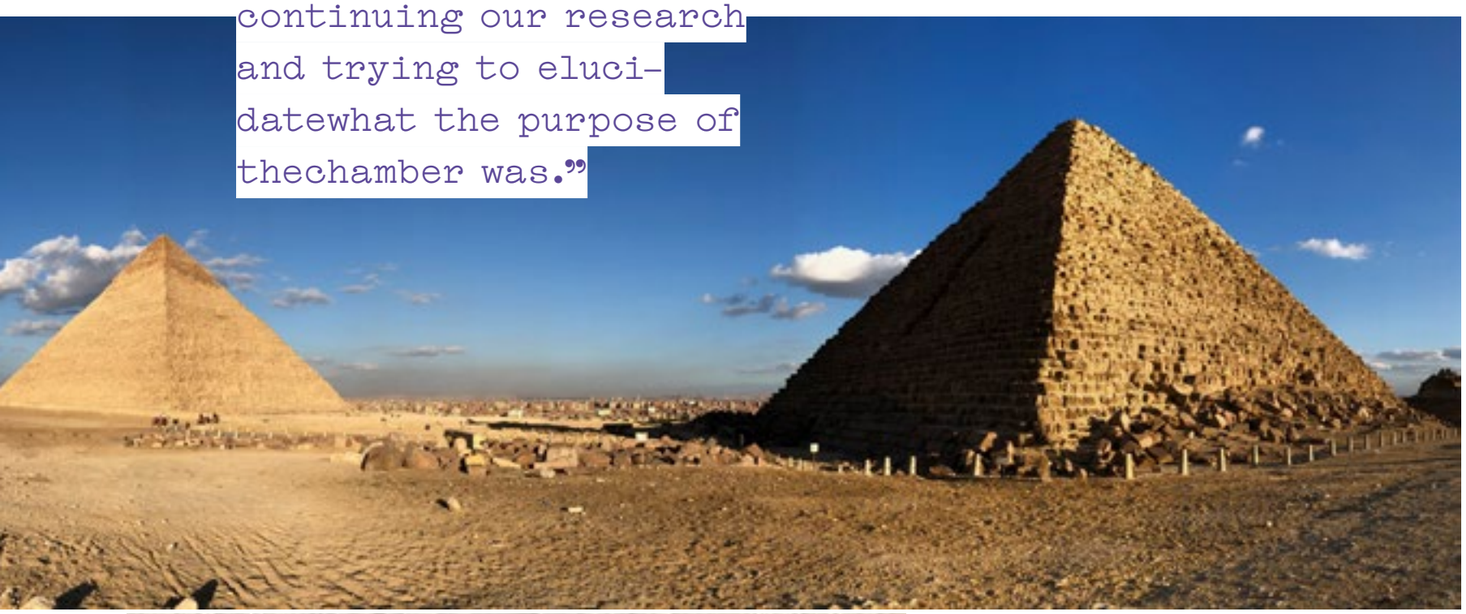
Johannes Rupfle is involved in the exploration of one of the oldest and largest of the three pyramids at Giza. Together with a team of scientists from the Technical University of Munich, he has travelled to Egypt several times in recent years to search for something that had been suspected in the pyramid for around eight years: a previously unknown hollow space. In March 2023, the sensational discovery was finally made: there is another chamber in the Cheops-Pyramid.

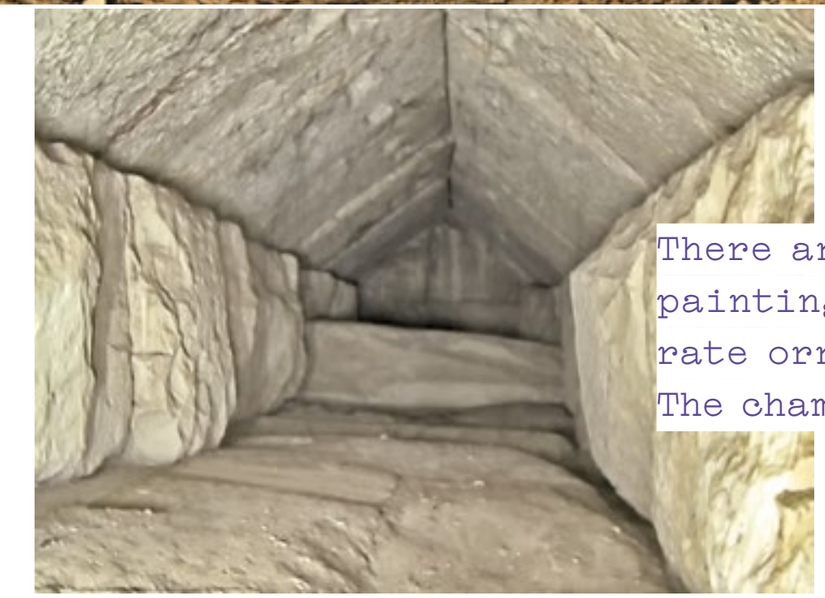
SLOWLY BUT STEADILY

"When I look back today, I did everything right," says Johannes Rupfle. His path was not straightforwardly focused on an academic career. He started with secondary school, went from there to a technical college and spent the following three years doing an apprenticeship as an electronics technician. Then—somewhere between training and entering professional life—he decided to take the helm again. Screwing, repairing, tinkering—first on mopeds, then later on cars—from then on he wanted to spend more than just his free time on this hobby. So in 2012, he signed up for a degree in Automotive Engineering at RWU and turned his hobby into a career. From then on, his academic career took off.

After his bachelor's degree, he did his master's degree in Mechanical Engineering with a specialisation in Automotive Engineering at the Karlsruhe Institute of Technology. There was a cooperation with the Instituto Tecnólogico de Buenos Aires (ITBA) in Argentina for a master's program in Energy and Environment. "I was accepted with a scholarship and then did a second master," Johannes says. Next, that was clear to him, was a PhD. "I was about to join an automotive manufacturer in Munich but there was no suitable PhD topic for me there at the time." So he ended up back at university. This time at the

“The Cheops-Pyramid still holds many secrets but we are of course continuing our research and trying to eluci-datewhat the purpose of thechamber was.”





There are no wall paintings or elabo-rate ornaments. The chamber is empty.

TU Munich in the Department of Non-destructive Testing. He is still working there and is researching in the field of wind power on the development of a holistic structural health monitoring system for the maintenance of wind turbines. This is also his doctoral topic: not archaeology, not pyramids, but wind power. “That is my actual core competence.” The trained mechanical engineer came to the pyramids by chance.

MORE QUESTIONS THAN ANSWERS

It began eight years ago in Egypt. Measurements by an international team of researchers in Giza revealed an anomaly on the Cheops-Pyramid, behind which a cavity, a passage, a chamber was suspected. In 2019, researchers from the Department of Non-destructive Testing at TUM joined the “Scan Pyramids” project. With the help of ultrasound and radar, they examined the spot behind which they suspected the chamber. They finally located it close to the surface, just a few metres above the regular visitor entrance.

Over the years, the research project developed into an extensive undertaking. “There was a need for manpower, so I was asked if I could assist,” says Johannes. As the only mechanical engineer among geophysicists, he did what mechanical engineers do: He worked on measuring instruments and devices. One challenge was to develop a non-destructive technique. “The Cheops-Pyramid is a world cultural heritage site, so you can’t just remove blocks of stone or drill a hole. In February 2023, an endoscope was used to find a way through gaps in the rock to the precisely calculated position of the cavity. And then the researchers had it in black and white: There is another chamber. They had found what they were been looking for.

INSIDE CHEOPS

“No one had taken a look inside the chamber for four and a half thousand years,” says Johannes. “That already makes it something special.” The chamber has exactly the shape that the research team had calculated based on the survey data. The chamber is two metres wide, nine metres long and two metres high and the ceiling is gable-shaped. This construction method is called “chevron shape”. There are no windows, no doors, the walls are bare. There are no wall paintings or elaborate ornaments. The chamber is empty.

The discovery of the chamber raises more questions than answers. “The function of the chamber is still completely unclear,” says Johannes. Archaeologists have already come up with initial theories. The discovery could be a corridor. However, this is considered unlikely because the construction and size differ significantly from the corridors known so far. “I’ve been through a corridor like that myself, down into the rock chamber,” says Johannes. “Everything was very cramped there.” Another theory is that the chamber was built for reasons of statics – to relieve the pressure on overlying boulders. Possibly to protect something important below or behind it from collapsing boulders. Another theory is that the newly discovered chamber is an antechamber for another chamber. “The Cheops-Pyramid still holds many secrets but we are of course continuing our research and trying to elucidate what the purpose of the chamber was.”

WHERE IT GOES NEXT

An adventurous story, to be part of the discovery of a previously hidden chamber in the Cheops-Pyramid. “And that too as a mechanical engineer,” Johannes laughs. He doesn’t yet know where it will lead him. At the moment, he is writing his dissertation at the TU Munich. One thing is certain: He wants to keep at it, on the exploration of the pyramids. “The discovery of the chamber, that was a once-in-a-lifetime experience, that doesn’t happen to you twice in a lifetime.”

Sebastian Rösch studied Social Work at RWU where he now works as a research assistant. Together with a musician friend, he set up the f r e i s p i e l scholarship program.

SO THAT MUSIC DOESN'T REMAIN A PRIVILEGE

Text: Sebastian Rösch

What do you do with 2,000 euros of prize money designated for a social cause? Donate? But to whom? One thing is for sure: it should help people. In spring 2022, the graphic designer Bernhard Gögler from Ravensburg asks me what you could do with such prize money. In our discussions, the music scholarship was born.

The goal: to support people with low incomes and people with disabilities in their musical development. The offer: five free lessons and support to receive long-term sponsorship, for example at the Ravensburg Music School or through the Ravensburg Children's Foundation.

MAKING MUSIC IS A GIFT

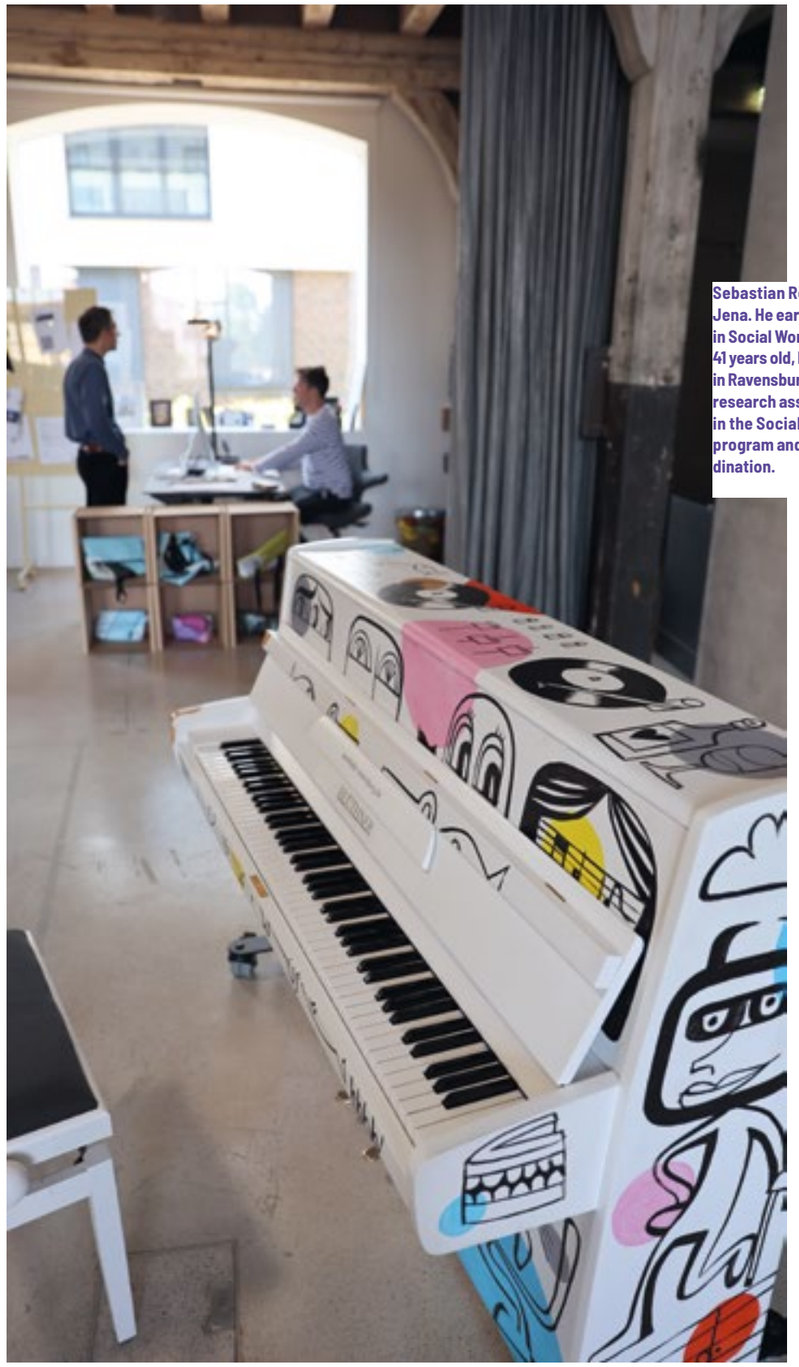
In order to set up the scholarship for a long-term period, Bernhard Gögler and I are launching a call for funding in the Schwäbische Zeitung. It works: The Wolfram Foundation is interested in supporting the music scholarship. The second round of funding takes place in summer 2023.

Bernhard Gögler and I share an enthusiasm for music. We play together in the band Skarabusch. And we know: making music is a gift. But to be able to experience it, you need the chance to learn an instrument. Bernhard had a street piano painted by the Berlin street artist Jim Avignon which has been available for various projects for some time. So one thing led to another.

"IT TAKES THE WHOLE SOCIETY FOR THIS TASK."

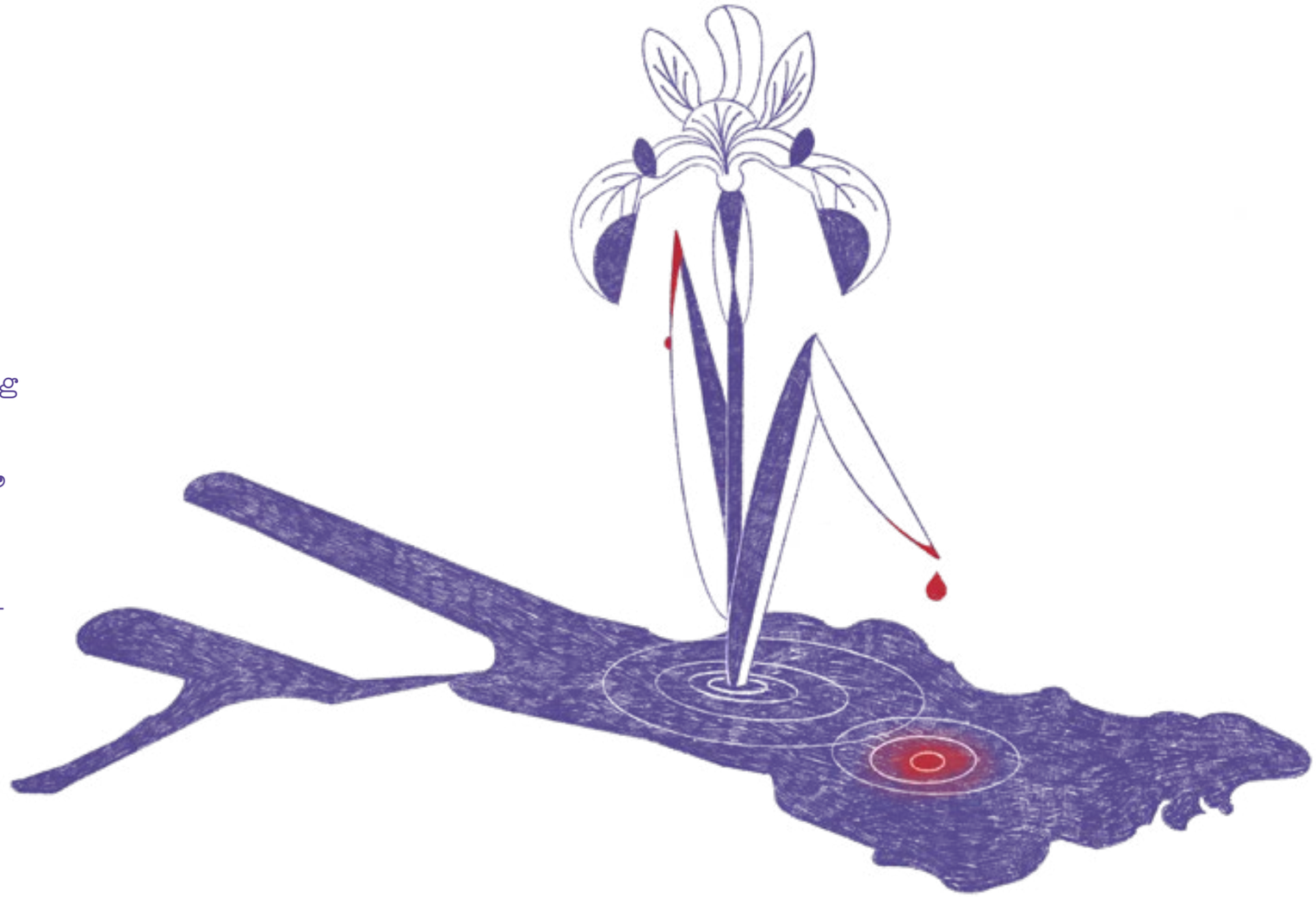
During the development phase, it became clear that people with low incomes and people with disabilities are much less given the chance to learn a musical instrument. Those who have very little money simply cannot afford it. In discussions with the Ravensburg Music School, it turned out that funding up to 100 percent was possible. This is how we were able to provide the first scholarship holders with longer-term support.

f r e i s p i e l has shown me again how important the profession of social work is. It focuses specifically on people who, unfortunately, are always forgotten and have no strength or no chance to change their life situation themselves. It needs the whole society for this task. The RWU makes an important contribution to the region with the courses offered by the Faculty of Social Work, Health and Nursing. Without it, I wouldn't have moved to Ravensburg in the first place.



Sebastian Rösch comes from Jena. He earned his diploma in Social Work at RWU. He is 41 years old, lives with his family in Ravensburg and works as a research assistant in teaching in the Social Work degree program and in program coordination.

Julian Biberger studied Mechanical Engineering and Product Development in Mechanical Engineering at the RWU. After several stations in the industry, as doctorate and various teaching positions, he now works at ZF in Friedrichshafen. At the same time, he writes crime stories with a passion.



THE CRIME-WRITING AUTOMOTIVE ENGINEER

Text: Lisann Gauß

Doctor of engineering, wildlife photographer, crime writer, passionate runner, lecturer – Julian Biberger is all of these. He does the one full-time, the other part-time and as a hobby. And in all of this, he is connected with the region of the Lake Constance and Upper Swabia.

The 33-year-old grew up in Eriskirch and after graduating from high school, he asked himself: journalism or engineering? In 2006, while still at school, Julian Biberger began to work for the Südkurier and reported on various events in the region in sports and culture. "German was my passion at school," he says, explaining his early enthusiasm for journalism. At the same time, scientific subjects like maths, physics and technology as well as "science" itself fascinated him. The decision – what to study? – was made when he visited the open day at the RWU in 2009. The labs and workshops, the practical teaching and the personal contact between teachers and students at the university convinced the student. "The whole package convinced me," how Julian Biberger explains it.

THE CLASSIC: MECHANICAL ENGINEERING

He signed up for Mechanical Engineering, specialising in construction and development. Above all, the subject of materials science, the professors, their good supervision and the small groups excited and convinced the young student to continue. So he went on to complete a master's degree in Product Development in Mechanical Engineering, also at the RWU, with a specialisation in materials engineering. "The setting also suited me: the location on Lake Constance, the Physikerfest," Julian Biberger remembers his student days with a laugh. From the third semester until his Master's degree, he also worked as a tutor for subjects such as control engineering, mathematics and materials science. "It was super nice to be able to help the younger students and pass on something," he says.

During his bachelor's degree, Julian Biberger completed internships at Airbus and ZF where he also worked as a student trainee and wrote his Bachelor's thesis. During his master's degree, he then worked at Daimler in Ulm and wrote his master's thesis there. "This allowed me to gain insights into employers in the region and beyond while directly applying the knowledge you learn during your studies."

"REAL APPRENTICESHIP YEARS"

Both thesis papers were project-related in the area of research and development. In his bachelor's thesis, he analysed the transient behaviour of an active engine mount for ZF Friedrichshafen. In his master's thesis, Julian Biberger developed an engine-related test method for the friction-wear analysis of piston ring coatings at Daimler. His passion for science developed during his studies and Julian Biberger quickly realised that he wanted to continue his academic career until he was a doctor. His master's thesis already dealt with the upcoming dissertation project: a new piston ring coating for friction and wear reduction to reduce emissions from modern combustion engines. With his completed studies, he continued to work at Daimler as an engineer. The three-year project was also the doctoral project on "Tribologically induced surface changes in the friction-wear contact piston ring against cylinder track" which was completed in cooperation with the TU Berlin. "An exciting time," as Julian Biberger reports, "I had great freedom of research. I researched a coating for a diesel series project and the results were finally installed in the cars. That was a great feeling."

He continues: "Those were real apprenticeship years". Julian Biberger was able to take a lot knowledge from his time as a student into his promotion and working life: With the knowledge imparted in the master's program, the foundation for the doctorate was definitely created. He benefited most from the self-organisation and independence he learned — nowadays core competencies that are also taught at RWU.

During his time as a doctoral student, Julian Biberger continued to be linked to RWU: From 2015 to 2017, he was a lecturer at the university and taught both bachelor's and master's students in the field of applied tribology — a "highlight" of his time in Weingarten, as Julian Biberger recounts. "That was a very special time. I was able to give the students insights from my everyday professional life and pass on knowledge from practical experience," he says. Afterwards, he was a lecturer at Heilbronn University for another semester also in the master's program in Mechanical Engineering. For his own professional future, another lectureship or even a professorship would be an option for the graduated mechanical engineer — "possibly also in Weingarten", Julian Biberger adds with a smile.

WRITING IS NOT JUST WRITING

Over all those years, Julian Biberger worked in local journalism at the Südkurier — from football in the local districts to Nena concerts. "It was exciting to get to know the brains and characters. The great thing about this time was that you were allowed to purposely ask difficult questions sometimes." He worked for more than three years as a PR consultant for the rapper Kay One who also comes from the region, from Ravensburg. He got an offer from him to write his biography. But he refused: "At that time, I first thought about writing a book. And by then, I wanted to do something completely on my own." At the same time, he had to do his dissertation and start his professional life, so the book project was put on hold for the moment.

In 2019, after successfully completing his dissertation and starting a new job at ZF in Friedrichshafen in the Innovation and Technology department, the iris blossom in the Eriskircher Ried came to the attention of the passionate crime reader and amateur wildlife photographer — and so both, the idea of writing a regional crime novel about Lake Constance and its title, were born. "The iris blossom has a strong symbolic character. You can do a lot with it. I knew that I wanted to write about it and I had already developed the story in my mind," Julian Biberger says about the beginnings of his writing process. The Corona pandemic,

the increased work in the home office, more free time and fewer appointments came in very handy for him. "And then I just started. Similar to how I would approach a project," explains Julian Biberger. It wasn't the content that came first but rather the characterisation of the characters, a timeline and the structure — similar to a scientific project. Compared to the dissertation: "Creative writing is completely different. A thesis is more research which is fun, the writing is more of a side dish," Julian Biberger explains.

The hobby author wrote the first version of his first crime story in about nine months, the entire process including editing took one and a half years. The Lake Constance crime novel "Irisblütenmord" was published in March 2022. "The best feeling was seeing the printed book in a bookshop," Julian Biberger says — similar to his promotion project: the car driving on the road in which his own development is also built in. "And of course the contact with readers and their feedback."

CREATIVE BALANCE

Julian Biberger balances his otherwise analytical and technical work creatively by writing and telling stories. He now works as a strategy expert at ZF in autonomous driving. In both activities, he has the most fun in contact with others: On the one hand, as an engineer in everyday work, working with colleagues in a team as well as with customers all over the world — "interculturally, from Friedrichshafen, the local point of view, working together with the world". On the other hand, as an author, to experience people, to hear their stories and to always have the ears pricked up to collect material for the next crime story. "For research, I prefer to be outside and observe and talk to people," Julian Biberger says, "that way you can also get to know the region in a different way."

To clear his mind completely, the 33-year-old likes to do sports: jogging, cycling, hiking in summer or cross-country skiing in winter. — All activities that bind him with the region as well as wildlife photography. Where does the connection to the region come from? "Travelling was and is mostly connected to my job. Business trips to Asia or the USA for example." During his time in Ulm, he missed the area of the Lake Constance a lot — life quality. Friends and family were also an important factor which is why Julian Biberger was drawn back to the Lake Constance in Upper Swabia. And: "The professional network that I was able to build up here during my internships was also a factor for the decision."

MORE OVERLAP THAN YOU THINK

Are there synergies between working as an engineer and being an author? "Especially in the marketing area, I was able to benefit from my knowledge from my studies and everyday working life," Julian Biberger says. The publishing house is also quite active in this area but the author himself has knocked on the doors of the local bookshops. "Structured work is of course also very important in both activities. And also an interest in new things and questioning things," he continues.

Being a full-time crime writer? Julian Biberger can't imagine that though. He is too fascinated by science, research, technology and progress. "It should remain a hobby and I want to write what I like." He has already started to write on a second book, a sequel to the first Lake Constance crime novel.

NEW PROFS

PROFESSOR DR. ANNIKA VALENTIN
Faculty of Faculty of Social Work, Health and Nursing

I am happy to be at the RWU because I like the university and the people there from the very beginning.

If I could give my students only one thing to take with them, it would be passion for the things that are close to their hearts.

I associate Upper Swabia with family roots and "Ochsenmaulsalat".

I like working with students because I like the fact that they are often not yet so "adjusted".

I find a balance to my professional life in meditation, nature and sport.

My own time as a student was very shaping for me because I was able to acquire a lot of knowledge and new perspectives. There were also many legendary parties ...

What I appreciate most about other people is openness, tolerance for different ways of life and humour.

Annika Valentin was born in Göppingen in 1985 and completed her studies in Social Work with a focus on social psychiatry/addiction support at the DHBW in Stuttgart. This was followed by a Master's degree in Educational Science with a focus on heterogeneity in education at the University of Augsburg. From 2006 to 2017, she worked as a social worker, among others at diversity München e.V., Bavaria's only LGBTIQAP+ youth centre. In 2022, Annika Valentin completed her doctorate at the University of Augsburg on the topic of "Diverse lifestyles in the educational materials of the Federal Centre for Health Education". Since May 2023, she has been teaching as a professor of Social Work with Children and Young people at RWU. Her focus is sexual education, gender, diversity and diverse lifestyles.

Marc Weindel, born in 1976 in Speyer, studied Business Administration at the University of Mannheim and the University of Wales, Swansea, UK. After his studies, he completed his doctorate at the University of Mannheim and worked as a research assistant at the Chair of General Business Administration and Auditing there. He then worked at Heidelberger Druckmaschinen AG where he was Head of the Accounting Principles Department from 2009 to 2022. Since October 2022, Marc Weindel is professor of Accounting and Business Law at RWU's Faculty of Technology and Management.

PROFESSOR DR. MARC WEINDEL
Faculty of Technology and Management

I am happy to be at the RWU because – as someone who previously worked in industry for many years – I would like to pass on my practical experiences to the students and this is much more possible at a smaller university to respond to the students individually in teaching.

The exciting thing about my field is that many new development perspectives and career opportunities will open up in the future, especially due to the ever-increasing regulatory requirements.

One experience that changed my life permanently was the birth of my daughter Mathilda and my son Ferdinand.

I associate Upper Swabia with friendly and relaxed people, beautiful landscapes and the proximity to the Lake Constance.

I find a balance to my professional life when I spend time with my family.

What I appreciate most about other people is their sense of humour, their honesty and the fact that you can rely on them.

If I could meet one (also historical) person, it would be Barack Obama.

I find inspiration in traveling to new places and meeting interesting people.

Dirk Steffens was born in 1976 in Esslingen am Neckar. He studied German Language and Literature, Business Administration and Economics at the University of Stuttgart where he also completed his doctorate and worked as an academic assistant. His further career took him to the International School of Management in Stuttgart as a professor and to the International University as Academic Director. Since March 2023, Dirk Steffens is teaching at RWU in the degree programs Business Administration and Management as well as Business Administration and Entrepreneurship. His areas of expertise are general business administration, corporate management, human resource management and leadership.

PROFESSOR DR. DIRK STEFFENS
Faculty of Technology and Management

I am happy to be at the RWU because I can work in personal contact with the students in small groups. I am convinced that learning in this way works best and is the most fun.

If I could give my students only one thing to take away, it would be the joy of critically questioning the established and finding new solutions.

I enjoy working with students because I consider it a privilege to be able to be part of their career development and personal growth.

The exciting thing about my field is that many things are currently developing in an exciting direction. New strategies and forms of organisation are increasingly putting people at the centre and (hopefully) making work more motivating and enjoyable.

My own time as a student was a very beautiful and shaping time for me.

One experience that changed my life permanently was the birth of my daughter.

I associate Upper Swabia with a beautiful landscape and good food.

I find a balance to my professional life in cooking and playing music in the trombone choir.

What I appreciate most about other people is their openness and tolerance.

It drives me up the wall when people ignore scientific facts and justify it with "freedom of opinion".

I find inspiration in hiking in the Swiss mountains.

„If you look towards the East, women in technical professions are much more normal there. It's a cultural thing, you have to talk about it, you have to develop the right images about it.“

I AM NOT AFRAID

Theresa Breckle was born in Heilbronn in 1982. She went to school in Ulm and has remained loyal to this city until today. She studied Production Engineering at Ulm University of Applied Sciences. After a first professional station at General Electric, she returned to Ulm where she first worked as a project engineer at Gardena and later managed the external production. She completed her part-time MBA at the University of Applied Sciences in Neu-Ulm and finally earned her doctorate cooperatively at the TH Ulm and the University of Siegen. She wrote her dissertation in the research project "Digital Product Life Cycle"which was led by her current colleagues in the Faculty of Mechanical Engineering. This is how the contact to the RWU was formed. Theresa Breckle is professor at RWU since the winter semester of 2021/2022 and teaches Manufacturing Technology with a focus on industrial engineering, additive manufacturing and digital production.

Christoph Oldenkotte: Ms Breckle, how did you get into Mechanical Engineering?
Theresa Breckle: As a child, I already liked the subject, power plants, production, rockets ... However, since I went to a grammar school for modern languages, I lost sight of it during my school years. At the end of school, I did an internship at the public prosecutor's office after which it was clear: I wasn't going to study law! Two or three university tests all showed the same result: Production Engineering. And I thought with my passion for physics combined with my organisational talent, it would actually be a perfect fit.

CO: How do you remember your own student days?
TB: I really wanted to go to a university of applied sciences, I wanted this concrete practical relevance. I enjoyed studying so the recommendation from the study tests came true. I wanted to learn what I would need later in my job. And in the practical semesters I saw that you really need what you learn there.

CO: Despite decades of efforts to attract women to STEM subjects, they are still heavily underrepresented in technical subjects, both among teachers and students. Why is that?
TB: To be honest, I don't understand it at all. But I'm probably in a bubble where it just works well. I keep hearing statements like "I don't have the courage" or "I don't think I can do it". But when you ask, it turns out that young women have no idea what it's all about. The job descriptions are not clear at all. Yet there are so many possibilities. Of course, sometimes I have dirty hands but there are also very creative tasks that take more place at the computer and not in an assembly hall. As an engineer, you have a lot to do with people, especially in the production environment and in the management tasks that are often associated with it.
If you look towards the East, women in technical professions are much more normal there. It's a cultural thing, you have to talk about it, you have to develop the right images about it.

CO: Was it clear to you from the beginning that you wanted to go into teaching?
TB: Originally I didn't want to do a doctorate. But I had a teaching position in Ulm and I enjoyed it. I then actually wrote the dissertation with the aim of becoming a professor. And that was the right decision, both for the job and for the RWU. It's great to see how young people develop, to support them in the process but also to challenge them.

CO: What is special about the RWU for you?
TB: As a professor in Mechanical Engineering, for example, I just supervised a thesis in the social field as a second examiner; it was about a protection concept for a basketball club. Where else could I do that? I find this diversity very appealing. There are many overlaps with the other faculties, both with social and with economic issues.
Another point that I find very enriching is our teacher training programs. These students don't have to implement something like machining technology primarily later on but they have to explain it to their students. They often have completely different questions for me and that in turn helps me as a teacher.

CO: People say that technological progress grows exponentially. During the Corona time, it was often said that people find it difficult to imagine such non-linear growth. What future scenario do you draw for your field of manufacturing technology?
TB: Of course, digitalisation and AI will change the world of work. The degree of automation will continue to increase, keyword "digital twin" of products or of entire factories.
But I think we should see it positively and use the opportunities. I don't believe that AI will take away jobs all together. It will take away routine jobs. But it can give us more room for activities that we are actually there for. And new jobs will be created. It is important that we actively shape the transformation. I am not afraid.

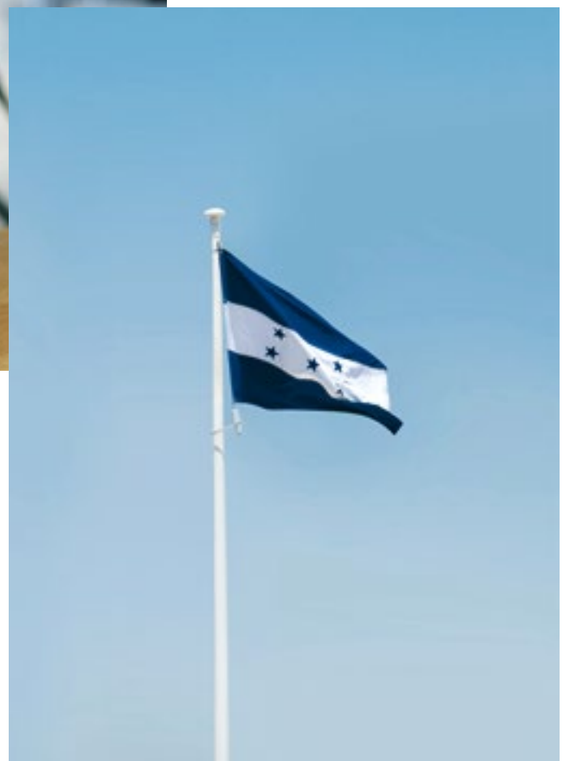
CO: What does that mean for teaching? What adjustments need to take place here?
TB: An innovation like ChatGPT has a direct impact on us, especially on the examination system.
In terms of teaching, I think that a social component will become more important as an addition to technological know-how. Of course we need to understand the technology but we also need an assessment capability. We need to ask how we can use technology responsibly.

Marel Medina is 25 years old and was born in Honduras. He's studying Mechatronics in his second year at RWU. He is interested in culture and languages. Like the rest of his family, he is passionate about movies – one of his favorites is Interstellar by Christopher Nolan.

Marel came from Honduras to Weingarten in September 2022 for his master's degree in Mechatronics. He is the first Honduran who studys at RWU.

ADAPT AND START OVER

Text: Vivian Missel



A reserved, warm smile: "Everytime I introduce myself, I start with: 'I'm from Latin America'," says Marel Medina. Marel was born in Honduras and grew up in many places. His father worked as a supply chain manager for a large banana producer in Latin America and often had to move for work. So the family changes places frequently. From north to south, east to west, from Honduras to Costa Rica and back again. "I'm used to adapting to new environments and starting over," Marel says. "Adapt and start over."

HONDURAS

Marel's family is from northern Honduras. When Marel was five years old, the family moves to Costa Rica. Five years later, they returned to Honduras to the small town of Choluteca in the south of the country. Choluteca is one of the oldest towns in Central America, located on the Carretera Panamericana, the Pan America Highway. From there, it's only a 50 minute drive across the border into Nicaragua. "Poverty and crime are a part of Honduras," says Marel, but he never saw much of that here. "On the weekends, everything is open, so you go out, enjoy the sun and socialize." Honduran culture is very similar to Latin-American culture, Marel says. Hondurans are very sociable people, open-hearted and warm. Unlike in Germany: "People here are moving really fast."

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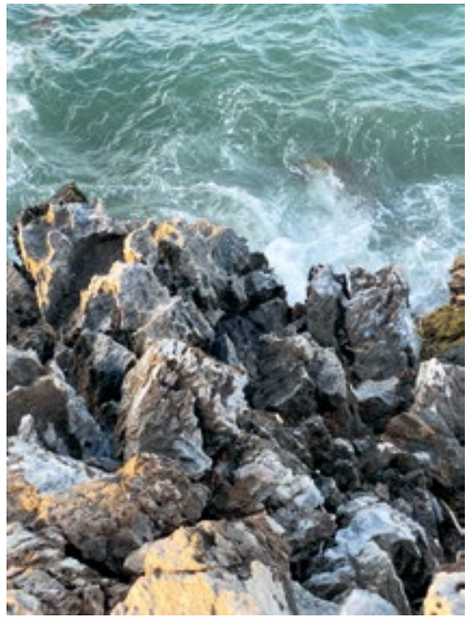
FEEL THE DNA OF ELECTRONICS

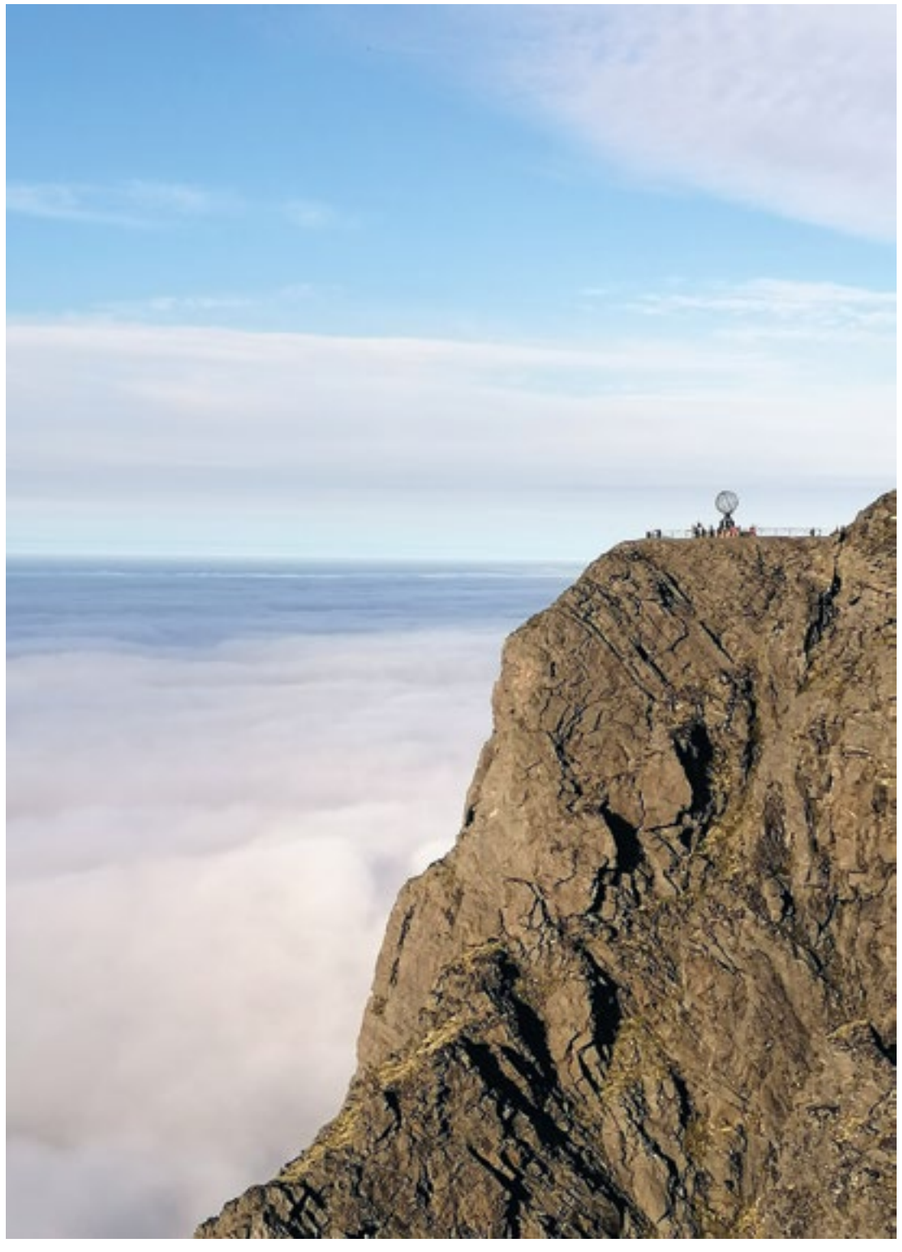


After school, he enrolled in a dual degree program in Mechatronics at Universidad Invenio in Costa Rica. Six internships and a bachelor's degree later, he also gets a job offer in Costa Rica. "By the time I graduated, I got almost two years of experience." But getting a work visa in Costa Rica as a non-Costa Rican is fraught with hurdles. So he returns to Honduras for the time and supports the family business for a few months. On the side, he works as a translator. "I love to learn new languages," Marel says. He wants to learn seven languages before he turns 30. He already speaks Spanish, English, Portuguese and German but he still wants to learn French and Korean and maybe Italian too.

GERMANY

The job prospects for an engineer in Honduras are not abundant. Jobs are few and far between and they are often underpaid with poor working conditions. "Working 50 hours is no exception. Even on the weekends you sometimes have to go to work." So Marel decided to go abroad and pursue a master's degree. He set his sights on Europe and applies to Germany, Austria and the Netherlands. "Germany seemed to be a pretty good option for an engineer." Even before he gets an acceptance letter, Marel started learning German vocabulary. Finally, the acceptance comes from Weingarten. Marel decided to go to RWU. He is the first Honduran to study at RWU.

In September 2022, with two suitcases, Marel flew from Honduras to Panama, from there to Frankfurt and on by train to Ravensburg and then to Weingarten. "I was really excited, it was my first time in Germany and I didn't know what to expect." In Frankfurt, he met other international students. Together, they traveled to Ravensburg where they were met by a senior Indian student. "It was a warm welcome, he had a whole dinner prepared for us." Finding a room was no problem for Marel because "everything was set upon arrival." Marel quickly made friends and learned about the German culture and language. He's not too enthusiastic about Vesper and Brotzeit though: "I sometimes really miss the beans and tortillas," Marel laughs. "But I'm a foodie, I like to try new things."
In the meantime, Marel has been living in Germany for almost a year. Where will he go after he finishes his studies? First, he wants to look for a job in Germany. The good career prospects for engineers in Germany were one of the reasons why he came to Weingarten. But maybe he'll move on, "I'm eager to discover new places," Marel smiles.



In the middle of August, Anna travels to Finland for a semester abroad—from summery 25 degrees in Weingarten to the ten degrees colder Rovaniemi, the capital of Lapland. Anna spends four exciting months in the city where also Santa Claus lives.

FROM FINLAND TO THE INTER-NATIONAL OFFICE

Text: Lisann Gauß

To be honest, I decided to spend a semester abroad only in the second attempt," Anna Kaim says. When she was informed that there were still places available for a semester abroad in Finland, the 22-year-old applied—"quite spontaneously", as she reports. Then everything happened very quickly: "I sent off the application in May and three months later, in August, I already flew to Finland." And why did she decide to spend the cold winter in the even colder north? "The Scandinavian countries have been on my bucket list for a very long time. And I love winter," Anna says enthusiastically.

FROM SUMMER TO WINTER

For the next four months, Anna is a student at Lapin AMK (ammattikorkeakoulu), the Lapland University of Applied Studies. The university has two other campuses besides Rovaniemi, in Kemi and Tornio. Over 5,000 students are currently registered at Lapin AMK. The academic year is timed differently there compared to Germany: the autumn semester begins in mid-August and lasts until mid-December, while the spring semester runs from January to May.

Anna has to worry just until shortly before her departure because she receives a confirmation for a room in the student accommodation at a very late stage. Even before she sets off for Rovaniemi, she is able to make her first contacts: At online meetings organised in advance by the university, Anna meets Julia, who is studying business informatics at RWU and who is spending her semester abroad at the same university at the same time. Anna also meets another student from Constance. Together, the three girls fly to Rovaniemi – almost 2,700 kilometres away, to the capital of the northern Finnish landscape of Lapland. About 63,000 people and 160,000 reindeer live there. "This way, I already knew a few people before the lectures started. That was good, so I wasn't completely alone at the beginning," Anna says.

FROM STUDENT AND TOURIST LIFE

Before classes start, Anna and her fellow students have two weeks off – "that's a good way to start the semester," Anna says laughing, "we used this time in the best possible way." Together with friends, she makes a trip to the neighbouring country of Norway and visits places worth seeing such as the Lofoten Islands and the North Cape. During the lecture period, there are many offers for the international students, organised by the university as well as by Erasmus: Excursions in the region, including to a reindeer farm and national parks, weekly offers such as games and campfire evenings, sports activities such as bouldering and ice hockey – "There was always something for everyone with this wide variety of offers. The community was very much encouraged," says Anna. She especially remembers the sauna evenings in the dormitory: "There is a sauna in every building and even on campus. You can't imagine this here at home," she laughs. She also goes on several city trips with her new friends, for example to Helsinki, Tallinn and Riga.

Anna studies Internet and Online Marketing at RWU. As there is no such course at Lapin AMK, she signs in for Communication. Courses she takes in this subject area include Career Planning, Self Branding and Visual Communication Tools. Anna gets credits for two of these courses. "The courses were more general and had less to do with my studies at the RWU in terms of content. I would say I learned more for life. Especially such topics as self-branding are important and helpful regardless of the study content." The seminars take place in blocks that last a few weeks and are concluded directly afterwards with an exam. There are less written exams compared to Germany, but more group works, presentations and essays. There is no classic exam period at the end of the semester, which Anna recalls as positive: "The knowledge was taught in a more compact way and everyday life was more relaxed. That was one of the biggest changes for me when I came back to the RWU." The seminar groups usually consist about 20 students, a mix of international exchange students and Finnish students. Anna is also attending a basic Finnish course, "just to get a taste of it," she says. However, you can get along very well only with English, both at university and in everyday life, she continues.

Anna Kaim is 22 years old and studies Internet and Online Marketing at RWU since winter semester 2021. She comes from near Augsburg and is interested in baking and reading. Anna works as a temporary employee in the International Office at RWU since February 2023.

ABOUT WINTER IN ROVANIEMI

Rovaniemi is a tourist hotspot during the winter months, thanks to the Santa Claus village nearby. There you can visit the so-called one and only Santa Claus all year round, who also has a post office there that receives and answers Christmas letters from children all over the world. From November on, minus temperatures are part of everyday life; Anna talks about temperatures as low as minus 18 degrees. "You had to put several pairs of socks on," the 22-year-old continues.

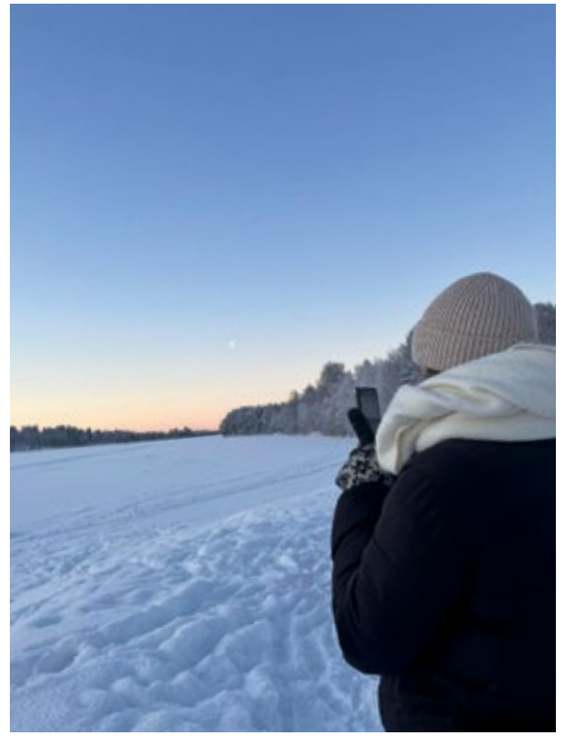
At the end of November, it also starts to snow. Once the river Kemijoki was completely frozen, so people played ice hockey there. In winter, you don't see the sunrise north of the Arctic Circle, which crosses Rovaniemi. Anna talks with excitement about the moment when she sees auroras for the first time: "That was a very impressive moment. I always really wanted to see the Northern Lights." Anna also mentions an app that notifies you when you can see this spectacle of nature in your personal location. "You can hardly get enough of it."

In mid-December, Anna is returning to Germany – "driving home for Christmas". She was really looking forward seeing her family and friends back home after the four months in Finland. "It was nice to spend Christmas at home with family," Anna says. "On the other hand, I met so many great people, travelled around a lot and had a great time for which I am very grateful," she sums up. "I look back on so many great memories."

FROM ROVANIEMI TO THE INTERNATIONAL OFFICE

At the same time as Anna comes back to the RWU, the International Office is looking for a student assistant – "what a coincidence!" Because Anna is so excited about the support from the IO at Lapin AMK, she applies for the job. "The support was really great. The contact persons were always there and could help us with any problem. I wanted to do that too," she shares her motivation. Anna gets the job and has been working at the IO since February 2023. "I am looking forward to meet lots of new people from all different countries."

Anna's conclusion about her semester abroad in Finland: "The new friendships are very enriching. All the experiences mean so much." You not only get to know the culture of the country where you spend your semester abroad, you also come into contact with many other nationalities and their cultures through the other international students. In her Master's degree, Anna would like to study abroad again for one semester. "I would like to do something completely different, more in the southern direction," she says with a smile.



The destination countries are the member states of the European Union as well as Iceland, Liechtenstein, Northern Macedonia, Norway, Serbia and Turkey.

OVER THE EDGE OF YOUR OWN WORK DESK

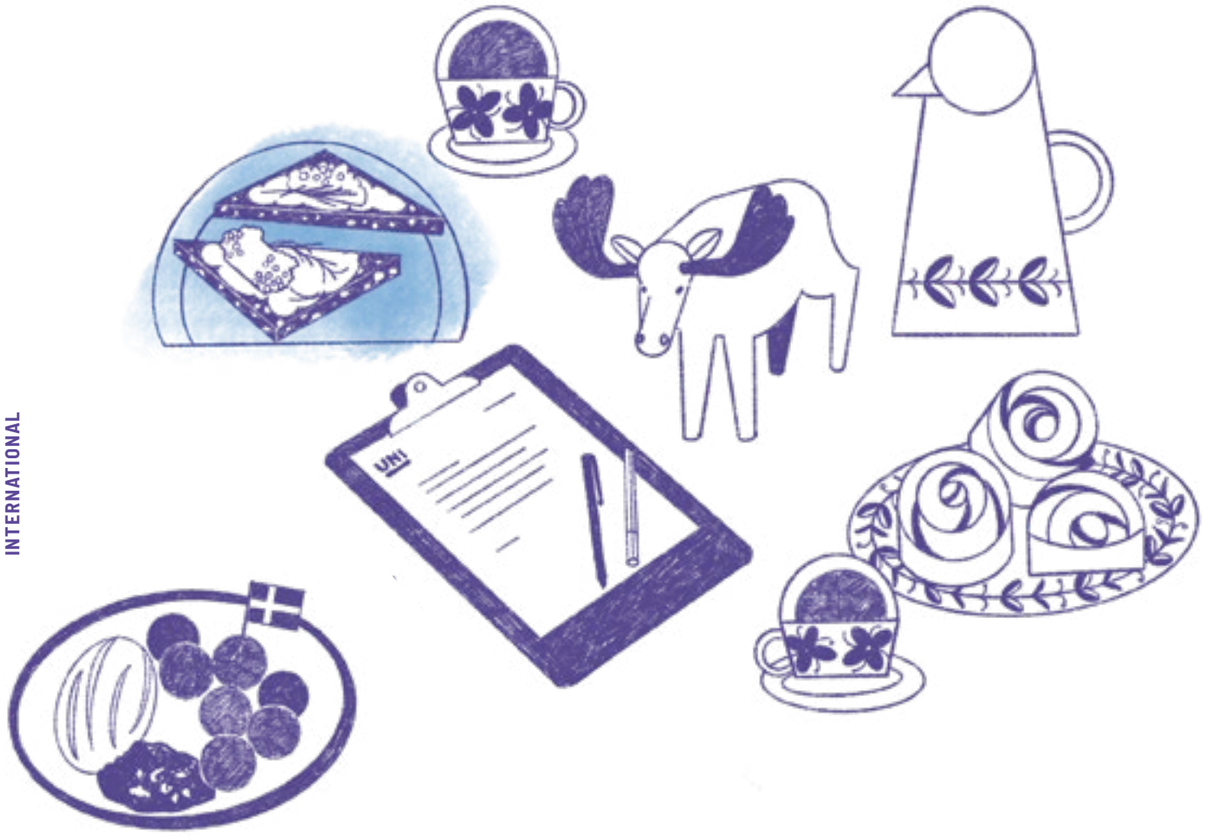
Text: Lisann Gauß

After the pandemic years, the wanderlust is greater than ever. Many things have been postponed and put off, not only in the private sphere. Many opportunities have been forgotten while working from home. But at the same time, we have learned that today we don't have to sit in our offices to work and educate ourselves – we can be (almost) anywhere to do so.

"The Erasmus+ program not only promotes Europe-wide student exchanges, but also staff exchanges between universities and institutions in the Erasmus area from all areas of the labour market," explains Barbara Wildenhain, who is responsible for staff mobility at RWU. This can be used by employers, including universities, as a target-oriented instrument for staff development.

Escape from the usual daily routine in the office? Travel abroad, meet new people and make new experiences ... not only privately, but also for work? And receive support while you're at it? The Erasmus+ program offers this opportunity for all RWU university employees.

INTERNATIONAL



“I benefited a lot from this language study trip because it helped me to improve my English and I made many new contacts with other universities and colleges within the EU.” **Michaela Erdös**

THE EU AND BEYOND

Erasmus+ offers all RWU staff and teachers the opportunity to travel abroad for a certain period of time and gain professional and intercultural experience at partner universities or other educational institutions and companies. The destination countries are the member states of the European Union as well as Iceland, Liechtenstein, Northern Macedonia, Norway, Serbia and Turkey.

“Personal contact between the partner universities is of course very important for us, the RWU International Office, as our team cannot be in personal contact with every one of the more than 60 partner universities,” explains Barbara Wildenhain, who herself took part in a Staff Week in Finland in autumn 2022. All staff members potentially have the opportunity to participate in the Erasmus+ program and can thus become ambassadors themselves as well as fill university partnerships with life.

STAFF MOBILITY

On one hand, staff members have the opportunity to participate in individual job shadowing. On the other hand, they can take part in Staff Weeks. In this way, participants can gain new insights into same or similar areas of work and get to know the host institutions and the education system of the host country. In addition to lectures and workshops, there is also a cultural program to gain and promote not only professional but also intercultural skills.

“Of course, it’s especially nice when someone attends in a Staff Week at one of our partner universities. In this way, the relationship between the universities can be strengthened and expanded. Also new contacts can be made and students can be inspired to study or spend a semester abroad at RWU,” says Barbara Wildenhain, who also looks after students who are doing one or two exchange semesters at RWU.

LECTURER MOBILITY

Teaching staff (professors, research assistants, doctoral candidates and lecturers) at RWU also have the opportunity to do a (short-term) lectureship in the mentioned countries. This opens up new horizons, allows the network to grow and contributes to scientific exchange on a European level. Another goal is to exchange teaching content and methods and to develop joint study programs.

ENGLISH IS KEY

There’s also the opportunity for everyone to attend English language courses to improve their own language skills. After the omission of Great Britain due to Brexit, colleagues have already had good experiences with language courses in Ireland, Malta and Spain. There is also a special offer for scientists and teachers, such as courses on topics like scientific writing and presentation rhetoric in English, international communication skills for scientists and much more.

“Of course, you don’t have to attend a language course to improve your skills,” explains Barbara Wildenhain. The other formats, such as staff weeks, job shadowing and lectureships, also promote English skills in contact and exchange with the other international participants.

Monika Huber (Faculty E, English course in Dublin, April 2023)

“After registering for the English course (The Horner School), you’re placed in the course through a short oral and written exam. In the course, I had many great contacts with participants from all over the world. Ireland, and Dublin in particular, has many historically significant and impressive buildings and squares. You can feel the Irish culture and kindness towards people who are not familiar with the city, not just in the pubs. During the excursions, I was very impressed by the rough but beautiful landscape of Ireland.”

TAKING INITIATIVES – SEIZING OPPORTUNITIES

The current program started in June 2023. All those who are interested and who participate are supported by the IO. “What’s possible, we make possible,” says Barbara Wildenhain. It takes a certain initiative if you want to travel to a certain country or take part in a thematically appropriate staff week. Questions such as: “In which field of work would I like to develop myself further, in which subject area would I like to educate myself, which knowledge would I like to improve or even learn something new”, can be helpful.

Mark Locherer (Faculty M, Staff Week at ESAIP/France, May 2023)

"The Staff Week with the motto 'Keys to Cybersecurity' took place at ESAIP (école supérieure angevine en informatique et productique in Sainte-Barthélemy-d'Anjou) at the end of May. The programme included cultural activities and a participation in a cybersecurity conference. During the introductory session, I was able to present RWU and get to know ESAIP and all the participating universities. ESAIP is specialised in cybersecurity and sustainability and offers a number of degree programs in this field, which may be of particular interest to students of RWU's technical subjects. The cultural social program included a French language course, city tours in Angers and Saumur and a joint dinner."

Jessica Hanisch (International Office, Staff Week at Vilnius TECH/Lithuania, May 2023)

"I participated in a Staff Week at our partner university in Vilnius, the Gediminas Technical University in Lithuania. The program was themed "Making Learning Closer to Reality in 2023". In addition to the RWU, there were six other universities represented with whom I was able to make personal contact. In this way, I was able to get to know our partner university better, so I can tell students who are interested in a semester abroad in Lithuania about it. Part of the program also was the participation in a conference, the "Business and Management 2023". The conference was about the challenges in education today and in the future. I was able to exchange my ideas with others and expand my network."

Michaiela Erdös (Quality Management, English course in Barcelona, 2023)

"I benefited a lot from this language study trip because it helped me to improve my English and I made many new contacts with other universities and colleges within the EU. The training was varied and on a high level. I really liked the design and the group work as well as presenting. Barcelona is a very beautiful city and rich in culture. I am impressed by what Gaudi created and I've been an admirer of him ever since. I really enjoyed the lessons and I was able to spend the afternoons admiring Gaudi's works. It made me lose my fear of presentations and I got to see the stunning Sagrada Familia church."

These and other articles are available in full on our website: www.rwu.de/news

A LOOK BACK

Keeping its finger on the pulse of time is expected from a university of applied sciences, not only in terms of teaching content but also of the university as a whole. Further development is its DNA, so to say. Climate protection, the right to award doctorates, participation in the Robotics World Cup or e-racing cars – just a few key words on what has been happening at RWU in the recent months.

CLIMATE PROTECTION MANAGEMENT

In order to further strengthen climate protection at Baden-Württemberg's universities, climate protection managers have been hired at nine locations across the state. Hartmut Gräter at the RWU is one of them. "Baden-Württemberg has set itself an ambitious goal with the new Climate Protection Act," says the climate protection manager. The state administration is to achieve net greenhouse neutrality as early as 2030 and as part of its exemplary role. How the RWU campus can become climate-neutral by 2030 is being investigated in close cooperation between the responsible Amt für Vermögen und Bau, the RWU building manager and the Senate Commissioner for Sustainability, Professor Dr. Markus Pfeil ...

UNIVERSITIES OF APPLIED SCIENCES RECEIVE THE RIGHT TO AWARD DOCTORATES

Graduates of the Universities of Applied Sciences in Baden-Württemberg have a new path to doctoral studies: In future, a joint doctoral association will be able to award the doctoral degree. "I am very pleased that with the agreement of the Science Committee to the legal ordinance, a new path for further academic qualification is open. The universities involved will be further strengthened in their scientific work," said Theresia Bauer, then Minister of Science. The right to award doctorates goes to a university association to which all state universities of applied sciences and the three church-run universities in Baden-Württemberg belong. In future, it will not be the individual university but the doctoral association that will award doctoral degrees to particularly qualified graduates of universities of applied sciences ...

VERY GOOD RANKING

In the university ranking of the Centre for Higher Education Development (CHE) for 2023, the RWU is included with the following Bachelor's degree programs: Business Administration and Management, Business Informatics and Industrial Engineering as well as with the Master's degree program Business Administration and Entrepreneurship. All of these business degree programs did very well ...

E-RACING CAR

In a festive atmosphere, the Formula Student Team Weingarten (FSTW) presented the new Stinger 23E in May 2023. Under the team leadership of Sara Klink and Jonas Eckle, a racing car with an electric drive was created for the second time in a row. The team also celebrated an anniversary: For 15 years, students at RWU have been planning, developing and constructing racing cars – from design and assembly to testing on the race track. "We have outdone ourselves this year," said Jonas Eckle to his team members. Sara Klink added, referring to the former members, "Thank you for putting your heart and soul into this project for the last fifteen years." With the Singer 23E, the FSTW will first start the event summer in Switzerland before heading to the Czech Republic and Croatia ...

COOPERATION WITH THE IFM RAZORBACKS

What do an American football team and a university in Upper Swabia have in common? Their members are young and come from quite a few different countries. This initial idea was quickly followed by concrete ideas for an exchange. And so the football team and the university now concluded a cooperation agreement ...

STUDY AND FAMILY

RWU has once again been certified as a family-friendly university. On the one hand, this award expresses recognition for measures that have already been implemented. On the other hand, new goals and measures were defined in the course of the third accreditation in order to reconcile studying and working at RWU with family responsibilities ...

ROBOLAB TEAM QUALIFIED FOR WORLD CHAMPIONSHIP

At the European Robotics League (ERL), the RWU team competed in the consumer league against the three-time Robocup world champion and won the tournament! The RWU team also qualified for the world's largest robotics Olympics which brings together representatives of top international research in robotics and artificial intelligence every year. Students from the Master's program in Computer Science will compete in the @Home league with two service robots ...

NEW RWU FILM

In mid-June, the new RWU film finally went online. After planning, organisation, an intensive week of filming with over 100 participants and over 30 laboratories, lecture halls and locations, the new study program video could be published. The special feature: The video was shot entirely from the point-of-view perspective which means that the protagonist shows the viewers his personal view of the opportunities at RWU. The three-minute clip can be seen on the RWU channel on YouTube ...

THAI PRINCESS VISITS RWU

Thai Princess Maha Chakri Sirindhorn was guest at RWU in June 2023. Also known as the Princess of Technology, the sister of the reigning Thai king showed interest in RWU's international study programs and the model of trade teacher training. Two new cooperation agreements were signed during the visit. The presence of the Thai royal family underlines RWU's intensive connections to Asia ...

QR code to the film on YouTube:

UNIVERSITY TOWN WEINGARTEN: "SAY HELLO!"

Weingarten has officially been allowed to call itself a university town for a good year now. If 7,000 people study at two universities in a town with 25,000 inhabitants, then it has every right to bear this title. To help the students identify even more with Weingarten as their town, the municipal university representative Melanie Koller developed the "Say hello!" campaign together with the three media design students Alisa Hanselmann, Laura Melcher and Marie Schott ...

ATTENTION?!

We will be giving away gifts from the RWU Shop (www.rwu.de/shop). Hoodies and sports shirts, water bottles and mugs – all in the RWU look. To participate in the raffle, send the solution word to pressestelle@rwu.de. The deadline for entries is Sunday, December 31st, 2023.

1 What is the abbreviation of the ACADEMIC SAILING CLUB BODENSEE-OBERSCHWABEN?

2 Where at RWU can you work with VR glasses?

3 Who discovered the vortex tube effect first?

4 On which method is Professor Höpken's approach to estimating tourist arrivals based on?

5 What is the name of the research project in which Alumni Johannes Rupfle is involved?

6 Where was Clemens Moll born?

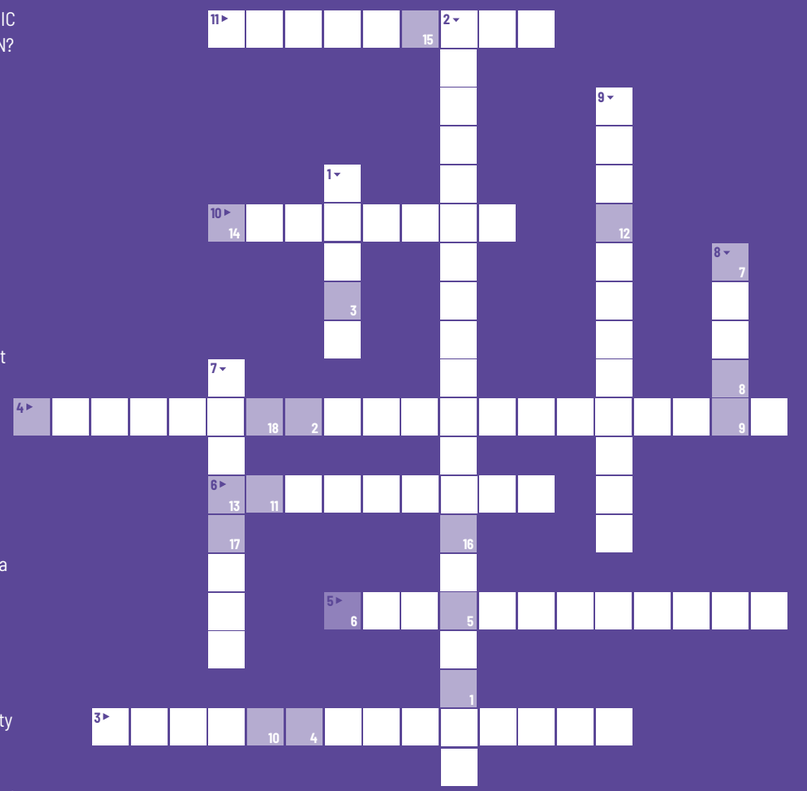
7 What is the Turkish word for home?

8 What technology is used to transmit data in the Agrify project?

9 To which Olympic discipline does mountain bike marathon belong?

10 Which program supports staff and faculty mobility?

11 In which Latin American country did Marel Medina complete his bachelor's degree?



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THEN GET YOUR RWU KIT!

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RWU – IT'S ALL ABOUT YOU!

Who, if not us as a university of applied sciences, has the potential to develop pragmatic solutions to this plethora of challenges and to train and inspire young people to implement these solutions?"

Professor Dr. Thomas Spägele, Rector

BACHELOR

- Applied Computer Science
- Applied Psychology
- Automotive Engineering
- Automotive Engineering PLUS Teaching Post
- Business Administration and Management
- Business Informatics
- Business Informatics PLUS Teaching Post
- Computer Science/Electrical Engineering PLUS Teaching Post
- E-Mobility and Green Energy > DE + EN
- Electrical Engineering and Information Technology > DE + EN
- Energy and Environmental Engineering
- Health Economics
- Industrial Engineering (Technology Management)
- Internet and Online-Marketing
- Mechanical Engineering > DE + EN
- Mechanical Engineering/Automotive Engineering (academic studies and integrated apprenticeship)
- Media Design
- Nursing
- Physical Engineering > DE + EN
- Social Work

MASTER

- Applied Health Science
- Business Administration and Entrepreneurship
- Computer Science
- Digital Business
- Electrical Engineering and Embedded Systems > EN
- Environmental and Process Engineering
- Mechatronics > EN
- Product Development in Mechanical Engineering
- Social Work and Participation
- Technology Management & Optimization

PART-TIME STUDY PROGRAMS

- International Business Management & Sustainability
- Management in Social and Health Care

The RWU is a university of applied sciences in one of the strongest economic regions in Europe. The programs offered in the fields of engineering, business, social work and health care are characterised by a strong practical orientation and short ways between students and stuff. On RWU's familiar campus, students can test and expand their potential and help shape the future in interdisciplinary dialogue.
Around 3,600 young people from all over the world study at RWU. Cooperation partners on all continents offer valuable experiences abroad. Studying at RWU is more than just acquiring knowledge: It is where talents are discovered and nutured, where personalities grow, and where lifelong friendships are formed.

FACTS AND FIGURES

3,600 young people are studying on the modern RWU campus.
19 bachelor's degree programs in engineering, IT and business, social work and health care.
12 master's degree programs in engineering, IT and business, social work and health care including two part-time programs.
15 % of our students come from abroad and from more than **70 countries** to RWU.

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Mehr dazu unter **aok.de/bw/studenten**

GESUNDNAH

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