

S T U D Y A S S O C I A T I O N

G E W I S

 **UPREMUM**

VOL 50 Nº 1

**THE
50 SHADES
EDITION**



EDITORIAL

EDITOR IN CHIEF Nadym van Schaik

Dear reader,

Supremum is more than 50-ish pieces of paper stapled together. Supremum has many aspects, some of which are more or less unknown to our readers. Hence the theme "50 shades of Supremum".

It all starts with an idea. The whole committee will get together on an evening and talk about what we want for the upcoming edition(s). Ideas are made, written down, and it is questioned whether they are good enough. Last year, it was especially difficult, since it's our lustrum year. In the end, we decided on shining a light on the different facets of Supremum for this year's second edition.

While embracing all of our ideas, our mailing team started mailing lots of committees, fraternities, professors and other possible authors. Slowly, replies will arrive, and we can start planning. This edition, we were pleasantly surprised. None of the committee members can remember a time when we had this many articles promised to be made. Instead of the usual 40 to 50 pages, we were looking at about 80 for this edition.

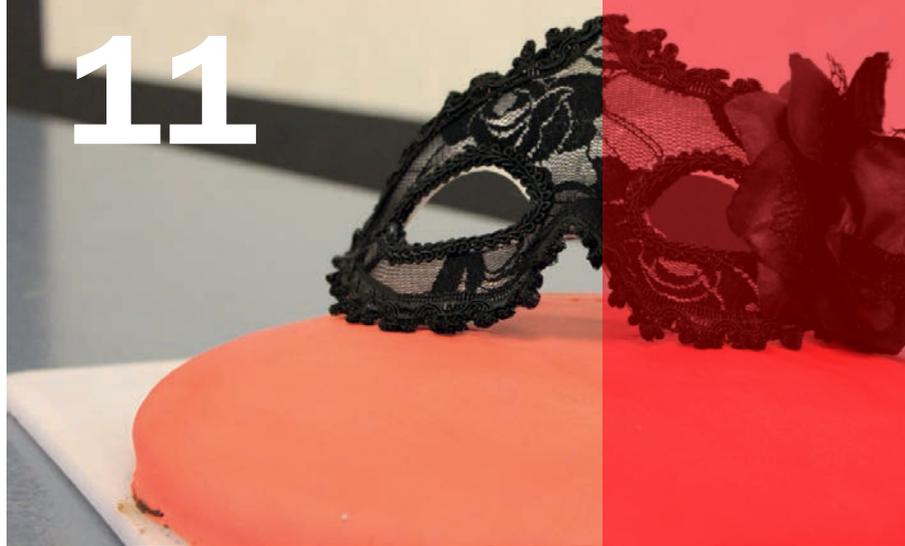
As the articles dripped in, our quality and spellcheck teams will have a thorough look at all of them. Most of the sent articles will make it through our quality-and-spellcheck, which means they are ready to be designed. The design team will work its magic to make sure each article looks great and is ready to be published in Supremum.

An article is for us (as committee) more than just some words on paper. Each article tells a different story, in a different style, written by different authors. Without all the authors, Supremum wouldn't be as it is now. But the most important facet of the Supremum will always be you, the reader. Without you, Supremum wouldn't exist, because there would be no-one to write for. You read our articles, laugh about the infima and opt ideas for new articles for new editions. And for all of that, we are very grateful. Because you, dear reader, are the biggest facet of Supremum we cannot be without.

CONTENTS

EDITORIAL	1
CHAIRMAN'S NOTE	3
EDUCATION FIRST	4
27 SHADES	5
50 SHADES OF COLOURS	6
ENGLISH AS LANGUAGE OF INSTRUCTION	
CHOICE AND CHANGE	7
50 POSSIBILITIES AND STILL COUNTING:	
THERE IS NOT ONLY BLACK AND WHITE	9
VERSIERTIPS ... VOOR JE TAART!	11
A DIFFERENT SHADE ON PERCEPTION	13
THE TOP 3 REASONS WHY IKU IS AWESOME	14
HOW TO SURVIVE A THOR GALA IN <50	
STEPS	19
I HAVE A DREAM THAT ONE DAY...	23
KNOWING HOW TO CODE IS NOT ENOUGH	
FOR CAREER SUCCESS	25
SHADES OF SUNSET	26
ALICE IN CHAINS -	
ALICE IN CHAINS	29
PICTURE PERFECT	31
PRODRIVE TECHNOLOGIES 25 PUZZLE	33
GEWISSENSCHAFT	
50 STEPS BETWEEN BLACK AND WHITE	34
THE LIFE OF LGBTU/E	35
ΦFTY SHADES OF GREEN	38
ADVENTURE TO THE NORTH	41
20 SHADES OF ORANGE	43
DATA ANALYTICS FOR HEALTHCARE	
PROCUREMENT	44
FESTIVE FLAVOURS	45
TRAINING-ON-PAPER	
3 WAYS TO SPEAK LIKE OBAMA	46
50 SHADES OF POST-QUANTUM	
CRYPTOGRAPHY	49
THE APARTHEID IN SOUTH AFRICA	53
50 DIFFERENT SHADES AND WHY I NOTICE	
THEM ALL	55
YELLOW AS CAN BE	58

11



19



31



41





GEWIS

CHAIRMAN'S NOTE

Being a student; it has a different meaning for everyone. Is it just gaining knowledge and developing yourself into an engineer? Or is it more than that, is it making a lot of friends, developing yourself personally and having the time of your life?

TEXT Laura Kuntze

Student life is a very diverse phenomenon. It has been around for decades. You probably only completely understand it when you've experienced it. I suppose if your parents had very active student lives and you do too, you can have very long, enthusiastic conversations about it. Though it's hard to explain to your parents or friends who've never experienced it.

Student life is different per association, which makes it even harder to tell what it exactly is. I think you can find more than fifty shades of student lives in all the different associations in the Netherlands, varying from sports and culture to study associations like ours.

“ The world is changing, so student life should change with it ”

Lately, if you followed the news, you know that the student life has not been in a positive light. All the negative parts were emphasized, like the student association hazing in Groningen that got out of hand and the inappropriate cantus songs from Utrecht. And now it even passed our city. You all know what I'm talking about and you will probably agree with me that this was very improper and slightly dumb.

Of course these things should not happen, but are we becoming too careful? Aren't we allowed to do anything anymore, because we are held under the microscope

by the media? 300 years ago the student life already existed, do you think these things didn't happen back then? On the contrary, I think back then it was even worse. Only those days no one knew, because there weren't fifty different ways to share stories online.

The real question is; is it a bad thing that student life is changing, because of the fact that certain cases became unacceptable and everything is spread by the media? Personally, I don't think so; the world is changing, so student life should change with it. As long as we still dare to be students and show our culture to the world, fitting the current norms and values, there shouldn't be a problem.

In my opinion, GEWIS will not be the association that fits the culture of the examples stated above. In our association everyone can find their own place and make friends for themselves. Most importantly, everyone has respect for each other. Let's keep this culture that makes GEWIS our GEWIS, because if we keep it like that, our traditions will not hurt us.

As an association now we are working on a long term vision for GEWIS. During the first brainstorm session the subject "GEWIS culture" already passed the discussion. I would like to invite you all to join the other brainstorm sessions to discuss how we keep the GEWIS culture open and accessible for everyone.

Let's keep the fifty shades of the GEWIS culture in our association without crossing the line!



EDUCATION FIRST

Dear reader, at the time of writing this article, people at the TU/e are busy discussing the language policy of the TU/e. Here I am, writing an English article for a mostly Dutch audience, isn't that strange? Well, is it?

TEXT Luuk Meeuwis

You might have heard me say this before: I like the fact that Dutch people tend to change the pronunciation of the city they live in, change the name of the country they live in (don't we all say 'Holland' sometimes?), or even the pronunciation of their own name! Isn't that beautiful? You might ask yourself: aren't we losing a part of our Dutch culture that way? Shouldn't we be more proud of our language, just as proud as people from Friesland are of their language, or people from Limburg of their vlaai?

I've heard people say that they have trouble finding the right words in Dutch to express themselves in their daily life, because they live in such an international climate, and follow their courses in English. It may be clear already: I'm doubting my opinion in this article. People from the Netherlands (yeah, I got it right this time!) like to see themselves as people having a high proficiency in English. I guess this opinion should be based on actual data, right? But why is that board member of that study association, that random lecturer or that person from television speaking English so weirdly? Is it still clear what his message to the world is? Can he still give the same amount of information in the same time, or does the change of language lead to worse communication or education? Do the people from outside of the Netherlands still understand this awkward English, or do they still need an interpreter to understand the complete message?

Our country is tiny, we live in a community, country and region that are all very internationally orientated, and we all watch our series on Netflix without dubbing. So following lectures that state the concepts of that

specific course in a language that is internationally accepted and understood is very logical, right? Doesn't following lectures in English make all of this just less confusing, since the books we buy and read for our courses are all written in English? Since most companies and universities will accept people from outside of the Netherlands, isn't practicing our English a good preparation for the 'real world' out there?

“ What do you want me to tell everybody out there? ”

Many questions, and even more opinions. Now, how to act upon this? What should the TU/e do regarding this problem: tell everyone to just speak English to each other, even if there is no international person around? Should all lectures just be in English, without even thinking about the language? More specifically: what do you want me to tell everybody out there?

That is my job during this year: making sure that the opinion of the students from Mathematics and Computer Science is heard by the people that make the actual decisions. So please, if you have any thoughts about language (within GEWIS or within the TU/e) and what you want me to tell everybody in name of GEWIS and the students, send me an email (co@gewis.nl). In that way, I might be able to answer these questions for myself...

GEWIS



27 SHADES

This issue of Supremum is a reflective one, looking back at the past 50 years! An amazing span of time, considering that 50 years ago for only 8 years there had been a program for Mathematics engineers, under the guidance of professor Seidel. And it was 13 years before the birth of GEWIS.

TEXT prof. dr. Johan Lukkien (Dean)

50 years ago was also the dawn of Computer Science as a discipline. An important landmark in this history was formed by two NATO conferences in 1968 and 1969 on the topic of Software Engineering. It was then that people realized that the use of computers and their rapid increase in capabilities led to an entirely new challenge, viz., the systematic construction of correct software. It was the start of years of scientific research in program specification, correctness and construction – topics for which Eindhoven University has become known.

“ ... after a few years there is still GEWIS, but with a completely different population ... ”

I have witnessed the more recent history of GEWIS, and of Supremum from nearby. It was about 27 years ago that I joined the department, viz. in 1991, the year that Tim Benders-Lee announced a project called World Wide Web in the alt-hypertext newsgroup, and also announced the first website info.cern.ch. I got to

know Supremum mainly through the existence of the rubric called Infima, which contained remarkable or otherwise interesting citations of teachers. It had a somewhat peculiar status that time: while I think that ‘scoring’ an infimum was something people actually tried to achieve, it was not really done to be openly proud of it.

An interesting aspect of such a long period of observation is the change: students come and go and after a few years there is still GEWIS, but with a completely different population. Indeed, many shades. The student of 1991 is very different from a student of today. This is a powerful concept and allows for a seamless adaptation of GEWIS over the years, an adaptation that is difficult to achieve by the much more static staff. There is a constant factor though, and if I try to characterize it, it is like this: the feeling of being part of a (worldwide) community of students, living together to learn life, to practice and to grow. And in the process, have a lot of fun together. I wish you the best 50 years to come.



50 SHADES OF COLOURS

What does it mean to be human? Okay, this is perhaps too big of a question, it might be quite possible that no one, not a single person in the history of humanity, has been able to answer this question. Or so you would think. A big question such as this requires a divide and conquer approach, so we can split it up into individual pieces and patch the result back together. In life – as we all know – you are born, a toddler, a child, a student and then considered old. But a student, raging in the fires of their life, bursting with energy and a presence of mind that can bring the whole world to its knees, might be interesting to consider.

TEXT Yoram Meijaard

Classification of students happens since the beginning of time and there are many varieties to discover: anything from the “long haired neo-hippy liberal arts student” to the “suit-wearing capitalistic law-studying daddy’s boy”. Stereotypes aside, most students are first and foremost classified on their university. You are an Eindhoven-engineer, an Amsterdam-activist, or a Wageningse Wetenschapper [Wageningen-scientist – Ed.], but generally not all. You might consider that this is “hokjes denken” [stereotypical thinking – Ed.], however, these universities attract different kinds of people: if you want to study something technical you come here and if you want to do something with economics you go to Rotterdam. Hence, the choice for a particular university does tell us something about the kind of person that made the choice.

“ You always become a mixture of your subcultures ... ”

Within cities the same pattern arises: your choice for the TU/e makes you a different person than the students at the Design Academy and your choice to be an M&CS student makes you a bit different from the EE students, the W students, and IEIS students. Your choice to be an active GEWIS-member makes

you a different person than the M&CS student who isn’t, and even within GEWIS your choices to join a particular committee says something about you. This is the point at which I have to highlight that I didn’t make any judgements: your choices to join some subculture just tell others around you what kind of culture you identify with.

This classification system deals with trees of subcultures very neatly and can classify someone into their respective subculture without any difficulty. What happens when one person does not belong in a single subculture, but in several non-overlapping subcultures? For instance, when I joined GEWIS I was halfway my first year, when I joined Confluente I was in my second year, Groep-één followed in my third and I.V.V in my fourth. There are four colours on my back: GEWIS-red, Confluente-blue, Groep-één- yellow and the navy-blue- burgundy-golden I.V.V-“driekleur” [tricolor – Ed.]. Together they form one Yoram, these subcultures tell you something about me and what kind of person I am. You always become a mixture of your subcultures and that is completely okay.

And here is the – hopefully – interesting question: what do the clubs and cultures you’ve joined say about you and does that correspond to the person you want to be?

COLUMN





DEPARTMENT

ENGLISH AS LANGUAGE OF INSTRUCTION

CHOICE AND CHANGE

When the editors asked me whether I would like to write an article about the choice of English as language of instruction in our (mathematics) education programs, I was in doubt because I am not a native speaker of Dutch. Thus, I might not share or recognize any possibly existing emotions and sensitivities of my Dutch colleagues on that issue. That said, I will try to describe my individual position and some observations with both objectivity and commitment.

TEXT dr. Georg Prokert

First of all, I think the problem is of less significance in mathematics compared to a lot of other studies, like humanities, social sciences or law. Mathematics is a language in itself, and its formulas help you to understand mathematical texts even in languages you do not know very well. Moreover, its specific vocabulary is limited and alike in a lot of languages. To give an example that regularly causes some stir in my lectures: the word "ansatz", originally German, has made its way into a lot of languages. On Wikipedia, it is found in English, Spanish, Italian, Russian, and other languages, including even Asian ones like Chinese and Japanese.

" ... a favourite battlefield of nationalism ... "

Secondly, in my opinion, the problem should be of less significance in the Netherlands compared to a lot of other countries. According to scientific studies, among all non-native speakers, the Dutch population belongs to those with the highest English language proficiency level. (This is partly due, I think, to the extensive exposure to English by movies and TV series with subtitles, while in larger countries like Germany, these movies and series are dubbed.)

Although this might be a point of justified national pride, the trend towards offering more degree programs in English across the board in Dutch higher education is met by significant resistance. Individuals as well as interest groups voice concern, ranging from practical issues like insufficient language proficiency of the lecturers to culturally conservative resentment related to alleged "selling out our identity" and "putting internationalization before the interests of our own people". The practical concerns can and need to be addressed wherever necessary. The ideological ones, however, are, in my opinion, symptoms of a bigger and more dangerous problem. Language of instruction in the education system has historically been a favourite battlefield of nationalism, sometimes with devastating consequences, and seeing these patterns reappear here and now makes me feel substantially uneasy. In my opinion, politicizing the issue in any direction has to be avoided. Instead, the choice for either English or Dutch should be made

- » individually for each program,
- » on the basis of its contents, objectives, and target group, and
- » by the professionals in charge of that program.

I was quite satisfied to see that this is completely in line with a recent advisory report on the issue by the Royal Dutch Academy of Sciences [KNAW (2017)].



WHAT DOES THIS MEAN FOR OUR PROGRAMS?

The ability to teach in English, even without any prior notice, has actually been an asset at our department for a long time already. When I attended lectures and instructions here in 1992 as an exchange student, I was impressed and thankful to see that lecturers and students immediately and virtually without effort switched from Dutch to English the moment I showed up, although I was the only foreigner.

In view of all that has been said above, and considering that many of our graduates will work in international environments where communicating in English is a fundamental skill, the choice of this language for our Master program is evident, undisputed, and has been made at once when this program was introduced about 15 years ago.

“ The principal challenges we encounter in teaching and learning are not language related ”

I find it harder, however, to identify a convincing rationale for the recent switch to English in our Applied Mathematics bachelor program. Attracting non-Dutch speaking students from abroad could hardly have been a priority in a time when we have difficulties to even manage the growing influx of Dutch students. In informal chats, the reason I heard most often was that “we do it because everybody else is doing it”, which obviously is a weak one. One might also observe that by introducing English as language of instruction in our Bachelor program as well, it has been made easier to assign teaching tasks to non-Dutch speaking personnel, although this has never officially been given as a reason for the switch either.

Do not get me wrong on this: now that we do have non-Dutch speaking students in our Bachelor program, we are obviously obliged to deliver the program in

English completely and without loss of quality or commitment. As far as I can see, this actually happens, and is beyond any dispute, independent of what one thinks of the necessity of the switch to English in first place.

So, how are we all managing? I think it is justified to say that by and large, both students and teachers are doing just fine. The principal challenges we encounter in teaching and learning are not language related. There are some minor points: as a lecturer, it has happened to me a (small) number of times during my Analysis course that I momentarily did not remember an English term that would be useful at that moment. Students have been helpful here and provided, for example, the idiomatic expression “if you say so”, for the Dutch: “het zal wel”. More generally, I feel that our students’ oral language proficiency is up to the task, for instance when they are talking to non-Dutch speaking students or instructors. Written presentations, however, are often in need of improvement, but I suspect that this would be true for Dutch as well. We do not know, of course, whether teaching in English from day 1 in our Bachelor program deters any potential future students, who therefore decide to study elsewhere.

Finally, however, I must report on an abysmal tendency we certainly have to avoid, namely, talking - or even writing! - in a slang that emerges from using English mathematical terms in an otherwise Dutch sentence. All too frequently, our students form sentences like “En dus weet je dat die sequence bounded is.”, or “Ik ga eerst aantonen dat deze operator closed is.” If anything, this sounds like a failed attempt by Famke Louise to rap about mathematics. I cringe and intervene each time I hear this, but meanwhile I have to be careful not to start speaking in this way myself. Make a choice, or maak een keuze, but maak geen choice!

SOURCE

[KNAW (2017)] Nederlands en/of Engels, Taalkeuze met beleid in het Nederlands hoger onderwijs, Amsterdam, KNAW





COLUMN

50 POSSIBILITIES AND STILL COUNTING: THERE IS NOT ONLY BLACK AND WHITE

“So, what do you want to do after you finish your Master studies?” This question has been following me for quite a while and started to pop up more often since I am approaching the end of my graduation project. Usually it was asked by family members or friends I had not seen in a while, who basically wanted to catch up with me and my life. I am convinced this question rose from genuine interest but at the same time it started to stress me the more I was confronted with it. For quite a while I couldn't answer anything besides: “I don't know yet.”

TEXT Anja Syring

Although I was never directly criticised for this answer most of the time I felt like I was being judged, especially by people from the older generations. How could I possibly not know what I wanted to do with my life? Did I waste time during my five years of studying that I should have spent on figuring out what my dream job looked like? Since the later years in high school, the topic of finding the job that suits me best was a constant companion. It was not like I couldn't think of possible jobs I probably would enjoy doing but I definitely couldn't see myself committing to one of them for the rest of my life. I just recently realised that this assumption of choosing a profession and being 'stuck' with it for eternity was my actual problem.

“ Choosing a job and orienting myself into a different direction isn't a failure but another valuable experience ”

I am not entirely sure where this assumption came from, but I definitely used my parents as some sort of

role models. Both of them have worked in the same profession since they graduated; my dad being an IT-consultant, and my mom working at an insurance company. Of course they have switched to different companies than the one they started in and also worked on several projects, but the main profession stayed the same. Some of their friends took this to an even greater extreme and worked for over 30 years at the same company. To some extent I think it's an impressive achievement to be committed and excited for the same job and company for such a long time but at the same time it increased the pressure of me having to choose my dream job right now. Looking at the current economy and assuming having to work at least until 70 I felt like this was a quite early decision since it would affect the next 45 years of my life.

But of course my parents are not to blame for everything, especially since they had all the right intentions for me and have been supportive no matter what. So how did I actually end up at this point where I am close to graduating and actually made a decision for the next steps in my career? At some point in high school I decided to apply for a Bachelor study which was a mixture between computer science and business administration. Beyond that it was also a “dual” study which meant spending half of the time studying and



the other half working at a company. I got accepted by a big American corporation which had their German headquarter in the same area I come from. It sounded great: gain working experience while studying interesting topics and receiving a salary for the entire duration!

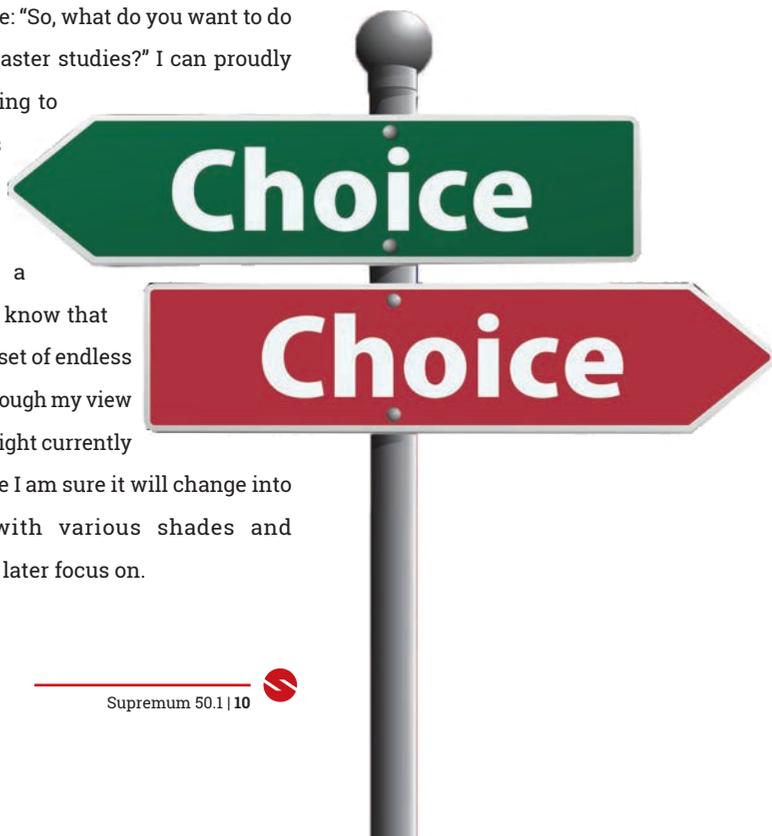
For a while this definitely was true - it was great. I got to know a lot of new people, got taught by teachers who had several years of experience in industry and worked on interesting assignments in the company itself. But at the same time I was not nearly as excited as my fellow students about what we were working on and the feeling of just being one of thousands of employees made me feel like I did not make a difference at all. Towards the end of the Bachelor the question rose whether I and the other students would like to stay and get a job at our current company. The choices basically came down to being a software developer, a project manager, a business or a technical consultant for one of the products or services the company offered. With a certainty I had not experienced very often in my life before, I could say that I didn't want to be either of that nor did I want to be part of this corporation any longer. At the same time I was getting worried: Are these the only options I had with my degree? It seemed so black and white - there must be more to it.

However thanks to one of the projects I worked on during my Bachelor studies I knew I like process analysis and the topics surrounding it. So some research on suitable Master programs and several applications later I ended up in Eindhoven. Looking back on my decision to move here I would never have guessed how much it would shape my opinion on choosing a profession. First of all, I have come to realise how broad computer science actually is. Just seeing all the different departments and groups at the TU/e and their various topics I can definitely say that it is not just black and white. Hearing about these topics in my lectures and realising that they even overlap with totally different study programs than the one I am following completely broadened my narrow view. Beyond that, each one of these topics comes with a number of possible job offers from companies all over

the world and the life at the TU/e holds several opportunities to get to know them. From lunch lectures and company visits to internships or simple conversations with fellow students I saw how much there is to explore.

Maybe even more important, I heard the stories of the other students, my co-workers at my internship and also some of the professors. All of a sudden I was not surrounded anymore by a bunch of Bachelor students that immediately knew after high school what they want to achieve with their career, but there were so many people with different backgrounds. I became friends with people that switched to computer science after studying something completely different, others had already worked for several years before deciding to return to the university to obtain a Master's degree and some of them also just enrolled because they enjoyed the topic without having a long-term plan for their future worked out yet. What a relief! Thanks to all experiences during my studies I can give a clear statement about what I don't want to work on, while on the other side I can list several topics and professions I am very excited about. I also think that it is possible for everyone to find their interest for themselves, if we are willing to put in the effort and never stop searching. Choosing a job and orienting myself into a different direction isn't a failure but another valuable experience.

If now someone asks me: "So, what do you want to do after you finish your Master studies?" I can proudly announce that I am going to pursue a PhD in Process Mining and it does not feel anymore like I am being tied down to a lifelong commitment. I know that it is the door to another set of endless possibilities and even though my view on the research world might currently be quite black and white I am sure it will change into a broad spectrum with various shades and opportunities for me to later focus on.





COMMITTEE

VERSIERTIPS...

...VOOR JE TAART!

Een cake is op vele manieren te versieren. Binnen elk thema is er een leuke manier om een cake te decoreren. Echter is er altijd de vraag hoe je dit netjes kunt doen.

TEXT Mattijs van den Berkmortel en Yanelle Stolwijk - GETAART

Om een voorbeeld te geven hoe een cake netjes gedecoreerd kan worden, wordt er in dit artikel een makkelijk recept bekeken. Eerst zal er een normale cake gebakken worden en dan wordt de cake met rolfondant bedekt. Voor dit recept zijn de volgende ingrediënten nodig:

INGREDIËNTEN

- » 200 gram ongezoute roomboter op kamertemperatuur
- » 200 gram zelfrijzend bakmeel
- » 200 gram kristalsuiker
- » 8 gram vanillesuiker
- » 4 eieren
- » 250 ml slagroom
- » 250 gram extra pure chocolade
- » Rolfondant in een kleur naar keuze
- » 1 bus poedersuiker

Het is verstandig als je begint met het maken van een chocolade ganache. Dit wordt gebruikt om tussen de cake en de fondant te smeren zodat de fondant aan de cake blijft plakken. Om de ganache te maken verwarm je de slagroom in een steelpannetje totdat de slagroom tegen het kookpunt aanzit. Ondertussen

kun je de chocolade in grove stukken breken en deze stukken in een hitte bestendige schaal doen. Als de slagroom tegen het kookpunt aanzit, giet je de slagroom over de chocolade stukken en roer je de chocolade en slagroom goed door elkaar totdat er een egaale substantie is ontstaan. Zet de ganache drie uur onafgedenkt op het aanrecht om de ganache op kamertemperatuur te laten komen.

“ Bij gebrek aan een deegroller kun je gebruik maken van een volle fles wijn ,”

Verwarm nu de oven voor op 175 graden en vet een springvorm in met boter. Mengen vervolgens de boter, suiker en de vanillesuiker tot een romig mengsel ontstaat. Voeg het zelfrijzend bakmeel beetje voor beetje toe aan het beslag. Blijf goed mixen tot je een glad beslag hebt gekregen. Doe het beslag nu in een springvorm en bak de cake totdat er een sate prikker in de cake gostonen kan worden die er weer droog en schoon uitkomt. Dit duurt circa 60 minuten. Als de cake gaar is, zet je deze op het aanrecht. Op deze manier kan de cake ook op kamertemperatuur komen.

Als zowel de cake als de chocolade ganache op kamertemperatuur zijn gekomen, kun je de cake met de ganache insmeren. Smeer de bovenkant en de zijkant van de cake helemaal in met de ganache. Vervolgens zet je de cake in de koelkast zodat de ganache nog even kan opstijven.

Maak je werkbank goed schoon en bestuif de werkbank met poedersuiker. Rol de fondant nu uit. Bij gebrek aan een deegroller kun je gebruik maken van een volle fles wijn. Rol de fondant zodanig uit dat de fondant overal even dik is en dat de fondant over de cake past. Leg vervolgens het midden van de uitgerolde fondant over de cake en druk de fondant overal wat aan. Doe dit niet te hard want dan zullen er vingers in de cake komen te staan. Snijd alle fondant dat niet op de cake zit los.

Nu heb je een mooie basis voor een versierde cake! Vanaf nu kun je je helemaal gaan uitleven met versieringen. Zo kun je er kaarsjes opzetten voor een verjaardagscake of kun je er letters opleggen. Dit kun je natuurlijk allemaal zelf maken of gewoon lekker makkelijk kopen in een winkel. Wij hebben de taart gemaakt die je op de foto ziet. Hier is rode fondant gebruikt en met een gekocht masker is er al snel het idee van een fifty shades of... cake.





MEMBER

A DIFFERENT SHADE ON PERCEPTION

“ I got Siobhan to draw lots of these faces and then write down next to them exactly what they meant. I kept the piece of paper in my pocket and took it out when I didn't understand what someone was saying. But it was very difficult to decide which of the diagrams was most like the face they were making because people's faces move very quickly. ”

TEXT Ilse Fölker

The citation above is from the main character of one of my favorite books: It's about an autistic boy, Christopher, and most of the novel tries to explain his unique perspective, which he has because of his condition. This particular quote is about how he doesn't understand facial expressions. He keeps a paper in his pocket with all the facial expressions so he can match them with actual faces, yet this fails most of the times since people change their facial expressions too quickly.

Even though this struggle is quite moving, I do find it interesting how his condition affects the people around him more than it affects himself. He experiences his way of perceiving the world as logical and he seeks comfort with animals because their emotions are easier to read and logical too. He tries to enhance his social skills, but doesn't feel accountable for failing to understand metaphors or sarcasm, which builds up frustration for people who try to communicate with him. Most people even get angry with him, since they cannot acknowledge his misunderstandings.

As I was reading this I asked myself: "Why can't we see that some people perceive the world differently and that that's okay? Why do we fail to accept the imperfections of someone?" Perhaps we are too "smart" to recognize these conditions. We think we know "better" and we feel that this "lack of ability" is a limitation for the person itself and that it is a "must". But what if it's not?

E.g. the brother of a good friend of mine named Siem had a brain hemorrhage during his birth, making him mentally disabled and unable to walk. However, when my friend Loes asked him if he felt bad about his limitations he said no. Moreover, when she asked him if he would prefer to walk or to retain his wheelchair, he chose his wheelchair.

As Siem's father enlightened in the documentary Loes made about Siem: "I would rather be unaware of my disabilities, like Siem, than be aware of it and feel like I could've done better." and I agree on this. Just like Christopher, Siem is perfectly fine with the way it is and doesn't expect it to be better if it were to change. Additionally, at the beginning of the documentary when Loes asks Siem "what do you have" he answers naturally that he is in a good mood ("hij heeft goede zin"), instead of assuming it would be about his inabilities.

In spite of the extremity of these examples, I do feel we can learn from these uncluttered perceptions. While I should be "smarter" or "more social" than Siem or Christopher, I still feel like I am the most confined. Daily I am busy with holding myself accountable for underachieving or being unable to achieve all expectations. I will always be aware of my inabilities and I can strive for the best, but sometimes things are out of our reach and then that's okay. And yes, it might annoy some people, but I do believe there are some people, like Siobhan in the story, who will help where my competences end.



FIRST YEAR COMMITTEE 18-0 IKU



THE TOP 3 REASONS WHY IKU IS AWESOME

For this edition of Supremum we were asked to introduce ourselves. Of course we could all list our achievements, stories and talents involving IKU, or outside of our First Year Committee. Sury is secretly a really good dancer for example, and Dave trained his puppy Thor so well that he is the best puppy at the puppy course. Siauw An once convinced half of the people going to the physics lecture to wear Christmas hats, and Renée and Wouter managed to get Rick home after he had too much to drink at Dave's place. But this would take way too long, as there are just way too many things we could list. That is why we will give a list of things that we achieved as a group, because that is what really matters.

TEXT 18-0 IKU

1. THE EXISTENCE OF THE IKU GENERATOR, TO GENERATE A NEW NAME EVERY DAY

Maybe we have to explain this. When we were deciding our name, we came up with the name IKU, because then we would be FYC 0 IKU, meaning 0 IQ. But we never decided what the IKU stood for. First we agreed that IKU meant Intense Kater Uitzitten (To sit out an intense hangover) on Fridays after the drinks, and something different for every day of the week. But then Roy came with the great idea to make an app, that would generate a new name for us every day.

After writing the code for the server and apps, to which we will probably look back with cringe in a year, the app is now up and running, so every drink you can ask us what IKU really stands for, and we will always have a new answer ready.

By using hundreds of words there are thousands of possible names for our FYC! However, not every name is perfect, so here are some of our favourite (and therefore the perfect) meanings of IKU.

IK KAN (NIETS) UITKIEZEN
(I CANNOT CHOOSE ANYTHING);

IEDEREEN KENT US
(EVERYBODY KNOWS US);

INCAPABEL, KANSLOOS,
UNGESCHIKT
(INCAPABLE, HOPELESS, UNFIT);

INTELLIGENT KITCHEN USERS.

2. MEETINGS BECOME MEETINGS

Like every First Year Committee, we had to start from scratch. This includes efficient meetings. At the beginning, the meetings were chaotic with not a lot of structure. We had a list of points, but after a few minutes we used to talk about something completely different. But over time, our meetings became more structured. We had some agenda points, talked about them one by one, and were done in fifteen minutes instead of forty-five.

This probably sounds stupid to a lot of you, but this is clearly a sign of improvement for us, and all the little things matter, right?

3. WE HAVE TIMOR

Yes, we have our own mascot, called Timor. The blue brain actually inspired us for the design of our logo and our name, so without him IKU would be a completely different First Year Committee. We even baptized him with beer during a drink, and he is our most prized possession. There must be something special about him, because even after taking him to various parties, we still haven't lost him. We've lost keys, bicycles, and many times we lost our sense of balance, but we never lost Timor.

These are of course the things we have already achieved, but we plan to do even more. What those are we do not know, but they will surely be great! However, we do already know that we are the best First Year Committee of 2018!

Thanks to everyone from IKU: Wouter, Rick, Bart, Siauw An, Dave, Renée, Roy, Sury, Paul, Merel, Laura, Jeroen, Morris, Joeri and Timor.



Infimum: Strange or funny quotations from a teacher, a student or faculty member. Here you can find infima sent to the Supremum committee. inf.gewis.nl

Morris B: "Wil je nootjes? Want ik kreeg net noten aangeboden die ik niet wilde."

Broertje van Tamara: "Uit onderzoek blijkt dat vrouwelijke skiërs de beste kont hebben."

Vinz: "Hoe kunnen ze zoiets meten?"

Broertje: "Ja... Euh, nattevingerwerk ofzo."

Wouter tegen Roy: "Stratum na de mavo borrel was wel mooi."

Roy: "Ik wist niet eens dat je er was."

Rick W: "Mijn tietten verdienen een plek in de hall of fame."

Vinz: "Ik moet doortrekken, maar ik heb er de mankracht niet voor."

Twan: "Ik ken een van die Martijnen, hij heeft op mijn kamer gekotst."

Saskia van der H: "Ik wil mijn fiets in de gracht gooien! Alleen zijn hier geen grachten dus dat is wel lastig."

Jan Cees van der Meer: "Als je een functie hebt die overal oneindig is behalve in nul, is dat een beetje een gekke functie. Als je die functie wilt tekenen moet je op een laddertje klimmen om erbij te kunnen."

Het sneeuwt keihard buiten. Maureen van N rent naar het raam.

Maureen: "Kijk het sneeuwt, geweldig, ik wil mensen op hun bek zien gaan!"

Jasper: "Ik was gisteren zo moe, dat ik zelfs in mijn droom extra ging slapen."

Twan: "Ik vind het heerlijk, de vrouwen zijn aan het afwassen."

Landa: "...Dus ik moet even uit mijn eigen hoofd blijven."

Koen K: "Weet je hoe je dat doet?"

Ilse F: "FAPPEN!"

Ysabelle over iemand op Facebook: "Is dit mijn nicht? Geen idee."

Arend V tegen Maureen van N: "Wij zijn echt de grootste schreeuwleijkerds van GEWIS."

Maureen: "IK BEN HELEMAAL NIET LELIJK!"

Arend: "NOU DAN BEN JE EEN SCHEEUWMOOIERD!"

Wesley: "Zit komijn in eten? Komijn zit toch alleen in kaas!"

“ Ik moet doortrekken, maar ik heb er de mankracht niet voor ”

Ralph: "Als je niet genoeg differentieert in het onderwijs, blijft het allemaal wel wat primitief!"

Nicky van den B: "Ik weet niet meer wat ik me niet kan herinneren."

Sabine J: "Komt de D nou voor de E in het alfabet?"

Hondenhaar tegen Sander S: "Waarom duidt alles wat jij zegt erop dat jij geen vriendin hebt?"

Jealy op weg naar Weet ik Veel: "Hadden we niet een andere trein kunnen nemen? Nu zitten we in de trein met Rick Wouters."

Ava: "Twee dezelfde schoenen aan hebben loopt toch een stuk fijner."

Jordi de B over de Subway: "Ham is lekker, maar niet als je er voor moet betalen."

Na de resit calculus)

Siauw an tegen Sunny: "Maar jij bent slim."

Sunny: "Sinds wanneer?"

Siauw an: "Je bent een Belg op naar Nederlandse universiteiten. Dan ben je slim."

Ian over bussen: "Dit is echt een leuk spel! Alleen maar bier!"

Wouter S tijdens zoektocht naar de Wallen: "Volg je piemel, dan vinden we het wel!"

Jaap de L: "Ik ben niet dik, ik ben gestroomlijnd."

Rick W tegen Evie N: "Je hebt niet alleen tieten maar ook hersenen!"

Henk Jan: "Ik heb geen AIDS."

Willekeurige gozer: "Ik heb ook geen AIDS!"

* High five *

Bor: "Rick kun jij even de suiker halveren zodat het poedersuiker wordt?"

Saskia: "Kerst is op 24 of 25 december toch?"

Eline: "Dat is sowieso altijd het beste wat je kunt doen, gewoon opgeven."

Ysabelle in de Efteling: "Kan je ook betalen met BAC-muntjes?"

Tijdens Wiskundig Modelleren presentatie:

Haiko: "Het lineair optimalisatie programma gebruikt lineaire optimalisatie."

Anoniem: "This test was like anal Sex without the vaseline."

Alessandro Di Bucchianico, tijdens college terwijl hij van alle x'en y'tjes maakt: "Dus alles wat onleesbaar is, is een y!"

Tim M tegen Yoram M: "Zou jij minder woorden kunnen gebruiken?"

Eline: "Het is geen probleem zolang je nog kan ontkennen dat het een probleem is."

Leroy over acupunctuur: "Al mijn problemen zijn in een keer weg door een keer een naald erin."

Vinz B: "Win gagnez? Wat is Gagnez nou weer?"

Stijn D: "Ik slaap vanavond met de hond."

Wietske: "Ik droomde over jou."

Tobin: "Je zei dat je een nachtmerrie had."

Maureen: "Huh, de dode zee is toch niet dood?"

Jealy over Gladiator: "Wacht, dit is sterk bier?"

WINFIMUM

The Winfimum is chosen by the editors as the winning, most funny, infimum.

Jos: "Ik heb voor m'n moeder een boek gekocht met breipatronen voor kattenmutsjes."

Wout: "Wie SCHRIJFT dit?!"

Sent in by: Wesley

Thijs: "Ik hou niet zo van plaatjes in m'n verslag..."

Celine: "Maar het was voor Visualization!"

Kostek (sjaars): "Ik ga even onder tafel, geen foute ideeën krijgen."

Enkele seconden later: "Godverdomme, wat is het hier nat."

Gijs van E: "Het is hem nog nooit overkomen dat hij dood ging."

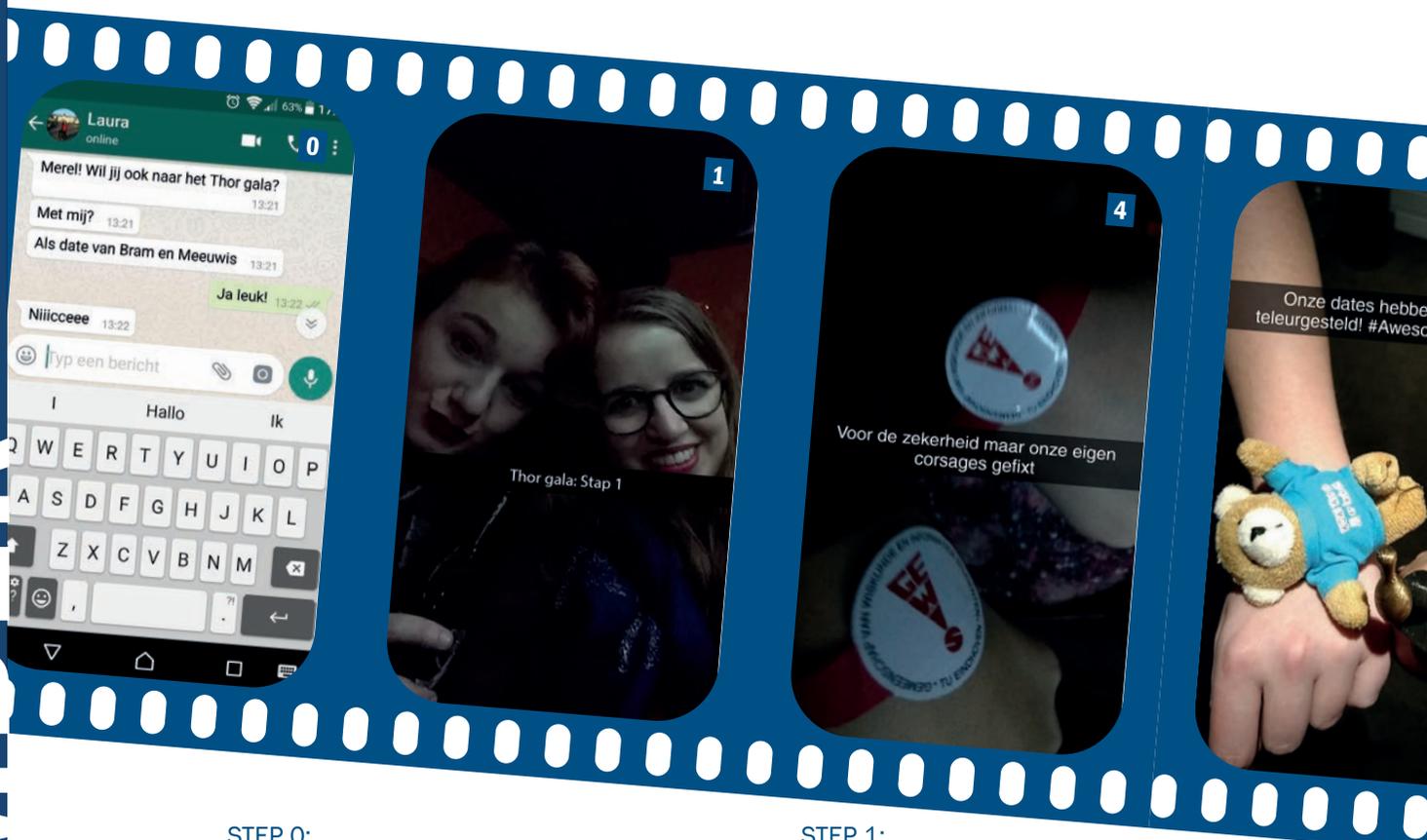


HOW TO SURVIVE A THOR GALA IN <50 STEPS

SO IT BEGINS...

It was a normal Saturday afternoon when two GEWIS members decided that they needed more galas in their lives. Most other GEWIS members might arrange a GEWIS gala, but these two girls decided to go look for a gala elsewhere: e.t.s.v. Thor. You might know us as Laura and Merel, but study association Thor now knows us as "those two girls who snapchatted the entire gala". With the help of two gentlemen, Bram and Meeuwis, we obtained tickets for the Thor Lustrum gala, in honor of the 12th lustrum of Thor.

TEXT Laura Kuntze & Merel Pennekamp



STEP 0:

With this step, mission "Go to a Thor gala and document everything on Snapchat" had begun! As requested by several curious GEWIS members, we decided to keep them in the loop by snapchatting the adventures of that evening. And with that said, many more steps followed.

STEP 1:

Get on the bus. As you might expect, getting on a bus where everyone knows each other, yet you know nobody, is pretty awkward. Luckily, us GEWIS members are trained in dealing with awkward situations!

STEP 2:

The arrival at the beautiful castle.

STEP 3:

Finding our dates.

STEP 4:

Corsages. Since we did not know Bram and Meeuwis that well and we weren't familiar with the chivalry of Thor gentlemen, we arranged our own corsages as a backup plan. Plot twist: when we stumbled upon our dates, we found out that they had put a lot of effort in making beautiful corsages especially for us! So a lesson for everyone: have trust in Thor men!

STEP 5:

Getting a drink. No gala is complete without some refreshment!

STEP 6:

The opening dance. The highlight of every quickstep-lover. Luckily for us, we were invited on the dancefloor during the very first dance! A perk of having a Thor board member as your date.



STEP 7:

Pictures!!! Gotta love them gala pictures. With our dates and with the entire board of Thor and their dates.





STEP 8:

Making new friends. No place is better to meet new people than in line to get your gala picture taken, right?

STEP 9:

Becoming BFF's with the Thor president of 36 years ago, duh.

INTERMEZZO*:

Our dates had a great time with us, until they realized that we were going to Snapchat EVERYTHING! So they decided to fight fire with fire.

STEP 10:

Panic! We missed the first bus! Time flies when you're having fun. Luckily for us, there was still space in the next bus.

STEP 11:

Waiting for the bus while partying some more with the bartenders.

STEP 12:

They had snacks!

STEP 13:

Make sure that you can keep on snapchatting. Even when your phone dies!

STEP 14:

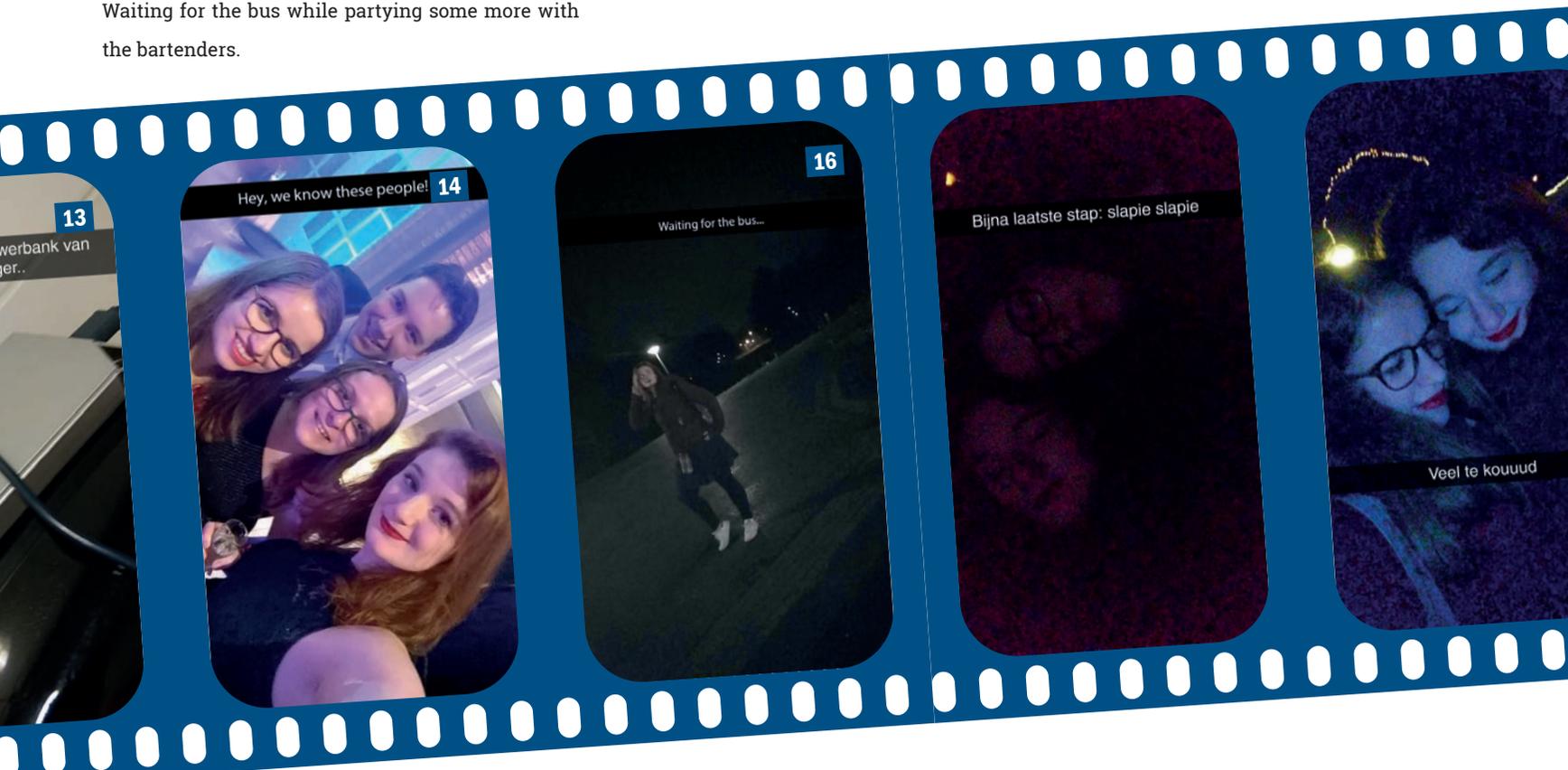
Familiar encounters

STEP 15:

Final dance of the evening. All good things must come to an end.

FINAL STEP (16):

NOT missing the second bus. Something about a donkey and not stubbing your toe twice...



We thank Bram and Meeuwis for a memorable evening and we look forward to our very own GEWIS gala on February 23rd. You know what they say... "A picture says more than a thousand words"



DEPARTMENT

I HAVE A DREAM THAT ONE DAY...

One of the main goals as a PhD student, is to publish your article in a journal or present your paper in a conference. I was lucky enough to experience the latter and went to Atlanta in May 2017. INFOCOM is the name of the conference, one of the largest conferences on 'computer communications'. That sounds like a very broad term, and it is. 5G, internet security, scheduling, etc.

TEXT Mark van der Boor

As an inexperienced conference visitor, I was curious to see what other people I would meet. I expected to find many professors and a close community, in which it might be hard to mingle. The opposite was true, many presenters were 'just' PhD students like me and almost nobody knew another!

It makes sense that there wasn't a close group there; less than 20 percent of the papers gets accepted, which makes it hard to visit the conference multiple times and meet the same people again. Within a day I was already part of a friendly group of 6 PhD students. The others were from Germany, the UK and the US.

Remember those pictures you would find in ads of your education, with a group of students sitting in grass, studying, all from different nationalities? We were exactly like that, except there was no grass and we were not studying...

“ ... it exceeded its length by 150% ... ”

We visited some of the nicer places in Atlanta, like the Georgia Aquarium and the Martin Luther King Jr. National Historic Site. However, I should focus on the conference itself, because that was of course the main goal of the trip (and that is what I got paid for). The

topics of the presentations I followed were typically quite far from my expertise. Although, I appreciated the presentations that gave a broad introduction to the topic and it was good to be familiarized with other topics. However, some presentations were incredibly horrible.

Two presentations topped the charts in terms of disappointment, one where the presenter looked at his laptop screen for 20 minutes and simply read out his notes, and one presentation that was slightly longer than the 20 minutes it was scheduled for was worse: it exceeded its length by 150% (R.I.P. break of 30 minutes).

On the first day of the conference I had the honor to top the previously mentioned disasters by presenting my paper that I wrote while working on my Master's thesis.

First, let me explain how and why I wrote this paper. I was guided by Sem Borst and Johan van Leeuwen. At the start of my Master's project, I was handed 12 existing papers/articles that could be of interest for me. The one that grabbed my attention was a paper from Alexander Stolyar, titled:

"Pull-based load distribution among heterogeneous parallel servers: the case of multiple routers".

Simply said, they focus on a model in which jobs arrive to dispatchers and the dispatchers should refer

those jobs to places where they can be served. A job might be a Google-search, a dispatcher might be a satellite and a server might be one of the thousands of servers that Google has to help you with searching.

One of the assumptions they made is that the number of jobs arriving at each of the dispatchers is equal. This seemed like a very important, but also unrealistic assumption, so we removed this from the model. It turned out that all the results that they found, no longer held. We analyzed the new model and also gave some new strategies to make the model efficient again. It turned out to be a great story and we decided to collaborate and write a paper about it. The paper we wrote is called:

"Load Balancing in Large-Scale Systems with Multiple Dispatchers".

Right, I was talking about the presentation I gave. There were around thirty people in the audience. I hoped for a little bit more, since there were hundreds of people attending the conference. However, there were around ten parallel sessions going on, so many chose not to attend my presentation (I think they missed out on something great...)

One of the reasons is perhaps also that my presentation was quite mathematical, while the general audience was probably more interested in stuff with computers.

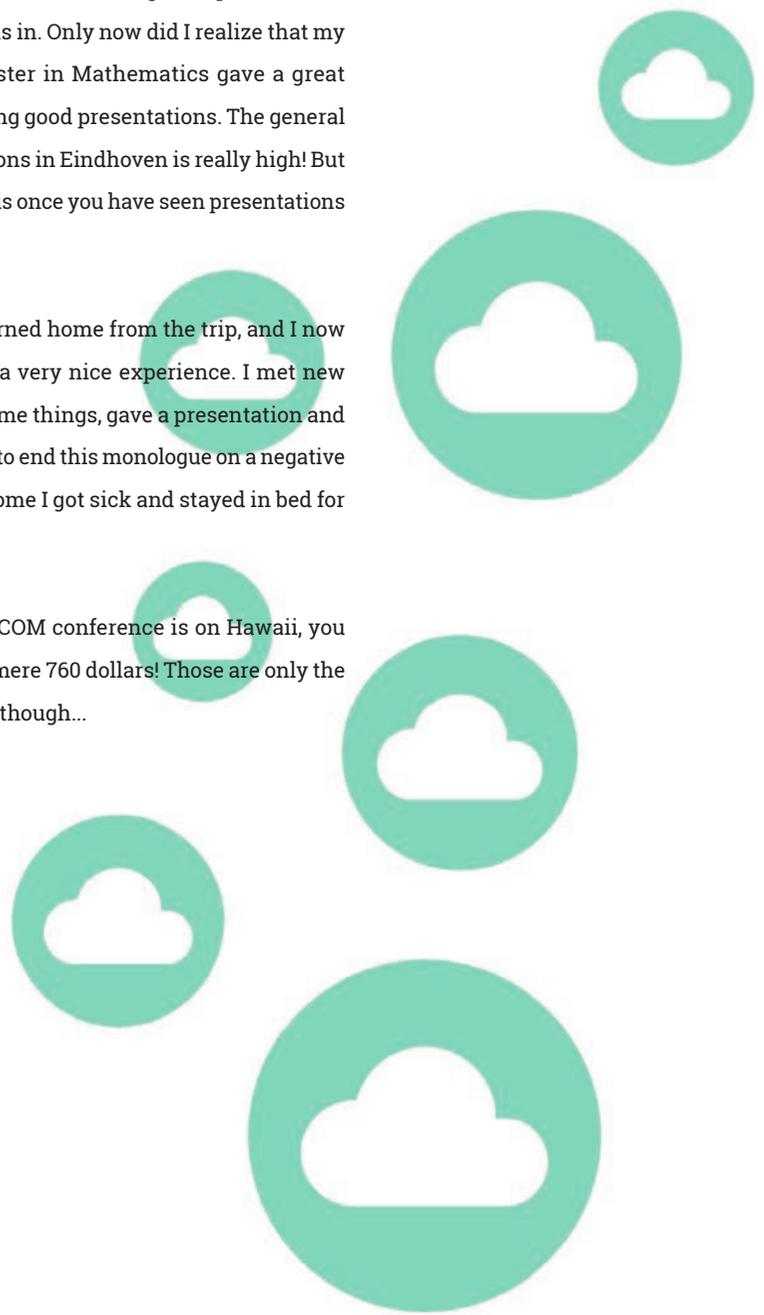
“ Only now did I realize that my Bachelor and Master in Mathematics gave a great foundation to giving a good presentation ”

I had 22 minutes for the presentation and that is more or less how long the presentation took, including questions. The questions showed that the audience understood what I was presenting. I also got the

“Best-In-Session-Presentation” award, for being the best speaker out of the four that gave a presentation in the session I was in. Only now did I realize that my Bachelor and Master in Mathematics gave a great foundation to giving good presentations. The general level of presentations in Eindhoven is really high! But you only realize this once you have seen presentations somewhere else.

After 7 days I returned home from the trip, and I now look back at it as a very nice experience. I met new people, learned some things, gave a presentation and got an award! And to end this monologue on a negative note, when I got home I got sick and stayed in bed for a week...

Oh, the next INFOCOM conference is on Hawaii, you can be there for a mere 760 dollars! Those are only the registration costs though...



KNOWING HOW TO CODE IS NOT ENOUGH FOR CAREER SUCCESS

Software development skills are in demand, as any quick scan of online job boards will confirm. But the people doing the hiring have an important piece of advice: knowing how to code is not enough for long-term career success. The developer skill set is changing.

TEXT ASML

“Software engineering is about abstraction and structure,” says Jan Friso Groote, professor in Computer Science at the Eindhoven University of Technology (TU/e). “The real problem of software is that it is so immensely complex that if it is not structured well, it becomes unmaintainable.” As a result, the most important skill of a software developer is not writing code and testing it until the bugs are quashed. It is understanding the essence of a problem and building a structured, reliable, extendable and maintainable approach for solving it.

For development teams who have taken this approach to its logical conclusion, it means that software engineers write very little traditional code. They spend most of their time working in abstract modelling languages, specifying the behavior of a system. Formal verification tools allow those teams to be confident that their solution is complete and error-free, and the code itself is then automatically generated.

With such a model-driven engineering (MDE) approach, a team at ASML recently replaced half a million lines of code that had been built the conventional way. “When we made this change to our software, it was a challenging period and a lot of energy was needed from our software engineers,” said David van Beek, who leads a group of software engineers at ASML. “We really grew as a group and as a department. We continue to grow now, and we need developers with this energy and drive to ensure we continue to produce a clean and extendable design in the years ahead.”

ASML

It is not surprising that companies like ASML are embracing model-driven software development. ASML makes equipment for chip manufacturing. All of the world’s leading makers of processors and memory chips are using ASML’s lithography systems to create the nanometer-sized electric circuits found on modern chips. These are some of the most sophisticated machines ever built, so the demands for the software that runs them are high.

Rogier Wester, manager of the Lithography Systems Software Architecture group at ASML, said he looks for candidates who demonstrate abstraction skills, who understand the essence of the problem and are still able to create simple solutions. This is because complex solutions usually do not work and, even if issues do not crop up immediately, bugs will still appear when customers start to use the product.

This requires developers to think in a very different way. “Think about what will go wrong. Divide and conquer. Use models for abstraction and conciseness. Use appropriate tools, that allow you to refactor and change with confidence,” Wester said. “We need very skilled software designers and, in my honest opinion, we see the challenge for the universities to offer an integral computer science education on software architecture and design, abstract modeling, and formal specification and verification,” he added.



SHADES OF SUNSET

TEXT Tim Meeles

Their names are Lisa and Frank. They have been married for 25 years now, and therefore they decided it was time to celebrate this wonderful milestone. Their lives haven't been that exciting till now namely. To give a small example, every day they enjoyed their supper at 6 PM, did the dishes at 6:30 PM, as their tiny house with an even tinier kitchen didn't allow for them to have a dishwasher. Afterwards, they watched the RTL news and immediately after that the 8 o'clock news; just in case either of the two would give just a tiny bit of extra news. Obviously, this never happened...

The village they lived in, called Hutjebroek, was just as exciting as Lisa and Frank's lives. Approximately 500 inhabitants lived in Hutjebroek and as a result everybody knew each other, but maybe more importantly, everybody watched (over) each other. As Hutjebroek is strongly Catholic, Lisa and Frank went to church every single Sunday, and they too watched whether the entire village was there. Every Saturday, Lisa went to the market to buy her cheese and bread; because especially the baker at the market was far better than the supermarket bread they could buy in the neighbouring city about 10 kilometres further.

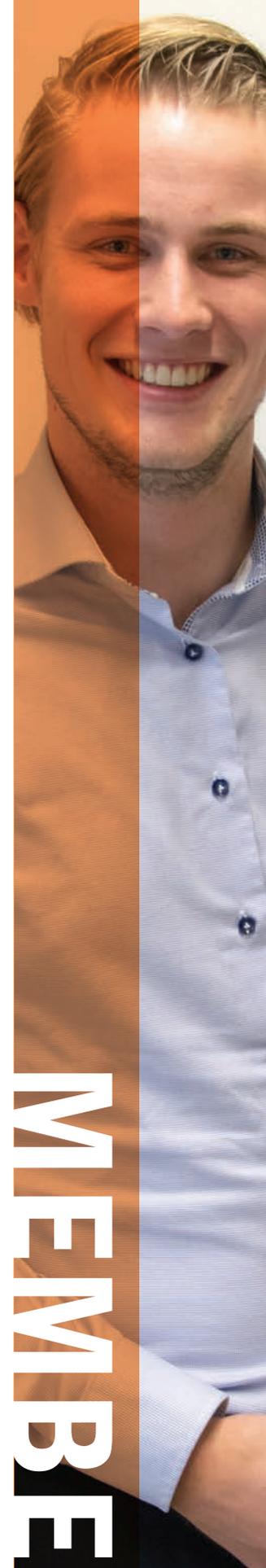
Lisa and Frank had never had children. They tried to have children in the past, but after several miscarriages, they decided God didn't allow them to. They always felt like they were happy together, but as they were turning a bit older, they started feeling something was missing. Therefore, now that they have been married for 25 years, Lisa and Frank decided it was time to discover more of the world, and they would go for a romantic trip to the United States.

Lisa and Frank went to a travel agency; because they would never be able to organise such a trip all by

themselves. They had never left The Netherlands before, as this was not common for Hutjebroekers. When they walked out, enthusiastic as they were, all inhabitants of Hutjebroek looked at them in a disapproving manner; how did they dare to go on a holiday to such a country as the USA? Would they be able to go to church? How long would they be missing Lisa at the market? These were all changes that this little village could not handle.

Nobody wished Frank and Lisa a pleasant trip, nobody would take care of the mail that Lisa and Frank got, because going away for several weeks was a real sin. On a Monday morning, the sun just rose, Frank and Lisa flew to Las Vegas. The main destination of their trip was the Grand Canyon, as Lisa had heard that the sunset is amazing there! Frank rented the car, which was booked by the travel agency, and together they drove to the Grand Canyon. However, driving on The Strip, both Lisa and Frank were completely flabbergasted by everything they saw in Las Vegas. Spontaneously, they decided to stay in Las Vegas for a couple of days. They had never done something that spontaneously, but it felt amazing. The two saw the lions in the MGM Grand hotel, had a canal trip through Venice and ate Italian ice cream; they saw the Statue of Liberty, the Eiffel Tower, and even went to a circus show in the Circus Circus hotel. However, they enjoyed the fountain show of the Bellagio hotel by far the most. Two days later, Lisa argued that it was time to go to the Grand Canyon, though Frank would have loved to gamble just a little more in one of the countless casinos!

Frank drove to the Grand Canyon, and there was no doubt that they made the correct decision. Leaving Las Vegas behind them, they drove into the



MEMBER



desert, preparing them for the beautiful nature that the National Park Grand Canyon had to offer. Completely amazed by the impressions Las Vegas offered them, they didn't expect that they could be even more surprised by what they saw now. Lisa asked Frank why they hadn't done this before. Frank never completely answered the question, but they loved to converse about their lives, about everything around them and finally something happened in their lives again. Hutjebroek had taken all joy of life out of them, they finally realised. And then again, they found out why they had fallen in love so many years ago.

As it was terribly warm when Frank and Lisa were there, they decided to buy a hat for themselves, to protect them from the sun and the heat; and they bought a barbecue and the most delicious meat and fish; it was a festive trip after all! In front of their motel room, they opened a bottle of wine and fired the barbecue. Their conversation started to get a little bit more serious while enjoying the great meal. Suddenly, a fire fighter showed up, and she told Lisa and Frank that it was not allowed to barbecue in the national park. Even though they tried to convince the fire fighter that they had asked whether they were allowed to barbecue when buying the barbecue and that they wouldn't have bought it when it wouldn't have been allowed, the fire fighter was resolute: no open fire in

the national park. Frank promised to extinguish the barbecue when they were done, but no, it should be put out immediately and she would come back in some time to check on them.

Quite disappointed, Frank extinguished the barbecue and they put the remaining meat and fish in the fridge. However, with the putting out of the barbecue and the candles, the vibe was also put out. Frank and Lisa were still discussing, but they were discussing the disappointments of their lives. That they hadn't been able to get any children, that apparently there was way more to the world than just Hutjebroek, where they had been forced to act as anybody in the village; and that this trip made them realise they had lost quite some time of their lives. Lisa started doubting at that moment. After the miscarriages, she had secretly undergone some tests to see whether it would have been possible to get children after all. She had never told Frank, and actually only her mother had known this, but she took the secret to her grave when she died four years ago. The results of the tests showed that she would never be able to bring a child to the world. She never dared to tell Frank, afraid that he would have left her when he would know that he would be able to get a child with another woman. Furthermore, such an investigation was not allowed in their tiny Catholic church; they would have been thrown out!



As their trip had been this good until now, she decided to tell him the entire story. However, Frank did not respond in the way that Lisa hoped for. He got angry with her, started yelling and shouted names at her; for keeping this a secret for all these years. He would have never left her, he said, but he could not believe that she had done these tests in secrecy and let him live in uncertainty whether it was him, and that she had never trusted him with the complete truth.

Frank got up and went inside. Lisa wished she had never told him; but at least she finally got it off her chest. And she knew him; he could be a little stubborn, but he would always come around. So she left him to be for some time, cleaned up the barbecue and she did the dishes. For the first time in 25 years, she had to do the dishes alone; they had always done it together. At night, Frank still hadn't completely come around, but they slept together in the same bed.

However, the following morning, when Lisa woke up, Frank didn't lie in the bed anymore. Lisa got a little concerned: where did he go? Did he leave a note? Could she call him? However, when she tried to call him, she heard his phone ringing in the living room. She found out that his walking boots were gone too, so she imagined that he had probably gone for a walk. If only he would be back in time to go to see the sunset

together today; that is what they had promised each other before. She waited the entire day for him; she had breakfast alone, drank tea alone, had lunch alone, she even had dinner alone. Slowly she stopped believing that Frank would show up in time. Devastated she got up from her bed in the motel; because she had decided she might have to look for him. Just as she opened the door; she saw Frank again; he came just around the corner. After a long hug, they went to the Grand Canyon to watch the sunset together. Beautiful colours appeared and spread over the canyon. Frank told that on a clear day, one could watch over 100 kilometres far. They both appreciated the school bus yellow colour the most. But then, at that moment, Frank started speaking about Lisa's and his future, about finally being able to see it clearly. He told her that he had the feeling that his life had been lived for him, and that during his day, he reconsidered everything. He found out that the world was bigger than everything he had had before, and that he was ready to start exploring it; without Lisa. Lisa's world fell completely apart. Nevertheless, Frank got up left, he left during the most exquisite and colourful setting of the sun that they had ever seen. Completely desolate, the last thing that Lisa ever saw of him was Frank meeting some shade in the colours of the sunset.





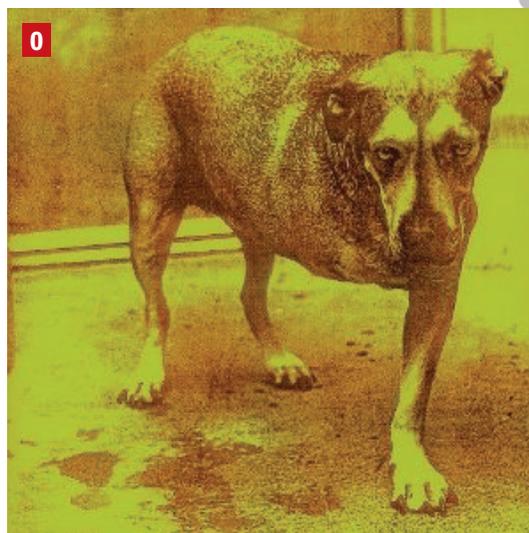
ALICE IN CHAINS - ALICE IN CHAINS

Since the days where TMF left television and MTV turned into a channel about catfish and spray tanned Jersey psychos, I have always been searching for new kinds of music. I've been dabbling through a lot of genres and ended up with an interest ranging from ABBA to Death. But there has always been one factor in music that would spark my attention: darkness. I don't know why, but when I listen to dark music, I sort of come into my niche. Maybe because darkness always inspired me to start writing music myself. But can music get too dark for me? To a certain degree: yes, but I like to look for the edge. And that edge is what I want to talk about today. An album so dark, that it makes me question whether I have left my safe zone, or curled up in it: *Alice In Chains – Alice In Chains*.

TEXT Lars Verstraelen

This album was released in November 1995, 19 months before I would prepare my ears for being able to encounter a life full of music. It is the third album in the catalog of Alice In Chains, a band that has been known in the grunge scene as one of the supreme leaders, along with Pearl Jam, Soundgarden and Nirvana; the big four of grunge. Where the other three were mostly known for achieving radio play by somewhat catchy songs, Alice in Chains was always known for having a ton of shade in their music. Songs like "Man In The Box", "Them Bones" and "Would?" are prime examples of what I mean. This has always been

due to a combination of dark and melancholic melodies made by Jerry Cantrell and sinister and morbid lyrics spurred by Layne Staley. The latter is probably one of the best vocalists I've ever heard in my life. The tone in his voice has always been great at convincing you of every word that he would speak. The first two albums were always filled with a very dark tone and carried high doses of straight up power, that would even make any metal fan go loose. However, the second record sounded a lot darker compared to the first one, as it contains much more of the pain that Layne would carry around: his heroin addiction. It made him feel



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*Alice In Chains - Alice In Chains
album cover*



inferior, which resulted in a lot of shadier subject matter in the lyrics. For the third album, I cannot say that the days got brighter...

Because... well... this album is an "edge" album. I do not listen to anything darker than this, which is different from "heavier". All but three songs on this record contain the lyrics of Layne, as he still went on with his heroin intake, which he knew, would eventually kill him. Every lyric made by Layne on this record is about how he hates himself for being weak, for being miserable and for being worthless. Heroin obviously made him more and more depressed. But I can truly say that I love this album. Mainly because of the following: remember what I said about Layne convincing you of everything that he would sing? The way he spurs the texts of every song, makes you believe that he is going through the darkest of pits in existence. You believe him. He knows that he is in the process of dying, and so do you as the listener. Just an example: "So afraid you'll kindly gurgle out a date for me" is a creeping lyric in the song "Sludge Factory" that sends shivers down my spine. He basically knows his death is coming soon. And it is not just this song in which he shares this message. Every song contains something along the lines of "I don't matter" or "I will die". He was mourning his existence and grieving his death before he had even died.

But the setting of such heavy lyrics also needs to be accompanied by overwhelmingly lurid melodies, which of course happens on this record. The songs are built with such a dim tone and aggravatingly dark melodies, that even the happiest of K3 lyrics when sung by Mega Mindy will be drowned in somberness. The guy who wrote most of these melodies was Jerry Cantrell, basically Layne's best friend. Cantrell also knew that Layne was unfixable, and he knew his head and thoughts by heart. One could say that the thoughts that would spin through Layne's mind, would curse Jerry's melodies on this record. The melodies are pure blackness, the only thing that will happily go hand in hand with the messages of Layne. The combinations of this with all the drumming and heavy bass is what

makes this album great. It is an album that, more than any other disc, is worthy of carrying the phrase: album does, what album promises. No place for happy thoughts here.

Also, happy thoughts were something that Layne would never have again. The release of this record only resulted in three live performances with Layne participating. One of which is their infamous MTV Unplugged performance, where you can have nothing but the thought of Layne knowing he is slowly passing away. Layne put AIC on hold, and went on with another project named Mad Season. A band which was formed just to halt Layne's process of dying. This band's legacy only contains the same somberness as Alice In Chains' last album. It stopped in 1999, which left Layne to be cast away in his home, secluded and isolated from others. It was here where he was discovered dead in April 2002. Eaten away by the heroin addiction, which resulted in him only weighing about 30 kilograms upon discovery.

One might wonder why the above piece is in an album review. This is because it accentuates the album in more perspectives. The fact that Layne basically didn't prolong the inevitable, and went on dying in his remaining years. Spiraling further into his own depression. The above scenario has been described by Layne himself in the songs on the record: "Once again you see an in discolored skin gives you away". This album was the explanation for Layne's depression, and has also been the prediction for how his life would go on, for what was left. And to me, an album that is able to put darkness in such a pure identity that it can describe someone's life, and even his death, is chilling. And that was the purpose of the record; nothing happy, only sadness. There is no record that I know about which carries the same darkness, without it sounding forced. To me, although it's edgy and maybe a bit too dark for me, this album is worth listening to. Let the darkness in music stay where it needs to be: with the people who can define it the best.

R.I.P Layne Staley





B.O.O.M. B ^ (x-2) Borrel 2013



Hawaii Borrel 2007



AC Poolen 2006



B.O.O.M. B ^ x Borrel 2018



Pre-gala Borrel 2017



AC Poolen 2017



GELIMBO DIESZITTING 2010



GELIMBO DIESZITTING 2017



Sinterklaasborrel 2007



Sinterklaasborrel 2017



Openingsborrel GEPWNAGE
Lustrum 2013



GEPWNAGE Dies Borrel 2017



I.V.V Bourgondisch weekend
2010



I.V.V Decadent Weekend 2017



Nieuwjaarsborrel 2006



GELIMBO pre- Halloween party
2014



Kerstborrel 2007



I.V.V New Years Drink 2018



GELIMBO Halloween party 2017



BAC KerstGalaBorrel 2017

GEWISSENSCHAFT

50 STEPS BETWEEN BLACK AND WHITE

Most people in computer science or mathematics have heard the name Charles Babbage: during his lifetime (1791 - 1871) he designed the difference engine and many other mechanical calculators that are now recognized as the first computers in the world. The emphasis should be on design: the Difference Engine wasn't built until 1991, around 150 years after the original design was published.

TEXT Bor de Kock

Less well known is that Babbage's engine was to be equipped with the first printer in the history of the world: an amazingly complex machine that's able to print the result tables to paper, and even includes an 'export mode', in which it automatically generates plates that can be used in a printing press. Even though building that printer took even longer – it was finally done somewhere in April 2000 – the system works seamlessly and provides amazing features. Operators are able to configure line height and width, select which columns should be printed, and even provides an automatic line wrapping system.

In the years between Babbage's design and the unveiling of his actual machine, normal printers became available to the general public. One year before his death in 1871, Thomas Edison developed a 'remote typewriter', which formed the basis of the later electronic typewriter, that in turn allowed the first printers to be built.

If you have ever seen an actual, mechanical typewriter, you probably know that pressing a key triggers a little hammer to slam down on the paper, leaving the impression of a letter, and triggers the paper to slide sideways a bit for the next character. The workings of most electronic typewriters are different: the paper does not slide from right to left, but the machines now have a separate 'printing head' that slides from left to right over the paper. Such a head contains a wheel or ball-shaped insert that contains the actual letters.

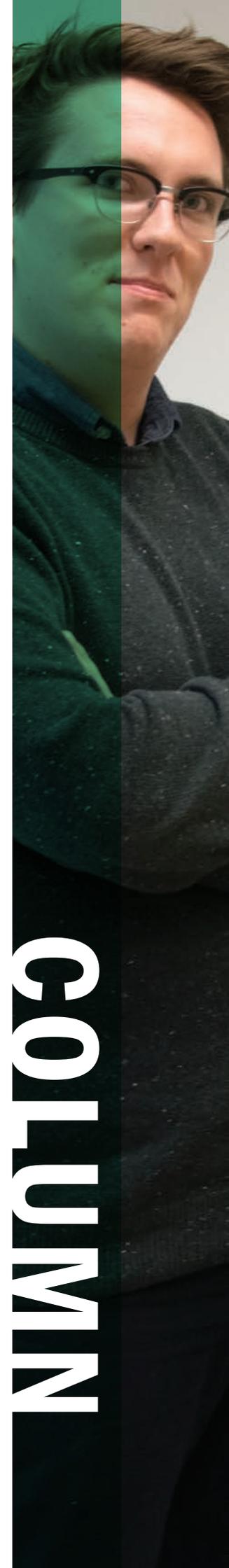
What's interesting is that these systems offered a new possibility: fonts. Because all letters are now on a separate printing head which could be removed, one could easily insert a ball or wheel providing different letter shapes, or even printing different glyphs. After the first 'daisy wheel' type printers came along, printing pixels instead of entire letters became possible. First the period character was used to print logos and graphics, later being followed by dot-matrix printers, and later by inkjet and laser printers.

So will printers stay around forever? Both the omnipresence of mobile devices and environmental concerns have made them less relevant in recent years. On top of that, home printers are usually expensive to maintain and – in my experience – always out of ink when you really need them.

Combine them with the fact most people have access to a cheap and reliable printer at work or university for the rare times you need one, and there is no need for most people to actually own one.

So, although humankind finally succeeded in building Babbage's famous printer, it has been obsoleted before it was done, similar to the table books his difference engine can generate. Although we don't need either to get some actual work done, they remain wicked cool mechanical inventions: if you're ever in a museum that has them on display, you should definitely check them out.

COLUMN





DEPARTMENT

THE LIFE OF LGBTU/E

I felt honoured when the *Supremum* editors contacted me and asked to write a small piece about the life of LGBTU/e, the LGBTIQ+ community at the TU/e. As diversity is key, I've decided to invite two members of the community to share the task of writing and provide complementary perspectives. Below you can find the results of our joint efforts: Jan de Graaf, professor emeritus from Mathematics and one of the pioneers of the gay liberation movement in Eindhoven, tells the very short story of LGBT students and employees from the early days of the Technische Hogeschool Eindhoven (THE) to the sad demise of the "Een op tien" in 2006. Ash Abbink, first year student at Computer Science and Engineering bachelor program, testifies about their experiences as a non-cisgender and non-heterosexual/romantic student, and argues why would one need such an LGBTIQ+ group in 2018, when gender identity and sexual orientation are often being dismissed as a "non-issue", a topic no longer relevant for the societal debate or daily life of LGBTIQ+ individuals. Finally, as one of the initiators of LGBTU/e, I, Alexander Serebrenik, associate professor at Computer Science, briefly review the goals of our group and the activities we organise and participate in. Should you have any questions about being an LGBTIQ+ at TU/e, you can always talk to me (a.serebrenik@tue.nl): you are not alone!

TEXT dr. Alexander Serebrenik, Ash Abbink, dr. ir. Jan de Graaf

JAN DE GRAAF

THE VERY SHORT HISTORY OF GAY-LIFE AT TU/E

Please don't get too excited when reading this title. Unfortunately, there isn't much to relate! Successively as a master-student, as a PhD-student, and as a full time professor, writer of the underlying tale has been an eyewitness of all kinds of social events at TU/e during more than 50 years. There was an interruption of some 7 years, which I spent at other universities.

“ ... and rumours about 'inclination to abnormal practices' ”

During the sixties I was active in several student organisations, such as the catholic "Sanctus Thomas Morus" and the atheistic "David Hume". As young

people do, we discussed how to improve the world at others' expenses and we joked about many items, including sex, of course. Gay male sex however was never a subject of discussion, or even mentioned, in those days. Except, alas, in some cases of suicide of a fellow student. Such suicides were often surrounded by vague whispers and rumours about 'inclination to abnormal practices'.

The sad and resigned reaction of my friends (and myself!) to such an event was something like "what else could he do", or "it is the only way out". There was also the irritating mix-up of 'homosexual' and 'paedophile'. Which is still present in the French 'pédé' (= fag, flikker).

The revolutions of 1968 brought about a lot of societal changes. Such as 'openness, democratisation and participation'. Suddenly heterosexual relations of all sorts openly flourished. Very much enhanced by the

(then) recent invention of contraceptive pills. Note that little technological inventions, like TV and contraceptives, have, in a very short time, had incomparably more impact on society than a 1000 years of sociological-philosophical disputes.

However, it took another 5 or 7 years until there was an explosion of attention for gay sex in the media (magazines, radio and TV). It was like a sudden phase shift. Big piles of gay and pornographic magazines became openly on sale at railway stations. Often of a type now forbidden by law!

By the way, I surmise that gay people owe a lot to the invention of contraceptive pills. No reason for straight people to be jealous anymore!

In the 2nd half of the 70s, at our university, the 'TH-homogroep' came into being. It attracted some 15 students and two or three young staff members. I remember two students and one staff member from our Mathematics department. We discussed and watched some (then scarcely available) movies and books. Remind that internet and mobile phones were still some 25 years ahead. It naturally led to personal relationships too. I don't remember whether the predecessor of 'Cursor' ever paid any attention to us.

Within groups of people working close together (like in a maths faculty) personal relationships always arise and arose. Most of them were (extramarital) of hetero-type. I knew of only one gay-relation in our faculty. There was little gossip about relations of colleagues. Most people did not (or did not want to) know about those or were uninterested, I guess.

The 'TH-homogroep' lasted less than 5 years. It died unobserved because of lack of interest. Ten years later the (female) pastor of "Humanistisch Verbond" founded "Een op Tien".

Rector Van Lint proposed not to fund it. He lost. I attended both its set up meeting and its close down meeting, now 12 years ago. Also this project starved from a lack of interest from staff and students!

In the 80s outside the university two precocious and important emancipatory Eindhoven organisations were very active: "COC" (moderate) and "Roze Driehoek" (leftish and provocative). I owe a lot to the latter, but only attended their 'cultural activities'. For genuine new members it had special funny initiation rites. I remember a first-year student, sitting in front of me at my lectures, knitting a huge pink sweater with very long knitting needles and, near his feet, a ball of pink wool of half a meter in diameter. This young man wore a ladies dress and high heels. Fellow students did not pay much attention to his outfit, but he was not completely ignored either. To his amazement he met me at the COC-pub. A lot of the history of precocious Eindhoven emancipatory activities can be found in Luc Brants: Tussen Repressie en Provocatie 1948-1990. It can be obtained at COC for a reduced price.

ASH ABBINK

LGBTU/e is one of the best things that have happened to me at the TU/e, community-wise. While choosing a university, I remember looking up LGBTQ+ communities and being disappointed that Eindhoven, while a good university, did not have one. You can imagine how happy I was when I read the article about LGBTU/e on Cursor.

“ Firstly, coming together as a community gives us a voice ”

There are a few reasons as to why such a community is so important, especially at a university. Firstly, coming together as a community gives us a voice. Where had I been on my own, I would have had to just deal with some of the problems I faced – full names instead of chosen names in Canvas, hardly any neutral bathrooms – being a part of this community has enabled me to talk about these issues with members of the University Council and actually take action in order to fix them. Secondly, I have met a lot of new





people with many different interests through LGBTU/e, whom I would never have met otherwise. Thirdly, the community has helped me feel less alone. Since I am neither cisgender nor heterosexual/romantic, I belong to a very small minority. LGBTU/e has helped me to realise that, while some of them will not want it to show, there are quite a lot of people who belong to that same minority I belong to. It has also helped me to meet some of those people to share experiences, which has been very helpful in my personal life as well.

All in all, LGBTU/e has improved my life in many ways both inside and outside the university. I would definitely recommend joining to anyone in the LGBTQ+ community – if you come to one of our activities, you can meet me and many others there. See you there!

ALEXANDER SEREBRINK

LGBTU/e is an informal community of non-straight or non-cisgender students and employees of TU/e. We are lesbian, gay, bi, trans, intersexual, questioning, asexual, genderqueer or defy any kind of categorisation. While the main goal of us being at TU/e is to study, conduct research or support those activities, we are people, too, whose rights and safety are sometimes affected by the political climate, laws and regulations. Together we would like to make TU/e a welcoming and safe place, and to build a community.

As LGBTU/e we consider four main directions of our activities:

» Activities targeting the LGBTU/e community itself. We have weekly lunches, and from time to time we organise small and low-key events for the group such as exploring GLOW or going to see a movie together.

» Activities targeting the broader TU/e community. You might have seen many people wearing purple on the Purple Friday (second Friday of December) and you might have even enjoyed the colourful cupcakes offered at GEWIS!

» Activities targeting TU/e as an organisation. In the last couple of months we have talked to the Executive board and to the student fractions in the University council; we have proposed to rephrase the Program and Education Regulations to remove references to the gender binary; we are working on several similar initiatives. We believe that many things can be made better by raising awareness and implementing small changes to the current practices.

“ Together we would like to make TU/e a welcoming and safe place, and to build a community ”

» Finally, we also participate in the networking activities! In November several student members went to Nijmegen to meet LGBTIQ+ student associations from other Dutch universities; every three months the LGBTIQ+ organisations of the Eindhoven region meet at the Eindhoven branch of COC, the Dutch national LGBT organisation: we have already met our “siblings” from ASML and the police!

At the moment, the main communication channel is the Facebook group, counting more than 100 members, many of them from Mathematics & Computer Science. To protect the privacy of the group members, the group is “secret”, one cannot join it unless being added by an existing member. Would you like to join? Send Alexander a personal message via the Facebook messenger, talk to one of the student members, or contact the maintainer of our public page: <https://www.facebook.com/lgbtue/>.

FIRST YEAR COMMITTEE 18-Φ AMΦBIER



ΦFTY SHADES OF GREEN

TEXT FYC18-φ Amφbier

We are Amφbier, also known as FYC18-φ. Where does such a magnificent name come from? We as mathematicians and computer scientists of course have a strong connection with the Greek number φ, also known as the golden ratio to the well educated students among us. Next to our lives as academics, we try to let a lot of golden liquid flow. Of course this promotes our presence and our stunning name. By the more observant readers among you, the word "bier" has been spotted in our name. "Bier" is of course not the only word that can be found in our name, but as reader you have noticed that already. If your Dutch linguistic skills are of a decent level, then you have seen that our name Amφbier has a strong correlation with the word "amφbie". This word is derived from the Greek word "amphi-bios", which means double-living. For us, this refers to our own lives as students, in which on the one hand we are very eager to learn and on the other hand we also like to party. This is why we like to go to the borrels every Thursday. Then we can lose some stress and be with our friends in a non-learning environment.

“ ... we try to let a lot of golden liquid flow ”

Once a member of GEWIS asked us at a borrel: "Wait, weren't you guys that really chaotic first year committee where everyone is named Martijn?" Yes we are. As explained by Martijn: "You can't expect much from us, we are only first year students." What you can expect however, is that our group of very 'special' individuals will work together as hard as we can, to be a worthy addition to the set containing all the first year committees of GEWIS! We have our board that consists of our chairman Ivo Dams, who leads all

the meetings and is the representative of Amφbier in the Chairmain-meetings. Then we have our treasurer Jerom van der Zande who takes care of all our expenses to be able to organize great activities for you. Lastly, there is Lieke Hermesen who describes all our meetings and ensures that every mail for us is discussed. With this board and our other members we hope to be known as an entertaining first year committee and we would like to tell you a little bit more about us.

Firstly a bit of history. Why did we erect our committee? During our creation we thought a lot about our goals and ideals. What do we want to accomplish? How are we going to fulfill such a difficult task of being fun and productive at the same time? As a first year committee we are going to do our very best to organize many sparkly magical activities in 2018. All these activities of course will have the same amazing theme as our committee, namely φ. Nothing is more beautiful than φ, right? In fact, our first activity is coming up soon! So keep your eyes on the website and the subscription list and maybe we'll see you at the first φva-Las Vegas ever. There you can play games that you would expect to see if you'd go to a mini-casino with other GEWIS members. We will be your croupiers. How cool is that!

Of course, this is not our only idea. We have many more ideas. Maybe too many... All those ideas are the result of our very efficient brainstorming during the weekly meetings we organize. These meetings are always a



lot of fun but we know when we have to keep it serious. The fact that we have a meeting almost weekly instead of once every two weeks results in a good bond between the members of Amφbier. This has led to some strange conversations about everything and nothing at the same time. We have made a selection of our best quotes:

Martijn: "Lieke, als je die mail stuurt, neem dan ook wat suiker mee."

Max: "Gelukkig nieuwjaar allemaal! Je mag gelukkig nieuwjaar wensen tot aan driekoningen."

Martijn: "Driekoningen is toch met Kerst?"

Max: "1 Januari heb ik niet meegemaakt."

Rick: "Hoezo, lag je in coma dan?"

Martijn: "Ik heb echt weer zin in Ian straks op de borrel."

Ralf: "Sowieso!"

Jerom: "Denk je dat de Maas een eigen kikkersoort heeft?"

Pieter: "Ja, want de Nijl heeft toch ook zijn eigen paard!"

Pieter: "Hebben jullie al je 10 vingers nog?"

Martijn: "Nou bijna niet want mijn broodje was glad en toen gleed het mes in mijn vinger."

...

Now you have seen a little bit of what our FYC18-φ Amφbier is all about. A group of students coming together to do fun things. We would be more than happy to share this fun with other students, so don't be afraid to come up to us for a chat at the GEWIS borrels. We are always present with at least one member. Except for some times in the exam periods, it's not all fun and games of course. We are all very serious about our future and education. Therefore it

is very smart of GEWIS to give us points when we receive our ECTS for passing one of the three courses per quartile. We really want to pass our courses - as the hardworking first year students we all are - which is why we can't organize that many activities as other committees. However, by being present at activities that are being organized by other committees we can learn a lot from them. Perhaps our members will participate in the already existing committees next year and then we can tell the group of members that we have some experience and know how to help to come up with new amazing activities.

“ We would be more than happy to share this fun with other students ... ”

We would like to go on and on about our awesome FYC, but unfortunately, our article has come to an end. Of course you, the readers, are now up-to-date with our new traditions and habits. If you are lucky to meet our beautiful intense green shirts with imprint - don't confuse this with the outfit of B.O.O.M. - then feel free to talk to us sometime when you see us, because before you know it, we are not the so called "sjaarzen" anymore but we will be considered full-mature GEWIS members.

On behalf of all members, thank you for taking the time to become familiar with our great first year committee!





MEMBER

ADVENTURE TO THE NORTH

The 20th of August was the day. Suitcases were packed, plane tickets were booked and my parents were ready to bring me to the airport. My half year long adventure to Stockholm was about to begin. The only problem was that I needed a place to sleep. In Stockholm they had a huge problem with the amount of student accommodations so I didn't have a place to sleep yet. A week before departure I booked a hostel in the center of Stockholm, hoping I would find a room soon enough.

TEXT Ingmar Westerhof

My flight to Sweden departed very early so I arrived in Stockholm at 10 in the morning and searched for the hostel I booked. Luckily it was a five minute walk so I dropped off my stuff and continued my search for rooms. I was very lucky, because in two days I had found a room in a big house a little outside of the center. I packed my stuff again and moved to the house. After a week of nice activities and meeting a lot of other Erasmus students, the lectures started. A few lectures I had were given in the old part of the campus: a few beautiful old buildings with a very nice courtyard, approximately 100 years old.

Luckily I also had some time to meet new people and do some nice stuff. Of course I explored the city. Stockholm has a beautiful old town (Gamla Stan) where you can walk through the narrow streets and visit the Nobel museum. From Gamla Stan you can walk to the royal palace and from there, via the parliament building



to the new center. Stockholm has lots of museums and the busiest one is Skanssen. It's an outside museum with a lot of old houses and farms from Stockholm (dated around 1800) and some Nordic animals like bears, wolves, elks etc. The Vasa museum was located in the neighborhood of Skanssen and this was a huge ship that sank in the 16th century off the coast of Stockholm which they brought up in the 19th century. The ship was very well preserved at the bottom of the Baltic Sea, due to the salt percentage of the water. Beside the museums it's not very hard to find beautiful nature around Stockholm. In the center you can take a boat to the archipelagos, a lot of small islands just outside of Stockholm. In summer it's also possible to enter an island to swim and hike there.

Besides exploring Stockholm I also went on some trips to overseas countries. Because of the high price of alcohol in Sweden, there are some companies that offer very cheap boat tours to Riga, Tallinn and Helsinki with a tax free shop on board. During the trip you 'sleep' on the boat, spend your day in the city and return in the late afternoon to arrive in Sweden the next morning. The boats are always packed with students from Stockholm so those trips were a very nice experience.

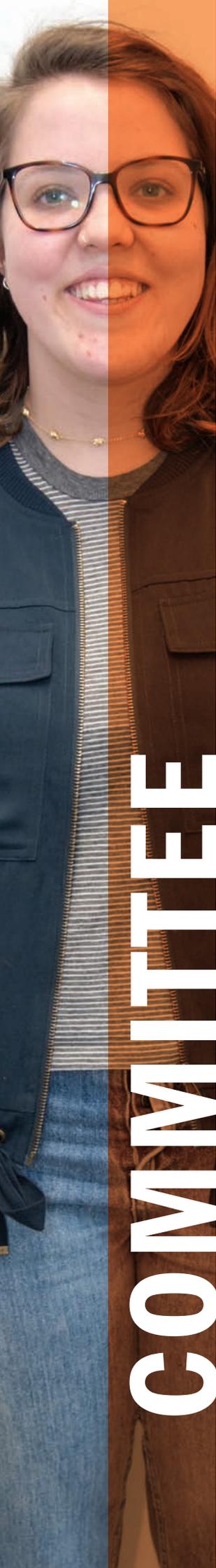
At the end of the semester, a little before Christmas, I took the most amazing trip of my life. We went with a group of 13 Erasmus students to the beautiful Swedish Lapland. We departed by train from the central station of Stockholm and 16 hours later, in the morning, we



arrived in Kiruna, a little town in the far north of Sweden. From there we were picked up by vans from the accommodation where we were about to stay. The accommodation was amazing, and there was a lot of stuff to do. We immediately booked a dog sledding tour for the next day because there was a big probability that we could see the northern lights that evening. The next day, after a night of sauna, snow angels and using the water of the frozen lake to cool down from the sauna, we were picked up at the cabin by the guy who organized the dogsledding. It was an amazing experience to stand on the sled while the very strong dogs pulled you through the snow. At some point, as

the cherry on top, the sky was filled with green, purple and pink 'curtains' dancing around above us. Even the guys who lived there said they barely see the northern lights so clear and seeing the pink and purple colors is also very rare. So we could say that we were very lucky. After a snowmobile tour to the ice hotel and a visit to the mine of Kiruna it was already time so say goodbye to the snow and the temperature of -20 and fly back to Stockholm. 2 weeks later it was time for my exams, and after three exams and one last party it was time to say goodbye to an amazing stay as an Erasmus student in Stockholm.





20 SHADES OF ORANGE

This year the AC celebrate their fourth lustrum. Yeah that's right; the AC is turning 20 this year. Of course we celebrate this year with some special Activities such as WipeOut and AC Wii Mariokart tournament. However, 20 years is a long time and in these years, some beautiful, fun traditions arose. One of the well-known traditions is that we have a pie eACh meeting, however we need someone to bring the pie. To regulate this, our heroes are punished when they don't fulfill an ACTION point by getting a letter. If someone fulfills an ACTION point, they get an anti-letter. A great tip to never being obligated to bring a pie to one of the meetings, is becoming secretary. I know this from first-hand experience since I am the secretary and as secretary you get many ACTION points aangesjaakt. I make the minutes eACh week, which implies an anti-letter eACh week. And by writing this article I will get another anti-letter as well!

TEXT Ava Swevels - AC

Having pie every meeting is a beautiful tradition, however it is not a tradition unique to the AC. Luckily for you, we have more traditions, and there is one tradition that I would like to talk to you about. EACH first meeting of the month we celebrate the beginning of the month by doing something special in those meetings. These are also the moments when letters are sprinkled around since many heroes forget these special ACTION points and therefore our supply of pie is guaranteed.

As a special edition we have the first-meeting-of-the-year, in which we commemorate our members. As you've noticed, I CALL our members heroes beCAuse that's what we are. To celebrate that we are heroes, we wear CAPes during the first-meeting-of-the-year. We don't wear CAPes, we wear safety-orange CAPes.

For all the other first meetings of the months, we think of something special to do. To arrange this, it is important that the point 'first-meeting-of-the-month' is thrown during the W.E.Z.O.T.G.I. Then all our heroes get a change to shout some ideas and then we decide on what we will do in the next meeting, which is the first-meeting-of-the-month.

My first-meeting-of-the-month was the 'Thee-leuten-vergadering', which roughly translates to 'Tea-drinking-meeting'. Which was fun, beCAuse I like tea. During the whole meeting, we enjoyed some tea while talking about the Activities we wanted to organize. To celebrate spring, we had a meeting outside and everyone was obliged to wear sunglasses. My worst experience with a first-meeting-of-the-month was the meeting where all AC's beCAME CA's and the other way around. First of all, nobody managed to do this, and if someone managed it was pretty hard to understand what they were saying. However, that was not the bad part. The bad part was that I had to make minutes of it and it was no fun.

One of the more fun first-meeting-of-the-month was the first meeting this ACademic year; for this meeting we had a New-Year-Resolution-meeting. All the heroes had to prepare one or two New-Year-Resolutions. Some resolutions were about the AC and some resolutions were about their study. One of the resolutions was to organize more fun and creative Activities and I think we really managed to do so.

As a member of the AC, I am very proud of our work and of our many traditions.

DATA ANALYTICS FOR HEALTHCARE PROCUREMENT

Achmea is one of the largest companies in finance within the Netherlands with more than 14.000 employees (12.300 in the Netherlands and 2.600 abroad). Achmea owns more than twenty brands like Centraal Beheer, Interpolis and Zilveren Kruis, and offers various types of financial products: health, life, non-life, income insurances, banking products, mortgages, annuity and pensions.

TEXT Marc Kepers (Senior Marketing Analyst Strategy, Marketing & Innovation)

In this data-driven company work more than 150 data analysts/scientists that perform analyses in a broad range of areas: risk modelling (actuary), marketing, healthcare procurement, customer satisfaction, pricing, big data, etcetera.

This article shortly describes a –randomly chosen– example of analyses that are performed by analysts within Achmea.

Zilveren Kruis – the largest Dutch health insurance company – strongly believes in healthcare procurement based on creating value. Value here is defined as quality in relation to costs. For different diagnoses, outcome scores of healthcare providers are corrected for the hospital's 'case mix' (severity of the patient population). Scientific research has shown that factors such as age, sex, social economic status and comorbidity are predictors for this case mix. In a next step, these outcomes are related to the integral costs the different hospitals charge for the treatment. This shows

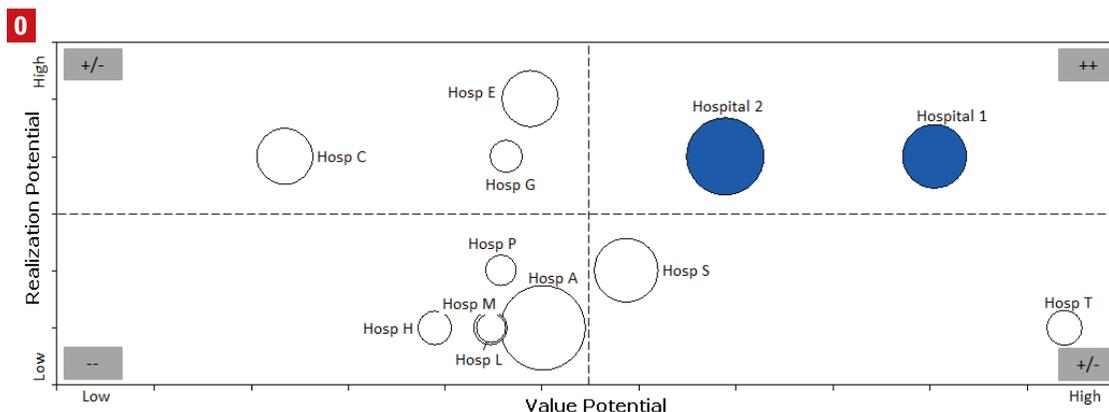


differences in the value the different hospitals deliver for their clients (Value Potential).

This value can only be realized if patients are treated in hospitals with a higher Value Potential. Since the willingness to travel for better treatments is limited, a quantitative analysis based on travel times is needed to estimate the number of patients that might be transferred from one hospital to another (Realization Potential). The bubble plot below shows that Hospital 1 and Hospital 2 have high scores on Value Potential (combined score of cost and quality) as well as a high score on Realization Potential (number of hospitals within a range of 30 kilometers). Transferring treatments to these hospitals will increase the overall quality of treatment and lower the overall health care cost.

0

Value Potential vs. Realization Potential





FESTIVE FLAVOURS

We are “Feestdagen extreen smaakvol en tevens ietwat verantwoordelijk met interessante toffe enthousiaste ideeën teweegbrengen”, which means we are all about the holidays. Our goal is to bring the holidays to GEWIS in a more traditional manner, think of a dinner with Christmas or painting eggs with Easter for example.

TEXT Dante Spekken - FESTIVITEIT

So far we’ve had 3 activities, one of which was the Secret Santa, where members wrote poems and built presents for each other. The Secret Santa was combined with a Christmas dinner, which was our most visited activity so far, with delicious meals for around 30 members. Afterwards a lot of people asked for the recipes of the great meals FESTIVITEIT served, but because our secretary is way too busy to send out all

those emails, we chose our favorites and decided to put them in the Supremum!!!

Both recipes are great for family dinners or tapas with friends, but the puff pastry bites are especially great for parties, as they provide a creative and tasteful snack. Of course, no recipe can go without a drink, so we recommend prosecco, a festive and sweet wine.

PUFF PASTRY BITES

INGREDIENTS

- Puff pastry (1 pack of 10 sheets)
- Grated cheese (150 grams)
- Green pesto (100 grams)
- Ham (175 grams, sliced)

Preheat the oven at 220°C and cover a baking tray with baking paper. Take one piece of puff pastry and spread some pesto over it. Then put a slice off ham on it and sprinkle it with the cheese. Roll up the puff pastry and cut it into pieces of about 2 cm. Do this for all sheets of puff pastry. Put the puff pastry slices on the baking tray, with some space between them. (Depending on the size of your oven, you may need to bake multiple times.) Bake the puff pastry bites crispy and golden brown in 20-25 minutes.

PUFF PASTRY PIE

INGREDIENTS

- 6 sheets of puff pastry from the freezer
- 180 grams mozzarella
- 6 tomatoes (preferably roma tomatoes)
- 5 tablespoons of green pesto
- 2 cloves of garlic
- 4 tablespoons of olive oil
- 150 grams feta

Let the dough thaw. Preheat oven to 225 ° C. Cut the mozzarella in slices, preferably the size of an egg. Cut the tomatoes into slices parallel to vertical axis. Grease a baking mold and cover it with the slices of puff pastry. Poke holes in the puff pastry with a fork and spread the pesto over the puff pastry. Distribute the mozzarella and tomatoes over it. Peel the garlic, crush it above a bowl and mix it with the oil. Sprinkle the pie with the garlic oil and bake it in the center of the oven for about 30 minutes. Crumble and divide the feta over the hot pie. Return the pie for about 2 minutes in a warm oven until the feta becomes soft. Remove it from the oven and pour away the abundant oil-tomato juice.

TRAINING-ON-PAPER

3 WAYS TO SPEAK LIKE OBAMA

Speaking like Obama: not something that we Mathematics and Computer Science students are known for. Luckily, it is never too late to learn! Last January, thirty eager students attended the training “De Kunst van het Overtuigen” (the art of persuasion), organized by TRAIN, the official training committee of GEWIS. The training covered many subjects on how to convince or persuade someone and ended with a crash course on “how to speak like Obama”. To spread the informative insights of this training, we present to you: the very first edition of Training-On-Paper. Today’s topic: “How to speak like Obama”.

TEXT Merel Pennekamp - TRAIN

Barack Obama gave numerous speeches throughout his career as president of the United States. As president, Obama’s biggest and most consequential moments often have been speeches. After analyzing his most memorable speeches, professionals have pinpointed some of the best techniques that Obama used. In this article, you can train yourself to give speeches as great as Obama’s. Just keep track of these 3 tips. You’ll never know when you might need them!

1. TRANSCENDENCE (PAINTING MENTAL PICTURE)

A good speech takes your mind on a trip to another place. You should be able to paint a picture in the eye of your audience by using very concrete and vivid language. On November 7th, 2012, Obama gave a victory speech. Look at how he praises his supporters and his campaign staff.

By using relatable anecdotes, Obama paints a mental picture in our minds. Using the technique of transcendence makes a speaker more relatable and consequently more likeable.

*“...**You’ll hear** the determination in the voice of a young field organizer who’s working his way through college and wants to make sure every child has that same opportunity. (Cheers, applause.)*

***You’ll hear** the pride in the voice of a volunteer who’s going door to door because her brother was finally hired when the local auto plant added another shift. (Cheers, applause.)*

***You’ll hear** the deep patriotism in the voice of a military spouse who’s working the phones late at night to make sure that no one who fights for this*

country ever has to fight for a job or a roof over their head when they come home. (Cheers, applause.)

That’s why we do this. (Big pause.) That’s what politics can be. (Big pause.) That’s why elections matter. (Big pause.) It’s not small, it’s big. (Big pause.) It’s important...”

- Victory speech in Chicago (2012) by Barack Obama

COMMITTEE



2. REPETITION

The 2012 victory speech brings us to the second tip: repetition (or anaphora). It is a way of structuring sentences to give them more impact. You are repeating the same words or phrases at the beginning of sentences. Think of Martin Luther King's "I have a dream" speech: "I have a dream that someday... I have a dream... I have a dream...". Barack Obama does something very similar and it's very effective. This technique can be seen in the 2012 victory speech in Chicago and it is even more evident in the Iowa Caucus victory speech that Obama gave in 2008, where he used repetition repeatedly.

Here it is visible how he uses repetition multiple times in a row. He even smoothly transitions from the "They said" repetition into the "too" repetition by using it in the same sentence after the second repetition. But remember: never repeat the same word or sentence more than 3 times! Our human brains will experience a repetition of more than 3 times as overkill, and lose concentration.

*"...**They said** this day would never come. (Cheers, applause.) **They said** our sights were set too high. **They said** this country was **too** divided, **too** disillusioned to ever come together around a common purpose.*

*But on this January night, at this defining moment in history, **you have done** what the cynics said we couldn't do. (Cheers, applause.)*

***You have done** what the state of New Hampshire can do in five days. (Cheers, applause.) **You have done** what America can do in this new year, 2008..."*

- Iowa Caucus Victory speech "the bedrock of this nation" (2008) by Barack Obama



TRAIN



TRAINING COMMITTEE

3. GESTURES AND VOCALS

Use gestures and vocal delivery to add impact to the narrative. To look at this technique in practice, look up the November 7th 2012 victory speech on YouTube. Watch Obama's gestures as he delivers his speech. Obama would for example clench his fists close to his chest as if he is holding something tight when speaking about "the bond that hold together the most diverse nation on earth". He is constantly using his gestures to emphasize different sentences or different words. Sometimes when he talks about being inclusive, he will spread his arms apart with his palms up.

Also vocally Obama has a few tricks up his sleeve to gain everyone's attention. Obama seems to be particularly a fan of the dramatic pause. Nothing is as dramatic as a well-placed pause: one that is used to make a particular point stick in the minds of your audience. You can use a dramatic pause immediately before delivering an important point, or immediately afterwards to allow people to absorb the importance of what you just said. A great example of this is shown

in the 2012 victory speech. After having painted a vivid mental image, Obama wants to send an important message. He does this using a lot of pauses.

Of course, there is a lot more to be said about the use of gestures and vocals during public speaking. About pauses alone, entire books have been written. But perhaps that is a subject for the next Training-On-Paper?

WHO ARE WE?

We are TRAIN, the official training committee of GEWIS. This brand new committee aims to organize fun and educative trainings for the members of GEWIS. Trainings focused on both personal development and learning new skills are what we strive to achieve.

FACEBOOK

facebook.com/TRAIN.GEWIS

Follow TRAIN on Facebook for more information about future activities!

MAIL

training@gewis.nl

What training should we organize next? Mail us!





50 SHADES OF POST-QUANTUM CRYPTOGRAPHY

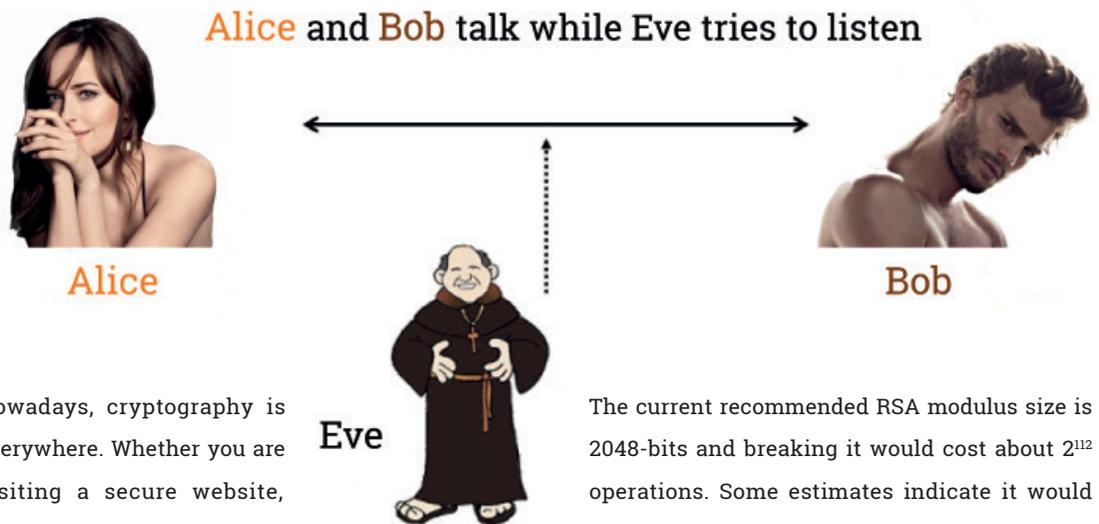
I t was almost 4 years ago when I decided to start the PhD of which I hope to successfully defend the thesis "Mathematical Structures in Cryptography" on June 5th, 2018. In this edition of the Supremum I have the honor to tell you something about what I have been doing in those years (really, it's not just drinking beer) and why it is important.

TEXT Christine van Vredendaal

The purpose of cryptography is to protect our communication channels from spying or modification by ill-willed entities. E.g. if Christian (also know as Bob) wants to send a sensitive picture to Anastasia (Alice), they do not want anyone listening in (or do they?)

partly lies in the fact that factoring the RSA modulus $n = pq$ for equally sized primes p and q is hard. The best known algorithm to do it is the General Number Field Sieve which has complexity

$$e^{(c+o(1))(\ln n)^{(1/2)}(\ln \ln n)^{(1/2)}}$$



Nowadays, cryptography is everywhere. Whether you are visiting a secure website, paying by debit or credit card, or messaging on your phone; most of it is protected, i.e. encrypted, with cryptographic algorithms. The foundation of the security of encryption lies in mathematics.

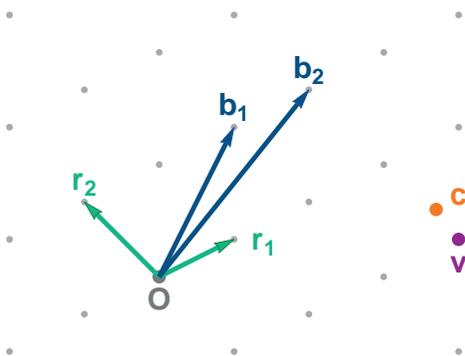
The current recommended RSA modulus size is 2048-bits and breaking it would cost about 2^{112} operations. Some estimates indicate it would take the energy of the sun of 65000 years to break RSA-2048.

Certain mathematical problems, like factoring, have the property that solving them is believed to be really hard unless you have knowledge of some secret information: a secret key. This secret key can be used in combination with a cryptographic algorithm to encrypt your messages. For instance in RSA security

More and more research is going into the development of a quantum computer. Although such a device would be a huge leap in physics research, for cryptography it would be a disaster of epic proportions. A quantum computer is not simply a fast computer, but can exploit certain structures in math problems very well. Specifically it can factor and solve discrete logarithm problems in only a fraction of the time it took before. Shor's algorithm is a quantum algorithm for factoring

integers that has a complexity of about $O((\log n)^2(\log \log n)(\log \log \log n))$. This would mean breaking RSA-2048 in about 2^{27} operations or just over 2 minutes.

Post-quantum cryptography hopes to fix this problem by developing new cryptographic algorithms that rely on hard problems that a quantum computer cannot solve. One class of these new algorithms is lattice-based cryptography. A d -dimensional lattice in mathematics is a discrete additive subgroup of \mathbb{R}^d . Although this sounds very complicated, for $d = 2$ it is simply the repetitive points in the picture below that are integer multiples of the basis vectors b_1 and b_2 .



Alternatively the same lattice can be drawn by taking integer combinations of the vectors r_1 and r_2 .

Suppose someone wants to send you the message (5,-6). He then takes your public key (b_1, b_2) to compute the point $v = (5 \cdot b_1, -6 \cdot b_2)$ in the lattice. He then adds a small error vector e to get the encrypted point c . The idea behind lattice-based cryptography is that a secret key (r_1, r_2) is a 'nicer' basis for the lattice than the public key (b_1, b_2) . Someone who has the basis (b_1, b_2) and is given c has a hard time recovering v (in higher dimensions than 2). On the other hand if you know the secret basis (r_1, r_2) then getting v back from c is easy.

Lattice-based cryptography is not the only option for post-quantum cryptography. In 2016 NIST (National Institute of Standards and Technology) did a call for proposals for quantum-resistant cryptographic algorithms with the goal to have verified secure cryptographic algorithms by 2023.

The deadline for submitting was November 20, 2017 and 69 proposals came in. Of those proposals, 9 were broken within a few weeks. Suppose 10 more get broken in the next few years, then there are still 50 shades of post-quantum cryptography to choose from.

Since estimates for the first quantum computer vary from 2025 to never, this seems like a decent timeline. However after picking one of the proposals the story is not over. Secure implementations need to be made for all software that uses encryption. Similarly, hardware-specific implementations need to be made. All of these need to be made secure against implementation specific attacks that use physical information like the power output or the noise a device makes. It can take a long time to be confident enough about security to have it protect your bank information. For example in 1985 a cryptosystem called ECC was discovered to have advantages over RSA, but it took another 30 years

before a robust version was deployed on the Internet. Even if the pressure of not having an alternative speeds up the process, time is getting tight.

In my research I analyzed the security of lattice-based cryptosystems. Some of these systems base their lattice on an algebraic number field. On the one hand this increases their speed and reduces the key size, on the other hand it introduces a mathematical structure to the lattice. In my thesis I showed that this structure might be exploited by an attacker and therefore I would advise against Christian and Anastasia using these cryptosystems.



*Infimum: Strange or funny quotations from a teacher, a student or faculty member.
Here you can find infima sent to the Supremum committee. inf.gewis.nl*

Ian over zijn infima van de Labello-stick: "Labello, wat is dat?"

** Googelt Labello **

Ian: "Ow, dat is dat!"

** Haalt een Labello-stick uit zijn zak **

Vinz: "Als je glijmiddel koopt is dat 21% BTW, maar als je een pakket met condoom koopt is het 6%."

Kees: "Ja, etenswaren hè."

Niekie tegen Wesley: "Hee ik betaal voor jouw gezelligheid ja..."

Celine: "Ik ging vanavond maar 2 bier drinken."

Wesley: "En hoeveel zijn het er geworden?"

Celine: "Ja, meer dus."

Kevin J: "Kunnen we PP2 Assembly niet als esoterische programmeertaal gebruiken?"

Landa: "Zeg Ian, hoeveel bier kun je eigenlijk aan?"

Ian kijkt bedenkelijk naar zijn hand, en steekt een vinger op. Ian steekt een tweede vinger op.

Ian, super-overtuigd: "Meer dan vijf!"

Tijdens discussie over wat iedereen aandoet naar de KerstGalaBorrel:

Tim H: "Ik kom gewoon naakt."

Twan: "Dat vind ik ook goed!"

Järvi: "Bobby wat zit er tussen 1 en 2?"

Bobby: "Een half."

Tegen Niekie: "Dan zou je een hoer zijn."

Niekie: "Nee nee, een escort."

Maureen van N: "Wiskunde is elegant en mooi net zoals de liefde, Maar als je het gaat bedrijven gaat het helemaal mis."

Tobin: "B.O.O.M. heeft toch geen GELIMBO leden?"

Bas: "Nadat Teun van Dijk binnen kwam wist ik niks meer."

Hondenhaar over problemen door sneeuw: "Ja, het wordt morgen nog erger dan vandaag."

Vinz: "Oh, fuck. Ik ga me alvast bezatten, anders krijgt dat ook nog vertraging"

Suus heeft geen date meer voor 't gala

Susan: "IK WIL EEN LEUKE DATE! IK WIL GEWOON EEN PENIS! AL IS HET MAAR VOOR DE FOTO!"

Hondenhaar: "Staan daar dus een paar prostitutuwerue... hoeren op straat."

Twan tegen Femke: "Je hebt niet eens in de worst gebeten!"

Iggy: "Ik voelde hem, maar toen was ik net mijn billen aan het afvegen."

“ Oh je bent m'n ananas aan het tekenen, wat leuk! ”

KutJeroen over nieuwjaar: "Ik vind het maar laf vuurwerk, daar zit volgens mij niks illegaals tussen."

Mitchel: "Infima zijn vies en seksistisch. Vroeger, toen het nog over docenten ging..."

Lars V: "Oh je bent m'n ananas aan het tekenen, wat leuk!"

Ruben: "Oké, we moeten aan het begin van het jaar beginnen."

KutJeroen: "Januari!"

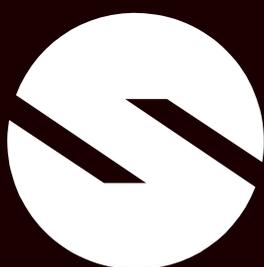
Ruben: "Nee, het begin van het jaar!"

DREAM OF MAKING YOUR OWN SUPREMUM IN INDESIGN?

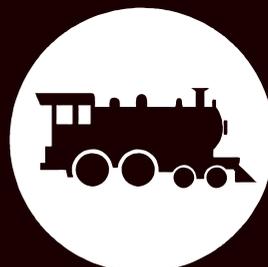


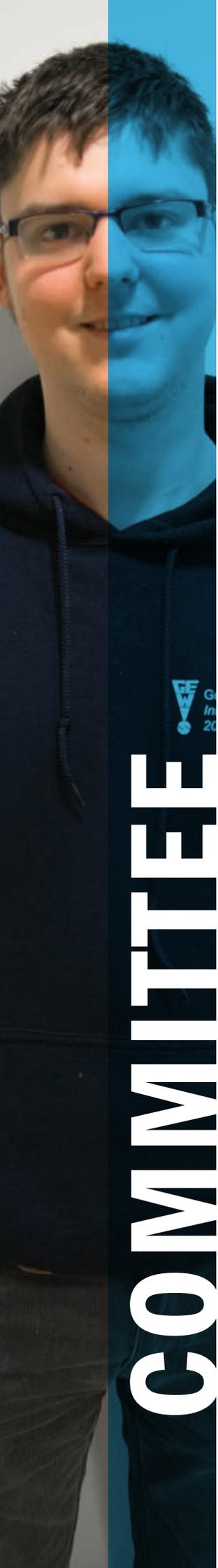
MARK YOUR CALENDAR!

16TH OF MAY.



X





THE APARTHEID IN SOUTH AFRICA

Most of you will know that there live a lot of different ethnicities in South Africa. Between those ethnicities there are some issues. In the past this was even worse.

TEXT Guido Janssen - Saffa

It all began when the Dutch colonists settled in South Africa. They captured the area around Cape Town and called it the Cape Colony. This happened in 1652, and stayed for almost 150 years. The Dutch mainly used the Cape Colony to supply VOC ships that are on their way to Dutch East Indies, or back to the Netherlands. However a lot of colonists didn't want the colony only to be used by the VOC. They wanted to develop. A lot of these so called Boers decided to move away from Cape Town. They settled in Swellendam en Graaff-Reinet. The people living in the border areas of the colony had a lot of attacks from African Koisan and Xhosa people who didn't want the Dutch to claim their inland.

“ It was a step towards the Apartheid ”

In 1780 they agreed with the VOC to not move further, to prevent the colony to become too big. But in 1795 the Boers and some colonists that were living in the border areas, drove away the VOC and started the Boer Republics. This was the First Boer War.

Later in 1795 the Brits defeated the Boers in the Battle of Muizenberg to claim Cape Town. They would continue to also occupy Swellendam and Graaff-Reinet. The Netherlands were occupied by France at this moment. In 1803 the war between France and Britain ended, and as a result South Africa was handed to the Batavian Republic. This was a cooperation between

the Netherlands and France. But in 1806 the Brits claimed it back, which was acknowledged by king Willem the first of the Netherlands in 1814.

A lot of British immigrants settled in Cape Town and the Boers continued to move inland to found new settlements. They had to deal with the attacks of the Xhosa, but this ended when the Xhosa destroyed their own crops and cattle. They did this because one of their prophetesses claimed that she had got a prophecy that if they would kill all their cattle their spirits would come and destroy the white people.

After this peace settled and Cape of Good Hope, as it was called back then, got its first parliament in 1854. In 1872 they received the title “responsible government”, meaning they would have full control over the country. They country started to grow economically and socially and the problems were set aside.

There came an end to this peaceful period when diamonds were discovered. The Brits wanted to get more influence and so did the Boers. It led to the second Boer war. The Brits won and claimed the territory for themselves again. In 1910 the Union of South Africa was formed, which was a unification of four British colonies. Independence came in 1931, but the laws contained a lot of rules that benefitted the white people over the black people. It was a step towards the Apartheid. When the Nasionale Party won the elections in 1948 they formalized these laws in the Apartheid, which is the African word for separateness.



These laws influenced the social life. For example black people weren't allowed to marry white people, and in 1950 everyone was divided in one of three categories: white, black or colored. The last category contained mostly Asian people that came to Africa to work in the gold mines. The laws resulted in the fact that black people got the lesser paid jobs and black people could not enter the area of white people unless they had special permission from the government. And even if they got permission they could never be there for more than 72 hours. The white people owned 86% of the land, while they were only 14% of the total population.

“ In 1964 he was sent to prison for the rest of his life ”

The black territories were called Bantustans, which is African for homeland. People that lived in a Bantustan got a passport of their Bantustan and were no citizen of South Africa anymore. The area of the white contained all territories with high economical potential, the Bantustans were all hilly areas. If a black person lived in a white people territory he was treated as a foreigner or an unwanted stranger. Because of the Apartheid many countries decided to boycott South Africa, including the Netherlands.

Nelson Mandela was a member of the African National Congress, which fought against the Apartheid. He opened a law firm together with Oliver Tambo in Johannesburg. The government obliged them to stop and in 1960 the ANC became forbidden. Since the non-violent actions were not helping, Mandela decided to start a military ANC. He sabotaged the white government together with his friends and was supported to do this by multiple leaders of other countries including Mugabe, Arafat and Fidel Castro. In 1964 he was sent to prison for the rest of his life. Because of this he got famous and became the symbol for anti-Apartheid movements. In his years in prison he managed to learn the African language and saw

that the Apartheid was also a sign of fear for a genocide if the black people would come to power. In 1976 he was offered to leave the prison and return to his Bantustan, but he declined.

In 1982 he was moved from Robbeneiland to Tokay, and later on to Victor Vester Prison. Here he was allowed to invite people. He started negotiations with the government and in 1990 president Frederik de Klerk offered him and all other ANC prisoners freedom. The ANC started again and Mandela was unanimously chosen as their leader. In 1994 there were elections and Mandela won. On 27 April 1994 the then 75 year old Nelson Mandela became the first black president of South Africa and with this the Apartheid had ended.

Of course nowadays there is still a big difference between different ethnicities in South Africa, but for the law everyone is the same again.





50 DIFFERENT SHADES AND WHY I NOTICE THEM ALL

“ I understand now that I’m not a mess but a deeply feeling person in a messy world. I explain that now, when someone asks me why I cry so often, ‘For the same reason I laugh so often – because I’m paying attention’ ”. – Glennon Doyle Melton

TEXT Eline Pasch

I recognize a lot of myself in this quote. Most people who are close to me know that I can cry at really embarrassing moments. From when something really cute happens, to when I just do not know how to answer a certain question. As a kid, I hated the fact that I had to cry all the time and I still wish that I would not be crying sometimes. But I also accepted the fact that I am like this, and that I just cannot control it. Also, this quote has a very positive part, I can feel very happy after a tiny gesture as well. So, you might ask yourself why I would cry that much and laugh just as often, well, for me this has to do with the fact that I am a Highly Sensitive Person. Since this label is not that well known and often misinterpreted, I will try to give some more information on what it is and what kind of influence it can have on somebody.

“ I can feel very happy after a tiny gesture ”

HIGHLY SENSITIVE PERSON (HSP)

Being a highly sensitive person definitely does not only mean that you cannot control your crying and laughing. That is just an example of a sign that can be quickly noted with me. When searching for a definition, you would get something like: “This is a normal biological individual difference in personality and physiology inherited by about 15 to 20% of just about all higher animals. Those with this trait notice

more subtleties and process information more deeply.” This definition is definitely not something I would give people when they would ask me about my high sensitivity. Of course, it correctly states the main part of being more aware of subtle changes, but it is still really vague. To clarify this, I often use the example of a coffee filter. A coffee filter is used to separate the coffee beans from the coffee you want to drink. It will filter the rest product from the end product. The brains function in the same way, of all the signals that you get, only the useful ones will be passed on to you. But a highly sensitive person has a broken filter. Not only the useful signals will pass, but also a lot of rubbish. Therefore, a HSP often has the problem of taking in too much information, and this will result in things like crying or panic attacks.

I understand that talking about coffee filters is still quite vague, so let’s talk about a real-life example; going out. I love to go dancing with friends, but it is often quite hard on me, since there are a lot



of things I will notice there. When I walk in to the club, I will not only be aware of the temperature, the volume of the music, the intensity of the lights but I will also notice a lot of details on people. I will for example notice clothes, voices and expressions on people's faces without having the intention to notice all these things. I often notice that all this information is overwhelming and then I will go outside or to the toilets, to process all the information. Taking a few minutes of rest will often be sufficient to continue the evening. But at some really crowded clubs, it is not possible to find the rest I need, which in turn might result in a panic attack. This means that I will start hyperventilating and crying until I get to a place with more rest.

THE LABEL HSP

There are no cures or medicines for high sensitivity, so I understand the question that many people have about why you would label HSP. For me, it helped me to understand who I am and why I might react differently from an "average" person

excuse to take alone time, but I often tend to go on without taking breaks. So having the label HSP makes it easier for me to know that rest is not just something I want, but something I really need.

THE ADVANTAGES AND DISADVANTAGES OF HIGH SENSITIVITY

One of the traits of a high sensitive person is that they feel a lot of empathy towards others. Since they pick up a lot of small signals, they will often be the first to notice when somebody is not feeling well or when they need some extra attention.

For me, I notice this a lot when I work with children. I do this at scouting, and I love that children somehow feel safe around me. Since I am able to feel what they need and able to speak about this with them. For example, when we are camping and they feel all kinds of emotions because they are not used to the situation. We are at a different location, we have some more and stricter rules and we do a lot of activities that are different from

what they are used to. Most of the time my sensitivity helps me to notice the people who need some more reassuring that everything at camp is going to be fine. But, since all children express a bit of excitement, for me, the overall atmosphere is really tense.

This is why such a week is really tiring for me, because I do not only feel my own emotions, I will also feel them of 25 children and 7 other adults. Fortunately, the other people at this camp also know that I am high sensitive and will therefore make sure I can get the rest I need. Because not getting some time for myself for 5 days would be way too much.

to a certain situation. I also allow myself to take more rest moments. Also, it is easier for me to explain to friends, family and others, that I might need some alone time. Not that I think that you need an



Other moments that are often too much for me are borrels. Clearly, there are a lot of people and they all have different moods, feelings and conversations. Also, there is often too much sound, light and color, which I will all notice. I therefore need to go to the toilets to calm down and reflect on the things that are going on, especially when I feel a panic attack coming up.

Sometimes at a borrel, it is really crowded and I will know that I am not able to go away before getting a panic attack. I then decide to take my phone and focus on that. This is often the moment that people will scream things like: "don't be rude, just put your phone away" or "wow, you look really serious, smile a bit!". Which are the things that are too much at that point, since I cannot handle those signals at that moment. So, every time you will see me looking very concentrated at my phone, just let me do so. I will smile and put my phone away whenever I feel like it.

“ They feel a lot of empathy towards others ”

You can notice quite quickly that the things that are happening to me are not really extreme and definitively not something that cannot be lived with. Especially because it is my own choice to go to those places with a lot of signals. But I love being around people, therefore, I will risk the chance of getting a panic attack. So, I focus on dealing with those kinds of situations. I have to focus on when to stop and know that I can explain to people why I need to stop right then and there.

THE DIFFERENCE BETWEEN HSP AND AUTISM

Some people show a lot of similar symptoms to a high sensitive person, but are instead diagnosed with autism. There is often a misdiagnose between those two. Both autistic people and high sensitive people notice a lot of little signals and can get tired of it. The main difference is that autistic people have a lack in feeling how somebody else feels while a high sensitive person especially notices small differences in things like body language and tone of voice. If you want to know more about this specific subject, the following (Dutch) site gives a good explanation. <http://www.outsider.net/nl/Levenmetautisme/autisme-hsp.html>

READ MORE ABOUT HSP

I once read an article about HSP and noticed that I perfectly fitted all features that were described there. Even things I never really noticed. Since 1 in 5 people is high sensitive, there are probably some people reading this who will be able to define themselves as high sensitive. If you want to test yourselves you can use the following (Dutch) site: <http://www.hooggevoelig.nl/drupal6/highly-sensitive-person-test>

If you want to know for sure and might need help dealing with certain situations, a psychologist is the right person to talk to.

Overall, I tried to tell the most important things related to high sensitivity, but there is a lot more to know about it. If you are interested in this subject the following link might be interesting. This site is mainly written by Elaine Aaron, a psychologist who did a lot of research on high sensitivity. It was also the main reference for this article. <http://hsperson.com/>

FIRST YEAR COMMITTEE 18-1.62 ONS WEGIS



YELLOW AS CAN BE

It was a glorious new day when the sun rose over the farm in the countryside. Eight eggs lay glorious underneath the golden rays of sun when a crackling noise was heard. One of the eggs was hatching and out came an ugly little yellow duck. Now this was not a regular kind of yellow, but instead the most incinerating yellow one could possibly find. It was such a color of yellow that it might have taken your breath away. And that was only the first egg, soon after the rest of the eggs followed. All just as brightly yellow as the first one. Eight yellow little ducklings had hatched and were ready to face the world.

TEXT FYC 18-1.62 Ons WEGIS

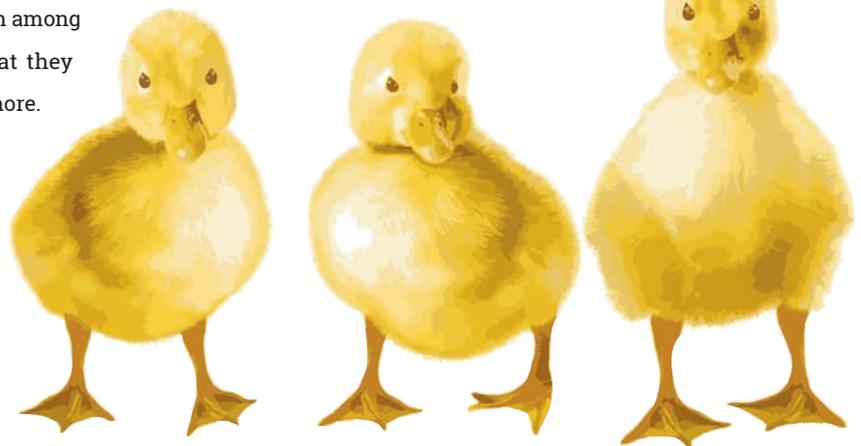
Unaware of their ugliness the eight little ducklings happily paraded over the farm, curiously looking at the other animals. Many kinds there were, with a lot of other newborns. One of the ducklings decided she didn't like the farm and left. Seven ducklings remained. Among the other animals on the farm there was a sense of disapproval. "Kutsjaarzen." uttered one of the pigs as he lay in mud. The ugly ducklings had not expected such outrage against their group and quickly got together to have a meeting. They came up with a name for their group: "Ons WEGIS". It was such, they decided, that the only way to deal with this behavior was to embrace it. And so, on they went, as yellow as they could be. They went to borrels and to trainings, to parties and to meetings. It quickly became clear that they were one of the groups of newborns, or new hatched, who came to the most farm-activities of all of them. Especially Ian, who was the face of the group. The group was more known as "the First Year Committee of Ian" than the name the ugly ducklings chose.

After they realized that they were winning the competition among newborns they decided that they should up their game even more.

And so it happened that on a Wednesday morning, while the newborns were being educated

by one of the many farmers, a big box stood in front of the stable. Eagerly the ugly ducklings opened to box to see their new clothing. Even brighter yellow than they themselves were, lay their new shirts in that box. Soon after opening the box other newborns came to look at the box. As they realized that the competition was a lost cause, one of them decided that there was only one way to prevent the ugly ducklings from winning. And so it came to be that several of the other newborns stole the clothing of the ugly ducklings. Multiple pieces were missing and messages traveled over the farm between the newborns on how to get them back.

The seven ugly ducklings were obviously upset and argued that it was unfair how they were robbed. But alas, that is how it works on the farm. After all, that is how it had always worked on the farm. Right? But the seven ugly ducklings did not give up so quickly. Instead, they decided that there was only one way for vengeance: organizing an activity so good that everyone would have to agree they were the best. And so they got together to meet once more, and decided that the best



activity would be skydiving. But it is never as easy as it seems and quickly the board of the farm decided that it would cost too much money to organize such an event. Now, it would seem the ducklings would be out of ideas.

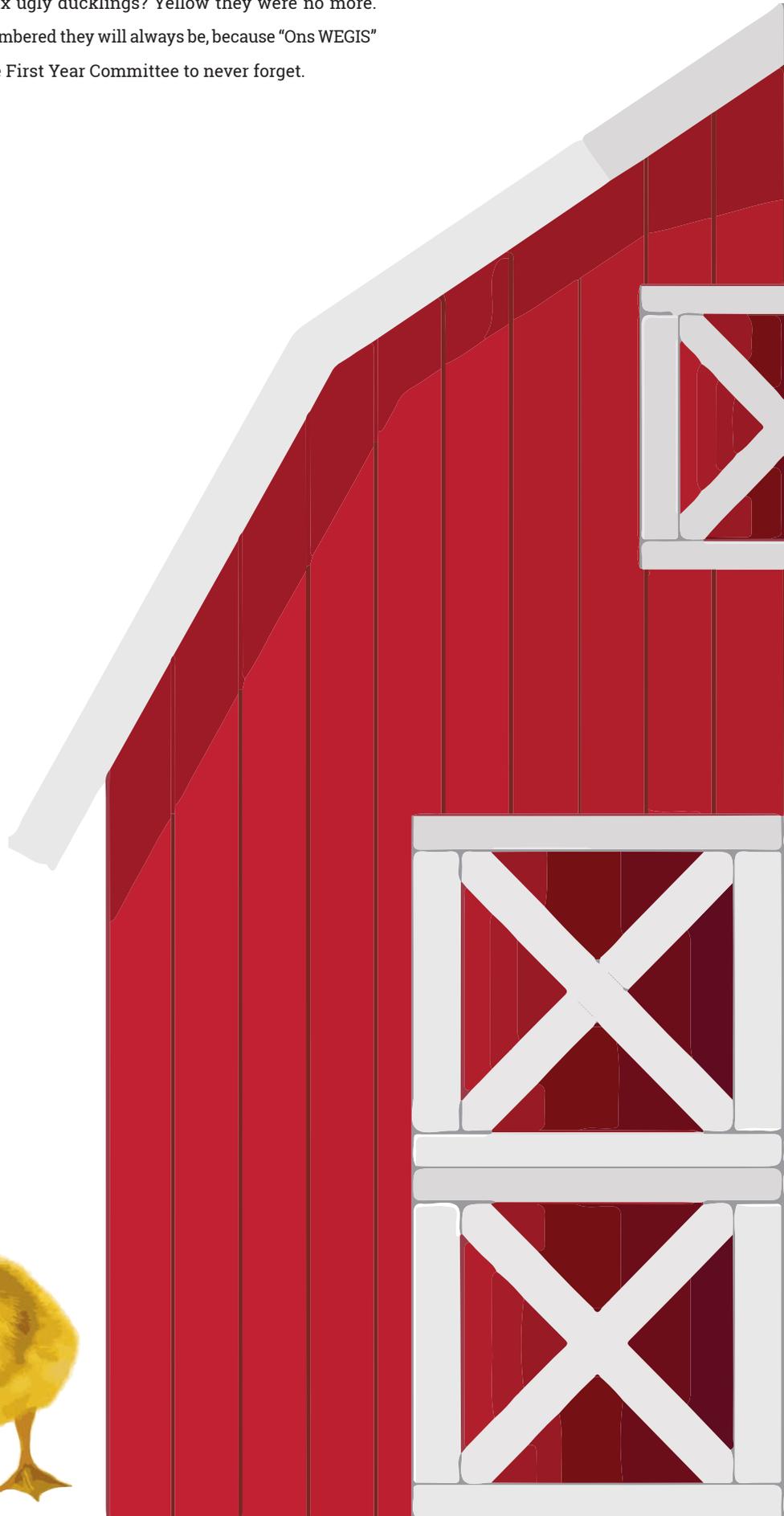
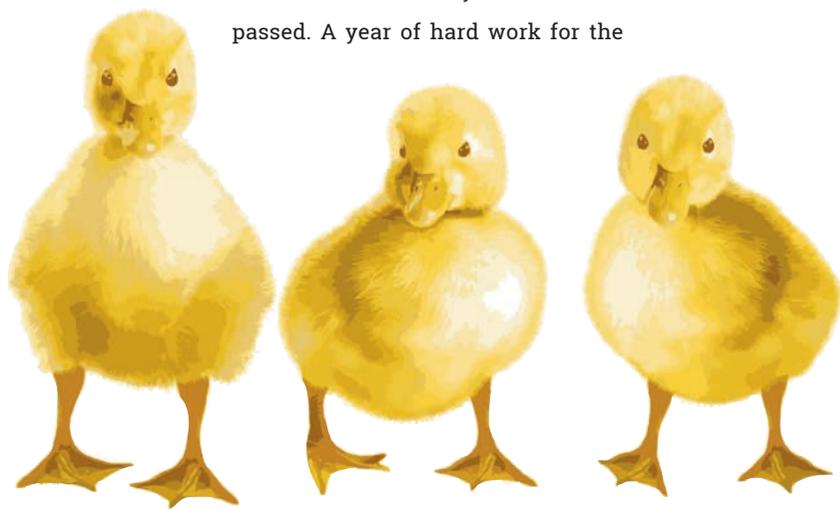
But fear not! For these ducks are very inventive, and able to make compromises when necessary. After all, there was a reason they were on top of the competition!

“ The group was more known as “the First Year Committee of Ian” than the name the ugly ducklings chose ”

Now then, an opportunity was provided by the farm to join work groups. And so it came to be that the ducklings all joined a work group. Soon enough all the animals on the farm would be able to see the parties, events and competitions the ducklings had helped to organize. They still haven't given up on the idea of skydiving and they had thought of other activities to organize too. The more tasks they got, the less time they had for meetings. The ugly ducklings didn't see each other much anymore. Carnival had passed and after a while, another duckling had lost his way. So now there were only six left, but they still won't give up their dreams of showing the farm how great they are.

After the nights had gotten colder and shorter and eventually longer and warmer again, a new period had arrived on the farm. The year had almost passed. A year of hard work for the

persistent six ugly ducklings. A year of overcoming prejudice and pride. Of losses and gains. Strong they stood, our Jealy, Luke, Tara, Roxanne, Daniël and Ian. Again, a glorious new day came to the farm, with golden rays of sunshine on the newly laid eggs. But the six ugly ducklings? Yellow they were no more. Remembered they will always be, because “Ons WEGIS” is one First Year Committee to never forget.



COMMITTEES & FRATERNITIES

FRATERNITIES



ATHENA
ATHENA



B.O.O.M.
Buitenplezier Op Onze Manier



GELIMBO
GEWIS Ervaart Limburgse
Initiatieven Met Bewondering en
Ontzag



GEPWNAGE
GEWIS Plant Weer Nerdige
Activiteiten en Geeky
Evenementen



I.V.V.
In Vino Veritas

COMMITTEES

€4
€orporate €ommunication and
€ontact €ommittee

AC
Activiteiten Commissie

AVICO
Audio- en VideoCommissie

BAC
BAr Commissie

BATA18
Batavierenracecommissie 2018

CBC
Computer Beheer Commissie

EJC18-0
Eerstejaars commissie IKU

EJC18-1
Eerstejaars commissie Imaginary
Friends

EJC18-1.62
Eerstejaarscommissie Ons

WEGIS

EJC18-φ
Eerstejaars commissie Amphibier

FESTIVITEIT
Feestdagen Extreen Smaakvol
Tevens Ietwat Verantwoordelijk
Interessante Toffe Enthousiaste
Ideeën Teweegbrengen

GEFLITST
GEWIS Fotografeert Leden In
Toffe Situaties, Toch?

GEHACK
GEWIS Ervaart Het Algoritmisch
Code Kloppen

GEILER
GEWIS Eet Ijsjes Lekker En
Regelmatig

GEKERST
GEWIS Ervaart een Koraal- en
Robijnlang Samenzijn in Thema

GELIFT
GEWIS'sers Liften Ieder
Fantastisch Traject

GEMOLD18
GEWIS'ers moeten overall
leugens doorzien

GETAART
GEWIS'sers Eten TAART

GEZWEM
GEWIS Zeilt Weer Een Meter

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Introductiecommissie 2018

NWS18
Nationaal Wiskunde Symposium

ODC
Ouderdagcommissie

SCIFI
Student Committee for
Internationals Facilitating

Integration

SR
StudentenRaad

STIJL
Huisstijl Commissie

SUPREMUM
Supremumcommissie

TRAIN
Training Committee

WC
Web Commissie

SUPREMUM COLOPHON

SUPREMUM

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