



# CHANCES AND CHALLENGES OF DIGITALIZATION

Interdisciplinary Seminar and Workshop for Czech and German Young Professionals

Thursday, 14 June – Sunday, 17 June 2018

Brno, Czech Republic





# About CGYPP

The Czech-German Young Professionals Program (CGYPP) is an international network for young professionals from Germany and the Czech Republic. The program links the fields of academia, business, media, public administration bodies and NGOs. Fourteen young professionals from Germany and the Czech Republic are invited to participate in a yearly series of workshops and to collaborate on relevant economic, political and social issues. Participants have a unique opportunity to enter into discussion with distinguished experts and to acquire practical advice, ideas and stimulus for their future professional careers. CGYPP brings together people with varying professional backgrounds. By exchanging and sharing experience and perspectives, participants will not only broaden their horizons but will also increase their social capital. In 2018 the program is being held for the 9<sup>th</sup> time.

[www.cgypp.eu](http://www.cgypp.eu)

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#CGYPP

# Program

Thursday, June 14 2018

Afternoon

Arrival of all participants

15:00

## **WELCOME & INTRODUCTION TO THE PROGRAMME**

**Zuzana Lizcová, Václav Bacovský, AMO**

**Anneke Hudalla, EAB**

*Venue: Hotel Continental, Kounicova 6, Brno*

16:30 – 18:00

## **CYBERNETICS IN MATERIAL SCIENCE**

on-Site Visit and Discussion with Prof. Pavel Václavek

*Venue: Brno University of Technology - Central European Institute of Technology, Purkyňova 123, Brno*

19:00

## **PUBLIC FILM SCREENING - THE INTERNET'S OWN BOY: THE STORY OF AARON SWARTZ**

*Venue: Café Mezzanine, Údolní 15, Brno*

**Friday, 15 June 2018**

08:00 – 09:30      **REVISION TIME? FESTIVAL MEETING BRNO IN PRESENT AND PAST**

Discussion Round with  
**Blanka Návrátová**, Meeting Brno  
*Venue: Hotel Continental, Kounicova 6, Brno*

10:00 – 11:30      **STAYING SAFE IN THE CYBER WORLD**

Discussion Round with  
**Jakub Křoustek**, Avast  
*Venue: Holandská 879/4, Brno*

12:00 – 14:00      **THE PROS AND CONS OF DIGITAL MARKETING AND ITS ROLE WITHIN MARKETING STRATEGY**

Working Lunch with  
**Pavλίna Louženská** and **Jenda Perla**  
*Venue: Restaurant Thalie, Rooseveltova 14, Brno*

14:30 – 16:00      **HOW TO GET MORE WOMEN IN TECH?**

Discussion Round with  
**Lenka Franců**, Czechitas  
*Venue: Faculty of Informatics, Botanická 68a, 602 00 Brno*

17:00                **INTERNAL WORKSHOP OF CGYPP – PARTICIPANTS**

presentation of participant's podcast projects  
*Venue: Stará Tkalcovna, Bratislavská 52, Brno*

## **Saturday, 16 June 2018**

- 9:30 – 11:30      **DISCOVERING BRNO – INTERACTIVE CITY TOUR**  
led by **Michael Murad**, CGYPP Alumnus  
*Venue: Brno City Centre*
- 12:00 – 14:00      **LUNCH**  
*Venue: Anapurna Restaurant, Josefská 427/14, Brno*
- 15:00 – 17:00      **EXPLORING THE PAST OF BRNO: VILLA STIASSNI**  
*Venue: Villa Stiassni, Hroznová 14, Brno*
- 18:00                **DINNER**  
*Venue: U Královny Elišky, Mendelovo nám. 1b, Brno 5*

## **Sunday, 17 June 2018**

- 8:30 – 10:30      **FEEDBACK AND WRAP UP**  
*Venue: Hotel Continental, Kounicova 6, Brno*
- 11:00                Departure of participants

# Participants' Bios

## Tereza Blahoutová



Tereza comes from the beautiful nature of Jizera Mountains. Born and raised in the CZ-PL-DE border region, Tereza has always been interested in historical, cultural, and political development in Central Europe. Tereza works as a project manager for PRE, the electricity supplier and distributor in Prague, focusing on strategy and M&A projects. In 2017, Tereza joined M&A team at EnBW in Karlsruhe, Germany, being responsible for several acquisitions in the renewables and energy storage segments. Tereza holds degrees in sociology and economics.

## Klára Bulantová



Klára Bulantová works as ecology and foreign & security policy programme coordinator at the Prague office of the Heinrich-Böll-Stiftung, combining her academic background (security studies) with her passion (ecology). After the studies, she briefly worked in IT and then received the International Parliamentary Scholarship at the German Bundestag. She also worked at the German Embassy. Apart from other things, she very much enjoys running in the woods.

## Mark Alexander Friedrich



Mark Alexander Friedrich is manager for international affairs at Metro AG. In this position, he represents the interests of the company and its sales branches such as Metro/Makro Cash & Carry in in Central and Eastern Europe, including the Czech Republic. Before joining Metro, he worked for the German political foundation Konrad-Adenauer-Stiftung in Hungary, Germany, and India. He holds degrees in European Studies and International Relations from Maastricht University and Central European University and has gained further professional and academic experience in Brussels and Istanbul.

## Aleš Gregorovič



Aleš Gregorovič was born in 1982 in Czech Republic. Over the past 15 years he has gained valuable experiences in the field of Czech-German relationships, particularly with focus on politics, media and business. After his studies at universities in Brno, Regensburg and Berlin, he was awarded the International Parliamentary Scholarship by the German Federal Parliament Bundestag. Then, he worked for the Czech Television in Berlin and subsequently for the European Parliament during the Czech EU-Presidency. Aleš is currently responsible for public affairs and external communication at innogy in the Czech Republic.

## Vladimír Hurych



Vladimír Hurych graduated in Political Science and International Relation from the Faculty of Social Sciences in Prague and is currently finishing his Master's degree in Security Studies at the same faculty. He has a yearlong experience studying at SciencesPo Bordeaux and one semester at Ankara University. Additionally, he has been involved in many students' activities including educational project called Stučák or the presidency of Political Science Club (PK FSV UK) organising public debates and event for students of the faculty. Since 2017, Vladimír has been working as a consultant at CEC Government Relations focusing on European politics, transportation, consumer agenda or digital topics. He also has a solid background in communication, public relations and international politics. Apart from his strong interest in current politics, he enjoys doing sports such as tennis, cross-country skiing or jogging.

## Jana Lachmann



Jana Lachmann works as a science officer at the German Embassy in Prague, where she is responsible for strengthening the cooperation in science, research and innovation between the Czech Republic and Germany. Her previous work was linked to educational and civil society projects, mainly in an international context. She worked as a manager for a family foundation and as a manager for partnerships and projects for British Council Czech Republic. Jana graduated from Charles University in Prague in International Area studies with a focus on Russia and Eastern Europe. She also studied Law at the University of West Bohemia and European Law (LL.M.) at the Technical University in Dresden. In her spare time, she enjoys yoga, swimming and photography.

## Alexander Matschke



Alexander Matschke is researcher and editor at DW Akademie, the leading German media development agency. DW Akademie is affiliated with the German international broadcaster, Deutsche Welle. Previously, he worked at the new media department of German Federal Agency for Civic Education and at the Berlin-based Institute of Media and Communications Policy. He has also been trainee at the European Commission's Directorate-General Information Society and Media. Alex holds a Master's degree in political science and communication research from Göttingen

University.

## Fabian Möpert



Fabian Möpert was born and raised in Saxony's border region to the Czech Republic. He studied European Economic Integration at Leipzig University and Charles University in Prague. His academic interests focus on Central and Eastern Europe, the countries of the Visegrad group and their role in processes of the European integration. During his studies he had the opportunity to work and engage in different positions within the field of Czech-German cooperation, including e.g. an internship at the scientific service of the Parliament of the Czech Republic. At the end of his studies he was assigned a Robert-Schuman-

Traineeship and worked for half a year at the European Parliament's DG for Internal Policies, dealing with the EU's budgetary affairs and economic policies. Fabian now works with Germany's economic promotion and foreign trade agency GTAI in a team of specialist advisors on foreign direct investments. By participating in the CGYPP he would like to further develop his strong emphasis on Czech-German perspectives and he is looking forward to meeting new inspiring people.

## Lisa Morávek



Lisa Morávek comes from Osnabrück, Germany. She studied biology and English to become a teacher, but then life took her to Brno, where she has been living and teaching English and German for the past six years and she dearly enjoyed it. As a freelance language teacher, translator and copywriter, she collaborates mainly with companies from the IT sector. This has provided her with some unexpected and interesting insight into both the Czech daily life and the inner processes of international software companies. Having grown up in a British-German family, she was interested in languages and their acquisition from an early age and continues to be fascinated now watching her two-year old as she mixes German and Czech.

## Michael Münch



Michael Münch is a Policy Officer at the Federal Ministry for Economic Cooperation and Development (BMZ) in Berlin and currently part of the “Strategic Planning and Management; Political Analysis” unit. Previously, he worked on the German development cooperation portfolio with Kenya. Prior to joining the BMZ in 2013, Michael has worked as an advisor for the CDU/CSU-Group in the German Parliament in the area of international politics for five years. He holds M.A.s in International Relations from the London School of Economics (LSE) and the University of Manchester as well as a 4-year Diplom in Political Science from Friedrich-Alexander University Erlangen-Nuremberg.

## Ondřej Pelech



Ondřej Pelech was born and lives in Prague. He holds a master's degree in Computer Science from the Czech Technical University and now works at Barclays Investment Bank as a software engineer. He is interested in modern technology, its intersection with ethics and politics and its impact on society. Ondřej is a member of the Free software movement, with the goal of enriching the Czech (center) left politics with the agenda of Free software, digital rights, privacy, freedom of expression, consumer and employee protection and freedom in general in the digital sphere. He is also a member of Masarykova demokratická akademie, a political foundation, and Mladí sociální demokraté and Idealisté.cz, youth social democratic organizations. Besides all of this, his passion is singing in a gospel choir.

## Eva Peterková



Born and raised in Prague, Eva Peterková has lived in 5 countries across Europe in the past decade. She chose to study a double degree bachelor program Czech-German Studies in Prague and Regensburg to explore both sides of her ancestry. At the moment, Eva works at Liftago, where she helps the Czech startup expand into new markets and grow in the B2B segment. Prior to joining Liftago, Eva worked as a consultant at Deloitte and at the European Commission in Brussels. At the age of 15, Eva co-founded the non-profit Together Czech Republic and led the organization for 11 years. Through her work at Together, she helped thousands of young people participate in international youth exchanges focused on informal education. In 2012, Eva became the "Youth Peace Ambassador" for the Council of Europe and was awarded the title of "Youth Ambassador" by the European Commission a year later. Eva graduated from the London School of Economics with a Masters degree focused on EU politics. In her spare time, she loves travelling and swing dancing.

## Franziska Stölzel



Franziska Stölzel holds a degree in European Studies, Anthropology and Sociology and is currently working in the field of communication for the automotive industry. Her main topic is digitalization of communication and presenting complex product information to a professional audience. When she is not preparing communication strategies, she enjoys culture and art, takes care of a collection of houseplants and thinks of how to get active in volunteer management again.

## Kateřina Šustrová



Kateřina Šustrová works as a civil servant at the Office of the Government of the Czech Republic, European Policies Coordination Department. Her main responsibilities include preparing background papers and materials for the Prime Minister and the State Secretary of European Affairs, following, preparing the mandate and attending the General Affairs Council and the European Council meetings and taking part in both internal and external communication about European affairs. Previously she worked for Aspen Institute Central Europe as a project coordinator. Kateřina is passionate about civic education and manages to interconnect her job with her voluntary activities. Since 2014 she has been an active member of a Czech NGO Eutis, o.p.s. where she takes part in various educational activities, most notably the international project “Make decisions about Europe” which aims at raising European awareness among Czech and Slovak high school students. Kateřina graduated from Masaryk University in Brno with a master’s degree in Political Science. She spent part of her studies at Loughborough University under the Erasmus program.

# Speakers' Bios & Company Profiles

## Pavel Václavek

Prof. Pavel Václavek graduated from the Brno University of Technology (BUT) in 1993 (Technical cybernetics) and 1998 (Economics and industrial management), in 2001 he acquired a PhD in cybernetics and computer science at Brno University of Technology. He has 25 years of experience with research and education in the field of automatic control at Brno University of Technology, focused onto control algorithms and their implementation in embedded systems. He was the leader of several projects financed by Czech Science Foundation and by industrial partners. He was also responsible for leading Czech part of consortia within the ENIAC project MotorBrain - Nanoelectronics for Electric Vehicle Intelligent Failsafe PowerTrain; ARTEMIS project EMC2 - Embedded Multi-Core Systems for Mixed Criticality Applications in Dynamic and Changeable Real-Time Environments. Currently he is involved in the ECSEL project 3Ccar as the leader of Czech sub-consortium, he is quality assurance manager of ECSEL AutoDrive project. He is also involved in research activities of H2o2o project OSEM-EV and ECSEL project I-MECH. He is the university coordinator of the project centre of competences Centre for CAK3 - Applied Cybernetics and centre of competences CIDAM - Centre of Intelligent Drives and Machines Control. He is the leader of the research group Cybernetics in Material Science at CEITEC - Central European Institute of Technology. He is control board member of Technology Agency of the Czech Republic.

## Meeting Brno

Festival **MEETING BRNO** takes place every year in late May and offers a platform for people of different views, cultures and religions to meet each other. The program of the festival consists of readings, theater and music, visual arts, performances in public space and discussion forums with inspiring people. This year's festival focused

on the hundred-year history and existence of the modern Czech / Slovak state and, along with it, evaluated the milestones that have so significantly influenced its development.

## **Avast**

**Avast** is one of the largest security companies in the world using next-gen technologies to fight cyber attacks in real time. The company has an immense cloud-based machine learning engine that receives a constant stream of data from hundreds of millions of users, which facilitates learning at unprecedented speeds and makes the artificial intelligence engine constantly smarter and faster. Avast combines artificial intelligence with human ingenuity to create the world's largest cybersecurity network protecting people and businesses from attacks online.

## **Jakub Křoustek**

Jakub Křoustek leads the Malware Research Team at Avast. Prior to that he led the AVG Threat Intelligence team – for eight years combined, plus his 15 years of experience in digging in machine code. He and his team, which is based in Brno, Czech Republic, are focused on hunting new malware strains, dissecting them, and preparing malware detection methods. Furthermore, they are active in developing tools for malware analysis, malware clustering, and providing free decryption tools to victims of ransomware attacks. For the last several years, his expertise has been in ransomware and botnets, but he likes to mess with all the other malware types as well. Jakub also likes to share his findings via any available channel (<https://twitter.com/JakubKroustek>, <https://blog.avast.com/author/jakub-kroustek>), conference talks (CARO, Virus Bulletin, Botconf, RAID, etc.), and social media. Jakub has a Ph.D. in machine-code analysis from Brno University of Technology.

## **Pavλίna Louženská**

As a Designer of Change Pavλίna Louženská focuses on transformation and innovation which is centered around the customer. Her goal is to lead and create innovative products and services which can tell a great story. As a Strategist in 2FRESH and a Google Developers Launchpad mentor, she helps companies of different sizes and set-up to grow, scale and thrive. From her career in the fastest growing fashion player ZOOT as a CMO to regular fashion business workshops and mentoring for 50+ brands, her goal is to nourish innovation in fashion and lifestyle industry. Pavlina is very passionate about female

empowerment in a business environment: She started a group #HolkyzMarketingu which in 3 years grew into 10 000+ women network with regular workshops and meet-ups. She is a Board Member for Transparency International and a spokesperson for Social Impact Awards 2017. She serves as a judge of a PR award Zlatý Středník and an internet award Křišťálová Lupa. She was selected to Aspen Institute Young Leaders Program.

## **Jenda Perla**

Jenda Perla is an alumnus of Czech German Young Professional Programme from 2014. He started in digital marketing in 2007 in NGOs. After writing his thesis about social media in Czech elections of 2010 he worked for OgilvyInteractive, one of the biggest Czech agencies. He left for being a freelancer after two years. He also worked for some political campaigns of Czech Greens where he is now also a member of the Board responsible for Greens communication. He also worked in Y Soft, one of the most successful technology companies in Brno and now he is CMO of Dataweps, technological data company focused on the online retail segment. He is a member of the panel of Křišťálová Lupa, or WebTop100 and presented at a lot of conferences and workshops about digital marketing.

## **Lenka Franců**

Lenka Franců graduated from Applied Mathematics and Economics from the Faculty of Science at Masaryk University. After her studies, she was traveling the world for about 2 years and gained valuable experience and perspective from different cultural and working environment. She came to Czechitas in August 2018. Now she is in charge of Business Development in Brno and a Project Manager of Digital Academy. In her free time she is a sports enthusiast and a yoga teacher.

## **Michael Murad**

Michael Murad is CGYPP Alumnus of 2017. He works as project manager for Czech NGO Eutis, which is active in the field of civic education and education about European topics. Eutis is a part of European Network for Education and Training – EUNET e.V. and thanks to this is involved in various international educational projects for students with partner organizations from different European countries. Michael is also Ph.D. student of political science at Masaryk University in Brno, where he teaches in several courses. He graduated

in Security and Strategic Studies at Masaryk University where he also received his BA in Political Sciences and European Studies. He spent a semester at the Utrecht University in Netherlands and in 2014 he also graduated in law and legal science at Masaryk University. His research interests include migration and transnational activities of foreigners in the Czech Republic and extremism of foreigners. Michael also closely cooperates with other NGOs and governmental organizations.

## **Villa Stiassni**

The Villa Stiassni was built in 1927-1929 for the Jewish textile manufacturer Alfred Stiassni, according to designs by the famous Brno architect Ernst Wiesner. Alfred Stiassni lived in the villa alongside his wife Hermine and daughter Susanne for just nine years; in 1938 the entire family fled to London before the imminent Nazi occupation, and subsequently moved to Brazil before settling California, where their descendants still live today. In the minds of most Czechs the villa is strongly associated with the idea of government. It was first seen in this light shortly after World War II, when it was visited by Edvard Beneš. Later it was used to accommodate famous and important visitors whenever they stayed in Brno. President of Cuba, Fidel Castro, stayed here, as did the majority of Czechoslovak presidents in the post-war regime. The list of illustrious visits is considerable, and indeed continues to grow. After the Velvet Revolution the villa was hired out to celebrate birthdays and weddings. The latest chapter in the building's history began in 2009, when the villa was brought under the administration of the National Heritage Institute, which set about its restoration. The building was officially opened to visitors 13 December 2014.

# Readings

## WILL ROBOTS TAKE OUR CHILDREN'S JOBS?

Alex Williams, *New York Times*, 11. December 2017

Like a lot of children, my sons, Toby, 7, and Anton, 4, are obsessed with robots. In the children's books they devour at bedtime, happy, helpful robots pop up more often than even dragons or dinosaurs. The other day I asked Toby why children like robots so much. "Because they work for you," he said. What I didn't have the heart to tell him is, someday he might work for them — or, I fear, might not work at all, because of them. It is not just Elon Musk, Bill Gates and Stephen Hawking who are freaking out about the rise of invincible machines. Yes, robots have the potential to outsmart us and destroy the human race. But first, artificial intelligence could make countless professions obsolete by the time my sons reach their 20s.

You do not exactly need to be Marty McFly to see the obvious threats to our children's future careers. Say you dream of sending your daughter off to Yale School of Medicine to become a radiologist. And why not? Radiologists in New York typically earn about \$470,000, according to Salary.com. But that job is suddenly looking iffy as A.I. gets better at reading scans. A start-up called Arterys, to cite just one example, already has a program that can perform a magnetic-resonance imaging analysis of blood flow through a heart in just 15 seconds, compared with the 45 minutes required by humans. Maybe she wants to be a surgeon, but that job may not be safe, either. Robots already assist surgeons in removing damaged organs and cancerous tissue, according to *Scientific American*. Last year, a prototype robotic surgeon called STAR (Smart Tissue Autonomous Robot) outperformed human surgeons in a test in which both had to repair the severed intestine of a live pig.

So perhaps your daughter detours to law school to become a rainmaking corporate lawyer. Skies are cloudy in that profession, too. Any legal job that involves lots of mundane document review (and that's a lot of what lawyers do) is vulnerable. Software programs are already being used by companies including JPMorgan Chase & Company to scan legal papers and predict what documents are relevant, saving lots of billable hours. Kira Systems, for example, has reportedly cut the time that some lawyers need to review contracts by 20 to 60 percent. As a matter of professional survival, I would like to assure my children that journalism is immune, but that is clearly a delusion. The Associated Press

already has used a software program from a company called Automated Insights to churn out passable copy covering Wall Street earnings and some college sports, and last year awarded the bots the minor league baseball beat.

What about other glamour jobs, like airline pilot? Well, last spring, a robotic co-pilot developed by the Defense Advanced Research Projects Agency, known as Darpa, flew and landed a simulated 737. I hardly count that as surprising, given that pilots of commercial Boeing 777s, according to one 2015 survey, only spend seven minutes during an average flight actually flying the thing. As we move into the era of driverless cars, can pilotless planes be far behind? Then there is Wall Street, where robots are already doing their best to shove Gordon Gekko out of his corner office. Big banks are using software programs that can suggest bets, construct hedges and act as robo-economists, using natural language processing to parse central bank commentary to predict monetary policy, according to Bloomberg. BlackRock, the biggest fund company in the world, made waves earlier this year when it announced it was replacing some highly paid human stock pickers with computer algorithms.

So am I paranoid? Or not paranoid enough? A much-quoted 2013 study by the University of Oxford Department of Engineering Science – surely the most sober of institutions – estimated that 47 percent of current jobs, including insurance underwriter, sports referee and loan officer, are at risk of falling victim to automation, perhaps within a decade or two. Just this week, the McKinsey Global Institute released a report that found that a third of American workers may have to switch jobs in the next dozen or so years because of A.I. I know I am not the only parent wondering if I can robot-proof my children's careers. I figured I would start by asking my own what they want to do when they grow up. Toby, a people pleaser and born entertainer, is obsessed with cars and movies. He told me he wanted to be either an Uber driver or an actor. (He is too young to understand that those jobs are usually one and the same).

As for Uber drivers, it is no secret that they are headed to that great parking garage in the sky; the company recently announced plans to buy 24,000 Volvo sport utility vehicles to roll out as a driverless fleet between 2019 and 2021. And actors? It may seem unthinkable that some future computer-generated thespian could achieve the nuance of expression and emotional depth of, say, Dwayne Johnson. But Hollywood is already Silicon Valley South. Consider how filmmakers used computer graphics to reanimate Carrie Fisher's Princess Leia and Peter Cushing's Grand Moff Tarkin as they appeared

in the 1970s (never mind that the Mr. Cushing died in 1994) for “Rogue One: A Star Wars Story.”

My younger son Anton, a sweetheart, but tough as Kevlar, said he wanted to be a football player. Robot football may sound crazy, but come to think of it, a Monday night battle between the Dallas Cowdroids and Seattle Seabots may be the only solution to the sport’s endless concussion problems. He also said he wanted to be a soldier. If he means foot soldier, however, he might want to hold off on enlistment. Russia recently unveiled Fedor, a humanoid robot soldier that looks like RoboCop after a Whole30 crash diet; this space-combat-ready android can fire handguns, drive vehicles, administer first aid and, one hopes, salute. Indeed, the world’s armies are in such an arms race developing grunt-bots that one British intelligence expert predicted that American forces will have more robot soldiers than humans by 2025.

And again, all of this stuff is happening now, not 25 years from now. Who knows what the jobs marketplace might look like by then. We might not even be the smartest beings on the planet. Ever heard of the “singularity”? That is the term that futurists use to describe a potentially cataclysmic point at which machine intelligence catches up to human intelligence, and likely blows right past it. They may rule us. They may kill us. No wonder Mr. Musk says that A.I. “is potentially more dangerous than nukes.” But is it really that dire? Fears of technology are as old as the Luddites, those machine-smashing British textile workers of the early 19th century. Usually, the fears turn out to be overblown.

The rise of the automobile, to cite the obvious example, did indeed put most manure shovelers out of work. But it created millions of jobs to replace them, not just for Detroit assembly line workers, but for suburban homebuilders, Big Mac flippers and actors performing “Greased Lightnin’” in touring revivals of “Grease.” That is the process of creative destruction in a nutshell. But artificial intelligence is different, said Martin Ford, the author of “Rise of the Robots: Technology and the Threat of a Jobless Future.” Machine learning does not just give us new machines to replace old machines, pushing human workers from one industry to another. Rather, it gives us new machines to replace us, machines that can follow us to virtually any new industry we flee to.

Since Mr. Ford’s book sent me down this rabbit hole in the first place, I reached out to him to see if he was concerned about all this for his own children: Tristan, 22, Colin, 17, and Elaine, 10. He said the most vulnerable jobs in the robot economy are those involving predictable, repetitive tasks, however much training they require. “A lot of knowledge-

based jobs are really routine — sitting in front of a computer and cranking out the same application over and over, whether it is a report or some kind of quantitative analysis,” he said.

Professions that rely on creative thinking enjoy some protection (Mr. Ford’s older son is a graduate student studying biomedical engineering). So do jobs emphasizing empathy and interpersonal communication (his younger son wants to be a psychologist). Even so, the ability to think creatively may not provide ultimate salvation. Mr. Ford said he was alarmed in May when Google’s AlphaGo software defeated a 19-year-old Chinese master at Go, considered the world’s most complicated board game. “If you talk to the best Go players, even they can’t explain what they’re doing,” Mr. Ford said. “They’ll describe it as a ‘feeling.’ It’s moving into the realm of intuition. And yet a computer was able to prove that it can beat anyone in the world.”

## **AARON SWARTZ STOOD UP FOR FREEDOM AND FAIRNESS – AND WAS HOUNDED TO HIS DEATH**

**John Naughton**, *The Guardian*, 7. February 2015

The internet activist who paid the ultimate price for his combination of genius and conscience. On Monday, BBC Four screened a remarkable film in its Storyville series. *The Internet’s Own Boy* told the story of the life and tragic death of Aaron Swartz, the leading geek wunderkind of his generation who was hounded to suicide at the age of 26 by a vindictive US administration. The film is still available on BBC iPlayer, and if you do nothing else this weekend make time to watch it, because it’s the most revealing source of insights about how the state approaches the internet since Edward Snowden first broke cover.

To say Swartz was a prodigy is an understatement. As an unknown teenager he was a co-designer of tools – like RSS and Markdown and of services like Reddit – that shaped the evolution of the web. He was also the kid who wrote most of the code underpinning Creative Commons, an inspired system that uses copyright law to give ordinary people control over how their digital creations can be used by others. But Swartz was far more than an immensely-gifted programmer. The Storyville film includes home movies which show the entrancing, voraciously-inquisitive toddler who was father to the man. As he grew, he displayed the same open, questioning attitude to life one sees in other geniuses who are always asking “why?” and “why not?” and driving normal people nuts.

I never met Aaron (though we had a mutual friend) but I spotted him early when he first surfaced as a blogger. What struck me instantly was the freshness and originality of his authorial voice. He was very young when he went to Stanford, and he wrote about the attitudes and social mores of his classmates, many of them brats of the American elite, with a raw freshness and naivete that was startling. He didn't belong there; he felt himself an outsider; but at the same time he wasn't judgmental, and that combination of candour and uncertainty was attractive and unusual. As he grew, one could see him becoming more and more interested in politics. And this too was predictable, for nobody with that razor-sharp intelligence could look at neoliberal capitalism and not see the unfairness, hypocrisy and inequality that lies beneath it. So he morphed into the most technologically-gifted political activist in history. He looked for instances of manifest unfairness and developed software to remedy it. Discovering that the provision of court transcripts in the US was essentially a commercial racket, he teamed up with other activists to right an obvious wrong: that the law was only readable by those with money.

He was similarly exercised at the fruits of taxpayer-funded scientific research being monetised by a few ruthless publishing firms which charge outrageous fees to access the resulting academic papers. His first foray into this field involved downloading a trove of medical research papers and then data-mining them to uncover hitherto-undetected links between pharmaceutical firms and the authors of articles in prestigious journals. His downfall came when he turned his attention to JSTOR, a digital library of academic articles hidden behind a paywall. He devised a method of downloading large numbers of articles from JSTOR, using a computer hidden in a closet at MIT. He was arrested in January 2011 and pursued by federal prosecutors with a vindictive zeal, eventually being indicted on a raft of charges which carried a potential jail sentence of 35 years. Ground down by this, he hanged himself on 11 January 2013. News of his death left countless people saddened and enraged. What had made the Feds so vindictive? Sure, he had broken the law. But it wasn't as if he'd hacked a bank. What came to mind was Alexander Pope's rhetorical question: Who breaks a butterfly upon a wheel?. "The act was harmless" wrote Tim Wu, a law professor at Columbia. "There was no actual physical harm, nor actual economic harm. The leak was found and plugged; JSTOR suffered no actual economic loss. It did not press charges. Like a pie in the face, Swartz's act was annoying to its victim but of no lasting consequence."

One explanation for the vindictive prosecution puts it down to a politically ambitious federal attorney anxious to make a name for himself. But there is a darker, interpretation –

that the authorities had noted how effective Swartz had become as an activist (he had, after all, mobilised the net community to stop the internet censorship legislation of the SOPA bill), and they were determined to make an example of him pour décourager les autres. Which, if true, would mean the Obama administration has taken a leaf out of the Chinese book on internet control: people can say more or less what they like online; but the moment they look like mobilising people, then you come down on them like the ton of bricks that crushed Aaron Swartz.

## **LONDON STOCK EXCHANGE WELCOMES AVAST TO THE MAIN MARKET**

www.lseg.com, 10. May 2018

London Stock Exchange today welcomes Avast, a leading global cybersecurity provider, to the Premium Segment of the Main Market. Raising \$200 million in primary proceeds and \$616.6 million in secondary proceeds, pre-greenshoe, with a valuation of \$3.4 billion. Avast is the largest tech IPO across Europe in 2018 to date and one of the five largest tech IPOs of all time on London Stock Exchange. To celebrate the listing and start of conditional trading, Vincent Steckler, CEO, Avast was welcomed by Tom Attenborough, Head of International Business Development, London Stock Exchange Group, to open trading this morning at London Stock Exchange.

Vincent Steckler, CEO, Avast:

"Today, Avast began trading on London Stock Exchange in what I am proud to say is the largest European tech IPO of the year. As the number of cyber threats around the world continues to dramatically increase, our focus on developing award-winning security products to help protect people's digital lives has enabled us to grow our business into the number one global consumer cybersecurity company, with more than 435 million users worldwide. This significant milestone for Avast will support our further growth as we begin the next chapter in the company's history."

Dr Robert Barnes, Global Head of Primary Markets and CEO Turquoise, London Stock Exchange Group: "We are delighted to welcome Avast to open trading this morning. Its successful IPO confirms London's position as one of the world's leading international technology centres and underlines the exceptional investor appetite for dynamic tech companies listing in London. It also demonstrates London Stock Exchange's enduring ability to finance a variety of issuers from across the world, from a number of sectors, giving them access to London's deepest pool of international investor capital."

Avast is the global leader in the consumer cybersecurity market. Through our freemium distribution model, we have amassed the industry's largest consumer user base, with over 435 million active monthly users of our products worldwide. Online consumer security is a large and growing market segment and at the core of what we do. We have continued to add products and services in adjacent and complementary markets, leveraging our security expertise to enter the SMB security market, the Smart Home market and to provide Family Safety services through partnerships with mobile carriers.

Over its 30-year history, Avast has maintained its roots in the Czech Republic, fuelled by a sense of fierce independence, a passion for protecting people's right to security and privacy, and a strong engineering talent pool. Today, we have over 1,700 people in 25 locations around the world, and we maintain our engineering culture and our commitment to the people who rely on our products to keep them safe online.

## **IN FOCUS - MEETING BRNO CELEBRATES "UNITY IN DIVERSITY"**

**Pavla Horáková** Czech Radio 7, Radio Prague, 30. May 2017

For the second year now the city of Brno has hosted a week-long festival commemorating its rich multicultural past. The Moravian capital, once home to large German and Jewish communities was deprived of its minorities during and in the aftermath of the Second World War. Under the umbrella title "Meeting Brno" the festival's multiple events try to shed light onto some of the glorious as well as painful moments in the city's history and discuss the issues of guilt, revenge, justice, forgiveness and reconciliation.

Die Schatzis – a German yodelling duo – are singing to passengers on a tram in the centre of Brno. Doreen Kutzke and Therese Marcinkiewicz were among the hundred plus performers who took part in this year's Meeting Brno, lasting over the course of ten days, from May 19th to 28th in various venues around the Moravian capital.

The festival's founding mother and programme director is the bestselling Czech author Kateřina Tučková. "Meeting Brno is a multicultural festival. We are now in the second year and we introduce high culture and also low culture, we organise discussion forums and also some special events where people from different countries meet with the citizens of Brno or the South Moravian region. The main programme of this year is the meeting of the descendants of Brno Jewish families who were involved in the textile industry. From the beginning of the 19th century, the families Tugendhat, Löw-Beer or Stiassni

lived here, however in the middle of the last century a lot of them didn't survive the Holocaust or had to emigrate and their property was confiscated. We invited them to this festival to meet with the Brno authorities and also with the Brno audience to a discussion forum to discuss this sensitive topic. And I have to say that it was really very successful. Members of the families, now in the second or third generation, were very happy that so many Brno people invited them, welcomed them and were so interested in their sad stories."

The first major event of the festival was a march in the footsteps of the local Germans who were driven out of the city to Austrian borders on the last days of May 1945. The participants now symbolically walked in the opposite direction from the village of Pohořelice back to Brno to a gathering spot from where the march took off 72 years ago. Another emotional occasion was the reunion of the descendants of the Jewish industrialist families that gave the city some of its most remarkable architectural gems, such as the Tugendhat and Stiassni villas, and helped to turn it into one of the major centres of the textile industry in Europe.

Invited by the Brno authorities, the descendants took part in a public debate at the city hall and also went on a tour of the nearby towns where their families had originally hailed from and where their ancestors had started their first small businesses from scratch. "The festival brought together people who are invited just to spend time in Brno, like the descendants of the Brno Jewish families, and the number of this group is 110 people from all over the world. They came to Brno, the city of their roots, from four continents. Some of them are from Australia, Canada, USA, also from Venezuela and Brazil, so they really travelled a long way to come to Brno. And around seventy artists and guests who are involved in the discussion forums are joining us to perform during the week. Last year 11,000 people joined the weeklong festival and this year it seems that it will be more people than last year.

We are looking forward to the end of the festival to counting. I hope it will be doubled." A giant scaffolding was raised in the middle of a park on one of the city's central squares bearing the headline Unity in Diversity in four languages. Its outline was the exact shape of the ground plan of the former Deutches Haus – the German Building, a majestic community and cultural centre of Brno's German population which stood there between 1891 and 1945. Having been turned into one of the Nazi headquarters in the city, it was damaged during the allied bombing and fighting in May 1945 and finally demolished in August of that year.

The construction served as a makeshift stage for a number of concerts and performances but also as the festival's meeting point. On Wednesday and Thursday it was the starting point of a special event called Šalina Music Tour, "šalina" being the local slang term for tram. Initiated by the internationally recognized Brno-based artist Kateřina Šedá, the tour brought together around 50 musicians and performers who got on Brno trams and played and sang for the passengers for two days. Kateřina Šedá launched the tour on Wednesday morning in front of the former Deutches Haus. "I believe the most important people are sitting here in the audience now. They are the musicians who will for two days try and improve the atmosphere on trams. I hope the annoyed faces that we know from public transport will brighten up and enthusiasm will prevail. I had organised this event in Helsinki and it was my longstanding wish to bring it over to Brno and I am grateful to Kateřina that it was possible to make it happen with the help of the transport authority. It's great and I think it will serve as inspiration to other cities. Various types of bands will appear on the trams, Roma bands, musicians from Ukraine and Germany. Passengers are strongly encouraged to take photos and make videos of the bands, to interact with them." The yodelling duo, Die Schatzis from Germany, said a few words before hopping on a tram and taking passengers by surprise during their daily commute.

"It's so nice and fine for us to come to see Brno for the first time. So we are glad, we are looking forward to playing on the tram." "I also wanted to say I'm very happy to be here. I spent a lot of time in my childhood in the Czech Republic. We lived in Prague for half a year. I haven't been here for the last twenty years. But it's a pleasure to share what we love doing with you and to meet other musicians from the other neighboring countries. I'm very excited, I love it, thank you." Of course, Die Schatzis sang in German as one of the tour's goals was to try and revive the former linguistic diversity of Brno. Tram passengers from Brno were also treated to some folk music from closer to home. The band Kubíci playing south Moravian folk music entertained the unsuspecting commuters for a full hour and a half, three times a day, changing tram lines back and forth, its musicians having to hold their balance in the moving vehicles.

Apart from the city and municipal authorities, the festival is supported and backed by a multitude of organizations, both Czech and international. Its director and founding mother Kateřina Tučková: "We are supported by the city of Brno and the South Moravian Region. We are also supported by the Ministry of Culture, the Czech-German Future Fund and the Goethe Institut. These two joined us because this festival is part of the Czech-German Cultural Spring which celebrates 20 years of the signing of the Czech-German

Declaration. And then we have a lot of small supporters, such as the Brno House of Arts or the Brno Philharmonic or the Museum of Roma Culture, Amnesty International and a lot of other co-operators and supporters. We are very thankful because without them such a big festival couldn't happen." Reconciliation efforts in this country usually don't go without controversies and protesters did show up this time, too, voicing their disagreement with the idea or form of Czech-German reconciliation. Festival organiser Kateřina Tučková again: "Part of the Meeting Brno festival is also the March of Reconciliation where we recall the so-called Brno death march which happened in May 1945. In this Brno death march, 20,000 Brno women, children and old people were expelled from Brno because they were of German language and German culture. Usually at the end of this March of Reconciliation there is a small demonstration. This year there were about thirty people who shouted and protested against our march which consisted of 400 hundred people. So nothing terrible happened, but yes, some demonstration usually happens." This year's Meeting Brno was an eventful week in a blooming city with a colourful and proud history, a city which is now confident enough to acknowledge and celebrate its nearly forgotten great sons and daughters of German and Jewish heritage, as well as come to terms with the shadows in its past.

## **MARK RITSON: BUCKLE UP FOR MARKETING'S 'BIG SEVEN' IN 2018**

*What are you doing wasting your time on segmentation, targeting and positioning when 2018 is about AI, millennials and Blockchain? Here are seven marketing bandwagons you need to jump on before it's too late.*

**Mark Ritson**, Marketing Week, 13 December 2017

Well, fellow marketers, we are almost at the end of the road for 2017. Can you believe it? As 2018 approaches from over the horizon I wanted to reach out directly to you and check that your marketing is in good shape for the year ahead. Below you will find seven key challenges to review and then score your own marketing capabilities against. I've attended most of the big marketing conferences around the globe this year – both in the UK and further afield. It's taken me a few weeks but I've reviewed the key insights that were provided this year by the gurus and big thinkers in marketing and then synthesised them into this all-important document. I'm delighted to present to you the 'Big Seven' of 2018 – a crucial checklist of the seven marketing challenges for the big year approaching. How does your marketing stack up?

### **1. Be artificially intelligent**

First, and perhaps most obviously, you need to be using artificial intelligence to analyse everything, and I mean everything. Natural forms of intelligence are so clearly part of the ancient 20th century and have no place in a modern marketing approach. Like most of the people who got on stage this year and mentioned artificial intelligence I have no idea what this concept means or how I would go about using it to do anything marketing-related. But these constraints should not hold me, or you, back. You need lots of intelligence and it needs to be artificial. No doubt about it. If you can combine it with machine learning, all the better. I don't know what that means either. But it is also crucial.

### **2. Be virtually real**

Next, it's equally important than you exit from reality – at least as it currently stands – and make sure most of your marketing is centered on virtual reality. I'm yet to work out why we are so desperate to strap as many customers as possible into headsets and force them to endure badly rendered graphics while people snigger at them from the external realm of 'real reality'. But again, this is a detail that you can iron out while you are executing. It's important to not let basic questions like 'what the fuck has this got to with marketing?' get in the way. That's the wrong question. The right questions are 'how do those VR goggles feel?' and 'can you see the dancing monkey?'.

The key point is that unless you are spending at least half your marketing budget on a headset and a rapidly obsolete software platform that no one uses and which has no actual connection to marketing of any kind, you are clearly not doing your job properly and will soon be replaced by someone younger and better at stuff than you. Or possibly a robot. The next bit is obvious but in case you missed the inherent synergy of these first two approaches let me underline it here. Clearly, you need to connect your virtual reality to your artificial intelligence to achieve full machine learning capability. I just wet myself mid-way through typing that last sentence, by the way. Plug your VR into your AI and ML will be boosted so much that your marketing will improve exponentially. Probably.

### **3. The chief content officer is king**

Next in the Big Seven, you need to concentrate on connecting with customers. The answer is clearly not to utilise ancient and outdated approaches like 'advertising' or 'CRM' but to move beyond these fading systems and into the world of content marketing. Rather than

creating ads we should be creating content. And rather than buying media we should simply manage the content so our target customers can access it organically. The key to getting this working is to take the advice of the Content Marketing Institute and get a chief content officer onto your board as soon as possible. Too many companies are struggling with archaic executive teams in which outdated roles like a 'chief finance officer' or 'chief operations officer' bog down a company's strategy with pointless issues like 'revenues' and 'supply chain'. Replacing a CFO with a CCO is a big step in the right direction.

One of my first moves with the clients I work for is to meet the board and immediately propose they hire a chief content officer. The response from the senior executives is always positive. One CFO recently responded to my suggestion by banging his head against the boardroom table – that is how energised he was at the prospect. And there is strong quantitative proof that this approach works. Sainsbury's recently reported a 9% drop in first half profits. What does Sainsbury's not have? You guessed it – no chief content officer. I rest my case.

#### **4. Storify everything**

Clearly a CCO will get you a long way down the road in 2018 but it will only properly work if you match your content capability with the obvious complementarity of storytelling. Too many companies focus on hiring product managers and branding people and neglect the more important role of storytelling. Even a cursory scan of LinkedIn will reveal that there is an impressive army of executives, many of whom sport equally impressive beards, who list storytelling as one of their key strengths. A company cannot have too many of these people inside the marketing department. Indeed, the optimum structure for 2018 would be to replace all the traditional marketing roles within your company with storytellers.

Can you imagine the power of a marketing department exclusively staffed with storytellers? Who needs strategy when you can weave a magical story? Does gross margin really matter when I can tell an impressive tale to explain it all away? And who wants brand managers when fairytales are an everyday aspect of operations? Again, it is easy to find empirical support for storytelling and show a direct causal link to profits. Take the sad case of VW and their recent issues with the Dieselgate scandal. Others have argued, largely unsuccessfully, that what let German car manufacturer down was a total

absence of corporate ethics and leadership. In reality, the roots of VW's downfall can be traced to an abject lack of storytellers at their Wolfsburg HQ.

If the company had the requisite number of storytellers in place the disgraceful fraud engineered by VW to cheat diesel emissions testing would have been transformed into an absorbing quest to use innovation in a daring attempt to defy authority. The ensuing brand crisis that engulfed VW would have become a fascinating and ultimately uplifting account of corporate endurance. And VW executives like Oliver Schmidt, who was recently jailed in America for seven years for his role in the scandal, would have been transformed into Mandela-type figures who put their love for the brand and diesel emissions ahead of their own personal wellbeing.

## **5. Target millennials – and only millennials**

Next we need to talk targeting. If you understand the nature of marketing in 2018 you will already know what I am talking about. I am talking millennials. Why would you even consider targeting anyone else? Sure, it's true that every empirical attempt to prove that this giant demographic group qualifies as a homogeneous segment of the market has only served to disprove their existence. And clearly even if millennials did qualify as a segment their lack of disposable income would render them significantly less valuable than most of the other segments of the market. But these are old-world arguments that miss the key points about millennials: they are cool, young and multicultural and they hang out together in the sunshine looking at their phones and doing creative stuff. Yeah!

## **6. Have a millennial-friendly brand purpose**

Let's move on to another key facet of the Big Seven for 2018. You are going to need to have a very clear brand purpose at the centre of everything to pull this off. Millennials, if they actually existed as a segment, would demand a clear and transparent brand purpose or they would simply not buy from you. They don't really care about 'what' the product is, they just care about 'why' you made it. That makes the millennial segment incredibly hard to market to; partly because they might go into the supermarket to buy bananas and bag of flour but come out with a unicycle and a bottle of brandy, but also because they demand a brand purpose. Who cares how your beer tastes? Why did you make it? And what are you doing about orangutans in Borneo?

When crafting your brand purpose it's important to follow a few simple rules for success. First, make sure you scrap all your existing positioning that has worked well up to this point. Next, it's best to use the same basic words as all your competitors because, unlike old-fashioned positioning strategy, brand purpose works best when yours looks pretty much identical to all the other companies out there. I recommend taking the following words: integrity, innovation, community, positive, future, today, tomorrow, life, create and inspire. Next find a chimpanzee, small marmoset or any other animal with opposable thumbs and ask it to select four or five of these words and then throw them randomly onto the floor. Line up the words and – hey presto – your brand purpose has been fashioned. Inspire today with innovation. Creating community from integrity. Making tomorrow great. The possibilities are endless.

Again, ignore the naysayers who point out that your brand purpose of 'Inspiring the human spirit with integrity' is flawed because customers for industrial solvents aren't interested in that; because it looks exactly like your competitor's brand purpose of "Integrity and inspiration for all humanity"; because your solvents are made from endangered panda babies; and because you run all your operations out of Costa Rica to save a bundle on tax. These are old-world, closed-minded criticisms. Your brand purpose negates those points. Get out there and be purposeful.

## **7. Blockchain, Blockchain, Blockchain**

Finally, you will have to be on top of Blockchain in 2018, big time. Initially this might be the trickiest challenge for next year because you have no idea what Blockchain is or even whether it's a verb or a noun. Fortunately, as no one else in marketing knows what it is either you can be assured that all you need to do is to drop the word 'Blockchain' into your conversations and presentations approximately four times an hour, and then step back and look like a digital marketing genius. At first this can be challenging. Practise by throwing out an occasional 'But what about Blockchain?' in meetings when there is a lull in the conversation. If you give a presentation try adding a slide that says simply 'Blockchain' and then a question mark over a stock photo of a woman looking pensive and worried about the future in an office.

If your boss challenges you with what you are working on next year, don't shy away from simply saying 'Blockchain' in an aggressive manner that suggests it should have been obvious and then stomping, or ideally running, off down the corridor. Once you feel

comfortable with all of this, add 'Blockchain' to your LinkedIn profile, ideally between 'digital transformation' and 'storytelling'.

And there you have it, the Big Seven of 2018.

1. Artificial intelligence
2. Virtual reality
3. Content marketing
4. Storytelling
5. Millennials
6. Brand purpose
7. Blockchain

Of course, old-world traditional marketers will probably argue that not including outdated concepts like consumers, brand management, strategy, distribution and pricing from the list smacks of stupidity. Again, don't let this naïve, old-fashioned viewpoint deter you. Marketing is not about what it was once about. Granted, you do not have any formal training in marketing and don't actually know what it used to be about. But whatever it was. It has changed, radically.

Marketers must learn to make choices and to prioritise the important stuff over the traditional, outdated distractions. It's out with having a marketing strategy or actually doing segmentation or pricing. Other people in the company can do that stuff or we can ask our agency to help with that. You need to get on with your VR-, AI- and Blockchain-associated activities as soon as possible. Take a long hard look at your marketing approach and then look at the Big Seven in 2018. Give yourself a score out of seven. How well positioned is your marketing for 2018? At Marketing Week we have created small lapel pins with the inscription 'BS in 2018' for any marketers who score seven out of seven. Let us know in the comments section how well you performed and your BS in 2018 lapel pin will be in the post. Wear it with pride.

## **WOMEN IN TECH: HOW DOES GERMANY COMPARE TO THE REST OF EUROPE?**

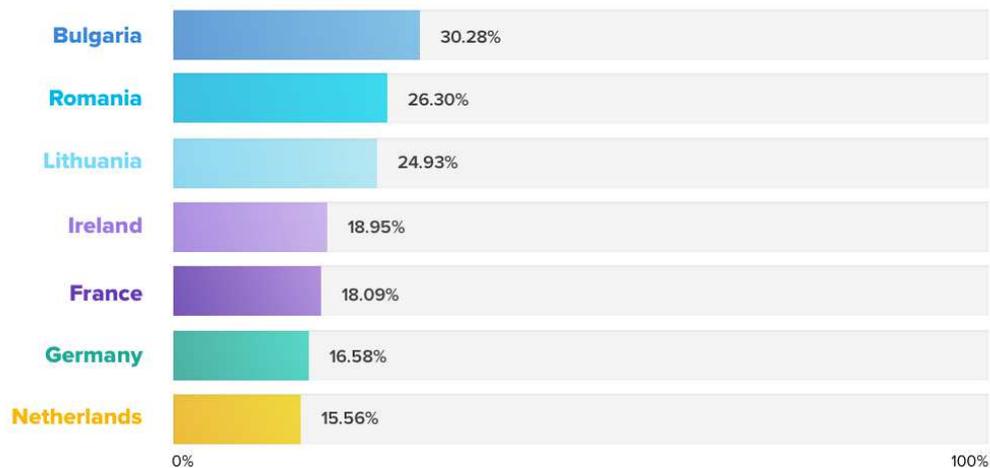
**Stefan Kingham**, 29 March, 2018

2017 was a landmark year for women in the fight for gender equality, with the #MeToo and Time's Up movements inspiring more women than ever before to speak up, but there's still tremendous work to be done when it comes to the economic empowerment of women. Particularly in tech. Concerned by the situation and eager to get a better understanding of the challenges and opportunities facing European women in the IT industry, we recently conducted a study aimed at highlighting which countries offer the best (and worst) opportunities for women in tech. So, what interesting insights can be taken from our Women in Tech Index? Is Germany setting a good example to the rest of Europe? Which countries have taken positive steps towards gender parity? And while we're at it, how does the tech industry compare to other industries when it comes to offering women fairer opportunities and wages?

### **To what extent is Germany evolving towards gender equality in tech?**

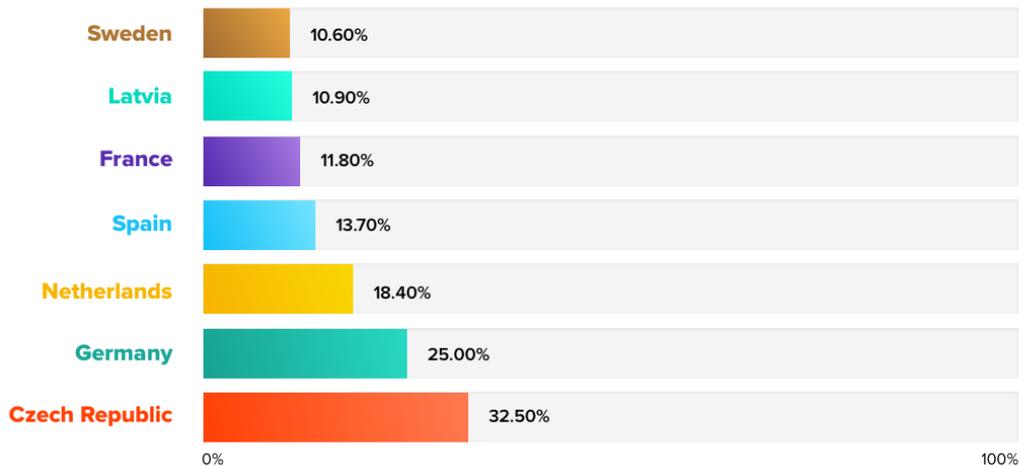
Seeing as the German tech industry is booming and the government very recently implemented a new rule aiming to minimise the national gender pay gap, you'd expect Germany to be among the most attractive European tech destinations for women. Sadly though, our data suggests otherwise. While it's worth mentioning that there are more female tech workers in Germany than in any other country in Europe apart from the UK, they only make up 16.58% of Germany's overall tech workforce. That's a lower percentage than that of 15 other European nations including France, Norway and Sweden, but also Lithuania, Romania and Bulgaria. In actual fact, the percentage of women tech workers in Bulgaria is almost twice as high as in Germany (30.28%).

## % Women in Tech



Ranked 14th in terms of average tech wages for women, practically on par with Slovenia at 44,292€ per annum, Germany has some way to go to compete effectively with other Western European countries. Our data suggests that the German gender pay gap in tech is among the worst on the continent, with only Greece, Poland, Estonia, Slovakia, Lithuania and the Czech Republic ranking lower. To be precise, on average, male tech workers in Germany earn almost 15,000€ more per year than their female counterparts.

## Gender Pay Gap in Tech (%)



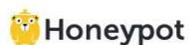
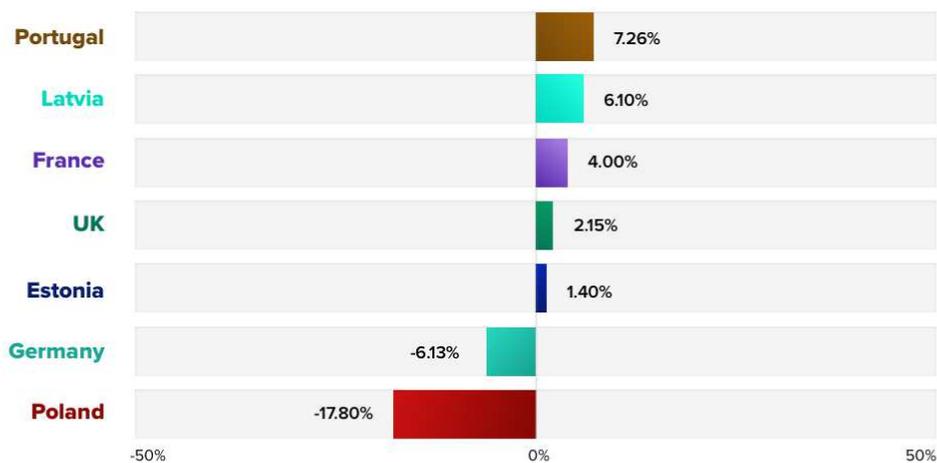
Further, it seems Germany's struggles with gender parity in the tech field have deep roots. While a third of Italy's science, technology, engineering, and mathematics (STEM) graduates are female, women in Germany account for little over 21.26% of all STEM grads. While Germany's troubles are worrying, it is still a very attractive country in terms of job opportunities, particularly given its unique composition between innovative startups and market-leading corporate. Germany can look to other European countries, that have taken decisive steps towards gender parity.

### Eastern European countries are paving the way for change

There's been a lot of talk in tech-related media about Eastern Europe's surprising new tech hub, and rightly so. According to the European Digital City Index, 13 Eastern European cities rank as having the best ecosystems for startups and an increasing number of Eastern European technology companies are establishing headquarters in Silicon Valley. But while Eastern European tech companies were already known for being innovative and highly ambitious, few would have guessed they'd be among the most women-friendly tech businesses across the continent. Nonetheless, our data suggests Eastern European countries offer some of the best opportunities for women in tech.

Bulgaria, Romania, Lithuania and Latvia make up the 4 countries with the highest percentage of female tech workers in Europe (ranging from 24.87% in Latvia to 30.28% in Bulgaria) and 2 of the 6 highest ranked countries in terms of female STEM grads are located in the East. More precisely though, if there's one country in the bunch that stands out from the crowd, it's Latvia. The Baltic state is only second to Sweden in the ranking of countries with the lowest gender pay gap in tech and is 1 of only 9 European countries to boast a smaller pay gap in tech than in all other industries. In other words, female tech workers in Latvia have fairer wages than women working in other industries in the country.

## % Difference of Overall Gender Pay Gap and Gender Pay Gap in Tech



### Europe must continue encouraging gender diversity in tech

Our study shows that the proportion of female tech workers remains under 30% across the continent, which underlines how important it is that we inspire more women to seek out opportunities in tech. Germany, especially, needs strong female and male technical leaders to encourage and grow opportunities for women in tech. There are a number

of grassroots global organisations operating in Germany, such as WomenWhoCode, GeeksGirlsCarrots and WomenTechmakers, who are pushing for more opportunities for female developers and other engineering talent. We intend to continue to push for more equality too. The report also shows that countries such as Latvia, Sweden and Finland are genuinely making strides towards parity both in the tech industry and in general, and we can only hope that their example will serve as a catalyst for Germany and the remaining European nations to address their wage disparities.

# Team

## Václav Bacovský



Václav Bacovský works as the Supervisor of the Czech-German Young Professionals Program since 2013. He used to work as a Research Fellow of AMO Research Center and as a project coordinator the Czech-German Young Professionals Program. In 2008 he graduated from master program Political Science at Faculty of Social Sciences, Charles University in Prague. In 2008 he worked in the Chamber of Deputies of Czech Parliament. Between 2009-2017 he for the German liberal Think-Tank Friedrich Naumann Foundation for Freedom. Currently, he is a freelance photographer, traveller and lecturer.

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## Zuzana Lizcová



Zuzana is a Research Fellow of AMO Research Center with the focus on the German speaking countries. She finished her Ph.D. studies in the International Area Studies at the Faculty of Social Sciences, Charles University with the thesis Cultural Relationships between Czech Socialist Republic and Germany in the 1960's. In 2005 she accomplished her master studies in German and Austrian Studies at the same faculty. During her studies she spent one semester at the Humboldt University in Berlin. In 2007 she participated in the program Medien-Mittler zwischen den Völkern of the Robert-Bosch-Foundation and got a professional training at the German News Agency (dpa). In 2014 she was a participant of the CGYPP. In 2004 – 2013 she worked as an editor with focus on German speaking countries and Middle-East Europe for the Czech Press Agency (ČTK). Currently she cooperates as a freelancer with a number of Czech media and she teaches at the Charles University.

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## Anneke Hudalla



Anneke Hudalla is German Coordinator of CGYPP. Dr. Anneke Hudalla is a seminar director who deals in the first instance with German and European security and defence policy, as well as with domestic and foreign policy in the countries of central and eastern Europe. From 2011 to 2017 she worked in Brussels and in Berlin in support of members of the European and the Federal German parliaments. Between 2006 and 2010, as part of the editorial staff on the weekly Czech newspaper 'Respekt', she was engaged in numerous reporting visits throughout the Czech Republic and other eastern countries of central Europe. In 2001 she received a doctoral degree in political science from the Humboldt University of Berlin for a thesis on European policy in the Czech Republic. In 2017, she was a member of the jury which awarded that year's German-Czech journalism prize.

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## Johanna Sokoließ



Johanna Sokoließ is German Coordinator of CGYPP. Johanna Sokoließ has been an advisor on civic education at the European Academy Berlin since Autumn 2017. Her range of activities includes designing and carrying out seminars, workshops and discussion meetings. Before joining EAB she worked at the Federal Agency for Civic Education and at the Institute for Foreign Relations ifa. The main focus of her interests covers German and European external relations, the role and importance of civil society players in Europe, and Franco-German relations. Johanna Sokoließ gained a German-French master's degree in inter-disciplinary social sciences and humanities at the University of Freiburg, Germany, and at ENS-LSH Lyons, France, after having been awarded a German-French B.A. in European Studies at the University of Paderborn and the University of Maine, France.

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## Claudia Rehrs



In her capacity as project manager, Claudia Rehrs has been working at the European Academy Berlin since September 2010, organizing seminars and conferences, in particular as part of the “Academy of Good Governance and Empowerment in Europe”. From 2004 to 2007, Claudia Rehrs studied cultural studies at the Europa University Viadrina in Frankfurt on the Oder. In May 2010, she completed her academic career and gained an MA in an Erasmus Mundus masters’ in Euroculture at the universities of Goettingen, Olomouc in the Czech Republic and Pune in India. Prior to going to university she has worked as an au pair for twelve months in Geneva, and after her bachelor’s degree she spent one year in the Republic of Ireland.

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**The Czech German Fund for the Future** promotes understanding between the Czech and the Germans in various ways by increasing the number of bilateral meetings and expanding co-operation through the support of joint projects, thus actively contributing to the renewal and strengthening of Czech-German relations

>>[www.fondbudoucnosti.cz](http://www.fondbudoucnosti.cz)

**The Hanns Seidel Foundation** has been carrying out political educational work with the aim of promoting the "democratic and civic education of the German people based on Christian principles" since its establishment in 1967. Today, this mission is more relevant than ever, in view of the increasing demand for more personal responsibility, for a "culture of self-reliance" and an "active civil society" which are so characteristic of our times.

>> [www.hss.de](http://www.hss.de)

**AMO – the Association for International Affairs** is a Czech independent non-governmental organization founded in 1997 that promotes international cooperation, conducts research and hosts educational programs in the fields of international relations and Czech and European foreign and security policy.

>>[www.amo.cz](http://www.amo.cz)

**The European Academy Berlin (EAB)** was founded in 1963 as a non-party, denominationally independent conference venue and international meeting place, for study and information on European affairs and for civic education for adults. Activities in civic education focus primarily on tasks and challenges in European cooperation and integration, together with issues of international current affairs and modern society.

>>[www.eab-berlin.eu](http://www.eab-berlin.eu)

# Remarks











**Czech-German Young Professionals Program  
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