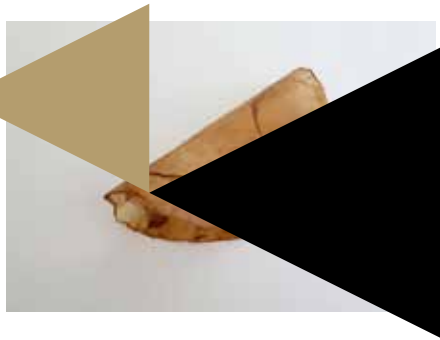



Amsterdam University of Applied Sciences

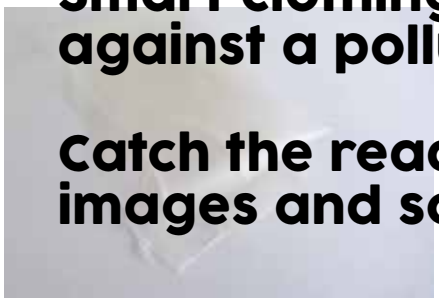
(K)NOW


First Edition Magazine #1
Centre for Applied Research
Faculty of Digital Media &
Creative Industry










Designers often think in an old-fashioned manner

Smart clothing as a weapon against a polluting industry

Catch the reader with words, images and sound

Creating Tomorrow

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Research and education for a sustainable future

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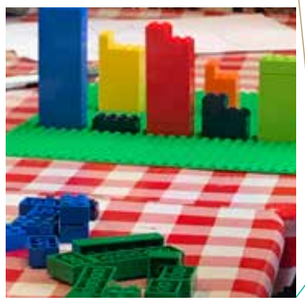


CONTENT

‘Our research is broad, our themes are urgent and our output is relevant, distinctive and impactful.’

Dear reader,

We are proud to present the first edition of (K)NOW: the magazine of the Centre for Applied Research of Digital Media & Creative Industries, part of the Amsterdam University of Applied Sciences (AUAS). As you will see, our research is broad, our themes are urgent and our output is relevant, distinctive and impactful. This is thanks to the hard, creative work of our dedicated professors, lecturers/researchers and students who devote their time and energy to matters that are dear to them both professionally and personally, as well as to our partners who help make this all possible.

We experienced a significant number of personnel developments during the past year. Prof. Ben Schouten has said goodbye to the Play & Civic Media research group and handed over the baton to Martijn de Waal; Professor Valerie Lamontagne passed away to our great sorrow in 2019 and was succeeded by Troy Nachtigall; Professor Harry van Vliet was succeeded by Tamara Witschge at the Crossmedia research group and Professor Somaya Ben Allouch gave her lecture ‘shaping digital life: technology that cares’. Professor Nanda Piersma was appointed scientific director of the AUAS-broad Applied AI Expertise Centre, while Pascal Wiggers founded the Responsible AI Lab; Pieter Meulenhoff became the professor of Cyber Security and Marten Teitsma became L.INT professor of Quantum Computing - a national first. Finally, Director Matthijs ten Berge of the Amsterdam Creative Industries Network (ACIN) was succeeded by Dominique van Ratingen.

2019 was dynamic and we did not know what was in store for us in 2020. But with the recent developments and the rise of corona apps and the boom of online working, teaching and maintaining contact, our main topic is “‘how do we give people action perspectives in a world that is fundamentally changing as a result of the digital transition” and is now more topical than ever. We would therefore like to make our research more widely known, so that our findings can be widely applied and more people can benefit from it.

In the meantime, we have adapted our vision and mission in the light of current developments and strengthened our critical attitude towards technology optimism and positivistic resolution. As digitization and media increasingly influence more facets of our society, it is becoming increasingly clear that the many positive opportunities to connect and empower citizens are accompanied by new forms of inequality, strengthened monopolies and the rapid depletion of natural resources. There are also negative sides to digitization. This realization requires a holistic and critical attitude in the design, development, research and application of digital technologies and media. Our researchers take their responsibility seriously and strive to develop research programs and education that have a positive impact on society and our planet.

An integral part of our makeover is a renewed commitment to further strengthen the links between research and education. We have identified and implemented seven learning communities, each led by an associate professor and coached by at least one professor and at least one education manager from our faculty. We have found seven highly-regarded colleagues willing to contribute these learning communities, together with community managers from ACIN from September of 2020 and I expect many interesting results will emerge during the coming year.

Finally, I would like to thank everyone who made this possible: our researchers, our teachers, our partners, our boards and our students. It is a great honour to be part of this ecosystem of creative research and positive change. And finally, thank you, dear reader, for taking the time to get to know our researchers and our work. I hope it will inspire you and lead to new ideas, fruitful collaborations and impactful results - which will be reported next year.

Sincerely,
F.J. Kresin
Dean of the Faculty of Digital Media and Creative Industry

FACTS & FIGURES CENTRE FOR APPLIED RESEARCH FDMCI
LEVEL DATE 31-12-2019

8 LECTORATES

10 LECTORS (OF WHICH 2 EMERITI)

75

75 EMPLOYEES

43,19 FTE

27 TEACHER RESEARCHERS

€

€ 6,342,742 FINANCIAL SIZE

13 PhD STUDENTS

2 EXTERNAL PhD STUDENTS

2 PhD CANDIDATES

75 SCIENTIFIC PUBLICATIONS

54 TRADE PUBLICATIONS

6 POPULAR MEDIA

Impulse purchases: right or wrong?

What makes us make impulse purchases in a store? And how can you encourage consumers to make better choices? Impulse purchases are central to a study conducted by the Crossmedia research group.

Researcher Anne Moes remembers how she came up with the idea for her research one busy afternoon in the Kalverstraat in Amsterdam. "I saw a large horde of people buying things they probably didn't need at all. They were purchases made from an impulse, based on a feeling or advertisement in a store. " Moes is intrigued by these impulse purchases, which is why she obtained her doctorate on this subject from the University of Groningen and within the AUAS's research group Crossmedia. She conducts a great number of experiments for this, comparing two or more conditions to measure the effect. "For example, I am now researching what has a greater effect on the impulse to make a "responsible purchase": a self-benefit frame or another-benefit frame," says Moes. "With a responsible purchase, you can think of products that are made by, for example, underprivileged young people or that are sustainable. Does it work better to emphasize the benefits of a purchase for the consumer, such as health or pleasure aspects that a product can yield (self-benefit), or the benefits for the underprivileged youth or the environment (other-benefit)? "My expectation is that another-benefit frame will work better, because impulsive buying behaviour is, as it were, "deemed to be justified". After all, you not only are impulsively buying something for your own good, but in doing so you are helping an important cause. Whether my expectations are correct remains to be seen. "

Tamara Witschge Professor Crossmedia

Through media we can make a change. With the new professor Tamara Witschge, the research group Cross Media focuses on innovation of and through media, to make an inclusive and sustainable future possible. This is why the research group Cross Media is actively looking for new ways to tell stories, connect people and inspire makers. They research, for instance, how consumers' impulse buying can be influenced through media, how visitors can experience the importance of a historical site through mixed reality technology and how new forms of storytelling help to engage the public in complex societal issues. The research group provides a space for students and professionals to reflect, play, and experiment with new forms of content and technologies. "We offer perspective, testing space, measurement instruments and a platform to effectuate change. In the space where technology, users and the story come together, that's where innovation arises."

Empty shopping streets

While the interview is taking place, the whole of the Netherlands has come to a halt. Due to the Corona virus, almost all shops are closed and with the Kalverstraat changing from a busy shopping street into an attractive walking route for residents in the area. Her research appeals to the imagination of many. "I often hear that it is a very recognizable subject. Then friends say: if you are looking for another test person for your impulse- buying research, you can call me. I sometimes make an unplanned purchase that is not really necessary. I really want to know why we do that."

From her background in media and communication, Moes is interested in the extent to which media expressions influence impulse purchases. "With this you can on the one hand help retailers to sell more, but on the other hand you can also ensure that consumers make more sustainable choices or, in fact, help consumers to consume." A lot of research has been done into impulse purchases, says Moes, but much is still unknown about the subject. "It is clear that certain things, such as media expressions or influences within your group determine how an impulse purchase is made. However, much is still unclear regarding the underlying mechanisms which might explain this sudden urge for a purchase. "

Making better choices

With her research, Moes would like to contribute to the knowledge about impulse purchases, so that consumers can gain more insight into their own desires and may therefore make more well-informed choices. "In the short term, consumers often feel good about an impulse purchase, but in the longer term they may feel bad about it, because this often conflicts with personal goals such as saving or losing weight. In addition, impulse purchases are often unnecessary purchases and are therefore anything but good for the environment. I hope that my research will lead to more awareness and better choices. "

Moes combines her PhD with teaching within the AUAS. *"It is great fun to work with students. I can immediately pass on my research results in lessons for various study programs. The variety is very nice, although it is sometimes also a balancing act. For a PhD you must of course take a dive into the deep end and get enough rest and take your time. Combining that all well does remain a challenge."*

Friendship of Lego and cardboard

Data physicalization is making data tangible. This ensures that fist-thick reports do not simply disappear into a drawer and that research results become more transparent to a larger audience .

Since the beginning of the Corona crisis, researcher Marije Kanis has been collecting all kinds of images: for example about social distancing, hoarding of toilet paper and death rates. She is originally an interaction designer and now works as a researcher at the Digital Life research group, where she focuses on the topic of "data physicalization". Right in the middle of the Corona crisis, it becomes clear once again just how important it is to translate data into concrete images and interactive visualizations. After all, data about full intensive care units, mortality rates and the usefulness of keeping your distance remain vague if nobody understands why this is so important.

Because of social distancing, the conversation takes place via Skype. Kanis sends several examples from her office in Amsterdam. "Sometimes a design can be very simple and yet still provide insight into a problem and change people's behaviour, such as these dots on the floor of a supermarket in Denmark that are placed every one-and-a-half meters," says Kanis. "Or a video that a researcher friend made with her son. They spread glue on their hands and applied glitter on it. If you shake hands with the next person, you will see that the glitter sticks to their hand. This way you can make clear how the transmission of a virus works and make the data about infections more understandable."

Project about friendship

Back to everyday research practices. Kanis has been working at the FDMCI Knowledge Centre since 2010 on creative and digital solutions for participation and social welfare. Her fascination lies in making the invisible physical. The Visibly Smarter project (started in April of 2019) is all about data physicalization: in short, making data visible and tangible. The AUAS works together with a primary school in Amsterdam and the creative learning lab of De Waag. Research results are also used in education, such as in the Master of Economics teacher and in the minor Internet Of Things. Kanis also collaborates with students of Communication and Multimedia Design.

The Amsterdam students learned how to translate the theme like "friendship" into a physical project, with Lego, art work made of cardboard, but also with digital tools such as electronic building blocks (the Little Bits), a laser cutter and a 3Doodler pen. "For example, they asked how many boyfriends you should have to be happy." They made an arrangement of this. Through this project they learned more 21st-century skills: creativity, communication and critical thinking. "

These are very important properties in an ever-changing digital world, Kanis says. "It is important to respond creatively to this. On the one hand, everything is becoming increasingly digital, while there is also a tendency for the tangible. There are also more tools available for this, such as 3D-printers, but also manual work, being creative, is becoming increasingly popular."

Get a grip on your data

It is important to make data and its systems transparent. Otherwise it is just a fist-thick report, which may simply disappear in a drawer or abstract technology that you have no control over. "You learn to think and look at things in a different way. By making it tangible, you can reflect better and discuss with others. You can do this with all kinds of subjects. Take a question about public toilets in Amsterdam, which we recently discussed during a session at De Waag. You have far more toilets for men than for women. When people see that difference physically in front of them, discussion quickly arises and there is also room for coming up with solutions to that problem, such as mobile toilets on demand."

Collecting data from everyone and everything is a trend. But what is the next step in this process, Kanis wonders. *"What do you do with it and what happens to my data? The next step is to make that transparent and interactive. Especially because by doing so people can get a better grip on abstract phenomena and digital information systems. It is important that you can manage this yourself. That is what makes my work so interesting."*

Somaya Ben Allouch Professor Digital Life

The Digital Life research group has contributed to developments for the healthcare sector in recent years: from sensor systems for care homes, an app that helps with asthma or a navigation app for the visually impaired. Technological developments can reduce the pressure on healthcare workers. The team members are investigating how they can best use digital technology to make patients' daily lives just a little bit easier. They pay particular attention to the user's needs and lifestyle of various target groups, so that the technology is adapted to this with the needs of the end user remaining central.

The research group is also active during the corona crisis. Digital Life was asked by a colleague at the Cordaan healthcare institution to think up solutions for face masks that were not comfortable to use for their staff. Employees went to work with a design that a Canadian boy had shared online for homemade ear straps for mouth masks. The design has been adapted and tested at Cordaan and the OLVG in Amsterdam. In the meantime, they have been able to supply 2000 pieces to doctors and other healthcare personnel in the region. "Every piece of research and technology, however small it may seem, can have a major impact and contribution to healthcare." That is the message Digital Life wants to pass on to society.

ACIN wants to become a leader in the field of urban design

The Amsterdam Creative Industries Network (ACIN) wants to play a leading role in the field of urban design: design for the city, buildings and communities.

Dominique van Ratingen has been at the helm of this centre of expertise since March, which is now entering the next phase. When Dominique van Ratingen started her new job in March, the corona virus broke out in the Netherlands a little later. Difficult, because she would actually spend her time talking to as many different parties as possible until the summer holidays. Fortunately, most can be done through Microsoft Teams and she is working hard from home on her plans as a program manager for ACIN. "It is strange, but also nice to work on this in peace and quiet and luckily I can also spar digitally about topics and meet people."

Van Ratingen worked for various national and European funds in the film industry, as cluster manager creative industry and program manager circular economy at the Amsterdam Economic Board and the municipality of Amsterdam. "Everything comes together in this position: my experience in the cultural sector and with projects with a social impact, as well as looking for financing and subsidization. I was therefore very happy when I got this role."

ACIN

Within ACIN, the AUAS collaborates with three other universities of applied sciences: the Amsterdam School of the Arts, Inholland University of Applied Sciences and the Gerrit Rietveld Academy. Within the AUAS, Van Ratingen maintains contact with lecturers, education managers and community managers and contributes to strategy and new partnerships, amongst other things.

ACIN is known for projects at the intersection of the creative industry, digital transformation and social issues. An example of this is the Knowledge Mile, which is transforming the area around the Wibautstraat into a business community and innovation district in collaboration with various parties, such as entrepreneurs and knowledge institutions. "ACIN has been in existence since 2013 and the development took place in several phases. Initially, mainly labs were created that specialized in multidisciplinary interface, such as the Fashion Technology Lab and the Heritage Lab. ACIN started in 2017 as a catalyst and organizer of urban knowledge networks, such as the Knowledge Mile and Campus Amsterdam. The third phase, in which we are now, is more outward looking. Centres of expertise of universities of applied sciences must be the drivers of innovation. "

> *"Centres of expertise of universities of applied sciences must be the drivers of innovation"*

Motor for innovation and cooperation

This new course also stems from a report by the Reiner Committee that examined the centres or areas of expertise of the universities of applied sciences. The centres must become the motor for tackling societal challenges, as an instrument for educational innovation, as an excellent connector of "outside" and " inside ", as a learning and adaptive network organization, and as a recognizable form of cooperation with impact, according to the report.

The link with the business community and civil society organizations is therefore also important. ACIN has already partnered with a number of major media companies, such as AVROTROS, but also the KLM. The airline likes to cooperate with the AUAS. *"They find it inspiring to work with students and they also like the result to be practical. That appeals to me very much about this working environment. At the municipality I was often at the beginning of a new development, but here at the AUAS we can make it concrete and get started. "*

Designers often think in an old-fashioned manner

VISUAL METHODOLOGIES COLLECTIVE

When designing products, assumptions are often made that are not correct. Existing ideas about the 'average user' therefore exclude certain groups of people, so that they benefit less, or sometimes not at all, from services and products. For example, many designers often make their assumptions for a male user. Is there no other way? Researcher Loes Bogers is involved in critical making and exposes these prejudices.

The seed for the knowledge that Loes Bogers now conveys to her students at the AUAS was planted during a course that she herself followed three years ago, the Fabacademy at the Waag in Amsterdam. There she learned all kinds of new techniques for making things. "For example, we built a 3D-printer with other students. You get very clear insights into things when you make everything yourself. You see many options, but also problems. "New techniques for producing things have tremendous value. But how do you ensure that they will also take a critical look at them and use them in such a way that it contributes to a better world?"

Bogers therefore began to delve more and more into the phenomenon of 'critical making'. "That is a collective name for creative and technical practices that all aim to address social inequalities and to provide them with an action perspective," explains Bogers. "Many design disciplines, for example, are struggling with an outdated gender bias: the tendency to present user groups, often unconsciously, as men. As a result, all kinds of products, including public toilets, cockpits or fighter jets, but also medicines, for example, work less well for women than for men. Many professions were of course only practiced by men for a long time, but that is no longer the case. But assumptions about who 'users' are will continue to apply for a long time to come, even now. "

More than a teaching method

Last year, Bogers compiled a reader about this phenomenon of 'critical making', in which she spoke to many people from the professional field. The philosophy of critical making has been circulating for ten years in various educational institutions: from technical universities, to art academies and informal learning environments, such as maker's labs. "Geert Lovink of the Network Culture Research Group invited me to bundle these perspectives. Much has been published on the subject itself, but much less on the way it is taught. We notice that there are many questions about this. The stock of 1,500 readers has already been almost completely sent out to institutions worldwide, but can also be downloaded. Teachers and researchers use the book in lessons at various colleges and art schools. "

Starting in September of 2020, Bogers will start as a senior teacher at the Learning Community about critical making. The AUAS's Learning Communities are environments in which students, staff and external parties learn, work and research together. "Within this learning environment I will also work closely with AMFI, the fashion course at the AUAS. That is a completely different branch of the sport. I'm really looking forward to that. "

Critical of the pollution by the fashion industry

"As a senior lecturer of a learning community, I have been given the assignment to connect education and research on the theme of critical making, with the focus on the world of fashion as an area of application. This industry is on the one hand very technical, but on the other hand also very important and culturally influential. Moreover, there is a strong awareness within fashion education of how polluting one's own industry is, and that the group which actually benefits from working in this sector is very small. There is plenty of work to be done, but who is going to do it? It requires knowledge from different disciplines and the will of (future) professionals themselves to embrace change. AMFI is already making great strides in achieving this, and that makes it a great context to investigate together about what critical making here could bring to strengthen this movement. "

Sabine Niederer Professor Visual Methodologies

Images play a significant role in our daily lives as we encounter them in the street, on the tram, and on social media. Videos and photos, manipulated or not, are everywhere. The Visual Methodologies Collective was established to pay more attention to the role and position of images in society. The research group develops tools and methods for visual research. For example, they look at images that circulate on social media and study the types of interactions these platforms offer to its users. On Facebook, for example, you can respond with emojis, while on Instagram, you can only like images. What do these platform characteristics do to the images and the meaning we grant to them? And do all different platforms have distinct visual vernaculars?

The research group also creates visual materials, to communicate research results, to spark a conversation about a societal theme, or to organize public participatory work and co-design around local issues. Under the leadership of Sabine Niederer, the team focuses on societal relevant topics such as climate change. 'When students have the tools and methods to gain insight into societal debates and their publics, they will be able to ask better questions. Similarly, they will be better equipped to create more meaningful contributions, be they a clear campaign, a speculative critical making experiment, or a local intervention.'

Niederer speaks with pride about their latest project, in which technology and art related to climate change come together beautifully. Have you ever heard of cli-fi, or climate fiction? That is the term for science fiction stories that take place right after a climate disaster. The team of researchers and designers is exploring ways to learn from the future scenarios that occur in cli-fi Hollywood movies, literature, and art and combines qualitative analyses with machine learning. The result of these first experiments? A series of short cli-fi stories written by a machine! Be sure to listen to the podcast "Turning to the Birds" on Spotify.

Students at work in the Makers Lab.

Smart clothing as a weapon against a polluting industry

Wearing more smart garments, equipped with technology, can contribute to a better relationship with clothing and therefore even improve the polluting and sometimes inhumane industry.

A children's jacket with a GPS tracker so you can see where your child is playing? It is an attractive idea for many parents. A sports person may see more in a sports bra with a heart rate monitor, so that she can constantly measure her heart rate on the way to work, during a meeting or a run.
Rebecca Breuer of the Fashion Research & Technology research group conducts research into this type of 'smart clothing'. She is more interested in the relationship people have with clothing than the practical solutions. And before that she decided to experience the test first-hand and tested two garments: a sports bra with a heart rate monitor and a Lumo Lift. This device, which she attached just above her collarbone, encouraged Breuer to adopt a better posture by giving small jerks when she was no longer sitting upright. She really wanted to experience it herself. "Technology that measures and distinguishes between mind and body, but technology that communicates connects the two." She noticed a marked change in the process. "At first I was very nervous about wearing that tight sports bra, but the longer I did it, the more familiar it felt. Intimate even. A bit like a stone that you secretly have in your pocket or a chain that you wear under your shirt. "

More bonding with clothing
It is precisely that affective relationship that can make us more bonded to our clothes and therefore handle them with greater care. "This can therefore create a positive relationship with our clothing in the longer term. We no longer consider it a disposable item, but instead place great value on it. The problem of the current clothing industry is partly that clothing is a disposable product. That may change as a result. " Smart clothes still seem like something from a distant future, but this can change quickly, Breuer thinks. "I can still remember Frans Bromet's street interviews on the mobile phone in 1998. Respondents called this "unnecessary "and "exaggerated". Now everyone walks around with a smart phone and we panic when we lose it. The relationship with technology and our phone has also become more intimate. "

Breuer will be going deeper into this in the coming years with the help of students during a minor, which she will provide together with the Engineering and AMFI programs. During the investigation, she also ran into some interesting problems. "The heart rate monitor, for example, collected data that was stored. And the Lumo Lift even sent the data directly to Facebook. And that while I myself am not on Facebook for privacy reasons. "

Troy Nachtigall
Professor Fashion research & Technology

Imagine: The Netherlands is going to be under water, is everyone therefore wearing a wetsuit? Or will we soon see people with a plastic bubble around their heads because of the corona virus? The brand-new lecturer Troy Nachtigall, who started in March of 2020, deals with these types of interesting issues. The research group examines, amongst other things, how data is used as design material in the world of fashion.

The research team likes to look at the future of clothing and how our relationship with clothing is changing. The research group not only discovers new ways to design clothing, but also looks at how and why we buy and discard these pieces.
For example, they design innovative garments together with AMFI using the latest technologies and research through design - which involves research using prototypes. For their most special designs, they seek the cooperation with other parties to collect new insights. "In this process, we actually find out what it would look like to have those things. We are very excited to see what it means to wear this type of garment, so come and talk to us! "

Image recognition for a clean taxi industry

Doing research in Amsterdam and thereby also influencing the living environment of the city: it is something that researcher Maarten Groen is very enthusiastic about. Following a project with residents about health, he is now working for the Urban Analytics research group on an investigation into electric taxis.

Are there enough electric taxis driving around in Amsterdam and are there actually enough charging stations? With that question in mind, the municipality ended up with researcher Maarten Groen from the Urban Analytics research group. “Many diesels are still driving around in Amsterdam, but ultimately the taxi industry must be clean and emission-free by 2025. It is difficult to get a good picture of the number of people who are picked up at taxi ranks and to what extent the taxis use the available (fast) loading locations. Our research should show that. ” With the arrival of services such as Uber in Amsterdam, taxi ranks are now superfluous in some places. “When the municipality has more information about this, they can organize the pitches completely differently.”

The AUAS has now developed image recognition software in collaboration with the municipality. The cameras recognize whether a car is a taxi and how many waiting taxis there are at a fast-charging station. The software in the camera interprets the camera images, but does not save the images. The cameras only register numbers. The project complements the U-SMILE project, which analyzes the effects of the measures taken by the municipality to make the taxi sector cleaner.

Swarming travellers

During the current investigation, Groen ran into problems in a number of places. “Many travellers are swarming at the Central Station in Amsterdam. For example, it is difficult to see how many of them actually get into a taxi.” The software can recognize images using algorithms, Groen explains, but not all situations in a busy city are recognizable. “You don’t expect some situations: two drivers sitting together on the edge of the trunk to have a chat. The image recognition camera cannot differentiate this. Or supervisors walking back and forth between taxis: the camera no longer knows who belongs to which car. ”

Groen likes the connection that the AUAS makes between research and developments in the city, for example in the field of sustainability. *“Policy makers can really get started with the research results. In another project where local residents collected data in an app we developed about the health in their neighbourhood, you saw that this really made a difference. The residents were able to indicate themselves which themes were important in the field of health. They came up with completely different set of issues than those from the RIVM and the GGD, which also cooperated in the investigation. The residents therefore had a clear voice. ”*

Nanda Piersma Professor Urban Analytics

You often come across the contributions of the Urban Analytics research group in Amsterdam. For example, employees use camera recognition to see if taxi ranks need a different layout, and they are also involved in research into underground waste containers so that they are less full. Lecturer Nanda Piersma, born and raised in Amsterdam, knows the city like the back of her hand, but the Urban Analytics methods can be utilized everywhere. Piersma is proud of all her projects, but especially of the team members when they get things done. What does a working day look like here? The team comes together in the data studio, in which lecturers, researchers, business partners and students all work together. ‘When you get stuck, there are immediately three people around you for help. The idea is that we learn together.’ They also want to learn a lot from their mistakes in privacy legislation.

That is precisely why they now only deal with data in a responsible manner. They do not take risks, even if they have to say no to certain projects. ‘That’s why our partners continue to entrust us with interesting data.’

Catch the reader with words, images and sound

> *How do you ensure that an article does not disappear afterwards, but can survive longer?*

In a digitized world, small cultural publishers must search for their role in society and for ways to activate and motivate their readers.

What role can small publishers in the cultural sector play in a world that is becoming increasingly digitized? What is the intrinsic value of a publisher at a time when everyone can publish something, from a self-made e-book to an essay on a website or creating a complete digital news platform? These are research questions that form the basis of Making Public, a project of the Network Culture research group.

This builds on an earlier research project in which the research group also discussed the sector itself. Publishers are concerned with qualitative information. How do you bring these books and publications to the attention of your audience, in a world where everyone is bombarded with articles and messages on social media," says researcher Miriam Rasch. She is a lecturer and researcher with the research group. The answer lies, for example, in 'hybrid publishing': not only printing a book, but also offering the information via other media forms, such as a website, podcast or a video. In this way, publishers can strengthen their role in the social and public debate and thus their own economic position.

The Making Public project focuses on three different solutions for publishers. For example, they opt for innovations in the ways of telling. "It is interesting to look at other narrative possibilities. Present the story in such a publication in a different manner, so that you engage the reader in an alternative way. "

Motivate students
Another idea is to strengthen existing platforms on which articles are placed. Publishers of such digital platforms can also refer to each other, so that they ultimately serve each other. Thirdly, the research group examines articles that are regularly published in, for example, scientific journals. "How do you ensure that an article does not disappear afterwards, but can survive longer? For example, by allowing the reader to compile their own collection of articles online or by organizing an event based on a specific edition. This keeps the content lively and ensures that you reach specific readers. "

In addition to her work for the research group, Rasch also teaches in the minor philosophy. There, too, she looks at a 'hybrid' way of presenting her teaching material. "For example, we use a lot of books in the field of philosophy. And that sometimes takes some getting used to for students, who normally do not have to read much at the higher education level. I always look for appealing texts or old video images, for example from the 1980s. I also have a collection of interesting articles that appeal to my students. Just as publishers need to activate and motivate their readers, so do I with my students. "

The research group will continue to research various forms of publishing. *"We are also always interested in new collaborations. And we want to make it an international project. We are certainly not done with this topic yet. "*

Geert Lovink Professor Institute Network Cultures

Sixteen years ago Geert Lovink grasped with both hands the opportunity to start a research team at the AUAS. He was keen to make a difference in the research into developments in internet culture and its rapidly changing environment. The Network Cultures professorship focuses on this. The research group analyzes and shapes the research area 'digital culture', and does this through applied research, events and publications.

But how do the researchers themselves remain abreast of the latest developments? The social platforms mainly focus on the present, while the research group has its eyes firmly set on the future. Professional literature offers many insights, but their worldwide network itself is the most important supplier of information. For example, they make a corona blog from Shanghai with contacts from all over the world. The events where their contacts can network remain an important link, although it is of course now uncertain whether that will be possible next year. It should not be a problem for the Network Cultures research group to continue networking online. "We bring out the best in people by bringing everyone together. We strongly believe in that."

Research with an eye for human values

How do you ensure that designs within a circular economy also match the needs and possibilities of people and society? The Play and Civic Media research group is researching this. "Our research really wants to offer a solution to social questions."

Everywhere in the Netherlands, residential projects are emerging that focus on circular: with solar panels, heat pumps, solar boilers, green roofs and a smart grid, in which residents generate electricity and exchange amongst themselves. These systems are increasingly smart and offer residents more options and are also much more sustainable. However, this is not without risk, says Wouter Meys of the research group Play and Civic Media. "If you are going to design such a system, you will run into various design issues. On the one hand, a system that is transparent and where everyone has the opportunity to view data and to act on it, but at the same time you also struggle with the privacy of the same users. Suppose I have insight into your electricity consumption, complete with the times you are at home and how much you use. Then I can have access to all types of data or find out everything." It is precisely these human aspects that are important in this research within the project Design thinking for the circular economy. "A lot of research on the circular economy focuses on technology. We don't do that. We look at human value. The knowledge from this research can be used by designers and companies to create new circular living environments within the city."

> *"Hoe zorg je dat ontwerpen binnen een circulaire economie ook aansluiten op de behoeften en mogelijkheden van mensen en de samenleving?"*

Join the practice
In addition to 5 researchers at AUAS from 3 different research groups, there is collaboration within a consortium of 14 parties, including architects and technology suppliers. "In Amsterdam, we are conducting research into the Schoonschip project, a sustainable, floating residential area in Amsterdam North." The research questions are directly in line with practice. In fact, they were established after consultation with parties from the professional field. "Within the Play and Civic media research group, we look at issues that arise within the city and society. We quickly came across design agencies who design and organize circular processes and who have to make design choices. Everywhere in the Netherlands self-sufficient, circular places are emerging, such as in Amsterdam De Ceuvel. We sat around the table with these design agencies with the question: what do you encounter? Where does the shoe pinch when designing these projects and where do you lack knowledge?" It is precisely this connection between AUAS and society that appeals to Meys. "That is also the reason that I chose a job at the time as a researcher at the AUAS and not at the university. It is applied science, so it is immediately applicable. You can respond directly to problems in society."

From stale bread to gas
The Play and Civic Media research group also works closely with other research groups and with various programs within the AUAS, such as Communication and Multimedia Design and the master Digital Design. "Students of the program design prototypes at different communities that are self-sufficient, for example in Amersfoort. There, a bio-digester was used, which converts old bread into gas for cooking. It was unclear to the residents how much gas was left in the barrel: can you still make a stew with it or just a fried egg? The students came up with a long LED strip that indicated how much gas was left in it. With this they immediately responded to the low-literate inhabitants of the district." Meys emphasizes how important it is that technology fits the user. *"The trend is that technology is the main engine in many developments. But it is often forgotten that it must be used by people. New techniques have an impact on a community. Helping designers think about it."*

Martijn de Waal Professor Play & Civic Media

In October of 2019, Martijn de Waal took over the research group Play & Civic Media from Ben Schouten, who founded the research group in 2014. The research group focuses on the design process of digital media such as games, online platforms and virtual reality. The aim is always to put social issues on the agenda and to explore possible solutions. The design of public spaces plays an important role in all of this. Public spaces are the meeting places of society. Examples range from large-scale shopping areas such as the Arena Boulevard to the rooms of Pakhuis de Zwijger in Amsterdam and from groups that share memes on social media to public consultation evenings at City Hall.

"Digital media are playing an increasingly important role in our public spaces," says Martijn de Waal. "In this built environment you can think of the use of smart phones and screens, museums are interested in the use of virtual reality, citizens organize themselves via social media, and governments are developing their own platforms to get in touch with citizens. These media are often presented as a neutral platform, as a conduit," says de Waal, "but its design steers the way for eventual use. Our research group revolves around the question: How can we design these digital media in such a way that they contribute to an inclusive and sustainable democratic society?"

Corona, it has literally and figuratively stopped the world; a time to reflect on what is of real value to us. What makes us happy is also something I research as a maker. Happiness is often in the everyday. What alternatives are there for essential life themes, such as intimacy, attention or origin? Or for a non-everyday theme like "the most feminine body part"? How can the vagina be out of the ordinary if half of the world's population has one and we are all born of it? By diving into world history, I found wonderful stories that impart magical powers to the vagina; very different from the pornographic image that is often portrayed in our time. In a solo exhibition in Japan I told vagina stories from Japanese mythology and made an intimate seating object out of Japanese futons. A charged subject, which even resulted in reconciliation for all visitors to all parts of her body. That is important to me, that I create something with my art, making a difference. I am currently researching so-called "Sheela-na-Gigs". These are ornaments from our Western culture, of female figures showing their vulva, placed above the entrance of medieval churches. Scientists suspect that their aim was to protect the church community, a function that is diametrically opposed to the way people look at the vagina today. From this research I make contemporary "Sheela-na-gigs" in porcelain to give valuable meeting places in our time such a "patroness". As an extension of this, I designed a "hug machine". Intimacy is a human right that is difficult to realize in a 1.5 meter society. The hug machine hugs you by squeezing your body on both sides; a method based, amongst other things, on the age-old principle of swaddling. Corona paralyzed the world, but moved me to work to ensure those things of value.

Yvonne Beelen creates interactive theater and art in the outdoor space. Her work has been shown in the Amsterdam Science Museum, Oerol and Motel Mozaïque (see also www.yvonnebeelen.nl and www.ytopia.nl).

Into the jungle with AI

The new Responsible IT research group is investigating the digitization of society. A topic that is more topical than ever because of the corona virus, now that life is more online.

Before the corona virus outbreak in the Netherlands, Pascal Wiggers had to explain why it is so important to investigate the digitization of society. But now that life has moved online, we Zoom and Skype en masse and the government is talking about a corona app, the topic Responsible IT is more topical than ever. "This is of course not a good time for anyone, not even for me. But that makes my work even more interesting than ever," said Wiggers during a telephone interview. "Digitization is changing society and data and artificial intelligence are playing an increasingly important role: from a self-driving car, a doctor who detects a brain tumour through software, to Netflix's recommendations for what to watch."

The Responsible IT Research Group was established in January of 2020 by the AUAS in collaboration with the municipality of Amsterdam. The Faculty of Digital Media and Creative Industry and the municipality of Amsterdam want to play a constructive role within developments in the field of responsible digital technology, together with a joint research group Responsible IT. The collaboration must result in digital technology with an eye for human values. Two special research projects are affiliated with the research projects. These projects were established in collaboration with the business community: Applied Quantum Computing and Cyber Security. These projects are supported by outside parties. The Responsible Artificial Intelligence Lab is also linked to this.

There was a need within the AUAS for an ICT-related research group, says Wiggers. "Digitization is increasingly penetrating society, which is why it is important to investigate the consequences. The government uses data to make decisions. The subject was also very popular with the municipality of Amsterdam, for example due to issues such as how to deal with software recognition in cameras or self-driving cars on the street. It was then decided to join forces with this research group. "

Image camera recognizes wild animals

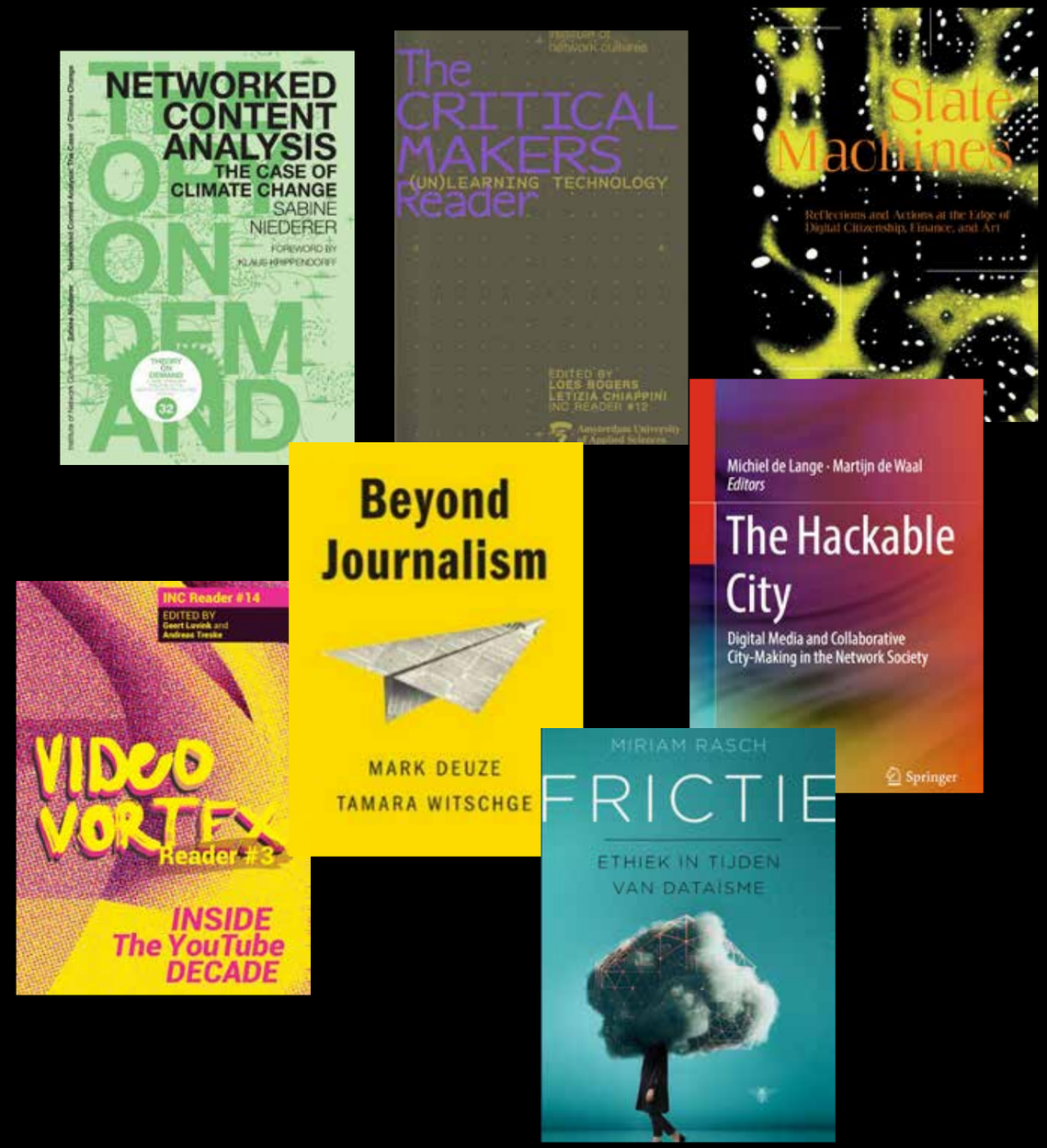
Wiggers is working hard on new research plans. The Responsible AI Lab is already running an animal protection project in collaboration with Sensing Clues. "Rangers in the jungle map a specific area and hang cameras on it. They then register which animals pass by at night. The research focuses on applying AI in practice, so that the end users will better understand what the technology does and can then intervene if deemed necessary. Students of the minor Applied Artificial Intelligence of the HBO-ICT program participate in this. "The studies within this lab further focus on making Artificial Intelligence visible in practice, so that it can also be checked. The question is also whether you can intervene as a person. Artificial Intelligence often works with statistics and is based on sample data. It may also pick up all kinds of benefits and cultural phenomena from those data." He cites Amazon as an example, in which a self-developed machine is learning tool assessed applications. The system was found to favour men over women. The tool had been trained on data collected in the previous ten years, when mainly men applied. "It is therefore important to be aware of our values and possible prejudices in AI and to look at diversity and inclusion."

Before his appointment at the AUAS, Wiggers worked as an assistant professor at TU Delft. He sees a clear difference with his work for the University of Applied Sciences. "There I spent two hours telling a story for a room with 200 students. The method of teaching is much more practical at the AUAS. I first had to get used to that, but now I don't want anything else. It is very exciting to work with students on new things that you can immediately test in practice and in research. I am really standing with my feet in the mud now. "

IN THE MEDIA

BOOKS

The researchers and lecturers of the centre for applied research FDMCI regularly publish new books on various themes. In addition, our Network Culture research group produces and distributes books in-house. In this way it becomes possible to publish state-of-the-art research in a fast, but personal manner. Most publications are open access and available free of charge to all interested parties. Here you will find a nice selection.



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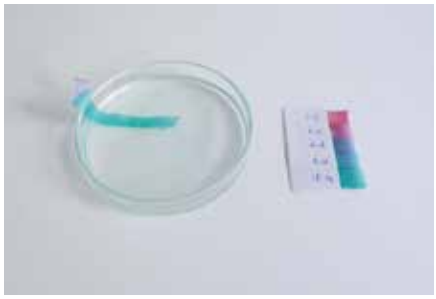
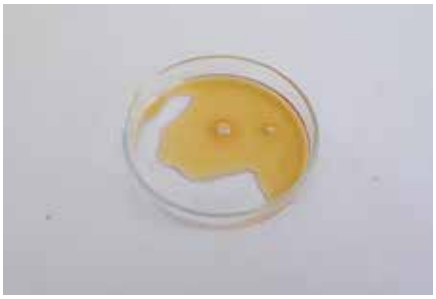



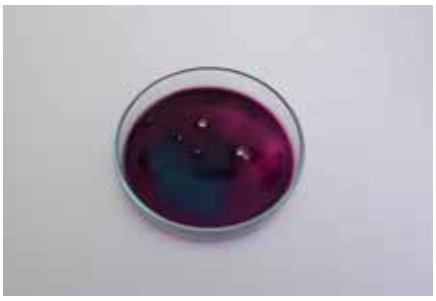

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