Sommer School

Research Innovation Lab

on Ageing in a Digital Age

24th to 28th July 2023
Goethe University Frankfurt

Funded by the VolkswagenStiftung

VolkswagenStiftung

The Pitch

Artificial intelligence, smartphones, robotics and social media have created the digital age. What does that do with ageing today? How do we research later life and ageing in a digital age? Digital technologies usually aim to support older adults to live safely and independently in their familiar environment and maintain their physical and cognitive functioning, autonomy and quality of life.

Indeed, growing demands of digitisation have pushed a growing number of older adults to develop digital skills and to enjoy new ways of navigating their world. However, a "digital divide" persists between, but also within cohorts of older adults. The uptake of digital technologies is unequally distributed across Europe, and AI technologies are driving new inequalities. What is also missing in most discourses is a biographical perspective that acknowledges that current cohorts of older adults were involved in the development of technologies, used them in their professional life, and continue to use them. Against this backdrop, all topics of ageing and later life need to be seen through the prism of the digital age.

We are an interdisciplinary research team including psychology, sociology, and educational sciences working on questions of age(ing) and later life in regard to person-environment exchange, gender, social inequalities, and human-technology interaction.

We would like to thank the VolkswagenStiftung for its generous support af the project.

(LRTB: Dr. Friedrich Wolf,
Dr. Miranda Leontowitsch,
Dr. Anna Wanka,
Prof. Dr. Frank Oswald,
Prof. Dr. Ines Himmelsbach)

The RILADA Quest

The Question

How can older adults participate equally in digitisation processes across Europe, and what inclusive research strategies are needed? The Research Innovation Lab will address this question and focus on:

- Dealing with different levels of digital citizenship across European countries
- (In)equalities in participatory approaches across research methods
- Access to digital infrastructures for older adults with care needs living at home and in institutions
- Technology development for increasingly heterogeneous populations of older adults

The Research Innovation Lab

The Research Innovation Lab aims to bring together docs and postdocs at all stages of their work, who are involved in cutting edge questions relating to ageing in a digital age. The heart of the Research Innovation Lab is a five day creative and interactive hackathon specific to developing non-technical solutions to social issues:

- to address the challenges and potentials of digitisation as outlined in the pitch, and to provide solutions and fur ther developments in terms of concept- ual frameworks, new and innovative research methods, and educational approaches;
- to promote inter- and transdisciplinary working and thinking on interrelated problems of the participants through the intensive collaboration in diverse teams.

The Keynote Speakers

On the first day, four distinguished experts presented keynote speeches and suggestions from various conceptual, methodological and empirical perspectives:

- Prof. Dr. Helen Manchester, University of Bristol, UK: “Creative citizenship and digital innovation: Co-design with minoritized older adults”
- Prof. Dr. Juliane Jarke, University of Graz, Austria: „The ambivalences of a datafied later life: A critical data studies perspective“
- Dr. Friedrich Wolf, Goethe University Frankfurt, Germany: „Skills for Navigating the Digital Age. A Perspective from the Educational Sciences“
- Dr. Arlind Reuter, Lund University, Sweden: “Digital Civics and ageing: co-designing participatory citizenship in later life”

The Participants

The 29 participants come from 11 countries (Canada, Czech Republic, Finland, Germany, India, Poland, Spain, Sweden, Switzerland, Turkey, UK) and represent 26 different disciplines (e.g., Advanced Care, Arts and Humanities, Built Environment and Social Policy, Cognitive Neuroscience, Commerce, Comparative Social Policy, Computer Science and Engineering, Cultural Gerontology, Development Studies, Educational Sciences, Engineering, English Studies, Gender Studies, Geography, Global Ageing and Policy, Global Political Economy, Health and Wellbeing, Information Systems, Medical Anthropology, Philosophy, Psychology, Public Administration, Social Gerontology, Social Research, Social Work, Sociology). The participants worked in five groups and developed ideas that are presented in the following five chapters.

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1 Trust in Tech?
– from trust to emotions

> The primary plan for our group was **to investigate why older adults do not trust in technologies.** We kind of changed theme during the discussion and survey.

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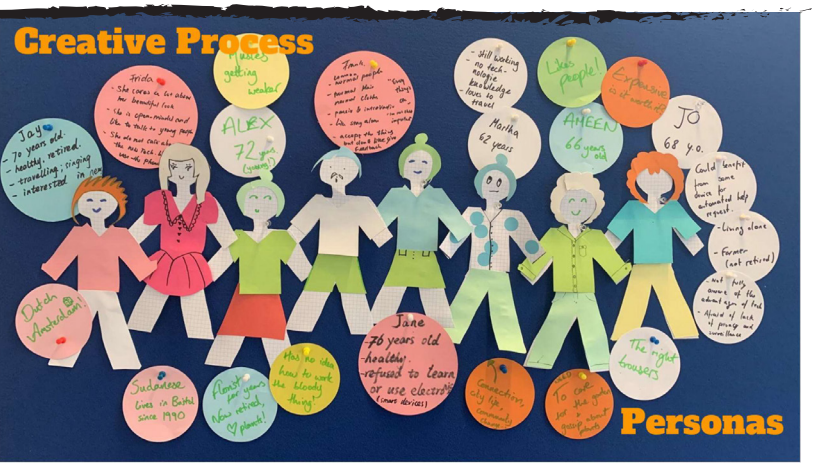
Our group's original plan was to investigate why some older adults don't trust in tech and what causes this. After the initial discussion, however, we found that answering the question of why some digital devices are not accepted or liked requires a more open approach and a broader understanding of the multi-faceted reasons and associated emotions. But let's start from the beginning...



Creating personas

We created various types of personas to show the heterogeneity of older adults. Some of them use digital devices, some do not; some of them are independent, some are not; some of them are open to new technologies, some are not. Some of them trust technologies, some do not.

At the beginning, we had a hard time defining what (mis)trust even means. To get a better idea of the contexts in which older people mistrust different digital technologies, we started creatively. We created personas – small figures cut out of paper, each with their own story to help us think less abstractly and, in particular, to focus on needs, demands, and attitudes regarding technology use. Some of them used digital devices, others didn't; and each of them had their own reasons for doing so. Building on this, we defined categories that described reasons of non-use of digital technologies at an advanced age: (1) mistrust (don't trust), (2) fear (am afraid), (3) routine/habit (don't like change), (4) unwillingness (don't want), (5) economic reasons (too expensive, price-performance ratio, availability) and (6) lack of knowledge. Certainly, all good reasons against using digital technologies, but they were all based on our own assumptions made when creating the personas (guessing-game-approach).

So how could we make sure they reflected actual experiences and not just reproduced our stereotypes? And was it really „just" about (mis)trust? After recapitulating the discussion so far, we realized that we needed to sharpen our approach.

How do older people feel about using digital technologies?

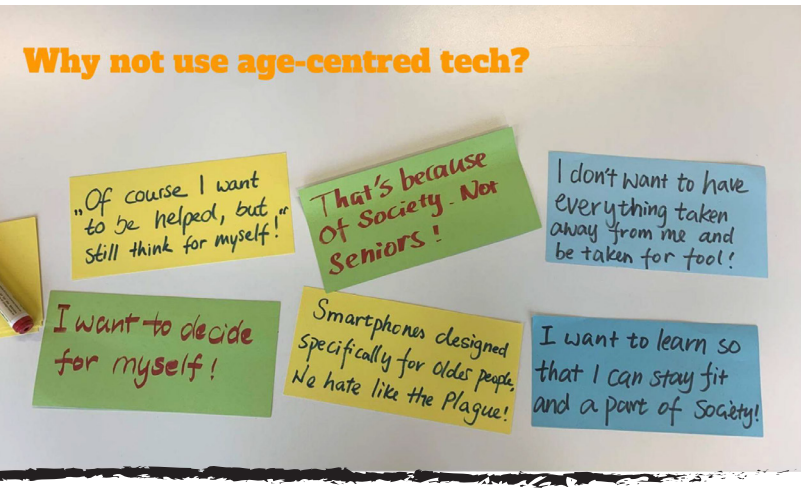
Basically, we were more concerned with the emotions involved and decided to just ask about it. Our decision took us to different places: An electronics store from a well-known brand – where else can you find people who can talk about what they love about their digital devices? – and a lecture it is more of a workshop for older adults learning about how to use their smart phone.

The lecture

We observed the lecture and were allowed to ask a few questions afterwards. In exchange, we explained that we would like to gather some informal impressions on the topic of technology use in older age on behalf of our studies at the university. After that, the participants were free to decide whether they wanted to exchange their opinions with us.

A workshop aimed at teaching older adults to use smartphones held in Frankfurt. What do they think of new technologies? It seems that it was not about trust. For example, someone said: "Smartphones designed specifically for older people we hate like the plague!", which means that they vigorously reject

a corresponding design. You could notice that on an emotional level as well. It felt unpleasant to ask questions about said topic. But why?

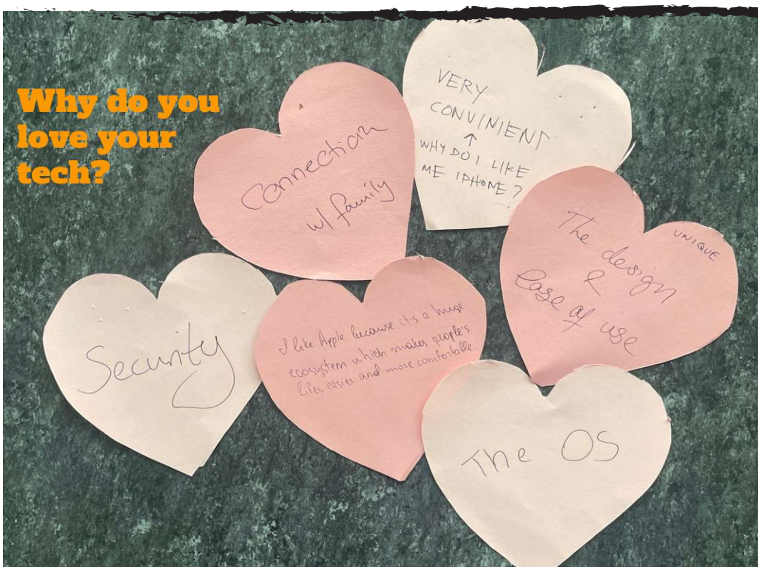


It quickly became apparent that an "age-appropriate" design would have a discriminatory effect on the respondents due to its age attributions. These smartphones are designed to be very simple and easy to use and thus embody a deficit model of ageing; assumed weaknesses in this context seemed to be centred here. This gave respondents the impression that older people are no longer able to teach themselves how to use conventional smartphones – in this respect, they felt deprived of engaging with technological progress, cut off from an increasingly digital society, and detracted from their maturity and agency/ability to act. Therefore, the lecture they attended, and the knowledge they acquired there, was able to tie much better with their image of age(ing) or older people as competent and willing/able to learn.

The electronics store

We had identified a problem, that older people felt singled out by technology designed for them. We wondered, why is this technology making people feel bad? Is it due to societal perception? Is the technology reflecting this? To flip the question upside down, we considered, why do people love their tech? Which affiliations imbue the tech user with a positive selfperception?
We went to the Apple Store in Frankfurt to look for answers. Participants gave us their reasons for using an iPhone, or other Apple products. These reasons were security, ease of use, convenience, great system, and connection with family. Besides the original nature or features of an iPhone, connection with family kind of attracts us. Digital devices are not just tools, they also carry emotions for users.

At the electronics store we found people who really enjoyed their tech, were loyal to it, and were happy to tell us about their association with the brand and items they owned. We found this successful product design inspiring and began to wonder if this could solve some of the negative emotions and associations older people were having with their tech.



Technology must do one thing above all: feel good!

After talking to older people at the workshop. We realized that technology only has value if it makes people feel good! This is true for everyone, and should include older adults. So, what is value of technology?
To ensure that new digital technologies do not miss the target group, it is important to understand the underlying needs and asso-

ciated emotions. To convey this in a playful and humorous way and at the same time to train empathy, we developed a game.

This card game involved selected prompt cards from three separate stacks. These stacks were 'technology', 'feeling' and 'action'. The players selected cards from each stack and used them to complete the sentence: My blank makes me blank when I'm blank. Now a prompt sentence was constructed we invited players to imagine a story which explained why this situation could be happening.

And this is what came out when we played it with others for the first time:

- My **VR** makes me **exhausted** when I'm **eating** – because it is difficult to find my mouth.

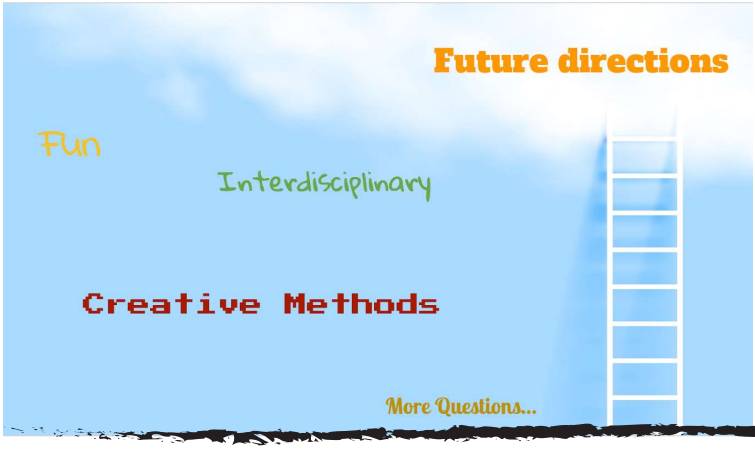
- My **robot** makes me **embarrassed** when I'm on **the toilet** – because it keeps talking to me and analysing the smell and the time I spend connecting to my life-style.

- My **robot** makes me **embarrassed** when I'm **dancing** – because it can't move properly; it looks unnatural and stupid (also might be good to dance with someone)!

- My **smart watch** makes me **curious** when I'm **on the toilet** – because many people are using technology/social media while on the toilet. They learn new information and get curious/get new research ideas.

- My **voice assistant** makes me **afraid** when I'm **singing** – nobody should be subjected to that.

- My **laptop** makes me exhausted when I'm **dancing** – this makes me think of a future where we might need a laptop at all times in interaction with others or that laptop tech has gotten bigger and when dancing it is harder to carry; this makes me think of "user-friendly" design.



After this summer school, we realized that although new technologies have become **embedded in every corner of life,** there are still a lot of questions to be answered, whether from the technological, or social perspective. We are looking forward to interdisciplinary research considering ageing in a digital age, and the engaging of creative research methods to explore this.

2 Method Matadors
Creative Research with VR

> The result of our work is an ideal (?) case study to **understand and present the complexity of this methodological fusion.**

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Citizen Science: A walk through an AR-based ideal (?) case study

As self-proclaimed methods matadors, we set out to work on research methods of the future for the group work portion of RILA-DA. We first started out with a broad range of topics: From critically examining research methods and distinguishing good and bad methods in different disciplines, to creative, inclusive, and participatory research approaches, to communicating research to participants. We quickly discovered that in addition to the diversity of our disciplinary backgrounds, there was also methodological diversity in our group. Thus, we began to think more about the combinations of qualitative and quantitative methods in the study of technology, but also to explore how technology can be incorporated into research.
The result of our work is an ideal (?) case study to understand and present the complexity of this methodological fusion.

Project-preparation & Kick-off

Our case study takes place in a small city. Our research team would come to the city and, supported by the city's institutions like council, schools, medical and care services, would introduce and promote the idea of a research project for, with and partially by the residents of the town. It is important to reach everyone in town, to get a diverse sample and views, and data, especially from unterrepresented groups. After informing about the project and recruiting participants to the research team also from the institutions, we plan a festival and research kick-off party that takes place in the marketplace of the town, while it is also possible to join virtually. With this festival, we want to introduce the research team and everything related to the project. With this festival, we hope to excite all citizens for the project, value their contribution beforehand, gain their trust, start listening to their concerns and wishes, and of course get their consent.

AR glasses as research tools

Functionality

In our case study, we want to use augmented reality (AR) glasses as a revolutionary research tool that can seamlessly merge virtual elements with the real world. This technology enables the comprehensive study of various interactions (e.g., face-to-face, technology-based, hybrid). Our AR glasses, complemented by AI algorithms, record and evaluate interactions, including their timing, location, duration, participants, and purpose (e.g., social or transactional) along with interaction-free intervals. Our imagined AR glasses open up a rich toolbox for us to collect valuable data. They can capture various physicalß indicators, including eye movement analysis that provides insights into attention and focus. Furthermore, the AR glasses facilitate language-based measurements through realtime transcriptions and content analysis of conversations. They can detect nuances in tone of voice, speech patterns, and volume variations. These linguistic cues can reveal underlying emotions and sentiments. In sum, the data collected by the AR glasses allows for the identification of mood, social patterns, and movement patterns within the studied interactions, painting a comprehensive picture of human behavior.

Ethical concerns

Our research project assuredly raises some ethical concerns. With the advent of AR glasses, concerns regarding privacy, transparency, and social inclusion have emerged. One of the primary concerns associated with AR glasses is the potential invasion of privacy. The technology's ability to capture audio and visual information in real-time raises questions about individuals' right to maintain personal boundaries in public spaces. Providing individuals with the choice to opt-in or opt-out of data collection and AR glasses usage allows for greater autonomy over their personal information. Moreover, anonymizing collected data, removing personally identifiable information, is a critical step

in safeguarding privacy and ensuring that research outcomes are not traceable back to specific individuals. Furthermore, obtaining informed consent from participants is paramount. This process should comprehensively detail the purpose of data collection, how it will be used, and the measures in place to protect privacy. Transparency is crucial in any research endeavor, and AR glasses introduce a level of opacity regarding the recording, use, and storage of data. This opacity extends to the operations of algorithms and artificial intelligence systems that may process this data. Transparency regarding data storage is essential. Knowing where data is stored and for how long ensures that participants can make informed decisions about their involvement. Participants should understand whether they have the rights to see, delete, or modify their data once collected. Moreover, understanding the key players involved in the research project—be it a company, research institute, or local government—provides insight into potential biases or interests that may influence the study's outcomes. Also, implementing safeguards against potential misuse of collected data is vital. This includes protecting against manipulation for political or commercial purposes. The adoption of AR glasses may inadvertently lead to social exclusion, as those who choose not to use or cannot afford such technology may find themselves marginalized in various social contexts. In this case, collaboration with nonprofit organizations and government agencies as the gatekeepers to increase participation will be the policy to be followed.

Processual & participatory research tools

As „Method Matadors," our particular interest lies in exploring the utility of AR glasses within the realm of scientific research and the potential for enhancing existing methodologies or even facilitating entirely novel approaches.

As Method Matadors, we have 3 main aims:

1 Innovate Methods!

2 Include Everyone!

3 Democratize Research!

In our case study, we want to look at each of those goals and evaluate if and how the use of the AR glasses could help us to reach these goals. Thinking about methods and the new possibilities using the AR glasses, we will use the mixed-methods approach of netmapping, and evolve it for use with AR glasses. The Netmap method is a social network analysis technique that visually represents and analyzes the relationships and connections among individuals or entities within a network. It is commonly used to study communication pat-

Methodology	Name of Method	Goat/Outcome
Mixed-Method	Netmapping via AR 	• different layers of how urban spaces are used/not used • who is socially excluded
Qualitative	Inerviews (semi-structured) 	• Do they want to get integrated? How? • Automated translation and transcription

group or organization. (e.g., Lelong et al. 2016). This method could profit from the use of AR glasses: with every (co)-researcher wearing the glasses, a realtime netmap could be generated and then enriched using the traditional approach. This novel netmap approach could shed light on Person environment exchange. how different layers of urban spaces are (not) used, and give hints to possible social exclusion of individuals or groups. The same procedure could be used to modify other existing methods (Person environment exchange interviews) for the use with AR glasses, and thus to innovate methods and to enable participatory research. The use of the AR glasses could also help to democratize the research. We came up with a scenario of a co-design workshop, where the aim is the co-creation of interventional methods. Every citizen is invited to take part in the workshop - either completely virtual or in person. While everyone is wearing their AR glasses, the citizen can co-create the virtual blueprint of an ideal urban space, for instance the (re)design of the marketplace. With the help of AI, the ideas of the participants appear as a layer of virtual sketches on their glasses, that can be moved and altered in shape.

Giving back to the community

During and after a year-long research project, we plan on giving back to the community as frequently as possible. At the end of the project, we plan another community festival, the "results-festival". Again, everyone is invited, in-person and virtually, to join the festival at the marketplace. This time, we want to show and explain the results of our various studies, highlight how the citizens have contributed and talk about possible implementations of the results. This way, the citizens' way of participating in the decision-making processes has potentially increased and they don't need us as developers anymore. We want to value the effort, work and contribution of all citizens and also show the meaning and importance of research. Further, we invite them to evaluate the project for when the project moves to another city. There will also be the possibility to become a research-ambassador for the next city for anyone who is interested.

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3 Intergenerational Digital Use Towards Well-Being

Which barriers and difficulties are experienced in the **use of digital devices** (e.g. Smartphone, Social media etc.) and do they differ by different generations?

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Introduction

In the course of the week, RILADA – Research Innovation Lab on Ageing in a Digital Age we formed a group of six, which was staffed, both, in a international (five different home countries) and interdisciplinary (six different disciplines) manner. Our working group wanted to face digital well being, considering it in a lifecourse approach. Our main interest can be summarized in the following research question:

Which barriers and difficulties are experienced in the use of digital devices (e.g. smartphone, social media etc.) and do they differ by different generations? How is the use of technology linked to well-being?

With regard to this question it seemed to be important, to highlight the correlation of the use of information and communication technologies (ICT) and well-being out of different life and age perspectives. We wanted to use the opportunity of letting go of our daily systematic scientific work routines and applying a creative and adventurous approach plus thinking out of the box. To be honest, it wasn't that easy to leave our daily working routines behind and we could barely leave our systematic research routines. So we decided to gather data in a street survey at the campus of Goethe University Frankfurt and in the city centre. With the whole bunch of well-known work steps -literature research, the development of a semi-structured questionnaire, gathering data, data analysises and interpretations- we finally interviewed twenty-nine persons from different generation, we met randomly during our survey process.

Our work process was connected with a lot of work during the two days of our work phase, but it was very creative. Of course, the different experts, especially Helen Marshal and Friedrich Wolf, helped us, on the one hand, to focus us in the interpretation process and, on the other hand, to breathe life into our data, e.g. in practicing story-telling. In the following, we would therefore like to present the results of our work during the RILADA week and the recommendations, we generated.

Main goal: *Letting go of systematic scientific work routines and applying a creative/adventurous approach - especially because most scientific theories and methods are one-sided and limited in their explanatory power and comprehensibility*

Main interest: *Which barriers and difficulties are related to the use of digital devices (e.g. smartphone, social media etc.) and do they differ by different generations? How is the use of technology linked to well-being?*

We argue that the use of digital devices and their association with well-being need to be understood from the perspective of different generations.

Method and Analysis

Our primary objective was to break away from traditional scientific methodologies and embrace a more creative and adventurous approach. We recognized that many existing scientific theories and methods are often one-sided and limited in their capacity to explain and comprehend complex phenomena. With this in mind, our main focus was on understanding the barriers and challenges associated with the use of digital devices, such as smartphones and social media, and exploring whether these challenges vary across different generations. Additionally, we sought to investigate the correlation between technology usage and overall well-being. To achieve these goals, we conducted a study involving a purposively selected sample of 29 individuals, comprising residents of Frankfurt and members of our campus community. Through semi-structured interviews, we delved into their digital device usage patterns, assessed the impact of technology on their quality of life, and gauged their interest in potential training programs designed to en-

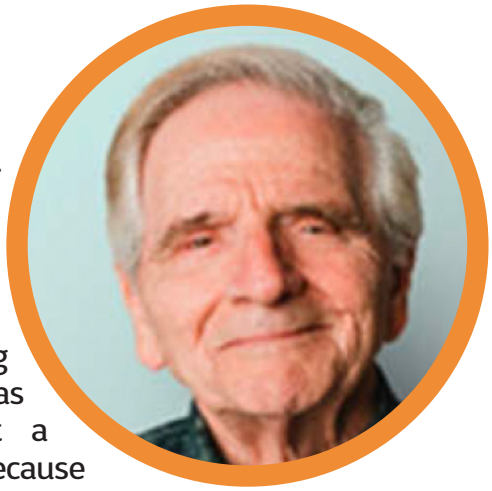
hance their well-being in the digital age. Our commitment to gender equality was evident in our sample selection process.

Personas

We conducted interviews with twenty-nine participants who willingly responded to our semistructured questionnaire on the street. After transcribing their narratives, we categorized them into **three personas.**

Alice is a twenty-five y/o Chinese fashion student at an international university in Frankfurt. For financial reasons, she has as part-time job in a bubble tee house near the main station. Her smartphone is used mostly for everything in her daily life (streaming, navigating and googling). Besides she uses a laptop and tablet for her studies. She can be seen as a digital native, but somehow feels sometimes lost in the virtual world, when she scrolls through social media.

Barbara is a sixty y/o, who lives in Offenbach and has a full-time job at an international tourism office in Frankfurt. She loves travelling to foreign countries and uses a smartphone and laptop, both, for her private and working life. Her digital devices enable her to stay in contact with her loved ones. In her apartment she has a hoover robot, that helps her with her domestic work. However, she faces some problems with specific denominations of some technical terms and fears, losing private date in online-shopping.



Jack is eighty-seven y/o, and has lives in Frankfurt for nearly his whole life. He loves drinking red wine and has recently bought a smartphone, because he realized that it became more and more important for his daily life, e.g. online-banking purposes and information. As he has never used a smart device in his life, he struggles with some features, e.g. font design and password-management. In order to enhance his smartphone skills, he is currently looking for some sort of training opportunities, but he hasn't found any appropriate information for training possibilities in his neighbourhood yet.

FINDINGS

More than half of the participants belonged to the 20-49 age group, and all of them were using digital devices. However, among the 50+ year-old age group, there were individuals who were not using digital devices. When we asked whether the usage of technology enhances did quality of life, most of the participants had the opinion that it did. However, in the 20 to 49 age group, some participants were unsure about whether it enhances their quality of life. Finally, the majority of people in the 20–49 age group expressed that they did not require any training, but among the 50-plus age group, half of them believed that they needed training. We conducted a study among a convenience sample of 29 individuals in both the city of Frankfurt and the campus to investigate the usage of digital devices, their impact on the quality of life, and the participants' interest in possible training programs for digital spaces and technologies to improve their wellbeing. We used semi-structured interviews. We aimed at gender equality.

The findings of our study revealed intriguing insights. A significant portion of our participants fell within the 20-49 age bracket, all of whom were active users of digital devices. Conversely, among individuals aged 50 and above, some were not engaged with digital technology at all. When probing whether technology usage contributed to an improved quality of life, the majority of respondents believed that it did, though a degree of uncertainty was observed among the 20-49 age group.

Regarding the need for training programs, a noteworthy distinction emerged. A substantial proportion of the 20-49 age group expressed that they did not require any additional training. In stark contrast, among the 50-plus age group, approximately half of the respondents acknowledged the necessity of training to navigate the digital landscape effectively.

These findings underscore the importance of considering generational perspectives when addressing the challenges and benefits of digital device usage. Our departure from conventional research approaches allowed us to gain valuable insights into the intricate relationship between technology and well-being, emphasizing the need for tailored interventions and support systems for different age groups.

Recommendations

In light of our research, which underscores the importance of promoting healthy technology use among older individuals, we offer a comprehensive set of recommendations.

Firstly, we advocate for government support in building infrastructure that facilitates digital detox spaces, providing respite for those seeking a temporary break from the digital world. Simultaneously, we propose the establishment of community-based digital retreat programs tailored specifically for older individuals, creating environments where they can disconnect, engage in social activities, and acquire essential digital literacy skills. To bolster their digital wellness, we emphasize the need for widespread digital education initiatives, encompassing workshops, seminars, and training sessions. Moreover, we suggest the creation of a network of Digital Diplomats or Ambassadors, tech-savvy seniors who can mentor and guide their peers in navigating the digital landscape. Public awareness campaigns will play a pivotal role in informing older citizens about the advantages of digital detox and digital wellness. Collaborative efforts with technology companies to design senior-friendly digital tools should be actively pursued. Continual data collection on digital habits will inform tailored program development. Regular evaluation and adjustments based on feedback are essential, and public-private partnerships can offer additional resources. Lastly, ensuring long-term sustainability through funding, volunteer engagement, and clear governance structures will underpin the success of these initiatives. It is crucial to involve older individuals in the decision-making process to align programs with their preferences and requirements, ultimately contributing to a healthier, more digitally empowered older population.

AND WE SAY

1 Older adults are a heterogenous group that cannot be reached with one-fitsall learning.

2 The need to support people in a continuous way and to facilitate independent living.

3 Provide space to meet new friends and maintain social participation and engagement - social inclusion and combat loneliness.

4 Lifelong learning opportunities (3rd age universities, digital labs, NGOs, technical support teams, participatory design workshops, informal learning environment).

5 Emphasise the personal benefits, such as 'staying in contact with relatives' rather than 'learn how to use a smartphone'.

6 Further research and studies should be conducted to identify the sociodemographic factors to help policymakers to better shape the future recommendations.

7 Safe and playful learning facilitates to overcome negative attitudes, beliefs, and fear towards digital devices and services.

8 More knowledge is needed concerning these so-called 'hard to reach' older adults that do not participate in digital skills training.

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Acknowledgements
We express our gratitude to the Team - Anna Wanka, Arlind Reuter, Frank Oswald, Friedrich Wolf, Helen Manchester, Ines Himmelsbach, Juliane Jarke, Miranda Leontowitsch - who put their time, creativity, resources and energy to organize this Research Innovation Lab. **This week has been a great opportunity for creating a dynamic and inspiring learning environment, getting to know each other and exploring innovative ideas and methods.**

Also a BIG thanks to all the participants who **made these rainy days in Frankfurt brighter and shinier! :)** Looking forward to the possibility of crossing paths again in future adventures.

4 Knowing Thyself
Satirical Interdisciplinary

> Digitisation and population **ageing are among the most profound contemporary social forces shaping human life** around the world (WHO 2022).

Group members:
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Elisa Cardamone, UK
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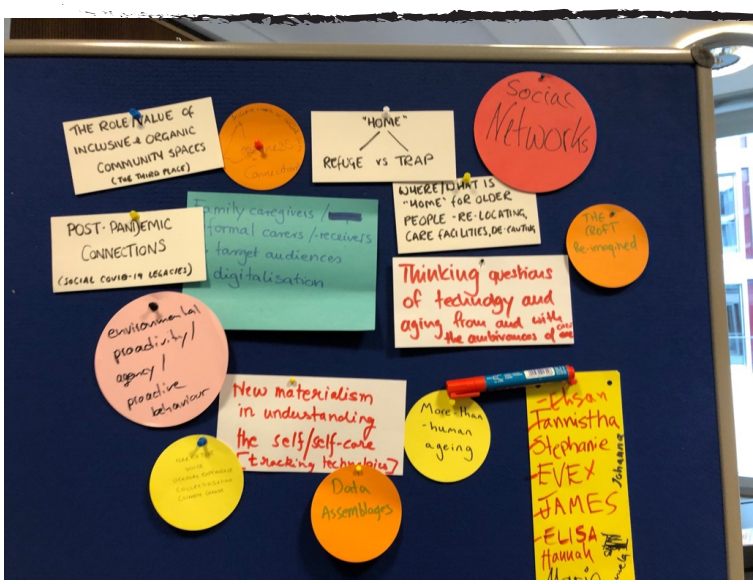
Ehsan Azroomchilar, Czech Republic

Curating the Care-Full Home: Satirical Interdisciplinarity in Social Research

Digitisation and population ageing are among the most profound contemporary social forces shaping human life around the world (WHO 2022). Many opportunities and challenges at the intersections of these two forces demand genuine interdisciplinary engagements, extending far beyond the traditional intellectual terrains of any single field (Peine et al 2021). Such efforts are now emerging through initiatives such as the Socio-Gerontechnology Network. However, sincere interdisciplinarity is rarely easy. Its pursuit can generate innumerable opportunities for different ethical, methodological, epistemological and ontological commitments to collide, sometimes painfully (Klein 2021).

The film entitled "The Care-Full Home" is the culmination of an innovative and playful experiment with the potential uses of creative satire as a methodological approach to cultivating rich interdisciplinary engagements with ageing and technology. The project was developed over two days by the working group "Unknowing Thyself" during the 2023 Research Innovation Lab: Ageing in a Digital World (RILADA) hackathon, hosted at Goethe University. The group was made up of five scholars at different career levels from five different countries and five different disciplines (anthropology, demography, gerontology, philosophy, sociology), with a shared specialism in digital ageing.
Unknowing Thyself was formed by asking all attendees to write their personal research interests on pieces of card that were then handed over to hackathon organisers who grouped the cards thematically. Unknowing Thyself was formed around interests in "home", "ambivalences of care", "new materialism", "self-care" and "data assemblages". The group was given 48 hours to deliver a project of our choosing relating to our interests, facilitated through the availability of a collection of expert consultants and the various physical and digital resources of Goethe University.

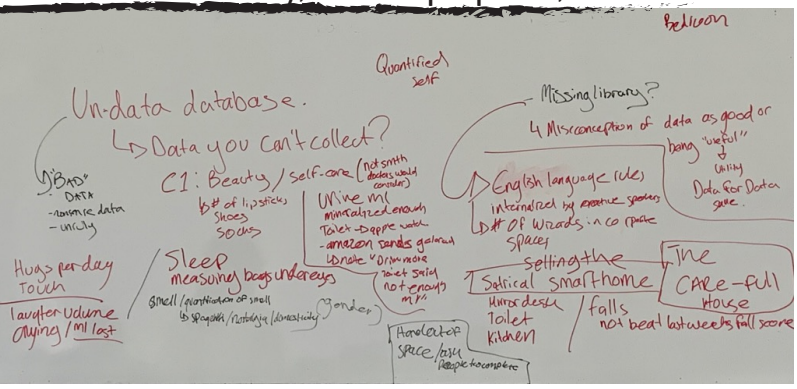


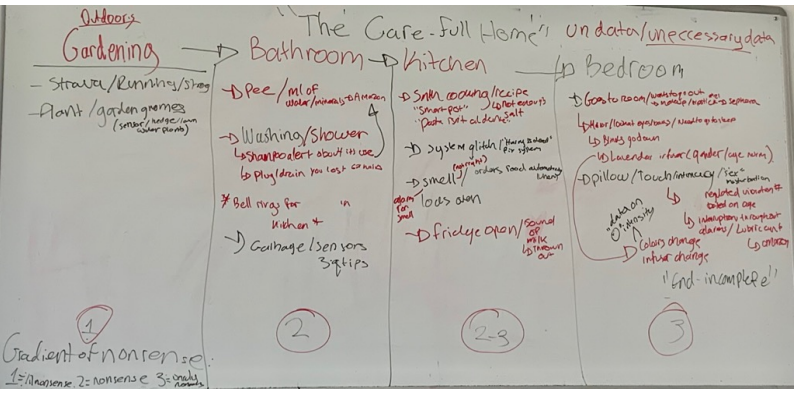
Given our nebulous brief and diverse backgrounds, the first task was narrowing down a project, i.e. what we wanted to achieve and how we planned to do it. Some group members had considerable experience in creative methods and multimedia, and we quickly alighted on the idea of making a film to best use our collective expertise. Through consultation with experts, we decided to make a film about a future smart-home, optimised to 'care' for its older resident. Some group members specialised in datafication, and we therefore decided to focus on exploring the boundaries of (un)data, questioning what we might and might not intuit as collectable and usable data as a medium, and even means, of care.

We set about storyboarding our film, specifying four scenes, each containing several quirky forms of datafication. Recognising the

characteristic ambiguities of care datafication, particularly at the frontiers of (un)data, we soon alighted on satire as a productive medium of critical engagement. Amidst a wider interest in humour across the social sciences, satire is increasingly recognised as a valuable methodological tool (Lockyer & Weaver 2022). It sits within a wider turn to creative methods across the social sciences as offering more critically praxis-conscious strategies for pursuing and doing transformative social change (Barron et al 2021).

Critically, for our purposes, satire blurs the





normative boundaries between the good and the bad, and between fact and fiction. It opens up a fertile space for audience participation in social science by leaving certain things productively under-evaluated and under-explicated. For instance, if we propose a smart-mirror can record and assess appearance, and translate that assessment into recommendations, different audiences may interpret this as more or less desirable. This interpretability can be useful vis-à-vis datafication as a response to moral panics regarding digital technologies and their consequences for the self, particularly in relation to ageing and care. Here, satire can offer a salve to social scientific finger-wagging, without contrarily cheerleading those same research phenomena or fashioning an intellectually underwhelming aesthetic of impartiality.

The capacity of satire to engage with and itself manifest the ambiguities of care digitalisation were poignantly exemplified when something of particular interest occurred toward the end of our first day. We discovered that almost all our suggestions for features of the 'Care-Full' Home were already available in the real world. For instance, we were surprised to find that our imagined smart-vibrator could be purchased for $229, replete with a mobile app, AI capabilities, biofeedback, and a plush imitation of the vibrator for your pet. That which we had devised as representing the more farcical end of prospective digitisation, had in fact been genuinely developed by others who presumably considered such an entity worthwhile. In this instance, satire had enabled us to inadvertently further our own capturing of the ambiguities of datafication.

Beyond its operation as a means for critically reflecting on the nature of self-care datafication in later life, satire also functioned as an important method of doing good interdisciplinarity, with good here denoting the enjoyability as much as the productivity of the doing. Following an evening of discussion with various scholars from other hackathon groups, it became apparent that the intense interdisciplinarity was becoming a defining feature of our collective experience. For many, this was challenging. However, we were having a good time, genuinely enjoying the process and feeling that the work was worthwhile.

Intrigued, we engaged with this problem and followed it more deftly through our own work. Again, satire emerged as a useful method for navigating our interdisciplinarity, or rather, it

had already emerged as such, and we gradually came to appreciate this. At a basic level, humour can evidently be an effective social and political lubricant, but we would argue that satire can do more than this. While its potential for facilitating multiplicity has been documented in relation to research dissemination (Batty & Taylor 2019), what we did here went further methodologically. By centring satire in the doing of interdisciplinarity, we conjured a space wherein different perspectives could coexist relatively smoothly, even enjoyably, and thence be brought into fruitful relations of coproduction.

This work and our experience of curating it chimes with contemporary theorisations of interdisciplinarity as fundamentally multiple, that is, as definition defying heterogeneities that exist within their practice, without any universal characteristics or grander conceptual schema (Klein 2021). What happened here, somewhat unwittingly thanks in large part to satire, was a valuable interdisciplinarity, with diverse actors bringing their expertise to bear on something far greater than any single contributor could have created.

While potentially easing interdisciplinarity through certain frictions, the interpretive spaces opened up through satire can present opportunities for new divergences that can themselves turn sour. For instance, creators have a distinct lack of control over how ambiguous depictions of research problems will be perceived and used in the wider world, particularly when compared with the exactitudes of traditional academic publishing. Satirical outputs that purposefully channel ambiguity potentially intensifies the risks of our work being misused by bad actors or interpreted in harmful ways by other audiences. Hence, it is far from an unproblematic strategy.

Despite its growing importance, satire is still typically featured as something of an aside in most methodological discussions, briefly mentioned in concluding paragraphs, even where it has seemingly played an important role (Lockyer & Weaver 2022). We hope that this project will exemplify some of the many possibilities that playful satirical approaches can offer by way of interdisciplinary engagements with contemporary social issues.

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From this team a publication is to be expected as follows: Fletcher, J. R., Cardamone, E., Hatzifilalitis, S., Samanta, T., & Azroomchilar, E. (under review). Curating the 'Care-Full' Home: An Experiment in Satirical Interdisciplinarity in Social Research. Intended to be published in Sociological Research Online.

5 The Ministry for Messy Research Democratising research for a messy world

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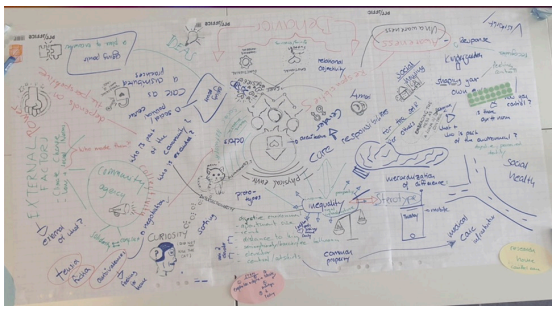
Contributor: Dr. Mario R. Jokisch

> "The world is facing **new social challenges,** and we aim to play a **leading role in solving our shared problems."**

The origin story

In July 2023, seven researchers met in Frankfurt to work on ageing in a digital age. Wise professors had sent them on a mission: to conduct a creative and interactive hackathon specific to developing non-technical solutions to social issues. For hours and hours, the group discussed research questions, theories, models, data sources, gaps in the literature... They mapped the mess:



Mapping the mess

However, there was an elephant in the room. The group of researchers noticed that we already know so much; we are all experts in the field of ageing and know all the studies, findings, best practice examples and policy recommendations. They felt that no further study, research design or example of best practice would change the world. They felt that the system they were trapped in had to be tackled first. This was when the Ministry for Messy Research was founded.

Our solution to enable ground-breaking research: the invention of the Ministry for Messy Research!

Ministry Introduction:

- It's the Year 2064
- Every citizen has the RIGHT TO RESEARCH
- There is allocated 'Unicorn' funding reserved for every citizen
- The funding can be used at any stage of life
- The ministry pairs facilitators and researchers through critical feminist AI
- The facilitators are experienced in the researcher's chosen subject and support the research
- This AI adopts a „transformative approach to AI that aligns with the wider values of care and the common good" (McQuillan, 2022)

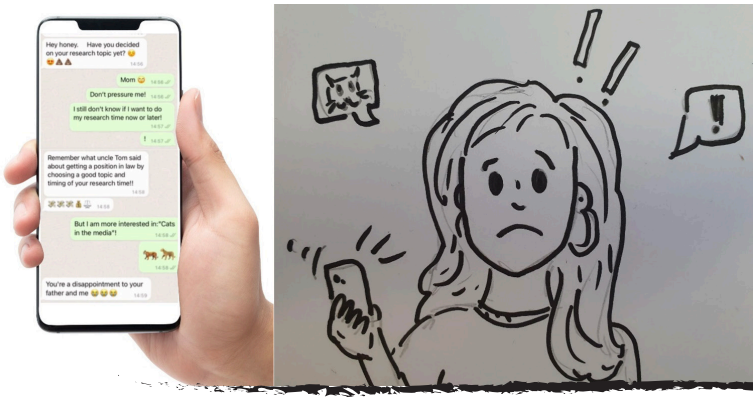
Ministry Overarching Funding Focus:

- How do we live together?
- How do we care together?
- How do we age together?
- How do we die together?

Imagined Scenarios to explore the pitfalls and benefits of messy citizen research:

Scenario 1

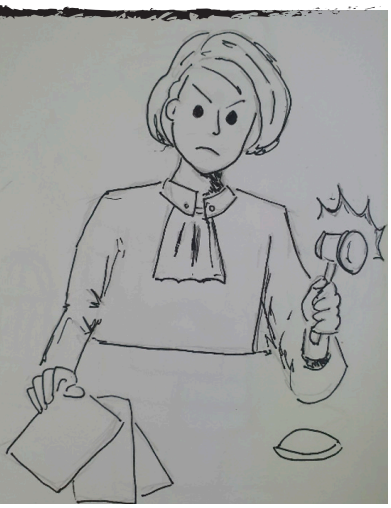
Exploring the influence of family and friends on researcher decision-making processes
Text message exchange between a citizen researcher and their parent:



Scenario 2

Unpacking the principles of ethical research and care-full‘ approaches:

Hearing from the Ministry for Messy Research Ethical Collective



As the Ethical Collective for the Ministry of Messy Research, we would like to reiterate the principles of conducting ethical research, as it has come to our attention that some applications do not follow our guidelines.

In June 2064, an application for funding a research project in the field of biomedical engineering was submitted to our collective. The proposed research involved human participants from a specific ethnic/religious group and aimed to enhance human longevity. The research outlined a detailed process of using surgical and hormonal interventions on the human body to extend telomere length to test different ways of prolonging human lives.

The main principle of the ethical collective is to ensure ‚no harm to all humans and non-humans.‘ However, the research applicants‘ data collection process involves genetic interventions that do not account for possible risks that participants may experience. There is no clarification on how and in what ways the participants in such research would be affected mentally and physically after the intervention. Issues of consent regarding participants are not clarified and do not align with the collective‘s guidelines.

Moreover, the ethical collective is concerned that there might be ill-conceived ideas and goals to prolong human lives that prioritise a certain ethnic/religious group over the general population.

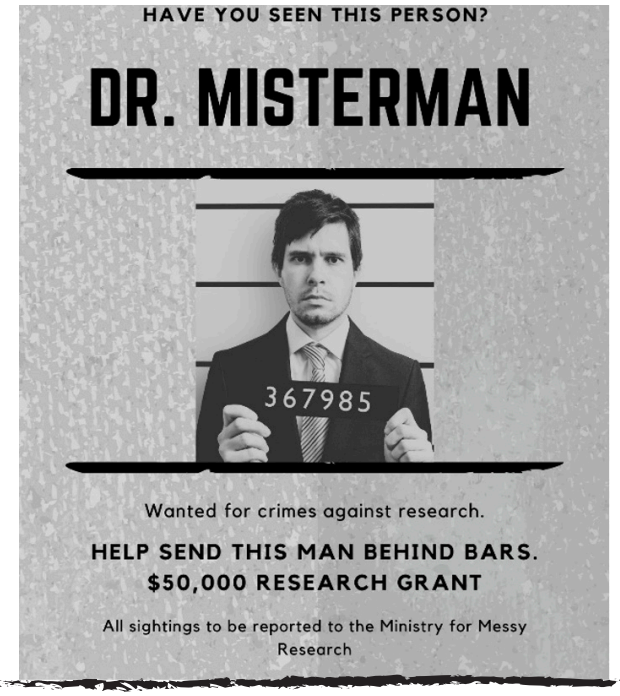
As a result of identifying the above ethical issues, the collective has decided to reject the funding application. We urge the researchers to follow care-full research practices. This practice adopts the principles of feminist ethics of care. Thus, it adopts a reflexive perspective that builds on imagination, critical thinking, responsiveness, and attentiveness. Any research application that does not account for such principles will be considered unethical and will be rejected by the ethical collective.

Scenario 3

Exploring the consequences of a glitch in the AI pairing process

Video message from the prison:

“Hello, I am a male researcher. I am speaking to you from prison. My tragedy started when I handed in a grant application to the Ministry of Messy Research. And as you know, they have this feminist AI matching algorithm that is used to select the applications that will be funded. The AI has been trained with angry feminist literature and data and discriminates against cis men, directly sending them to prison – please send help; I really need to finish some important publications!!!”



Scenario 4

The pitfalls of lobbying on influencing research funding and direction

WE WANT YOU

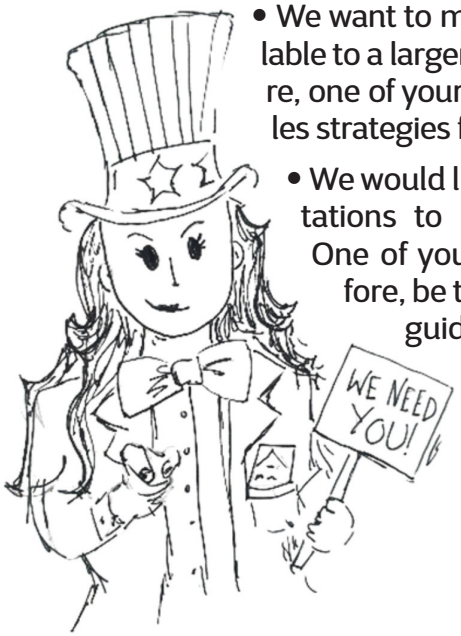
Spend YOUR research time at Marlbara Researcher Job advertisement

About us:

We are a company that promotes the sale of cigarettes worldwide. Our corporate strategy is to make a profit; all other objectives are subordinate to this. Our company consists exclusively of men; women are only allowed to enter the buildings for cleaning.

In recent years, studies have repeatedly shown that cigarettes harm children and adolescents and can lead to addiction. We would like to refute these unfounded accusations and prove that smoking contributes to the development of children and adolescents and makes them more successful people.
We would like to prove this in an empirical study and look forward to receiving your meaningful application.

Your tasks:



- We want to make our products available to a larger target group. Therefore, one of your tasks is to develop sales strategies for cigarettes to minors.
- We would like to expand our plantations to produce more goods. One of your activities will, therefore, be to investigate how legal guidelines can be bypassed to grow our tobacco in nature reserves for these activities.

Our Offer:

- We offer a job in an attractive company and an annual salary of 900 000 euros. In addition, you have three cars and a private plane at your disposal, with a maximum of 90 hours of work per week.
- Your place of work will be far away from your home. You, therefore, have the advantage of not having to take on care activities or childcare in your family. Here, we take the view that women are better suited for these activities.

Scenario 5

Understanding the potential problems of over-reliance on human-led digital connectivity

++ Breaking News +++ Great heat +++ Server house on fire +++ All servers down +++ Canine unit fatally injured +++ Digital applications process of the Ministry for Messy Research disrupted +++ Warning against panic +++

You wonder what happened?

At 3 p.m. on Thursday, 27 July 2064, the Unicorn Fire Department (UFD) was called to a fire in the server house near the Ministry for Messy Research. Some of the cooling systems had caught fire and failed. However, the first arriving crews were not on the scene for over an hour as other fires in the city also needed to be brought under control. In the weeks before, the region had already been confronted with great heat and other extreme events, so water supply from other regions had to be organised first. Unfortunately, the canine unit deployed to guard the server house perished shortly after raising the alarm. The Ministry for Messy Research finally informed the UFD that the application process could no longer be done digitally. The situation became very chaotic, and people were asked to remain calm and not panic.

Scenario 6

An example of crazy, beautiful research: A citizen-led piece of research using poetic enquiry to explore the impact of community living with animals aboard a 'care-full' arc to create an inclusive, age-friendly space.

How do we live together?
How can we live together, you ask?
Never fear the most daunting task,
Don't believe that the power is gone,
A new age of messiness has just begun,
The goddess of death rides the waves of change,
The pieces of time we can re-arrange,
If you have no home,
then make it with me,
We will set sail to find it at sea,
Together,
no longer afraid to face the dark,
Come aboard the care-full arc,
We shall travel with the animals,
the cats and the plants,
How we will lead age such a merry dance,
Launched into the waves by research right,

To find treasures of knowledge that shine bright,
Drown your fears to set them free,
We will face it together,
you and me.

Conclusio

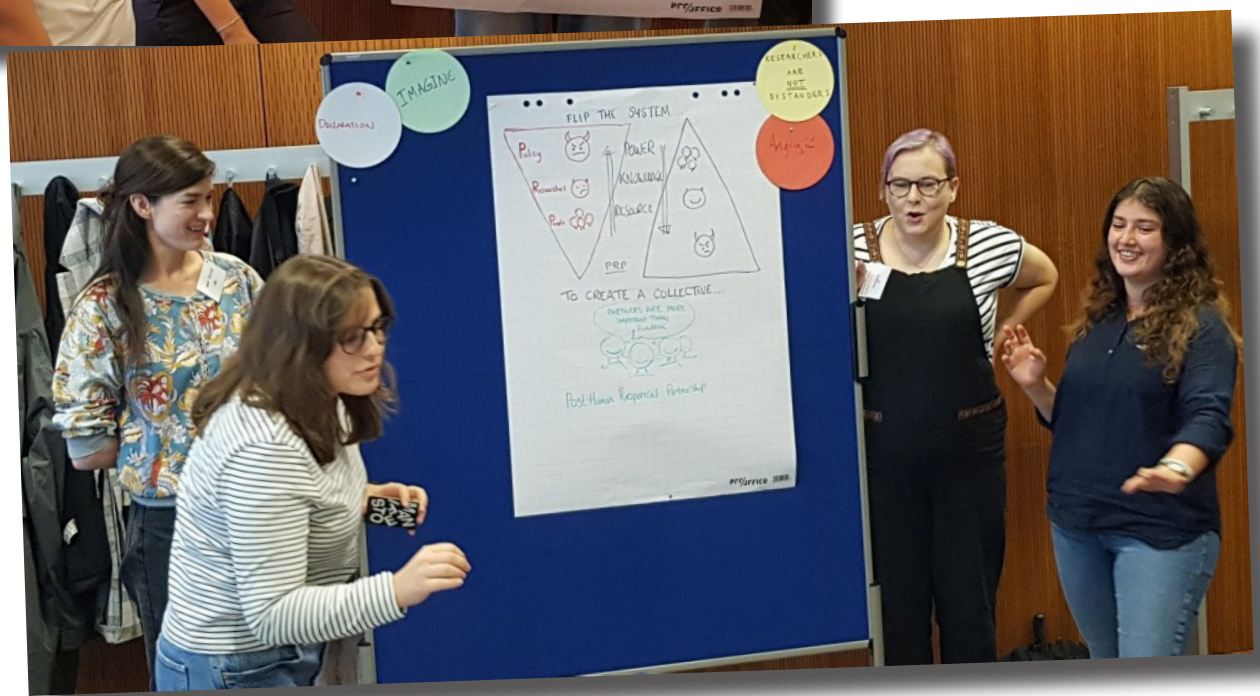
We hope we have given you a picture of what democratic research could look like in examples of messy world futures. Now, back to the present to invite you to help us shape better research futures...

Our Research Pledge: "We believe everyone has the right to research; we believe that research should be ethical and care-full; we believe in equal knowledge production; we believe in a better research future".

We invite you to make your own pledge in your own communities

6 Impressions


THE PARTICIPATION MANIFESTO
1- Recognise and respect the contributions of olders
2- Foster intergenerational connection and solidarity
3- Ensure age-friendly environments
4- Support active social engagement
5- Improve wellness and healthcare services
6- Empower older in decision making
7- Spread the word!
REMEMBER!
PARTICIP-AGE!


IMAGINE
FLIP THE SYSTEM
TO CREATE A COLLECTIVE...

From left to right: Prof. Dr. Juliane Jarke, University of Graz, Austria; Prof. Dr. Helen Manchester, University of Bristol, UK; Dr. Arlind Reuter, Lund University, Sweden.

above:
Dr. Miranda Leontowitsch, Dr. Friedrich Wolf, Goethe University Franfurt, Germany


"A RESEARCH GROUP" (on ageing)
(UN)BIASED?
f*** stereo-types
SUCK
In the past
Neutrality/objectivity was our thing!
-> we have academic degrees!
-> super aware! always reflective + critical!
-> evidence-based
CHALLENGE
Now we want to challenge ourselves in this illusion
-> must question ourselves!
-> be aware that we too are ageist, sexist, racist, classist, ...
Follow us on our way!
YES WE CAN!
and we should!
• Be critical, question past "truths"
• Deconstruct
• Be transparent: who you are, where you come from
• Be aware of biased (established) methods
FOLLOW US on X (formerly known as Twitter)
PFF/OFFICE


AI tech
Audience
Designers
Theme


PSYCHOLOGIE