



Universität St.Gallen

Institut für Medien-  
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# Algorithmic Resistance and the Question of Collective Agency

The Human Error Project: AI, Human Nature and the Conflict over Algorithmic Profiling

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Chair of Media and Culture

From insight to impact.

# Research overview

# The Human Error Project

## AI, human nature and the conflict over algorithmic profiling

The [Human Error Project: AI, Human Nature, and the Conflict over Algorithmic Profiling](#) combines anthropological theory with critical data and AI research. It is based on the belief that one of the most fundamental questions of our times is to map, study and analyze the emerging debates and conflicts over AI errors and algorithmic profiling. We use the term 'the human error of AI' as an umbrella term which sheds light on different aspects of algorithmic fallacy when it comes to reading human beings: algorithmic bias, algorithmic inaccuracy and algorithmic unaccountability. The aim of *The Human Error Project* is to investigate the struggles, practices and discourses emerging on the issue of AI error and algorithmic profiling in Europe.

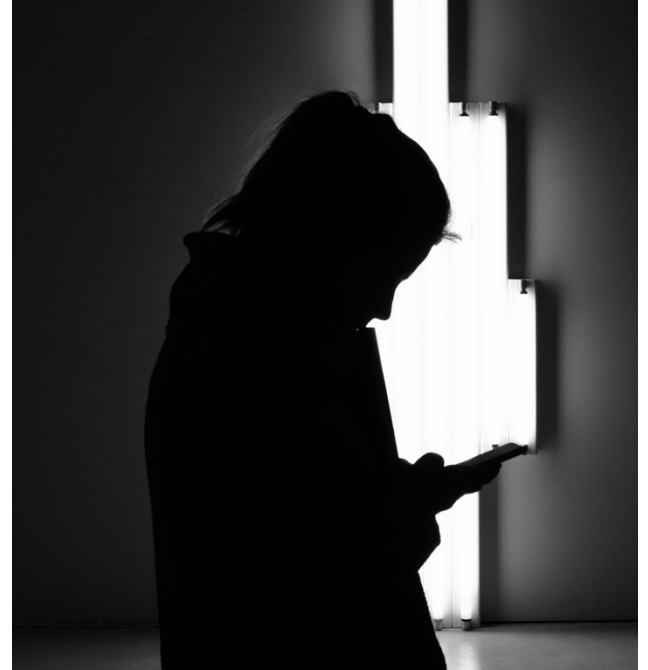
### Research field and scope

(1) Ethical tech actors, (2) Civil society actors, (3) Journalists

### Research aim and methods

- Mapping the debate (Critical discourse analysis and organisational mapping)
- Capturing the human stories (Qualitative interviews)

**Project Team:** Professor Veronica Barassi, Dr. Antje Scharenberg, Dr. Philip Di Salvo, Marie Poux-Berthe, Rahi Patra



# Civil Society Perspectives in Europe

## The question of collective agency

### Context: the rapid and unregulated expansion of algorithmic profiling

- profiling machines (Elmer, 2004; Solove, 2004)
- data driven decisions about their lives and to determine their rights (Kitchin, 2014; Pasquale, 2015)
- use of profiling by governments for predictive policing (Dencik et al., 2018; Amoore, 2020), border control (Metcalf and Dencik, 2019) or to aid decisions in the education sector (Williamson, 2017), criminal justice sector (Forrest, 2021) and welfare allocation (Eubanks, 2018) and by companies in the workplace, to hire and fire employees or as forms of automated surveillance and assessment (Crawford, 2021; Hirth and Rhein, 2021; Walker et al., 2021)

### Challenge: from digital to datafied citizens

- individuals are no longer only digital citizens (Isin & Ruppert, 2015)
- they are also becoming datafied citizens through processes of data inferral and algorithmic profiling (Barassi, 2016 & 2017; Hintz et al., 2017 & 2018; Cheney-Lippold, 2019)

**Research question:** How do civil society actors try to enact (collective) agency in the face of ever more present algorithmic profiling?

# Theoretical background

## From data justice to algorithmic resistance

### Data Justice

- we must understand processes of datafication more holistically within their social, economic and cultural contexts and with regards to issues of inequality and social justice (Dencik et.al, 2016; Taylor, 2017)

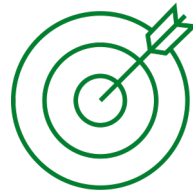
### Algorithmic Resistance

- algorithms both prohibit as well as aid activists' agency (Milan, 2018; Treré, 2019; Etter and Albu, 2021)
- others have focused on how individual activists challenge the power of algorithms and reclaim a sense of agency (Velkova and Kaun, 2021)
- research in the field is still scarce and much more work is needed in the exploration of how social movement actors *resist algorithmic profiling* and reclaim a sense of *collective agency*



# Methodology

## Researching civil society organisations in Europe



### Research questions

1. What are civil society actors' personal and everyday experiences with algorithmic technologies?
2. What do they see as the key problems we face today with regards to these technologies?
3. How are they trying to resist and act vis-à-vis these challenges?
4. How do they imagine our future life with algorithmic technologies?

### Interviews

35 semi-structured, qualitative interviews with civil society actors from 15 different European countries (including from Western, Northern, Southern, Central and Eastern Europe and the UK)

### Organisational analysis

Critical discourse analysis of 35 organisational and campaign websites from across the European continent and the UK

# Key Findings

# Research Question 1

## Personal and everyday experiences



### Key findings

- High level of **education** (e.g. academic/ professional background in law, social/ political sciences or IT) and **privilege** (only few mention personal experience of discrimination)
- Shared fascination with and **love of technology**, rather than “digital Luddites” (Tomaš)
  - *“It’s very easy also for people to say “oh, but you hate technology”. No, we love technology, like, we’re a bunch of nerds like you wouldn’t believe! ...We believe in the potential of technology... but what we see instead is that technology is routinely used to categorise profile and control people ultimately.”* (Federica)
- Worries and motivations to act include **surveillance and privacy issues**, as well as **discrimination, potential abuse and misprofiling**:
  - *“[The] algorithm came up with some profiling of myself that was not like the real “me”...they were coming up with my interest in, for example, sports, football and stuff like that, which I’m not interested in it at all...I got really the feeling... they could know, for example, if I’m drunk at night and I’m scrolling for hours trying to buy something. What if they take advantage of this kind of information?”* (Lenny)
- Daily negotiation through **specific use of hardware, software or behaviours**:
  - *“I live Google- and Apple-free, I have a Linux computer and a Linux phone.”* (Marleen)
  - *“I don’t have any social network installed on my cell phone precisely because I want to be able to control what information I send to these platforms.”* (Martin)

# Research Question 2

## Key problems today



### Key findings

- Many interviewees worry about the fact that **algorithmic technologies perpetuate existing systemic inequalities**, such as police violence, racist and sexist discrimination or discrimination of poor people
- **Lack of awareness** about being profiled amongst general public
  - *“I think it is a challenge for users or consumers to understand what this field is and where decisions are already being made automatically. I always take my parents, well of course they are partially digitised, they just use WhatsApp and make videos with their mobile phones, but ...when it comes to algorithms, they are usually out of the loop.”* (Nerissa)
- **Lack of accountability and competence** of politicians and public institutions to deal with algorithmic issues
  - *“If harm was done [through algorithms], we are not going to be able to bring the perpetrators to justice, because the institutions in Europe which are responsible for this, ...data protection authorities for instance or the consumer protection authorities, are absolutely unable to even start thinking about taking such a case.”* (Martin)
- **Power imbalance** vis-à-vis big tech companies
  - *“We as a small NGO with a budget of maybe 200,000 [Euros] a year... Facebook would laugh at that, for them it's petty cash for some subdivision. You can see from the financial situation alone that there is a very asymmetrical power imbalance. Of course, they have much more money to lobby...”* (Ulrike)

# Research Question 3

## Strategies of resistance

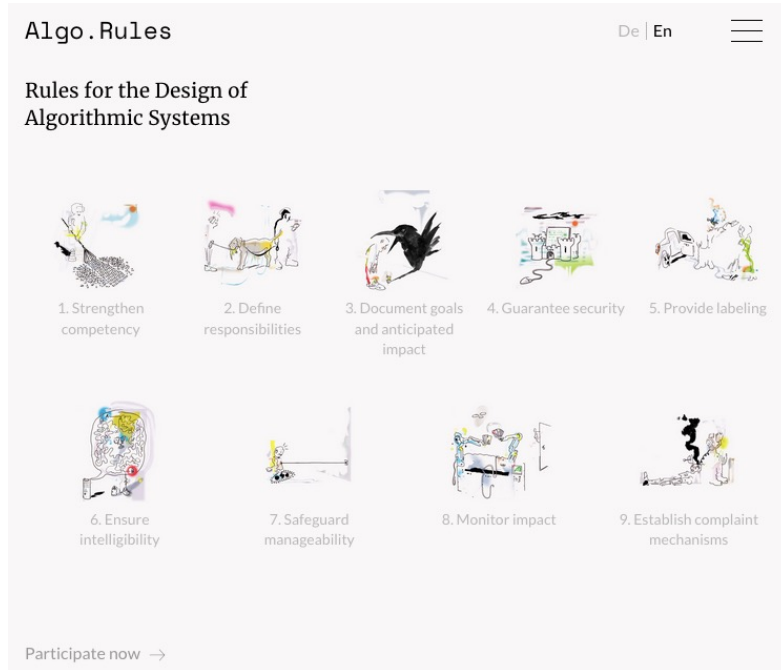


### Key findings

- **Discursive resistance** and the struggle to define key terms and issues
  - *“I wouldn’t refer to them as AI technologies, because it’s way too vague. I think you need to split the debate between on the one hand automated systems, which have been there for quite a long time ...and on the other hand you have platform monopolies which also claim to use AI but present a much newer set of issues.” (Martin)*
- **Informing and educating**: not only the broader public, but also tech workers, e.g. in the shape of guidelines (Example A: Algo.Rules)
  - *“We can’t expect from all programmers that they automatically know what is ethically correct... They need anti-discrimination training, they need to know about consumer protection... we have to give them training on such topics...” (Nerissa)*
- **Legislation** (Example B: Reclaim your face)
  - *“we are actively campaigning for a ban on biometric recognition, on biometric recognition systems in public spaces [because]... we know that these systems have discriminatory effects... [However, even if] it works equally well for all faces...,the question is whether their use in the public sphere can ever be done in a way that is compatible with fundamental rights” (Sandra)*
- **Litigation** (Example C: Amazon workers resistance based on GDPR)
  - *“You have a right to obtain the copy of all personal data..., including the data that the company... has derived about you... So the interpretation of the data also needs to be made transparent, not just the data itself and what data was collect.” (Alessandro)*

# Research Question 3

## Example A: Education



### Algo.Rules

The Algo.Rules – developed by the German project *Ethics of Algorithms*, which is funded by the Bertelsmann Foundation – are a “catalogue of formal criteria for enabling the socially beneficial design and oversight of algorithmic systems”.

The aim of this catalogue is to **enforce human rights** and already take them into consideration during the development of **algorithmic systems**.

Source: <https://algorules.org/en/home>

# Research Question 3

## Example B: Legislation



72,028 have already signed. Help us get to 1 million!  
The EU has the power to end these abusive practices.

### Reclaim Your Face

Across the continent, several digital rights organisations have come together in a transnational alliance to campaign for a ban of face recognition technologies in public spaces across the EU.

The campaign, entitled *Reclaim Your Face*, organises around a European Citizens Initiative (ECI) – a transnational petitioning tool through which citizens can propose new laws at EU level.

Source: <https://reclaimyourface.eu/>

# Research Question 3

## Example C: Litigation



### Amazon Workers Resistance

An initiative by the digital rights NGO *noyb* in collaboration with the union *UNI Global* has united Amazon workers from Poland, Slovakia, Italy, Germany and the UK in a collective GDPR access request.

The aim is to **utilise article 13 and 14 of the GDPR** in order to mobilise EU citizen's "right to be informed about the processing of their personal data" and "file access requests to clarify whether the company uses workers' data to foster inhumane **working conditions and unsafe productivity rates**" (noyb, 2022, para. 5).

Source: <https://noyb.eu/en/amazon-workers-demand-data-transparency>

# Research Question 4

## Algorithmic futures



### Key findings

#### Utopian visions

- The hope for radically different futures such as imagined in a “feminist tech policy” (Marleen) and “Indigenous AI” (Jacinta)
- The power to decide: “what I would like to see in the future is giving more the possibility in the hands of people to decide by themselves how they want to tweak the algorithm. So for example, [to be able to say]... I want to see content that is more close to a right wing politics or left wing politics and then they help you filter what you what you see.” (Lenny)
- The right not to be judged: “this is a thought from Nani Jansen Reventlow from the Digital Freedom Fund, ...the idea that in the future we should have the possibility or the right not to be judged by an algorithm? Or to be judged only by an algorithm? ...I think freedom of choice or even transparency in the delivery of results is totally important, otherwise we don't make the whole system verifiable at all.” (Marleen)
- Algorithmic repositories: “I would really like to have repositories of algorithms that are being studied and approved by government, and they're publicly available. Again, this kind of information is quite important to have. To have this kind of registry.” (Lenny)

#### Dystopian visions: “a world designed by engineers”

- “States have the responsibility to bring onboard people with social sciences background, because you can't live in a world that is designed by developers. A world designed by engineers is just a plain nightmare. ...**A world seen by an engineers is a set of problems and a set of solutions.** ...and it can be well-intentioned. ... But I think when we are talking about critical issues ...it's not only a set of problems and a set of solutions. **If you want to identify problems, you need sociologists, philosophers, you need anthropologists,** you need other expertise on just identifying what could be the danger here, the danger there etc. And sometimes, maybe you would say “ok, we have this problem”, **we don't need a technical solution, we need other ways to solve this.** In the end it is very political. ...AI brings another layer and an extra problem, but **in the end it's a policy problem.**“ (Jacques)

# Thank you.

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