

Reflections on AI

Q&A with

Livia Schaeffer Nonose and Sophie Naue

“Truly responsible AI systems require a foundation of values and principles, including human rights and ethical principles such as fairness, privacy, and accountability”

The [TUM IEAI](#) had the pleasure of speaking with **Livia Schaeffer Nonose**, Urban Technologies and Innovation Consultant, and **Sophie Naue**, Innovation Specialist, at the United Nations Innovation Technology Accelerator for Cities ([UNITAC](#)) Hamburg. Read their Reflections on AI.

Q: What is the biggest misconception about Artificial Intelligence?

Sophie Naue: I would say there are several misconceptions about AI, and in principle, it is important to say that technology will not save us, AI won't save us, and AI systems can't act beyond their programmed functions. So one hand, AI has a huge potential and impact on our daily lives and the way we work because it will change our workflows and makes us more efficient, but AI is not neutral, it is not objective, and AI is not independent of power relations. So it always reflects the values of people or companies or people who have created and trained the algorithms.


At UNITAC, the United Nations Innovations Technology Accelerator, for cities, as part of the people-centered flagship program from the UN, it is important that we develop AI technologies that are people-centered. This means that we try to ensure that tools and technologies are inclusive and focus on a broader public interest so that more people around the globe can positively benefit from their use. Our aim is to ensure that digital technologies based on AI are used in an inclusive way, so therefore, we create open, transparent, and, especially, participatory digital approaches to create a meaningful impact using AI.

Q: What is the most important question right now in AI ethics?

Livia Schaeffer Nonose: There are many important questions, one, in particular, is around inclusive governance of AI and how it impacts setting standards for assessing risks, civil society engagements, and gender equality, for example.

A lot of the processes that take place nowadays are driven by public or private sectors, and for other stakeholders like civil society, there are some barriers to meaningful participation. The process is complex, you provide input, or it requires some specific time commitment. There is also a lack of funds for organizations and experts to commit their time and resources. This last diverse governance approach in AI will increase the risks of unintended harms that can arise for society, so it is crucial for the governments who procure these technologies to build the capacity to establish the participation of different stakeholders and make use of the tools and mechanisms that support these needed cooperation in AI governance.

To answer this question of inclusive AI governance, governments can also look at different mechanisms. One, for example, is sandboxes to help understand how the regulations interact with new technologies and how administrative processes are affected, and then based on this feedback, we find such interactions, so it is really important that they bring together not only the private and public sector but really take this opportunity to include civil society and other actors to ensure this reflexive governance approach that is really inclusive in providing sites that can enlighten ethical and human rights-based considerations.



Q: How can or should people-centered AI provide support in tackling challenges in the urban setting?

Sophie Naue: In our daily work at UNITAC, we develop concrete tools and systems that use data and AI in innovative ways to support integrated planning and basic service delivery. We focus especially on the global south. Therefore, we use mapping, spatial analysis, and data visualizations to support planning and decision-making processes, and here, it is important for us to bridge the gap between data and action.

One concrete example is a pilot project we developed on behalf of UNITAC called the BEAM tool, the building and establishment automated mapper. This is a project we developed together with the human settlement department in eThekweni, South Africa, and it is a tool for city planners that use machine learning to accelerate the detection and spatial recognition of informal settlements based on aerial imagery. The objective here was to develop a scalable approach to assist the city in improving its data accessibility and automating its land mapping processes. Here, in this case, by better understanding the dynamics of informal settlements. Informal settlements are phenomena around the globe, and they grow organically and sometimes really fast, so for background information, mapping and monitoring the growth of informal settlements is a time-consuming process when done manually, but with the tool using AI to track this challenge of mapping the growths, we can accelerate this process.


For example, in the city of eThekweni, we can map the whole city in 72 hours, so here what AI does is trained to identify all pixels in aerial images that a model considers to be part of a building, then it detects shapes of buildings,

urban footprints and provides the city with up to date records with GIS layers where informal structures are marked.

So, for example, here, in this case of mapping informal settlements in order to be able to develop a pipeline of urban operating and basic service delivery, it's an urban challenge all around the globe, and AI mapping tools can help here and really have an important impact.

Q: Do we need to integrate digital human rights into current AI Ethics debates, and why?

Livia Schaeffer Nonose: Human rights in ethics should be the baseline for responsible and inclusive AI governance. Truly responsible AI systems require a foundation of values and principles, including human rights and ethical principles such as fairness, privacy, and accountability for example. So the value of integrating human rights also lies in the fact that they are accepted and recognized by member states and stakeholders and provide a framework for understanding the harms and impacts that AI systems could cause. Both human rights and ethics can be seen as complementary in AI governance in protecting individuals' well-being and interests. There are many debates about whether to consider ethics only or if human rights would be a better framework for due diligence. I think it is important to consider two things in these debates: one is that the ultimate goal is overall to mitigate risks that AI can pose for society, and for that, both concepts of ethics in human rights will add value to these in their own capacities.



The second overarching goal is to ensure that AI is developed responsibly. Following the technical design processes, but also that the use of AI is based on a need and public value, and for that, human rights and the targets associated with the sustainable development goals can provide the needed directionality for AI application to ensure that it is more inclusive and leaves no one behind.

Q: What is the role of academia when it comes to the role of trustworthy and responsible AI?

Sophie Naue: I think academia has, on one hand, the obligation but as well the privilege to critically reflect on AI, so we can reflect as researchers on the potentials and build, on the other hand, awareness about possible risks of AI. So academia has the responsibility to ask uncomfortable questions from a more theoretical and ethical perspective or background so we can question AI, point out its risks, and so on. But on the other hand, we also have the responsibility to set up pilot projects to develop and test concrete AI technologies and practices in order to be able to provide feedback, point out the weak points, and develop those technologies further. Always related to what is needed and what is needed from the people's perspective. What we do with UNITECH and the city science lab is applied research, bridging the gap between data and action so this is really important when it comes to responsible AI, and I think academia, as well, has a more neutral part, so it plays an important role in setting up governance structures. So structures for UNITECH should be people-centered, which means that to develop structures with a participatory approach, and therefore we should involve civil society so people and communities who are affected or benefit from AI technologies.

Q: We often say that AI is changing or transforming the world. To what extent is AI changing us as humans?

Livia Schaeffer Nonose: It changes humans in many different ways, it is an ongoing process, and we are always learning more about it. I hope that the public debate around AI and its impacts on humans can promote more and more understanding that AI technology is not neutral. As a person living in society, ethics and human rights are fundamental elements that define what it is to be a human being, and when AI and other technologies may affect these fundamental elements, we need to increase autonomy and knowledge to make better decisions. So I think, in one sense, one opportunity in this debate is to understand it better from an individual point of view as a human to make these better decisions. The understanding that technology is not neutral is important in people-centered smart cities, so we can move away from supply-driver implementation of AI just for the sake of having the technology to a more inclusive and responsible governance approach in these AI systems and life cycles. AI and other technologies can be really leveraged for sustainable urbanization and to improve the quality of life for people to make it more resilient and inclusive.

Meet the experts:

Livia Schaeffer Nonose has a background in International Relations and Globalization, Environment and Social Change. At the UN, her work includes people-centered smart cities, human rights and digital technologies, challenge-driven innovation and inclusive digital governance. Livia is currently based in Hamburg, at the United Nations Innovation Technology Accelerator for Cities – UNITAC.



Sophie Naue is an Innovation specialist at United Nations Innovation Technology Accelerator for Cities – UNITAC, Hamburg, since 2022 and is responsible for project management, coordination, and design of innovative urban data solutions, applied research and development of sustainable data strategies for piloting cities around the world. With a strong focus on the international innovation ecosystems, where innovative approaches and digital tools and strategies will be tested, implemented and scaled. Leading UNITAC's overall research activities and responsible for practical training, knowledge exchange and technical advice.

