

9TH ICMA EUROPE SUMMIT

AI and Technological Innovations in Local Government

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Transforming Governance:

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**The Role of AI in the
Communities of Tomorrow**

Governance & AI as imagined by AI



Reimagining local administration with AI



Governance & Artificial Intelligence: How?

Artificial Intelligence (AI):

- Knowledge Representation
- Formal Reasoning
- Behavioral analysis
- Natural language processing
- Sentiment analysis
- Computer vision
- Robotics
- Prediction
- Recommendation systems
- Simulations
- Expert Decision Systems
- Large Language Models / Generative AI

AI Applied in Governance:

- Data Analyzing
- Digital Twins
- Optimization of public infrastructure
- Document Management
- Citizen Involvement/Community wellbeing
- Resilience/Emergency Situations/Urban Planning
- Transportation/Health/Services
- Strategic Planning / Sustainability
- Personalized Public Services
- Urban Planning / Social Services/Communities
- Autonomous Support Systems / Smart Cities
- Virtual Assistants / Social Services / Communities

Into the Realm of AI:

AI Methodologies and Technologies that conturrate the cities of tomorrow :

- Generative AI
- Computer Vision
- Deep Learning
- Time Series Analysis
- Machine Learning
- Knowledge based Reasoning

Edge AI & IoT & Smart City Technologies

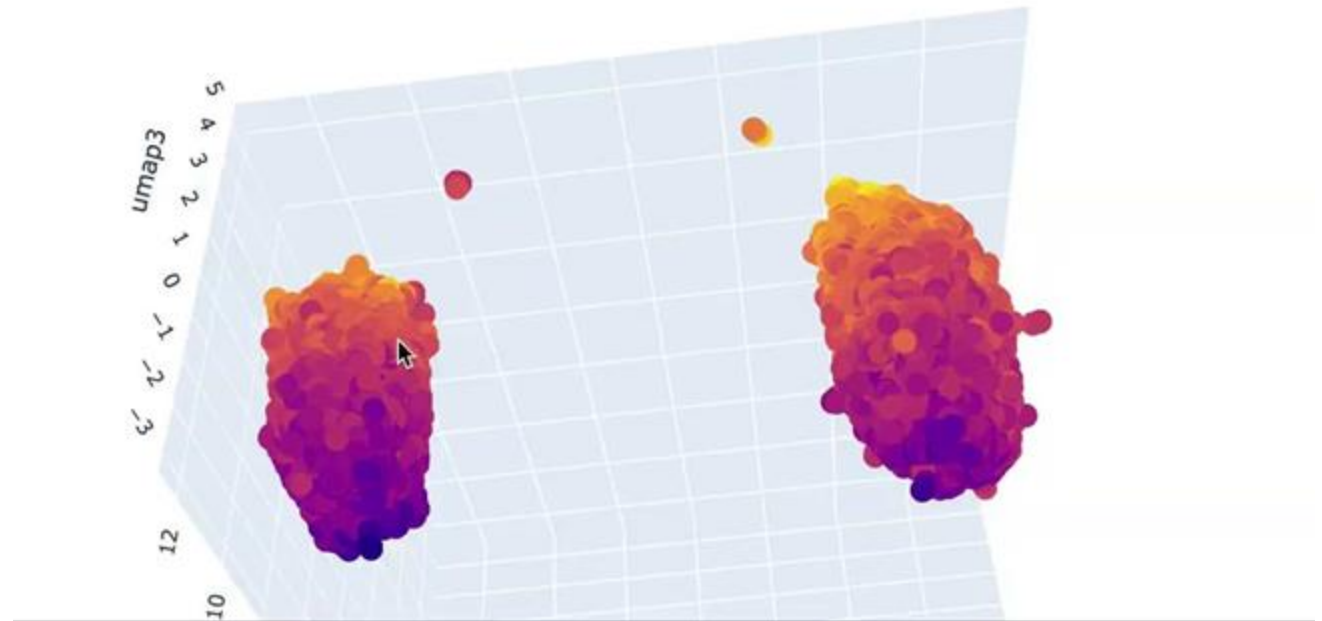


Data: the foundation for the cities of tomorrow

Use Case:

Analysis of Citizens Wellbeing using clustering:

- environment constraints
- living conditions
- access to health/social services
- education
- diet
- leisure time / vacation
- community involvement
- degree of happiness
- social interactions
- security & safety



Co-designing communities with AI

AI can assist with innovative ways to gather feedback from communities related to policies or practices.

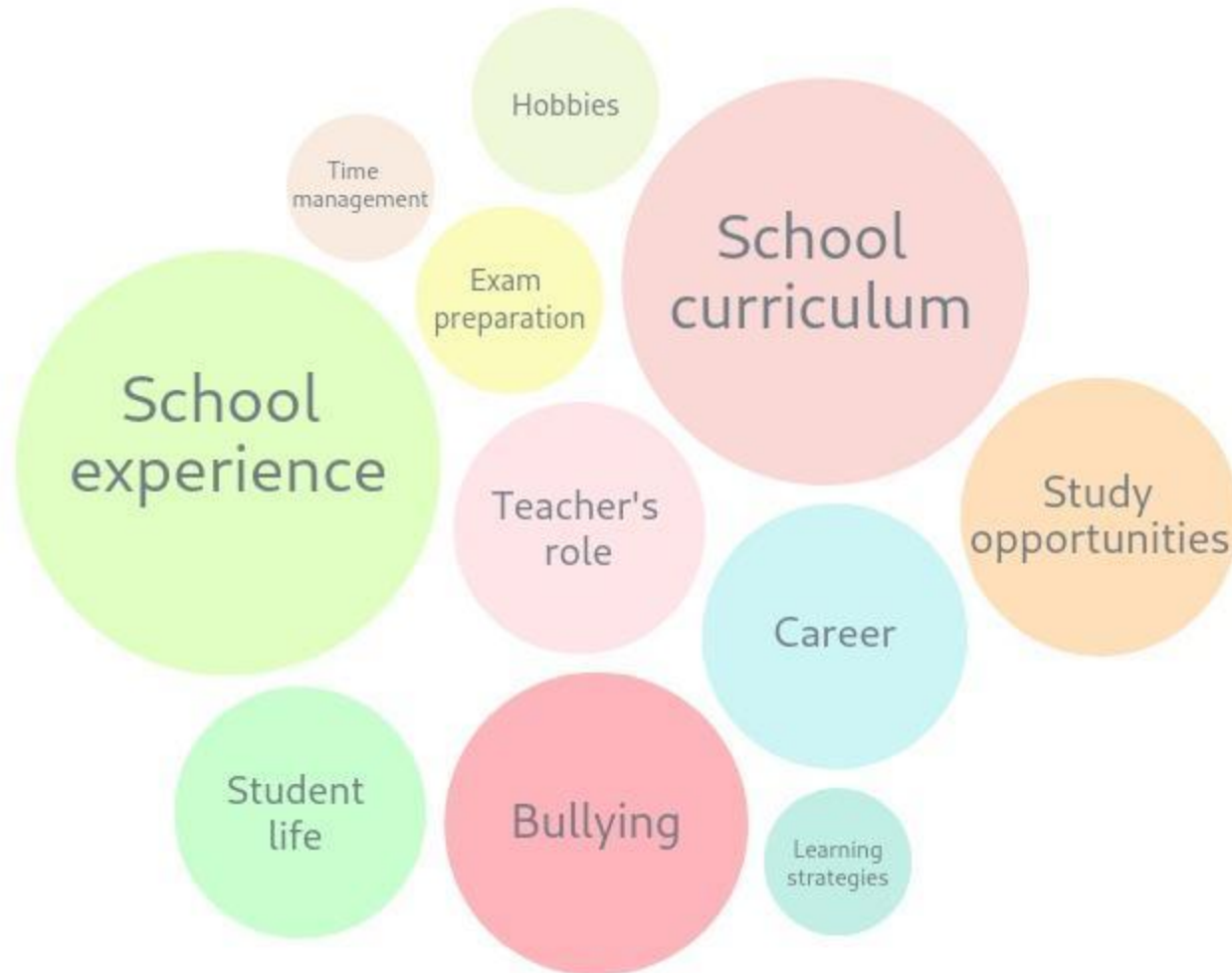
It translates data into meaningful insights.

AI can function as trust mediator:

- supports collaborative governance structures such as living laboratories and participatory planning processes
- facilitate participation in low trust environments, opening new ways of interactions and dialogue
- enables collaborative design, allowing to bring people into the problem framing, taking into consideration their goals, their views and aligning different values



AI to contribute to community wellbeing



School of Possibility social experiment:

- a case study of an engagement platform meant to transform the way schools solicit feedback from students. The platform was created by the Youth Data Collective (YDC), a group of Romanian high school students, and international scholars and designers, to center youth in the collection, analysis, and use of data. H
- School of Possibilities (SoP) is a system composed of 20 AI chatbots that invites students into a conversation with “school objects” such as a textbook, exam, cheat sheet, teacher, and others.
- Real time insights are created from chatbot conversations that are designed to be legible and actionable by institutional decision-makers.
- It highlights the potential of AI for reimagining engagement procedures that can cultivate sense of fairness and legitimacy of process.

AI Assistants interacting within a community

Example interface:



Bridging democracies with AI

Public participation in institutional decision-making:

- 1) for decision-makers to find out about public preferences;
- 2) to improve decisions based on public input;
- 3) to ensure fairness and justice;
- 4) to gain legitimacy for public decisions;
- 5) mandatory by law.

“Phygital” interfaces: enable social interfaces and not necessarily eliminate, but rather rethink the use of in-person or physical interactions, which are effective for extending trust to digital interactions.

=> Moving from human centered design (with input from users) to relational or collaborative design (all participants have an ownership stake in the outcomes).



Engaging Citizens with AI

Why?

One must consider the lived experience and the local knowledge of individuals from a community to challenge and inflect public decision making, strategies and implementation of processes.

How?

AI enabled agents interact and assist citizens in the co-design process, acting as facilitators between policy makers and community members that bring their own expertise to the process in a combination of digital and physical interaction.



Generative AI: 3.0

the interface

- enable a new way of verbal interactions, eliminating traditional software interfacing UI-less technology
- the basis for linguistics agnostic systems that facilitate access to a larger and diverse pool of users to services and data.



AI based Legal Consultant for Public Administrations

=> Virtual public servants enabled by AI that can understand law principles, regulations and offer guidance.

=> The first public law AI assistant in Romania, capable of interpreting the application of various law constructs in different local contexts and offering recommendations for public administration representatives and citizens.

The screenshot shows a web interface for a legal AI assistant. At the top, there is a user profile 'admin' and a date '01.11.2023'. The main section is titled 'GESTIONARE PRIMĂRII' and contains a chat window with the following content:

Bună ziua! Sunt asistentul de legislație. Vă rog să-mi scrieți cum vă pot ajuta.

Capabilități ☆	Personalizat ☺	Limitări ☹
Obținerea de informații utile ce ajută în desfășurarea activității în cadrul primăriei.	Drag and Drop: încarcă fișierele tale fără efort.	Nu pot înțelege întrebări și acronime care nu sunt specificate clar în documentele de legislație.
Primiți informații referitoare la noile reglementări adoptate de primărie.	Îmbunătățirea experienței utilizatorului în timp ce respectăm confidențialitatea datelor.	Nu pot oferi sfaturi juridice personalizate. Te rog consultă un avocat calificat pentru orice întrebări legale sau probleme juridice.
Asistență în interpretarea și aplicarea corectă a legilor și regulamentelor municipale pentru evitarea neconformităților și sancțiunilor.	Poți personaliza interfața mea pentru a se potrivi stilului și personalității tale.	Răspunsurile mele sunt limitate la informațiile și capacitățile programate în mine.

Below the table is a button 'INTREABA-MĂ ORICE!' and a text input field with the placeholder 'Scrieți un mesaj sau încărcați un fișier folosind drag and drop.' A 'Screenshot' button is located at the bottom right of the chat area.

AI assisting communities:

=> AI agents enhanced with a visual appearance (avatars), that can interact in a more human-like manner, by mimicking expressions and being able to understand emotions.

=> DEA (Drug Enforcement Assistant): the first AI enabled advisor for teenagers against the consumption of drugs and illegal substances. The AI avatar engage in meaningful conversations with students and will be able to adapt to their emotions and moods, understanding their needs and expressing information in an easy to comprehend way.



AI Tax Advisor for the Elderly:

=> An AI enabled avatar can be used in social assistance, helping the elderly with different tasks or simply keeping them company, while looking after their wellbeing;

=> AI avatars that can entertain little ones stuck in hospitals, ensuring compassion, empathy and support at any moment of time;



Other examples of AIs engaging with communities

=> An AI moderator that delivered the welcoming speech at a renowned conference.

=> The avatar is endowed not only with the functionality of delivering audio messages, but also with the capability of understanding the debated topics, summarizing panel discussions, creating short bios and speaker descriptions and the possibility to engage in meaningful conversations surrounding the area of data science.

=> can be extended to be used in public debates, town hall meetings and community events.



A virtual public administrator

Artificial intelligence enabled City Manager / Mayor Assistant:

=> committed to the administration strategic plans, values and goals, addressing the needs of community members.

=> supports innovative and creative approaches to challenges

-> contributes to positive change and an effective application of reforms.



What about AI
City Managers?
AI Mayors?

Should we be scared by AI?

- The excitement over the benefits of AI to our society must be taken with precaution and responsibility in its application, particularly in public services
- A delicate balance between innovation and ethical considerations must be maintained
- Privacy concerns, algorithmic bias, and digital divide issues must be carefully addressed to ensure that AI technologies are deployed in a fair, transparent, and equitable manner.
- Fostering trust and building rapport between residents and AI-driven systems is paramount to the success of any public initiatives.



Ethical AI

Ethical implications:

Accountability

AI audits

Explainable AI (XAI)

Transparency

Fairness

Privacy

“There is no such thing as a model without bias. Biases are actually in the eyes of the beholder.”

(Adobe Fly Program Coordinator)



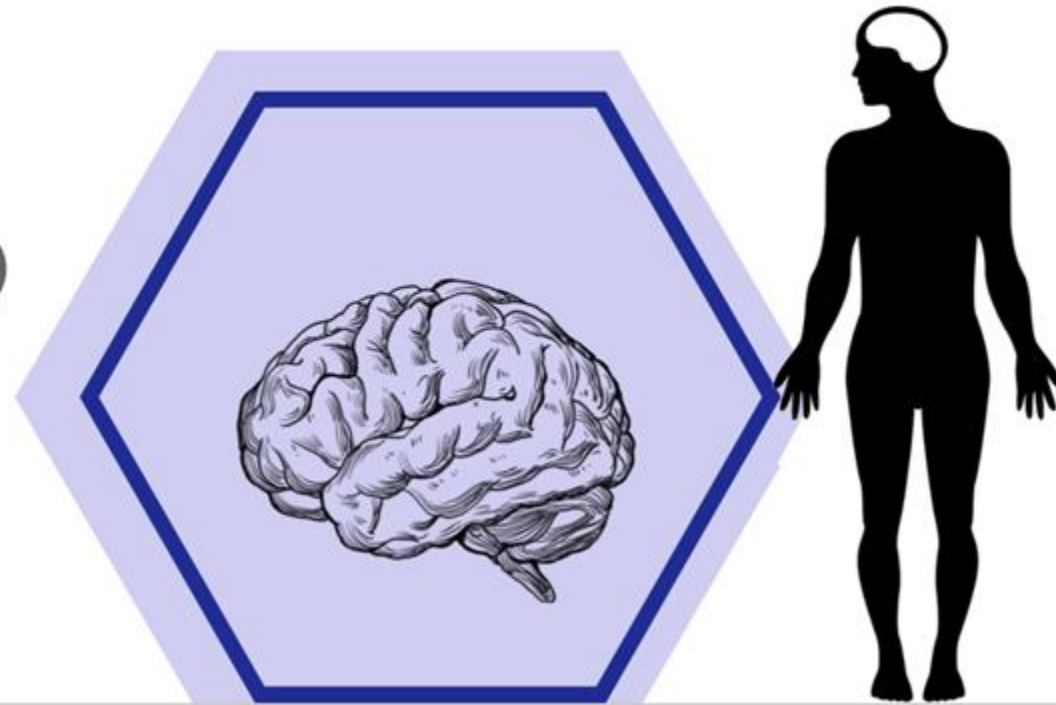
Responsible for
Ethical AI
Projects
Implementation

What awaits us?

=> Evolution of human capabilities endowed with AI

VISION:

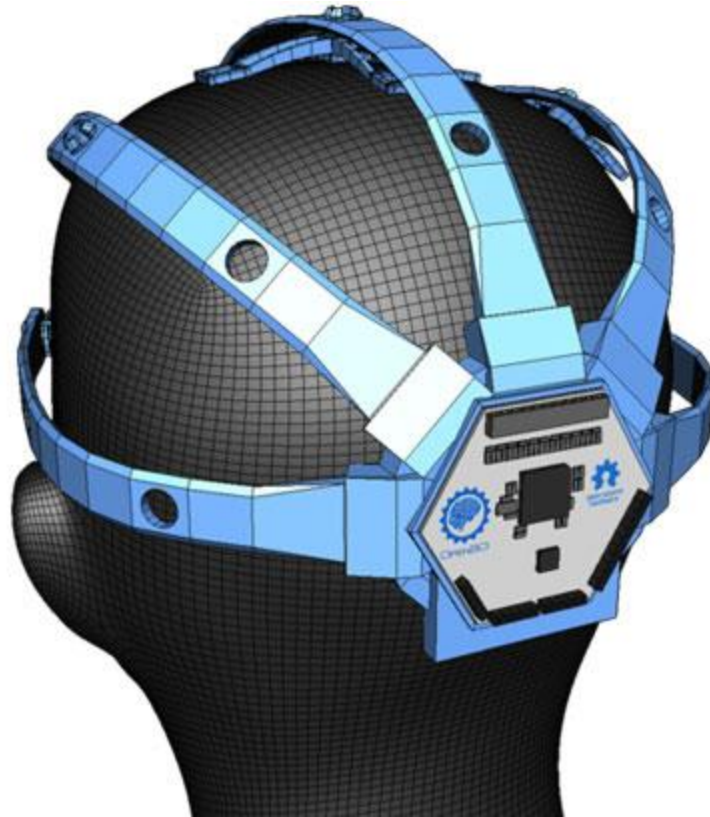
**THE
AUGMENTED
HUMAN**



The next big thing: BCI

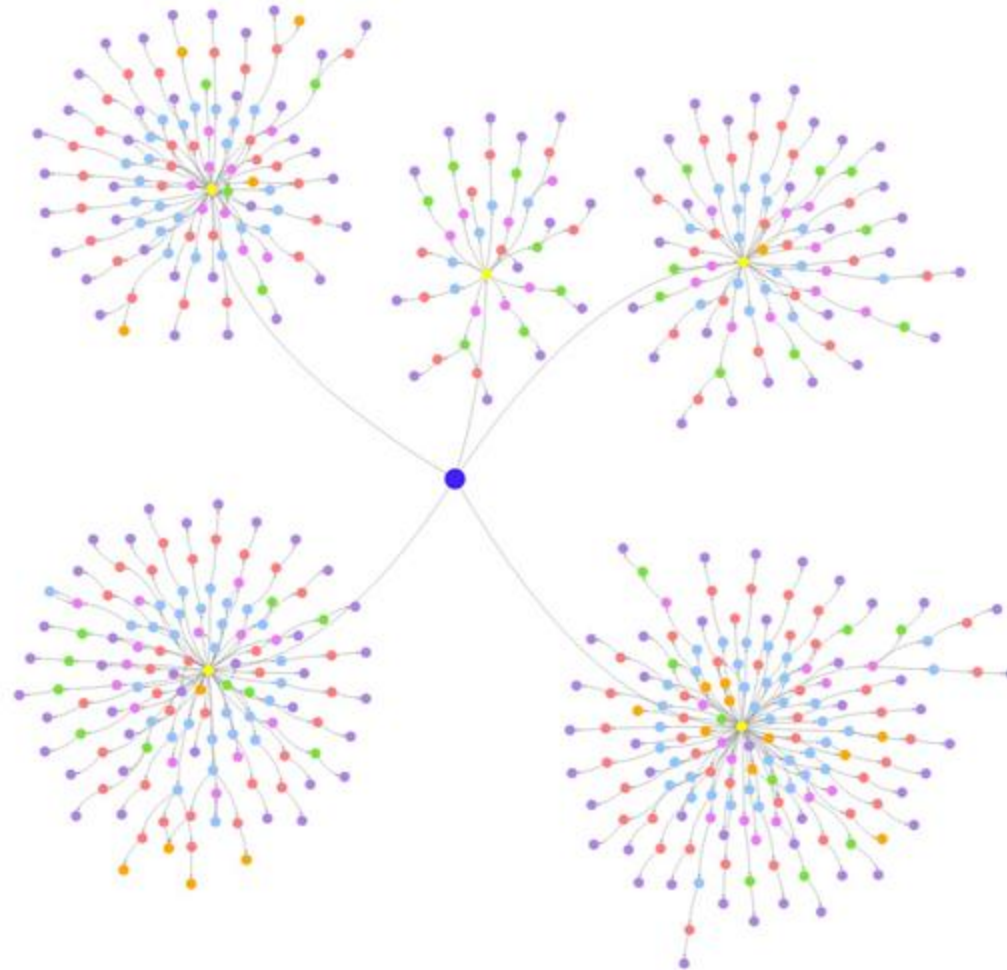
Brain Computer Interface:

- redefining human machines interactions
- interpret neural signals and transmit commands through thoughts
- understand human psyche, needs, what makes us humans



Conceptualizing everything with AI

Memory of a person



Communities of Tomorrow: where humans and AI cohabitate peacefully

It isn't just about embracing innovation, it is about building stronger, more resilient, inclusive and responsible communities for tomorrow.

=> We need to befriend technology tools, robots to succeed

=> Near future: an AGI Constitution which defines principles of co-existence with AI, such as happiness for all, maximize well being from all as we are departing from an authoritarian approach towards a more cooperative, relaxed, socially accepted one, all of them being embedded in the AIs.



Questions?

Thank you!

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