



AI and the Personal State

Dr. Keegan McBride
Oxford Internet Institute

About me



- Lecturer in AI, Government, and Policy and course director of Social Science of the Internet MSc at the Oxford Internet Institute
- Adjunct Senior Fellow in National Security and Technology at Centre for a New American Security
- Large amounts of experience related to digital transformation and innovation, geopolitics, public administration, and public policy



Goals for today

- A bit of history
- How does digital government work?
- AI and the Personal State
- Emerging themes and final thoughts



Timeline

IT in Government, information management, knowledge

Computers
(1950s and 1960s)

Decision
Control
Rule
AI (



Early
Networking
(1970s)

EESTI INFORMAATIKANÕUKOGU

EESTI INFORMAATIKA ARENDUSKAVA
AASTANI 2000

«EESTI TEE INFOÜHISKONDA»

Version 1.0

Heaks kiidetud Informaaticanõukogu istungil 27.09.1994

*Ma olen veendunud, et infosüsteemide
ja riigi üheaegne ülesehitamine
võimaldab mõlema kiiremat arengut.*

Ülo Nugis

EA-53739
Tallinna Tehnikakõrgkooli
RAAMATUKOGU

tal
ern
it

Post-digital
Governmen
t?

2020s)





E-Government, Early Stages

- Internet boom of the 1990s led to a rapid reconfiguration of society, businesses, and the public sector
- 1992, Bill Clinton launches new technology policy for America with an emphasis on building a strong digital infrastructure for the public sector
- 1997 report "Access America: Reengineering Through Information Technology" released by Vice President Al Gore

ACCESS AMERICA
Reengineering Through
Information Technology

Report of the National
Performance Review
and the Government
Information Technology
Services Board

VICE PRESIDENT
AL GORE





The idea of reengineering through technology is critical. We didn't want to automate the old, worn processes of government. Information technology (IT) was and is the great enabler for reinvention. It allows us to rethink, in fundamental ways, how people work and how we serve customers

- Vice President Al Gore

Electronic v. Digital

- Though the predominantly used terms for more than 20 years, more recently, affinity to the term “e-Governance” and “e-Government” has begun to fade.
- Transitioning from “e” to “digital” leads to a more encompassing definition, allowing for the rapid technologically-driven transformations of society and the public sector to be better categorized.



Digital government is about....

DIGITAL USABILITY

DIGITAL DIVIDE

DIGITAL STANDARDS

SMART CITIES

PUBLIC INFORMATION

DATA-BASED DECISION MAKING

TRANSPARENCY

DIGITAL GOVERNANCE

PROCUREMENT

OPENNESS

BIG DATA

INTERNET VOTING

DATA MANAGEMENT

ALGORITHMIC DECISION MAKING

DIGITAL ETHICS

DIGITAL PUBLIC SERVANTS

ARTIFICIAL INTELLIGENCE

GOVERNMENT DIGITALIZATION

CHAT BOTS

DIGITAL SIGNATURES

DIGITAL IDENTITY

CO-CREATION

DIGITAL BUREAUCRACIES

OPEN GOVERNMENT DATA

DIGITAL SERVICE DEVELOPMENT

"ONE STOP SHOP" PORTALS

RULES AS CODE

ELECTRONIC DOCUMENT MANAGEMENT

DISRUPTIVE TECHNOLOGIES

E-PARTICIPATION

DIGITAL INNOVATION

DIGITAL READY CODE

DIGITAL SERVICES

CYBERSECURITY

SURVEILLANCE CITIZEN EMPOWERMENT

DIGITAL CAPACITIES

PROACTIVE SERVICES

STATE

BUREAUCRACY

E-Government

- Waterfall design
- Government-centric
- Limited use of data
- Managing legacy contracts
- Proprietary solutions
- Siloed
- Risk-averse

Digital Government

- Agile, iterative design
- User-Centric
- Data-driven decision making
- Innovative procurement
- Open source and collaboration
- Horizontal
- Delivery-first approach

Drivers of public sector digitalization

- Decreasing interest in public sector as an employer, increasingly low budgets
- Desire to improve efficiency and effectiveness of public sector
- Increased user demand for digital delivery of public services
- Widespread diffusion of digital technologies
- Large international pressure to digitalize
- COVID-19 pandemic demonstrated the importance of digitalization
- EU has recently allocated €160b to innovation and digital initiatives



Importance of policy, legislation, and regulation

- Digitalization initiatives must be accompanied by appropriate legislation and regulation. For example:
 - Digital signatures
 - Transparency
 - Consent management
 - Cyber security
 - Once-only principle

Technological Requirements

- A successful digital government requires:
 - Data
 - Interoperability
 - Digital Identity
 - Digital Services



Data

- Data is core to everything that a government does
- In today's digital world, the volume of data being generated is growing rapidly
- Governments are uniquely positioned to define the rules, standards, and best practices for data collection and data usage
- Emerging themes:
 - Data sovereignty
 - Consent and user ownership
 - Cross border exchange of data

Interoperability

- Ensures that two organizations are able to exchange data, that it is understandable, and that it can be used
- Requires the creation of a holistic ecosystem, covering legal, organizational, semantic, and technical interoperability
- Movement towards decentralized interoperability ecosystems
- Emerging themes:
 - Dataspace
 - Private – Public data exchange
 - Emerging technologies

X-ROAD ARCHITECTURE

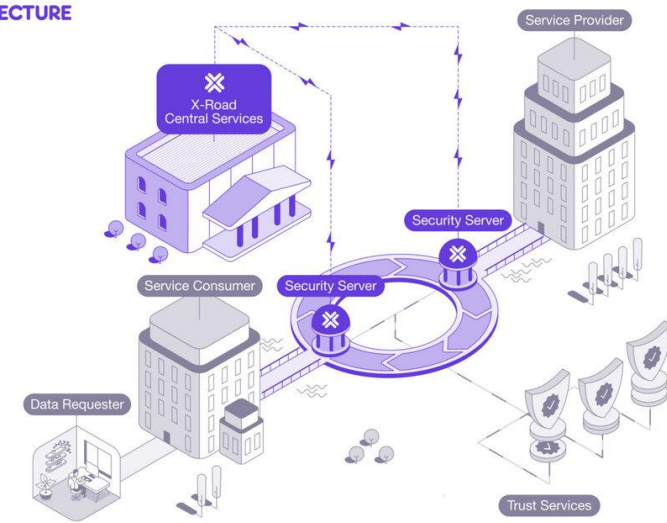


Figure 5 EIF conceptual model relations

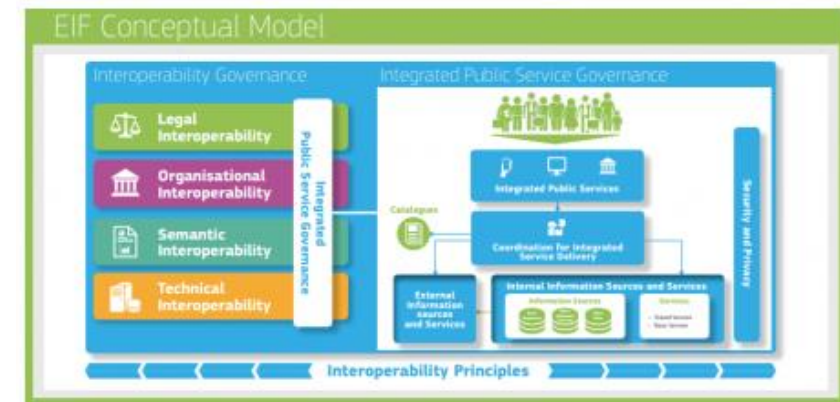
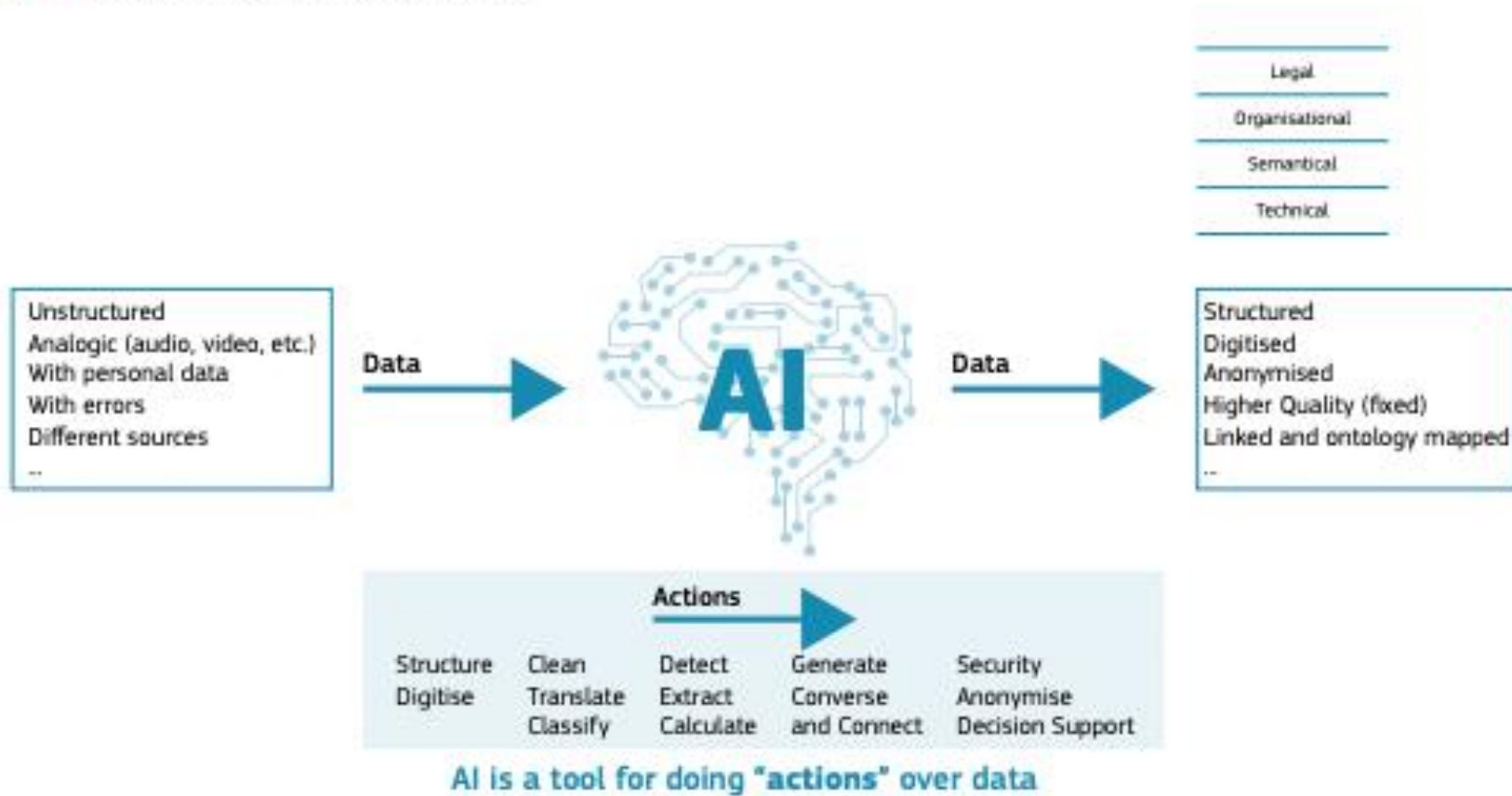


Figure 2. How AI supports interoperability



Source: JRC's own elaboration



ARTIFICIAL INTELLIGENCE

How “personhood credentials” could help prove you’re a human online

A system proposed by researchers from MIT, OpenAI, Microsoft, and others could curb the use of deceptive AI by exploiting the technology’s weaknesses.

By Rhianon Williams

September 9, 2024



OII > NEWS & EVENTS > NEWS >

Faces of the Future: How Generative AI is Redefining Likeness and Identity in the Age of Artificial Intelligence



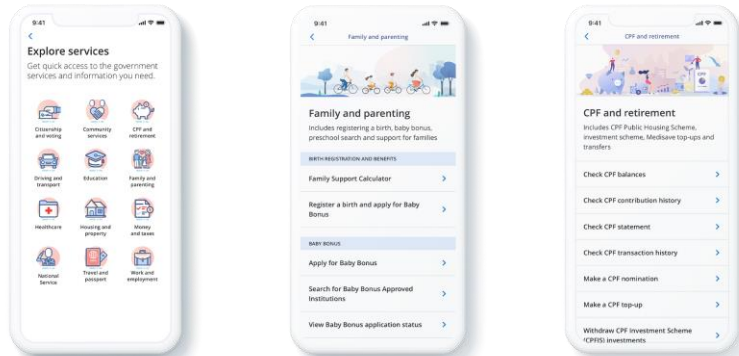
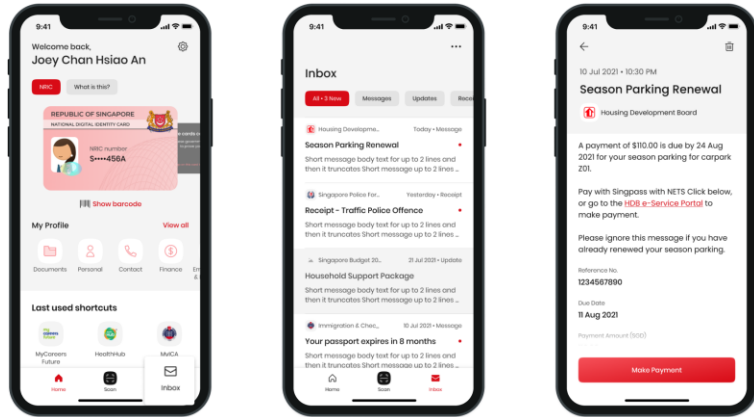
Published on
6 Feb 2024



Written by
Ben Bariach, Bernie Hogan and Keegan McBride

With a proliferation of AI-generated images sweeping across the internet, OII experts explore the benefits and risks of AI technologies to society.

Digital Services



Key Figures for the EU27+ Countries



Figure 1: Overview of key figures (EU27+ biennial average)

Welcome to GOV.UK

The best place to find government services and information
Simpler, clearer, faster

Popular on GOV.UK

- [Check benefits and financial support you can get](#)
- [Find out about help you can get with your energy bills](#)
- [Find a job](#)
- [Coronavirus \(COVID-19\)](#)
- [Universal Credit account: sign in](#)

Search



AI and the Personal State



The Personal State

- Human-centric
- Trust and transparency
- Accessible
- Automatic and proactive
- Focus on wellbeing and happiness

Chapter 6

The Information Society and the Future of Digital Well-being

Thematic group: Digital Well-being

Stefano Quintarelli

Computer Security Professor and former chairman of the Advisory Group on Advanced Technologies at UN-CEFACT and former chairman of the Italian Digital Agency

Gianluca Misuraca

Founder and Vicepresident on Technology Diplomacy, Inspiring Futures

Luca De Biase

Knowledge Management Professor, University of Pisa

Keegan McBride

Postdoctoral Researcher,
Hertie School Centre for Digital Governance, Berlin

Call for Papers: Digitalization that matters.

[Home](#) > [News](#) > [call papers digitalization matters](#)



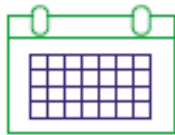
How does public sector digitalization impact happiness and subjective wellbeing?

Proactive Public Services



1 | ARE PROACTIVE, RATHER THAN REACTIVE

The main characteristic of these services is that they are provided proactively by the public administration, based on an assessment of potential users' eligibility for specific government services or benefits, rather than initiated by the user.



2 | TRIGGERED BY EVENTS

PPS must be based on a trigger that initiates the service. Often, these are life events that the state is involved in, such as a birth or marriage.



3 | RANGE FROM PROACTIVE INFORMATION TO PROACTIVE TRANSACTIONS

As described in more detail below, PPS can take different forms, ranging from proactively providing information to entirely proactive transactions without user interaction.

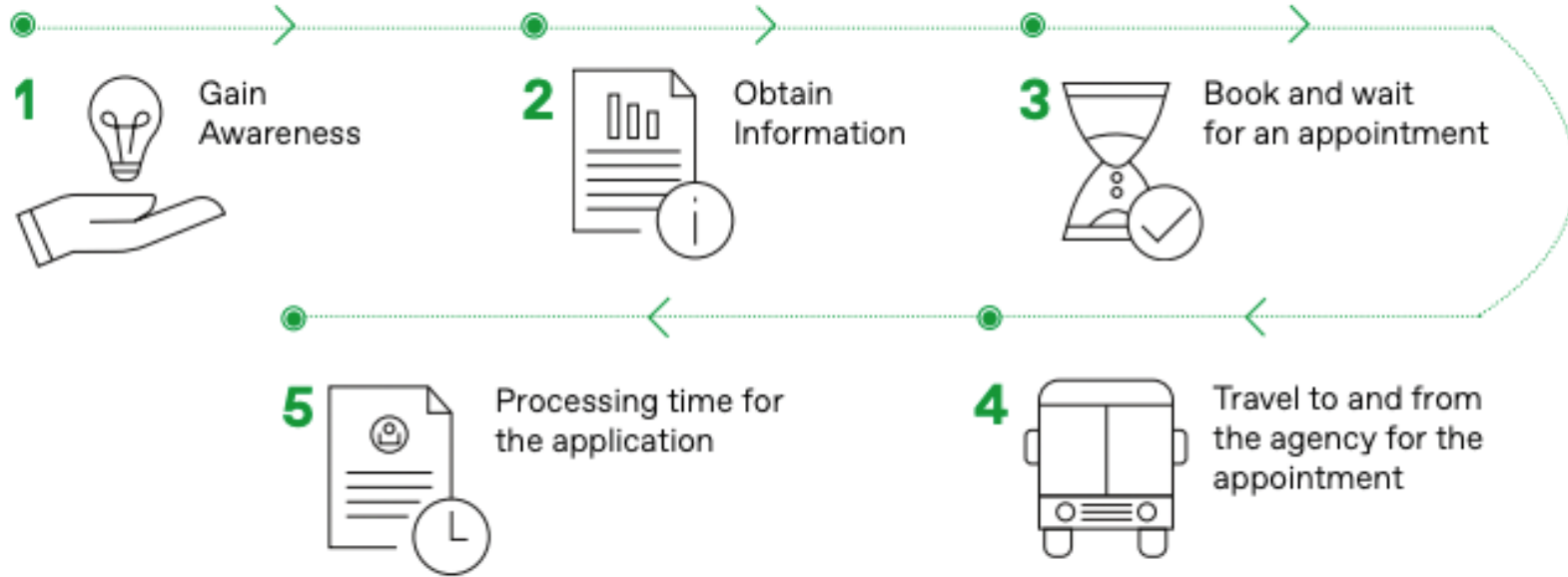
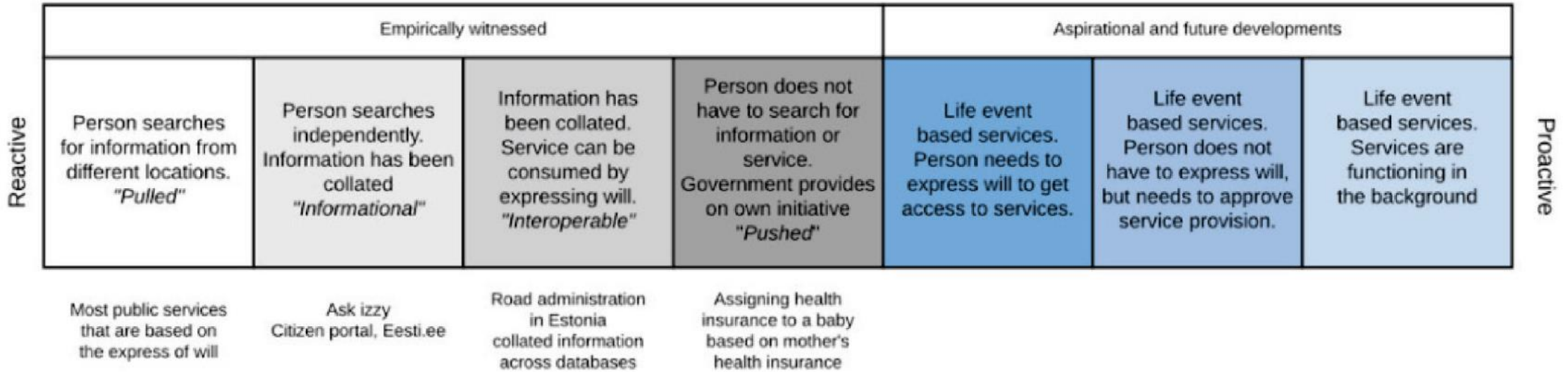


Figure 3: Typical user journey to obtain a government service.



Reactivity-Proactivity Spectrum



From: Erlenheim, R. (2019). Designing proactive public services. *Tallinn: TalTech Press Publishing.*



If governments invest in the foundations and begin to implement AI across the public sector, numerous opportunities emerge. AI can be used to automate processes, augment decision-making processes, improve public safety, transform public policymaking and deliberation, enable higher levels of accessibility and reimagine digital public services.

AI in Government

- AI is going to be increasingly encountered in every day life
- Governments will compete to maintain a competitive edge in this field
- New regulations, legislation, and debates already emerging

Rishi Sunak wants to lead the world on AI. The world ain't listening

The British prime minister wants to make AI governance a key focus of his meeting with US President Joe Biden this week.

ChatGPT's Riskiness Splits Biden Administration on EU's AI Rules

- Some officials fear tough regulation will give China an edge
- US and EU are discussing AI regulation this week in Sweden

Opportunities for AI in Government

- AI is being used both internally and externally to modernize the public sector
- Many of these AI systems are being procured, rather than built in house
- Internally, AI can be used to automate tasks, reduce workload, and cut costs:
 - Document management
 - Fraud detection
 - Workload automation
- Externally, AI can be used to modernize service delivery, improve outcomes, and improve overall service user experience
 - Drive increasing levels of accessibility
 - Improve availability of services and support
 - Innovative service designs and implementations

 **GOV.UK Chat (experimental)**

Hello 🙌 I'm GOV.UK Chat. I use the guidance on GOV.UK to answer questions.

You can ask me anything about business or trade - just don't include personal or sensitive data and please limit your question to 300 characters or less.

 **You**

As a small business, do I need to charge VAT to people in Italy when I sell a service online?

 **GOV.UK Chat (experimental) is generating an answer****Send**

➔ [Fill in this survey after you've finished chatting \(opens in a new tab\)](#)

SATIKAS - Detecting the agricultural grasslands changes



Albania to speed up EU accession using ChatGP

By Alice Taylor | Euractiv.com ⌚ Est. 5min

📅 13 Dec 2023

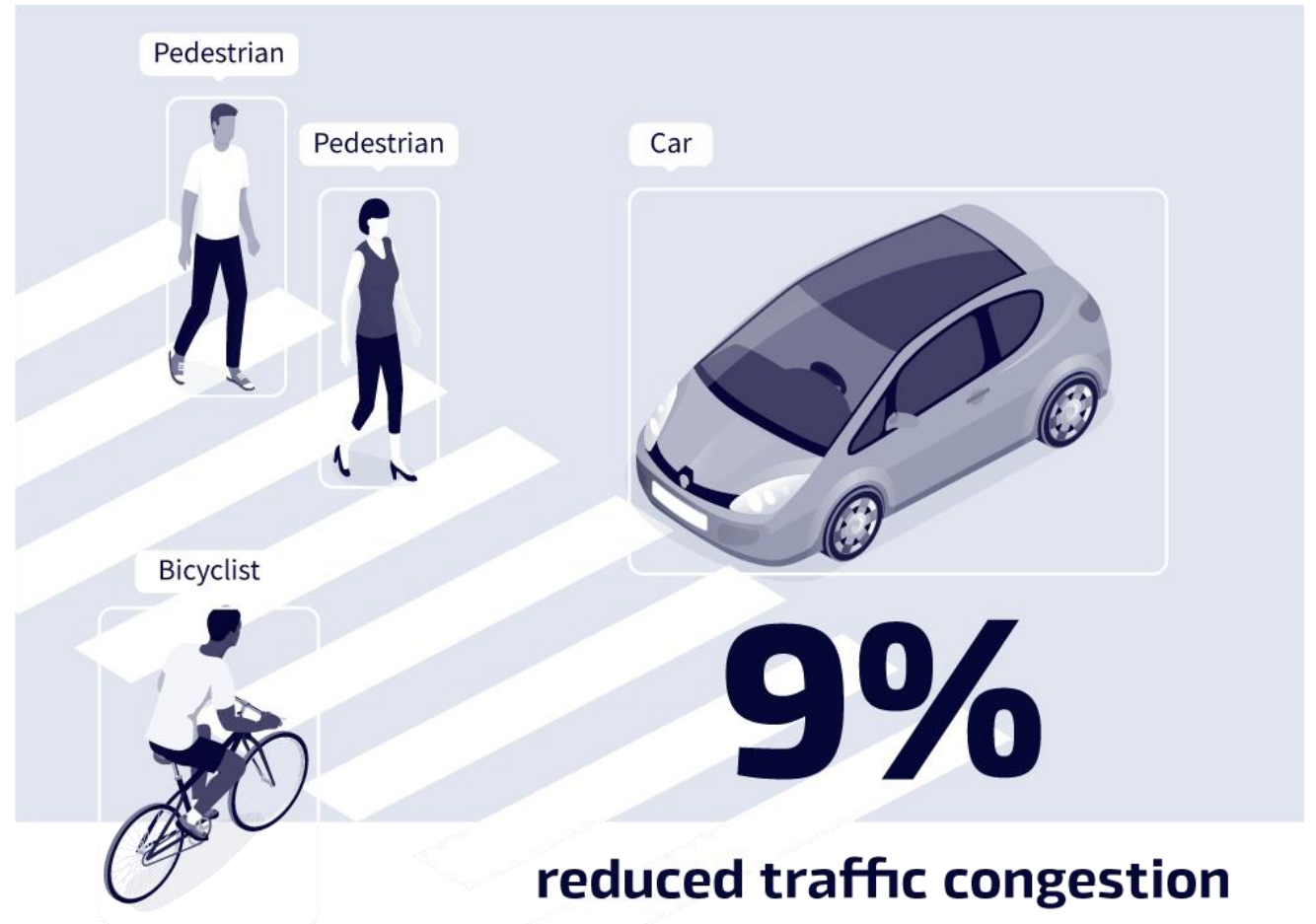
Content-Type: News



The model to be used by the Albanian government will translate into Albanian and provide a detailed overview of what and where changes need to be made to local legislation to align with EU rules. [Shutterstock/Alexandros Michailidis]

Using existing CCTV networks, FYMA uses machine learning and image recognition to improve road networks, infrastructure, and mobility

<https://www.fyama.ai/solutions/mobility-data>





Google supports University of Surrey in boosting internet accessibility for deaf people

The University of Surrey is receiving US\$1.5 million in grant funding and additional support from Google's philanthropic arm, Google.org, in order to develop artificial intelligence (AI) research to pave the way for instant Sign Language translation. The project will translate key websites into Sign Language, boosting digital inclusion for the 600,000 deaf people in the US and UK for whom Sign Language is their first language.

AI gives a lawmaker her voice back

By CARMEN PAUN, DANIEL PAYNE, RUTH READER, ERIN SCHUMAKER and TONI ODEJIMI |
07/18/2024 02:00 PM EDT

WASHINGTON WATCH



Wexton is speaking again, thanks to AI. | AP

Artificial intelligence is giving a member of Congress her voice back.



Transforming medicine through AI-enabled healthcare

World-leading expertise in healthcare-focused machine learning combined with the world's largest, high-quality cancer data collection service could lead to a quantum leap in personalised medicine

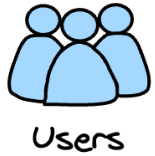


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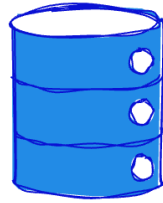
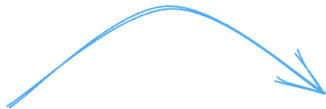
Feature Store

user profile as movie category preference

userID	Action	Sci-Fi	Thriller	Western
1	4.8	2.1	0.3	4.2
2	1.5	4.1	4.7	2.4
3	3.2	2.5	3	3.2



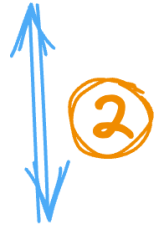
Users



User



1



2



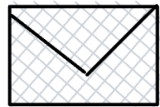
3



metadata store

1, "The Shawshank Redemption",
"The film narrates his journey of resilience, hope, and quest for freedom.", "Drama/Crime", 1994

2, "The Godfather",
"The film depicts the transformation of Michael Corleone"



Email



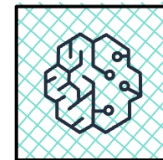
5



Agent



4



Language Model

Prompt engineering
{Movie list and description}
{user profile}
Please write an email campaign ...

Subject: 🧯 Immerse Yourself in the Thrill of Sci-Fi and Action!

Buckle up for a ride through time, space, and alternate realities with our top sci-fi action recommendations just for you:

What the future might look like?

- Citizens can choose to interact with the public sector as much or as little as they want, in which ever medium and language they prefer.
 - Example: A citizen's AI agent can provide updated data to the public sectors AI agent after consent is given, requiring no further interaction. Alternatively, a citizen could choose to provide information by speaking to an AI-based system instead of typing. This can happen in any language.
- Citizens will be able to combine their personal data from both private and government sources to enhance personalization.
 - Example: The government is able to work with a citizen's fitbit data and integrate it with the health information system to provide more accurate healthcare recommendations.
- The government continuously learns about their citizens, habits, and communication styles.
 - Example: As citizens interact with government chatbots or AI agents, it is possible to learn more about them. This represents data that can be used to make decisions, or provide more personalized services.
- All of these will require important ethical and regulatory consideration.

Things to think about

- Everything comes back to trust
- This will require a legal framework that helps citizens understand how their data is being used, what data is collected, and how decisions are being made about them
- In the context of AI, there will be a growing integration between the private and public sector, There is a need to avoid building up single points of failure.
- The public sector, while becoming more efficient and effective, might also become less human and more distant. The implications of this require careful thought and discussion.
- This is not only a technological problem, but an organizational one as well. Governments must think through their organizational designs and business processes to be more proactive and AI-ready.

Closing Thoughts

- Governments are collecting large amounts of digital information on their citizens.
- These data are used to help run the state more effectively and efficiently.
- This has created a clear movement towards the development of a state that is increasingly statistical or data-based.
- As the state becomes increasingly technical, digitalized, and statistical in nature the application of AI is inevitable.
- An AI-driven public sector will bring it closer to citizens than ever before, with services being delivered digitally and proactively.
- At the same time, decreased in-person contact with the public sector, separating further as digitalization becomes increasingly pervasive, will lead to a system that is increasingly distant.
- Importantly, many of these AI-based systems will be built by the private sector, representing increasing integration between industry and government.
- Taken together, there are serious implications for how we understand the state, government, and society.



Thank you!

