

**TAL
TECH**

SETTING THE SCENE AI IN GOVERNMENT

EUROGEOGRAPHICS - ARTIFICIAL INTELLIGENCE FOR NMCAS

Colin van Noordt
TalTech

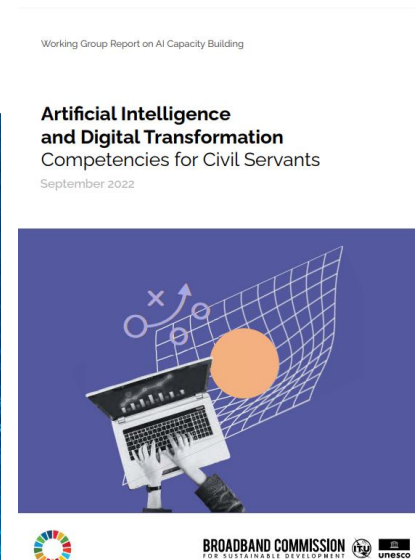
26.09.2023

WHO AM I?

- PhD Researcher, TalTech
- Former External Expert to the European Commission's AI Watch research team on AI in the public sector
- Co-Editor of the Research Handbook on Artificial Intelligence for Public Management published by Edward Elgar Publishing
- Research activities:
 - Understanding the concept of AI in government and refining the concept based on empirical use cases
 - Requirements needed for using AI technologies in government organizations
 - Policy initiatives and strategies for facilitating AI in government
 - Impact and consequences of AI deployed in public services
 - Governance of AI technologies and ensuring responsible use
- **Disclaimer:**
 - This presentation consists of my **own views**



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SETTING THE SCENE

ERIC MILLER BUSINESS 03.25.2019 07:00 AM

Can AI Be a Fair Judge in Court? Estonia Thinks So

Estonia plans to use an artificial intelligence program to decide some small-claims cases, part of a push to make government services smarter.



Gartner's Top 10 Strategic Predictions for 2017 and Beyond:
Surviving the Storm Winds of Digital Disruption

By 2020, the average person will have more conversations with bots than with their spouse. With the rise of Artificial Intelligence (AI) and conversational user interfaces, we are increasingly likely to interact with a bot (and not know it) than ever before. The digital experience has become addictive by entering our lives through smartphones, tablets, virtual personal assistants (VPAs) or the entertainment systems in our homes and cars.

Jan 4, 2019, 03:23pm EST | 22,886 views

Artificial Intelligence And The End Of Government



Daniel Araya
Contributor

AI
Advisor and Policy
Analyst

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NEWS | TECHNOLOGY

AI learns the art of Diplomacy

Meta's algorithm tackles both language and strategy in a classic board game that involves negotiation

22 NOV 2022 · 10:00 AM · BY MATTHEW HUTSON

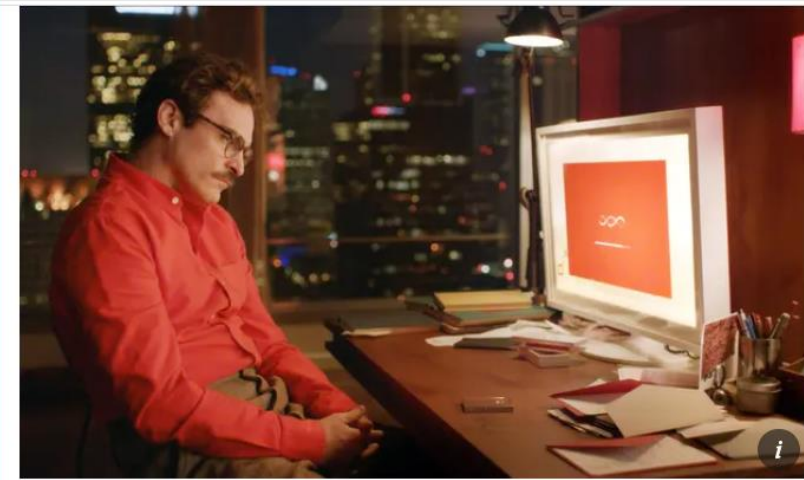
TECHNOLOGY

Tesla floats fully self-driving cars as soon as this year. Many are worried about what that will unleash.



By [Faiz Siddiqui](#)

July 17, 2019 at 10:16 p.m. EDT



Science

This article is more than 8 years old

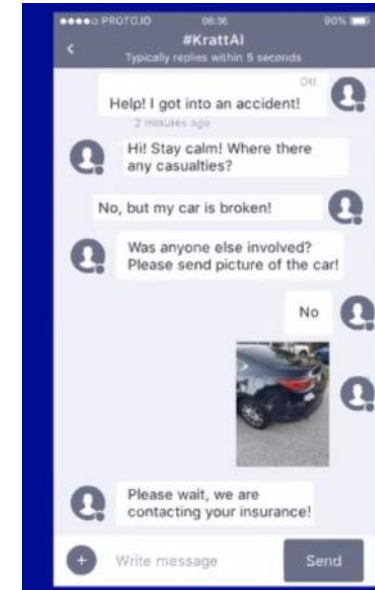
Google a step closer to developing machines with human-like intelligence

Algorithms developed by Google designed to encode thoughts, could lead to computers with 'common sense' within a decade, says leading AI scientist

More than half of Europeans want to replace lawmakers with AI, study says

PUBLISHED THU, MAY 27 2021 3:17 AM EDT

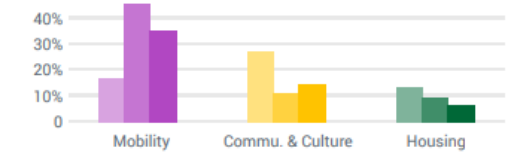
EXPECTED BENEFITS OF AI FOR PUBLIC SECTOR



BüroKratt AI, Estonian Government

Most discussed topics

Dublin City



Mobility dominated the civic conversation due to #VeloCity2019 and very proactive cyclists. The council's affordable **Housing** scheme stood out for Dubliners, as well as **Community**, which was higher in May due to the European elections.

The Dublin Beat analyses citizen tweets

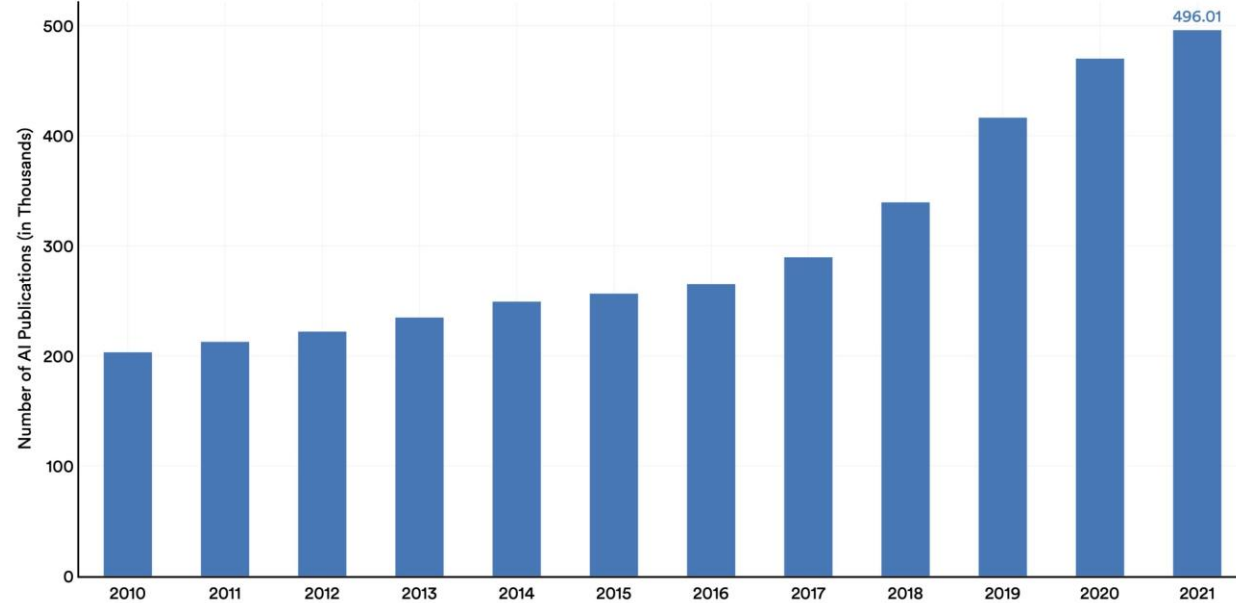


Tengai interviewing job applicants, Sweden

WE STILL KNOW VERY LITTLE ON AI IN GOVERNMENT

Number of AI Publications in the World, 2010–21

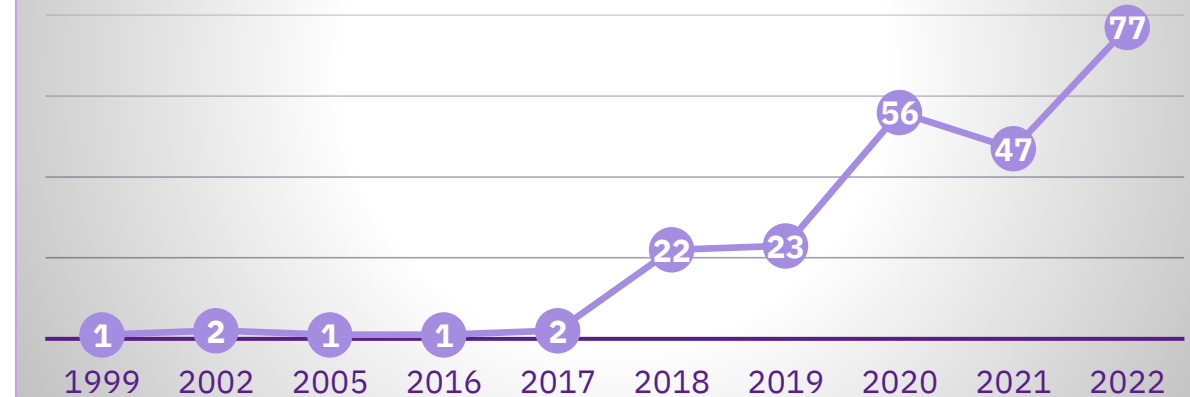
Source: Center for Security and Emerging Technology, 2022 | Chart: 2023 AI Index Report



5 million AI publications in 2021



Research on Artificial Intelligence in Digital Government Research



Almost none in digital government (0.00464%)

THE GAP BETWEEN TECHNOLOGICAL PROGRESS AND PRACTICE



POLITICOPRO



Article

Five challenges for government adoption of AI

Why has widespread adoption of AI been slower in government than in the private sector?



GOVTECH BIZ

What Will It Take for Government AI to Really Take Off?

Artificial intelligence made few gains during the pandemic, Gartner finds, even as more agencies turn to chatbots. Confusion about the technology and anxiety among government workers are among the main hurdles.

October 06, 2021 • Thad Rueter



Shutterstock

PROMOTING GOVERNMENT ADOPTION OF AI

Overall grade: Approaching expectations



Reason: Policy actions are not sufficiently focused on addressing structural issues that are stalling government adoption of AI including approach and culture; financing; metrics and incentives; procurement; and oversight and review.

SyRI legislation in breach of European Convention on Human Rights

Den Haag, 13 februari 2020

The Hague District Court has delivered a judgment today in a case about the System Risico Indicatie, or SyRI. SyRI is a legal instrument used by the Dutch government to detect various forms of fraud, including social benefits, allowances, and taxes fraud. The court has ruled that the legislation regulating the use of SyRI violates higher law. The court has decided that this legislation does not comply with Article 8 of the European Convention on Human Rights (ECHR), which protects the right to respect for private and family life, home and correspondence.

Building a unified Social Credit System is a challenge
Fragmentation is the cost of quick construction and adaptation



REFORM PROJECT

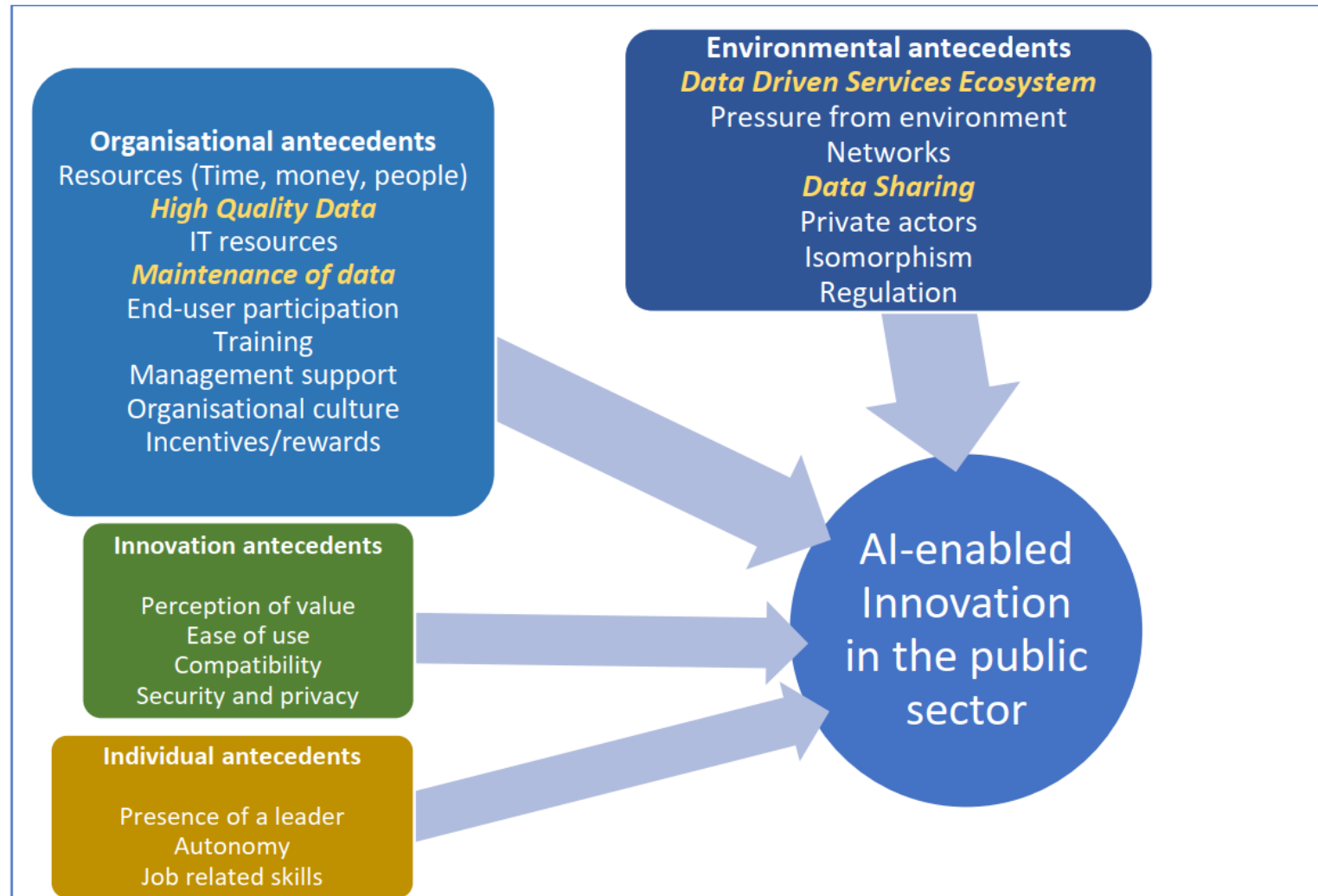
Data protection authority overturns controversial AMS algorithm

The data protection authority is canceling the use of the algorithm for evaluating job market opportunities. It needs a legal basis

András Szigetvari August 20, 2020, 6:41 pm 366 posts

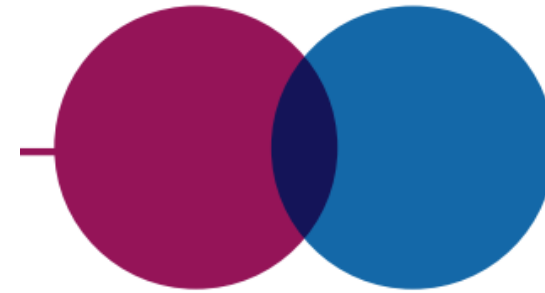
MANY DIFFERENT FACTORS CONTRIBUTE TO THE ADOPTION OF AI

- The use of new innovations, such as ICT, is not straightforward in government
 - Technological challenges (e.g. data integration)
 - Laws and regulation
 - Ethics
 - Society
 - Other factors such as funding, perceived value...
- Some governments still need to invest massively in 'basic' digital government



AI IN GOVERNMENT = DIGITAL TRANSFORMATION

"The technology community in government is often expected to drive transformation on behalf of business leaders. However, most digital change decisions are made by the business leaders – such as permanent secretaries, chief executives, chief operating officers and directors general.(...) The success of these decisions is dependent on these leaders having the digital fluency to make the best choices and fully understand the consequences of their decisions for digital transformation." – UK National Audit Office, March 2023



REPORT

Digital transformation in government: addressing the barriers to efficiency

Cabinet Office

LEARNING FROM EXAMPLES

Kind en Gezin agency *Flemish State, Belgium*



Predictive system day-care services

Predictive model to detect day-care services in need of further inspections

Description

Aim of the system is to optimize inspection capacity and enhance inspection practices using a variety of data sources. Enables more targeted interventions.

Lesson learned

Civil servants need to **see the system as an empowerment**, rather than a replacement of their knowledge.

Agricultural Registers and Information Board (ARIB) *Estonia*



SATIKAS

Detection of the mowing of grasslands with COPERNICUS

Description

The AI system combines machine learning methods to analyse satellite data together with other data sources. Used to optimize inspection capacity of ARIB and enforcement of subsidy requirements.

Lessons learned

Collaboration and sharing of resources crucial to ensure adoption and implementation. There can be a significant amount of time between research and actual implementation.

LEARNING FROM EXAMPLES

Greek Government
Greece



Eva
Targeted COVID-19 Border Checking

Description:

During the COVID-19 Crisis, the Greek government has been using an AI system in all border control points which helps the selection of which travellers to test upon arrival at the border.

Unique insight:

Eva was not developed in a mathematically optimal way but was **designed to be practical, effective, transparent and explainable**. Black-box algorithms were avoided to avoid opacity.

Danish Business Authority
Denmark



Intelligent Control Platform
Combating business fraud

Description:

The Danish Business Authority has been using a variety of AI models to detect fraud and tackle financial crimes, coming together in the Intelligent Control Platform.

Unique insight:

XRAI Methodology has been used to ensure that a precise description of the needs and expectations of the business is available. **Strong data governance practices** ensure quality and trust in system.

LEARNING FROM EXAMPLES

Amsterdam
the Netherlands



Object Detection Kit

Detecting garbage and other objects in the city

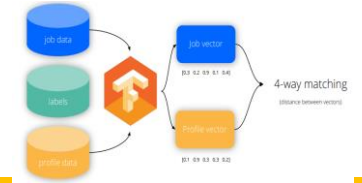
Description:

The city of Amsterdam used the Object Detection Kit to detect identify thrash in the cities, such as graffiti, trash, broken traffic lights and other day-to-day issues which plague livelihood of the city.

Lessons learned:

The Amsterdam Object Detection Kit was not put in use following the pilot as the focus of the initiative was the develop rather than implement it. Funding was not available for implementation.

Flemish Unemployment Agency (VDAB)
Belgium



Jobereik / Talent API

Upskilling and retraining of job seekers

Description

The AI system assists in the reskilling, upskilling and retraining of people..

Lessons learned

Jobbereik has assisted both citizens and civil employees in the job search. Work is done to keep the system up to date.

LEARNING FROM EXAMPLES

Spanish National Police
Spain



VeriPol

AI system to detect false police reports

Description

The AI helps tackle the police in wasting resources on false police reports. Has been regarded as useful by the staff, leaving them with more time to focus on other tasks

Lessons learned

Successful pilot projects need to be scaled up to ensure adoption throughout multiple administrations. From a pilot in one municipality to national-wide uptake.

Register for Enterprises
Latvia



UNA

Chatbot supporting citizens

Description

UNA is a Chatbot able to answer frequently asked questions about the registration of their businesses as well as the liquidation, merchants, companies and organizations and their application processes.

Lessons learned

It is said that **44% of the questions asked can easily taken care of by the Chatbot**. Other non-standard issues are still handled by the support staff, who now have more time for complex requests

CRUCIAL TAKE-AWAYS

Adoption \neq improvement

- Factors contributing to the adoption of AI are not the same as those improving performance/public value
- Grow the government with the ambitions for AI

Use of ML models \neq Use of AI system in organisational context

- It is simpler to do data analysis than it is to change the organisation
- Transformation comes from public sector leaders, not tech vendors

Consider lifecycle and long-term adoption as well

- Initial adoption may be successful, yet AI adoptions may end nonetheless
- Think strategically about the use of AI – no gimmick technology

Maturity / readiness of public organisations may differ substantially

- Those who are likely to benefit the most from AI suffer from the most barriers
- Different AI systems may be relatively easier to adopt than others

TAL TECH

THANK YOU FOR YOUR ATTENTION!

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