

AI AND THE CITY

Why the public sector should embrace AI

Vienna, June 18th 2019

@Clemens Wasner



About me



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Education



Lived



Founder

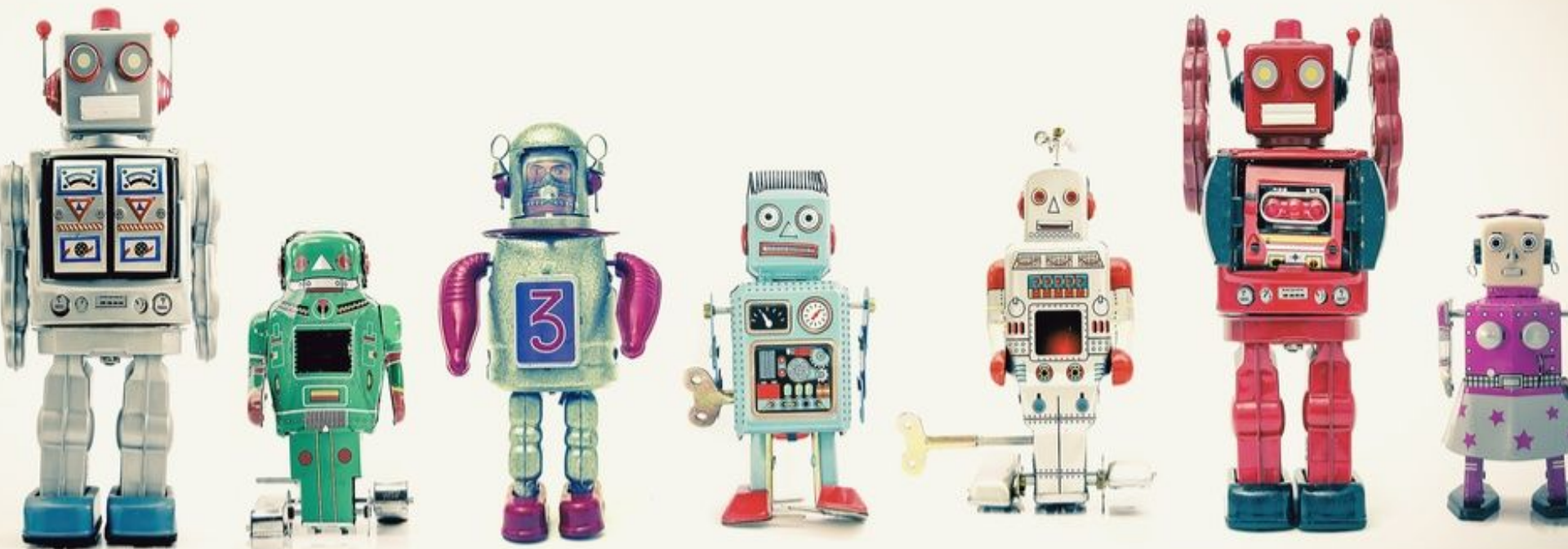


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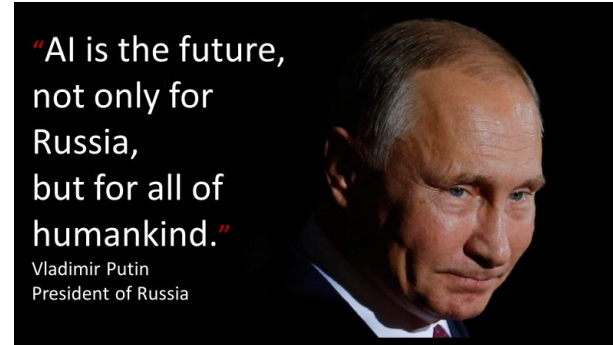
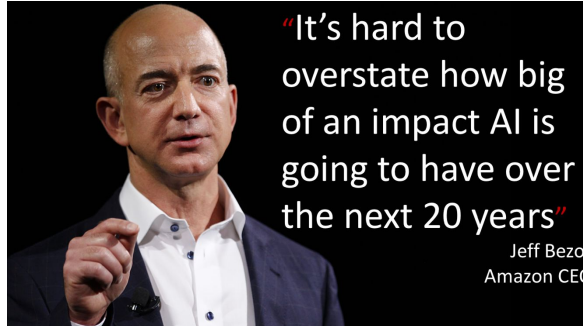
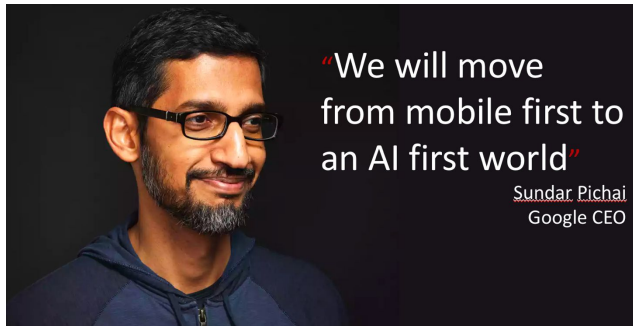


AI AUSTRIA
AUSTRIAN SOCIETY FOR ARTIFICIAL INTELLIGENCE

Why AI?



Everybody talks about AI...

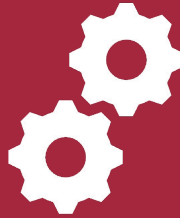


The key pillars of AI

**Economic
growth**



**New
Business models**



**Productivity &
Efficiency gains**



An aerial night view of Singapore, featuring the Marina Bay Sands and the Singapore Flyer. The image is overlaid with a glowing blue digital network of lines and nodes, symbolizing AI and smart city technology. The text "AI in the City?" is centered in a white banner across the middle of the image.

AI in the City?

Global cities take AI very serious



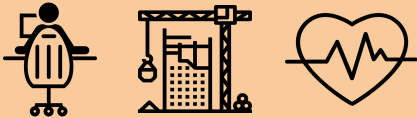
“it is vital for the future of London that companies of all sizes, and in all sectors of our city’s economy, are able to access these game-changing technologies”
Sadiq Khan, Mayor of London

Singapore will “double down” on its efforts to build up its artificial intelligence (AI) sector, and equip its workforce to use these tools to “participate meaningfully”

**Vivian Balakrishnan, Singapore
Minister Smart Nation Initiative**



AI's impact on a city



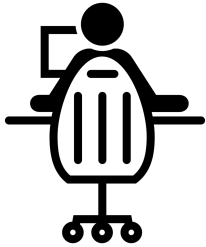
Public services



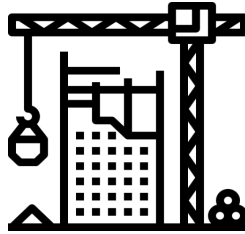
Place to live & work



AI in public services



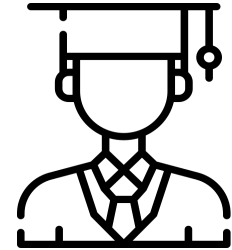
Administration



**Construction &
Housing**



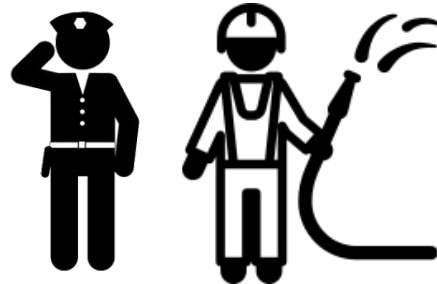
Healthcare



Education

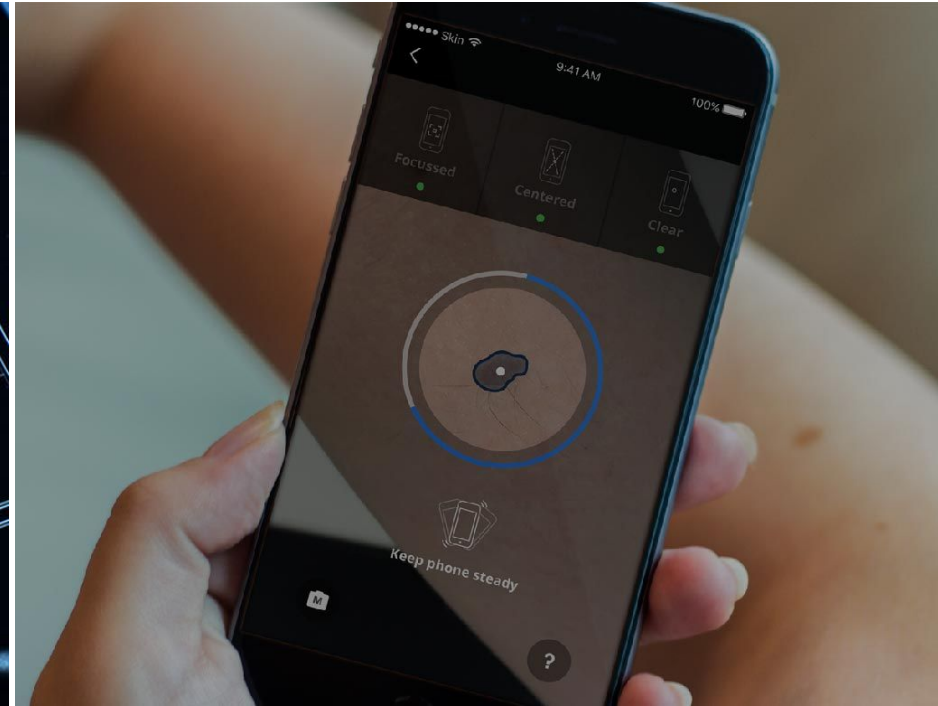
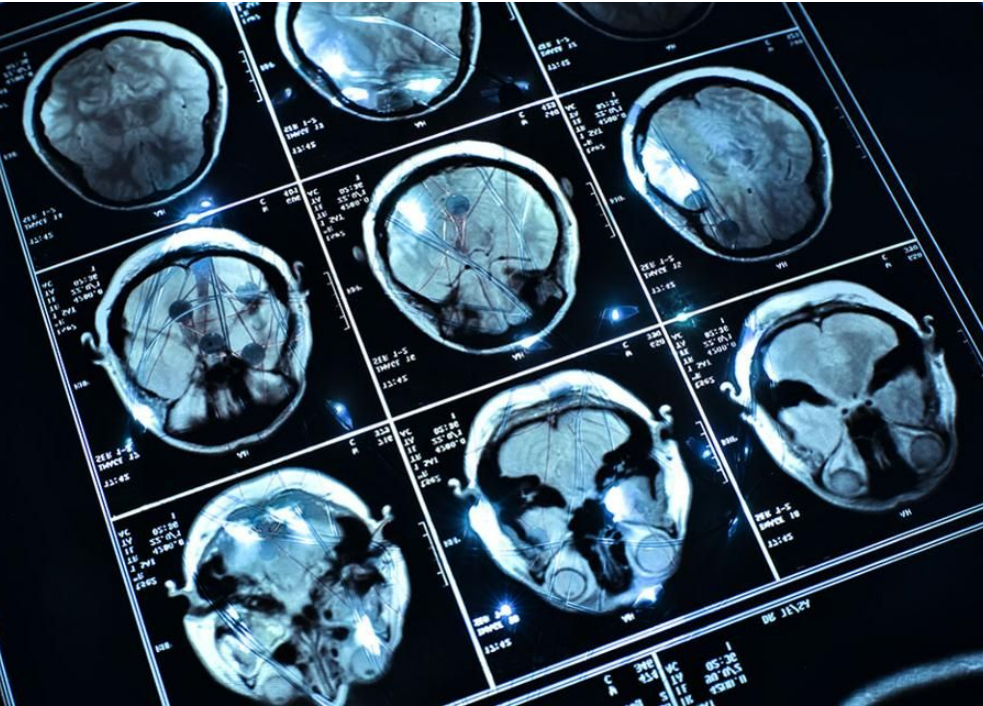


**Mobility &
transportation**



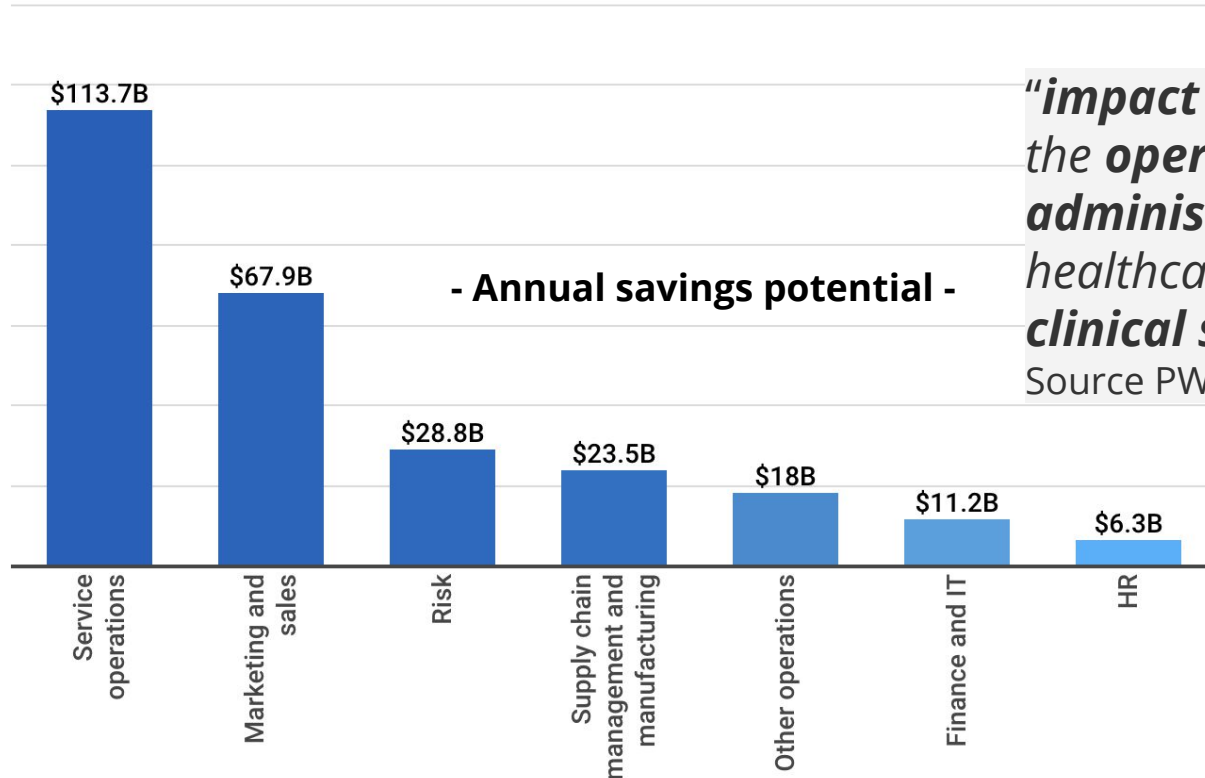
Emergency Services

AI in healthcare - Applications



#

AI in healthcare

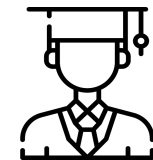


*"**impact** will likely be realized first in the **operational and administrative side** of the healthcare system **rather than the clinical side**"*

Source PWC

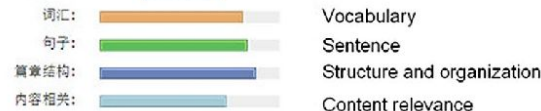
AI in education

Automated Grading



81

修改分数



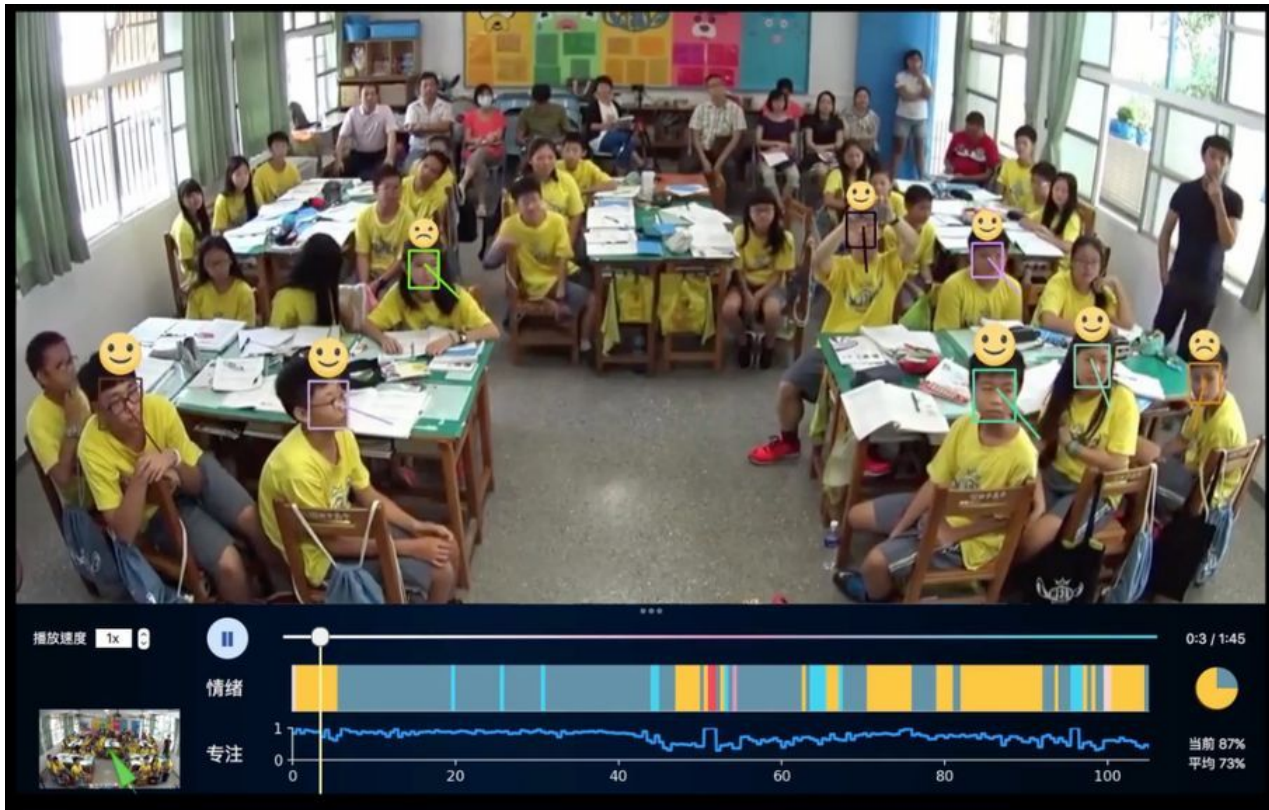
排名: 共28篇, 本文排名4, 最高分84, 最低分70.5 Ranking: 4, top: 84, bottom: 70.5

作者词汇基本功很好, 在学术词汇方面希望能更熟练的使用采用了适当的衔接手法, 层次清晰; 复杂句使用不错, 句法规范

The writer has a good vocabulary foundation, but needs improvement in the skillful use of academic words. Conjunctions are properly used. The organization is clear, the complex sentences are not bad and the grammar is appropriate.

AI in education

Detect attention and motivation



AI in Education

Customized Tutoring



- Chinese Learning Platform
- >1 Million Users
- > 100 MEUR Investment



Basic concept:

- Intelligent Adaptive System for teaching and learning
 - intelligent assessment algorithm
 - ability diagnosis
 - student status representation model
- Nanoscale knowledge graph

Squirrel AI vs. Traditional Instruction

Henan, China

(Oct 2017)

N = 78

Students who learned with Squirrel AI outperformed students with human teachers (1:15) alone by **38%**.

Sichuan, China

(Apr-May 2018)

N = 163

Students who learned with Squirrel AI outperformed students with human teachers (1:15) alone by **456%**.

Shandong, China

(Jun, 2018)

N = 102

Students who learned with Squirrel AI outperformed students with human teachers (1:3) alone by **184%**.

100+ cities in China

(Aug, 2018)

N = 795

Students who learned with Squirrel AI achieved **higher score & learning efficiency** than students with human teachers alone (5.4 vs. 0.7 points).

AI in mobility & transportation



ET BRAIN

ET大脑

- Operating system for cities
- Developed by Ali Baba
- Support in Analysis, decision making and citywide coordination across departments & entities

AI in mobility & transportation



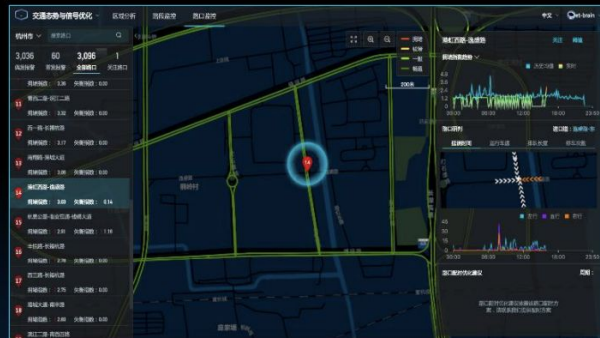
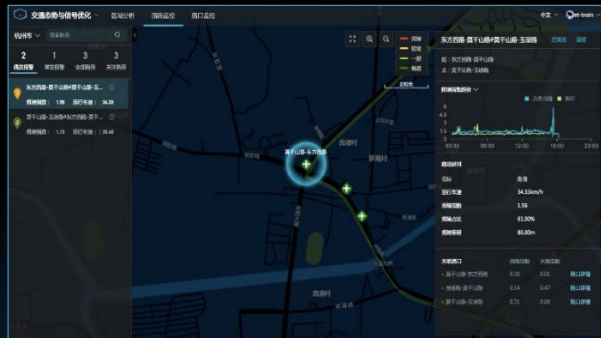
Road traffic analysis



Intersection traffic analysis



Traffic safety problem diagnosis

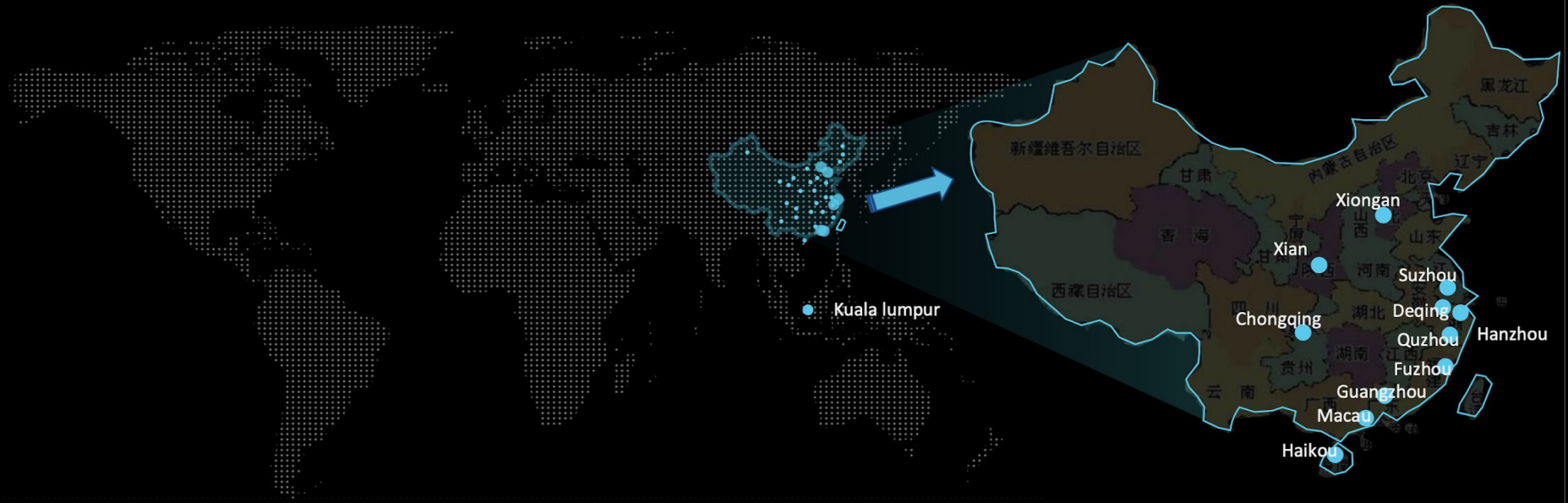


- Road traffic congestion trend
- Causes of city expressway road congestion
- Causes of main roads & secondary roads congestion
- Road traffic organization

- Causes of traffic congestion
- Intersection control Strategy
- Traffic organization problems at intersections

- Traffic safety trend
- Causes of traffic accidents
- Traffic risks diagnosis

Citybrain roll-out





Public
services

**Place to live
& work**

Becoming an AI Hotspot is **Hot**

Cyber-Valley-Verbund

Amazon kommt nach Tübingen

Von Daniel Gräfe 23. Oktober 2017 - 18:31 Uhr



Die Region Stuttgart will mit dem vor knapp einem Jahr gestarteten Cyber Valley bei Zukunftstechnologien dem Silicon Valley die Stirn bieten. Dass sich der US-Riese Amazon dem Technologie-Verbund jetzt anschließt, ist ein Achtungserfolg.

Stuttgart/Tübingen - Als im Dezember vergangenen Jahres in Stuttgart das [Cyber Valley](#) aus der Taufe geh-



Google Campus Warsaw is here

by Ewelina Nurczyk in: News, 30 Nov 2015 0 Comments

Warsaw is the fifth city in the world to welcome the new Google project – Google Campus. It is a creative space for entrepreneurs working on their start-up business ideas. Take a look at Google Campus Warsaw, opened November 23, 2015.

Google, Facebook Target Paris as a Center for AI Expansion

By **Marie Mawad** and **Helene Fouquet**

22. Januar 2018, 18:30 MEZ *Updated on* 22. Januar 2018, 19:24 MEZ

- Budgets announced as top executives meet with President Macron
- Hirings, investments to help boost Paris as European AI hub



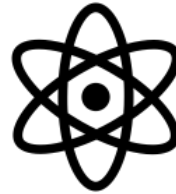
Place to live and work



Society



Business



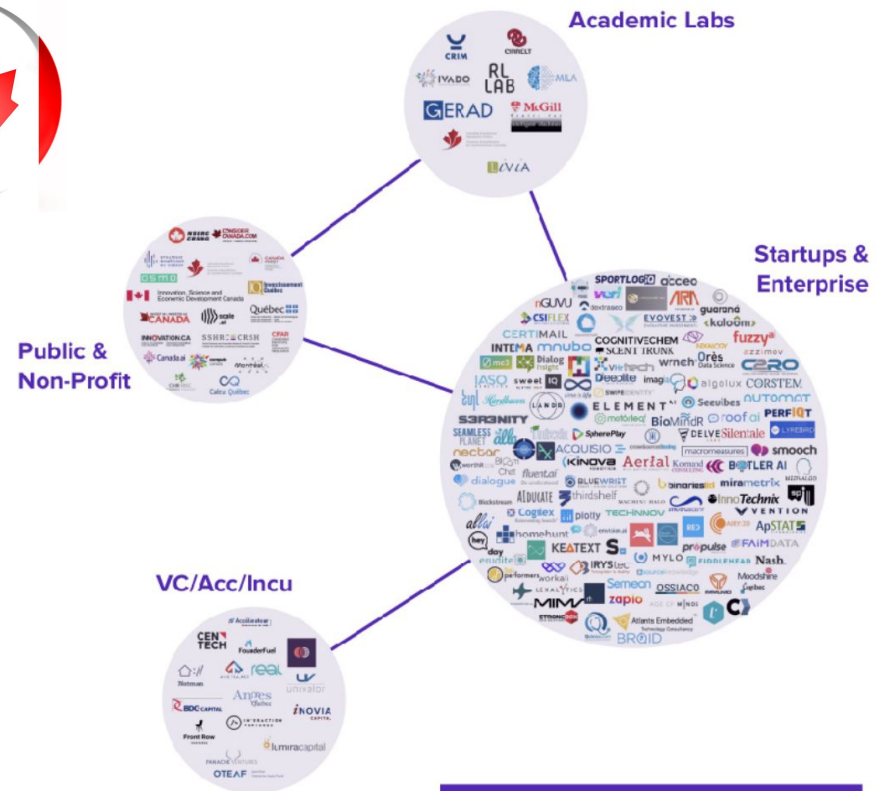
Research



Funding



- **Program to attract international AI companies**
- Partnerships with Microsoft, Google and IBM
- Special focus on SMEs from outside the tech sector
>> International SME Forum on Artificial Intelligence



120+ Startups
14 Investor Groups
7 Accelerators/Incubators
14 Public Research Labs



Major public investment

\$93.5 M from the First Research Excellence Fund (2016)

\$100 M over the next 5 years for the creation of a Québec AI cluster (2017)

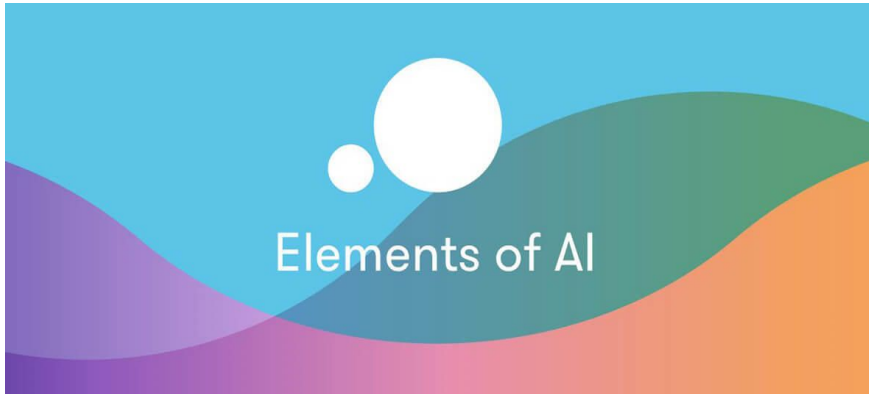
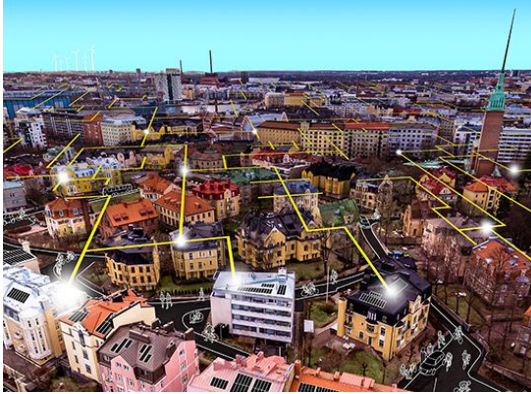
\$40 M over the next 5 years for the creation of a Québec AI cluster (2017)

Montréal chosen as headquarters for SCALE AI the only Canadian AI cluster to receive part of the

\$950 M supercluster initiative (2018)

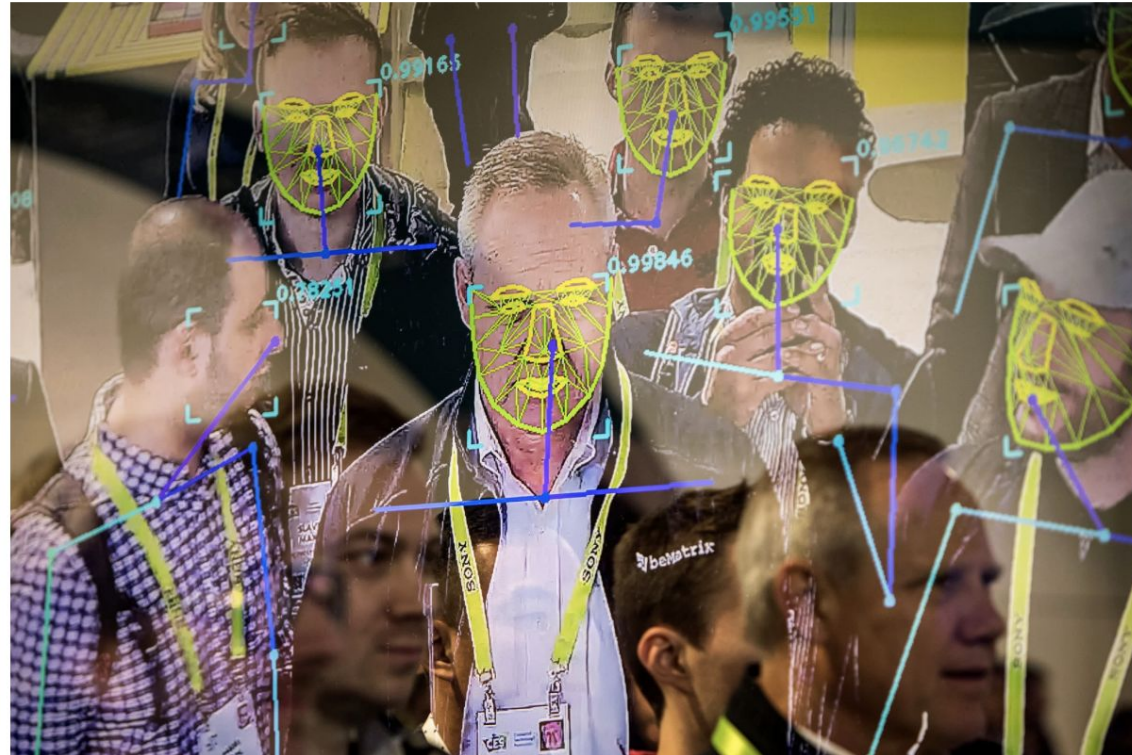
\$329 M over the next 5 years to accelerate the adoption of AI in Québec (2019)

Society - Example Helsinki



- country wide AI lectures for the entire population
- Special AI Training for municipal workers

San Francisco Bans Facial Recognition Technology



**Technology is not a
one-way road!**

How did Vienna approach it's AI Strategy?



AI Strategy Vienna - Project Structure (simplified)

Strategic target picture

- Common **"Big Picture"** as a starting point
- **Early onboarding** of the most important stakeholders

Use-case identification

- **Identification & evaluation** of use cases and initial selection of pilot projects
- **Development of implementation roadmap** as guideline for roll-out

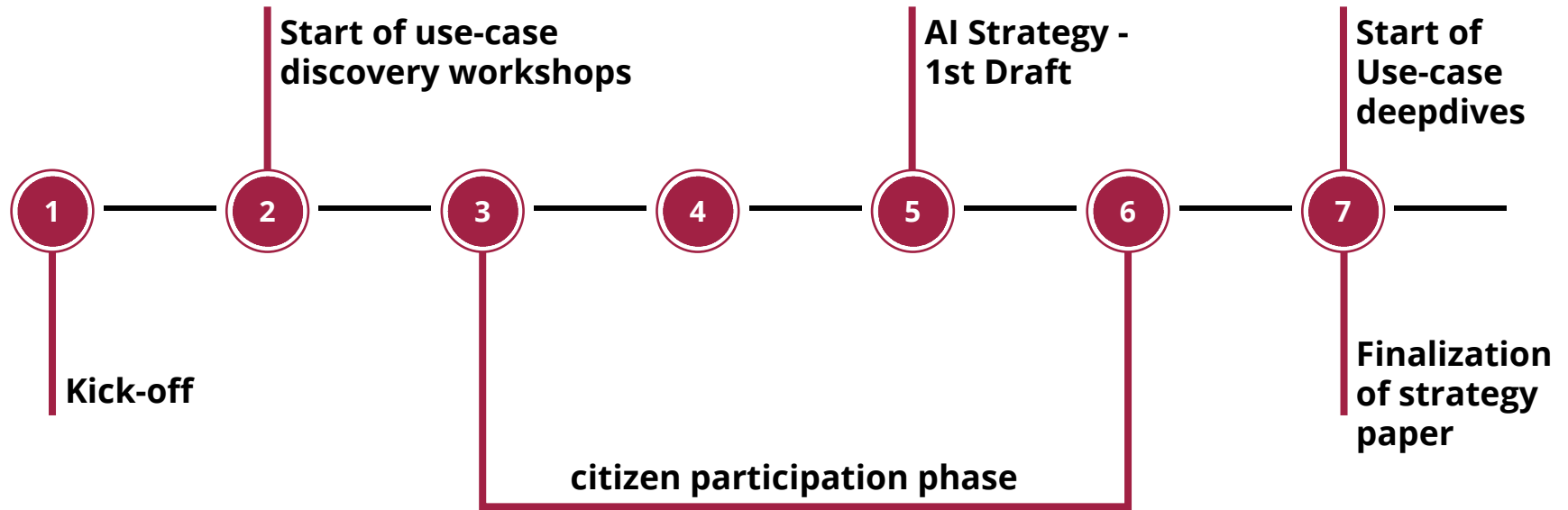
Roll-out

- **Further evaluation** of prioritized use-cases e.g. through **proof of concepts**
- **Kick-off implementation** process and **alignment of activities**

Communication & participation

- **Regular communication** of progress
- **Participative involvement** of citizens in the **idea-finding process**

AI Strategy Vienna - timeline (simplified)



Recommendations



Involve your local communities

**be ambitious
...but realistic**



**Start now!
...waiting won't improve anything**

Contact



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