Next-Generation Competencies for Digital Citizenship

Monica Palmirani, University of Bologna International Camp, 14th-16th Sept. 2023 Santa Coloma



Data and Al Society





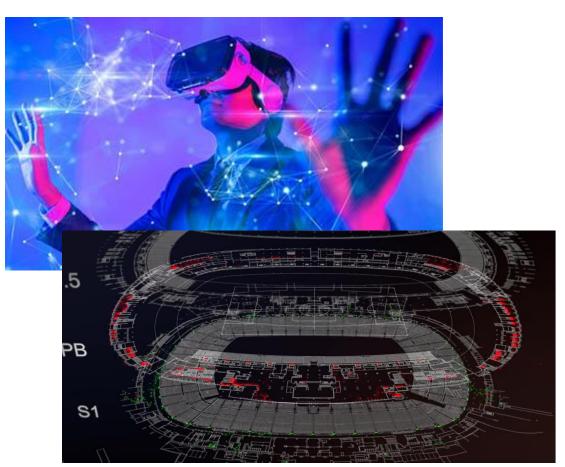
Digital Citizenship

- to stay, to relate, to create, to participate, to decide

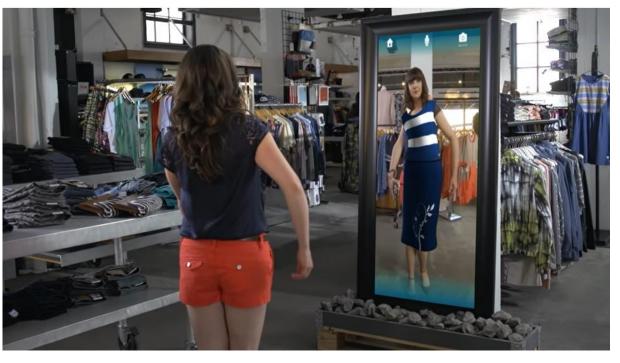


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Virtual/Augmented reality



https://youtu.be/Mr71jrkzWq8?t=64

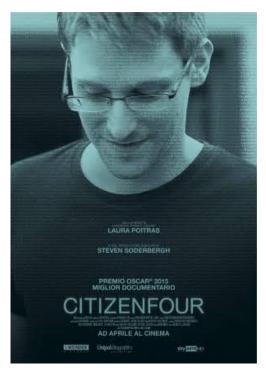




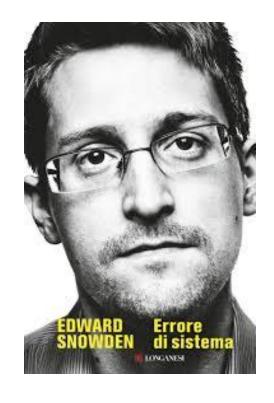
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Big Data and Surveillance









Snowden, Oliver Stone, 2016





The 5 social media apps that know most about you

Based on % of personal data collected by apps



What can companies tell from image recognition?

The personal data that recognition software helps companies collect from you



Facebook 79.49%



Instagram 69.23%



TikTok 46.15%



Clubhouse **Twitter** 33.33% 33.33%

Find the full report at clario.co/blog/which-company-uses-most-data



Facial recognition

their key attributes

Recognises people and



Apps That Collect the Most Location & Contact Info



How Companies Use Location Data

Here are just a few ways companies manipulate your location data.



Income level

Current location

Send real-time notifications to prompt you toward nearby shops or restaurants.



Determine your approximate disposable income based on neighborhood demographic data.



School or workplace

Send restaurant push notifications right before your usual break times.



Shopping habits

Send coupons or promo codes for stores you frequent.



Messages

Apple





Snapchat

Shopping



Food



MLB Sports

clario







Background recognition Detects elements in shot, establishes environment

Object recognition Can identify an object or product within an image

#	Company	Face recognition	Environment recognition	Product recognition	Your contacts	Voice data/ recognition	Access to image library	Languages
1	Facebook	•	•	•	•	•	•	•
2	O Instagram	•	•	•	•	•	•	•
3	TikTok	•	•	•	•	•	•	•
4	☑ Twitter	•	•		•	•		•
5	Tinder	•	•		•		•	•

Find the full report at clario.co/blog/which-company-uses-most-data

clario

Data defines your DIGITAL IDENTITY



Beispiel: Wann war Max eingelogged und wann schrieb er Nachrichten (schwarze Linien)
Example: When was Max logged in and when did he write messages (black lines)

Filter Bubble

https://www.their.tube/



How do the recommended videos look on their Youtube home page?





Prepper



Liberal

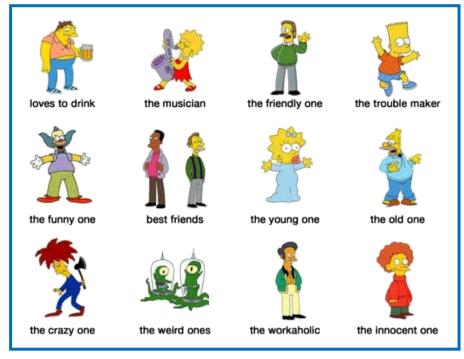


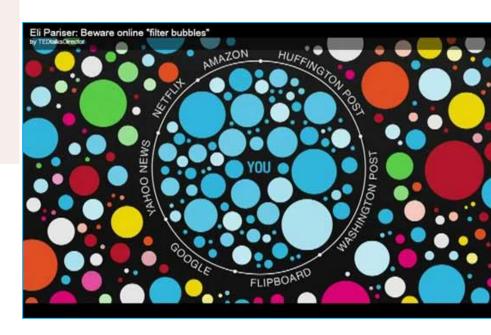




Conservative Conspiracist Climate Denier





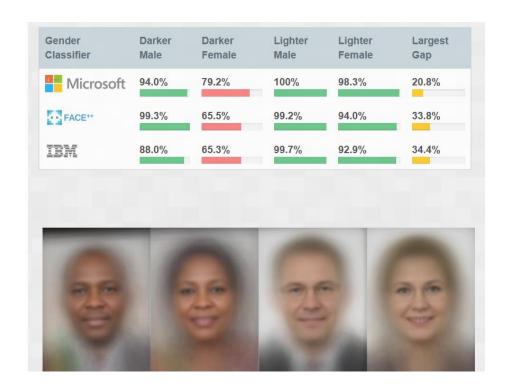


Al makes ERRORS some time not explainable





Avoid Discrimination



http://gendershades.org/
Joy Buolamwini





Bad data -> Bad Al

ABOUT

INKBLOTS

TEAM PRESS

CONTACT

We trained Norman on Reddit, and compared captions with standard image captioning neural network.

Here is what both Als see on Rorschach's inkblot tests.

Captions by
Norman AI



Captions by
Standard AI

INKBLOT #1
Norman sees:

"A MAN IS ELECTROCUTED

AND CATCHES TO DEATH."



INKBLOT #1
Standard Al sees:

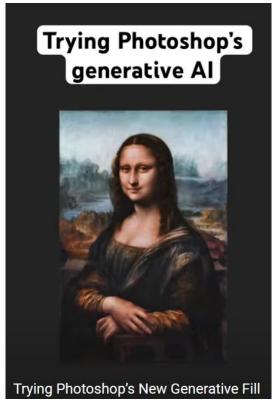
"A GROUP OF BIRDS

SITTING ON TOP OF A

TREE BRANCH."

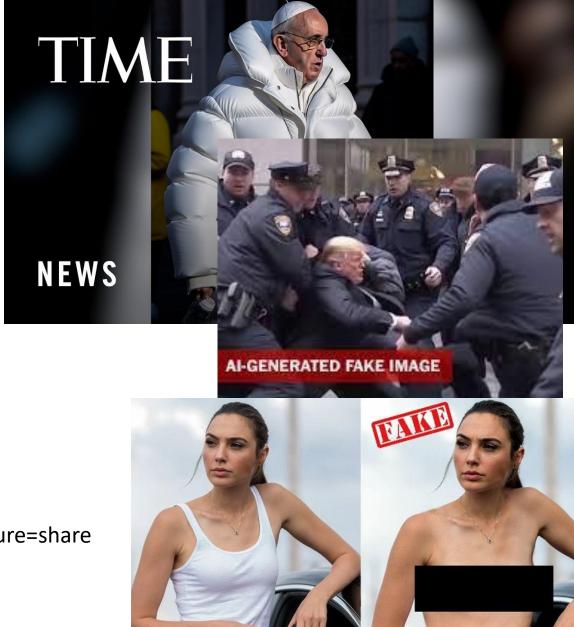


Generative Al



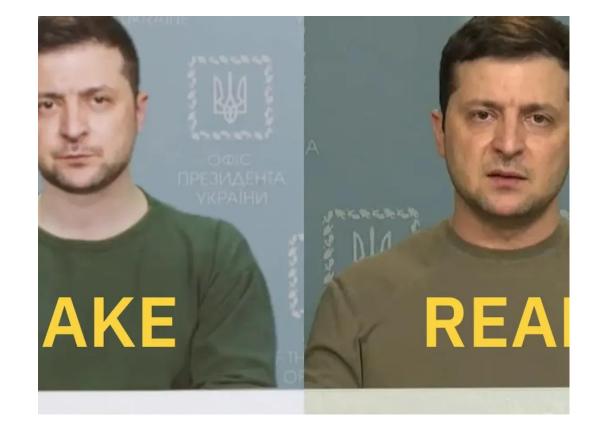
https://www.youtube.com/shorts/0B2I4wgA-uQ?feature=share





Deep fake







Protect Rights



"In Arizona, Colorado, Delaware, Kentucky, Louisiana, Oklahoma, Virginia, Washington and Wisconsin, the results of such assessments are given to judges during criminal sentencing." *ProPublica*

Prediction Fails Differently for Black Defendants							
	WHITE	AFRICAN AMERICAN					
Labeled Higher Risk, But Didn't Re-Offend	23.5%	44.9%					
Labeled Lower Risk, Yet Did Re-Offend	47.7%	28.0%					

https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing



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Protect Personal data



The Ovia App Family







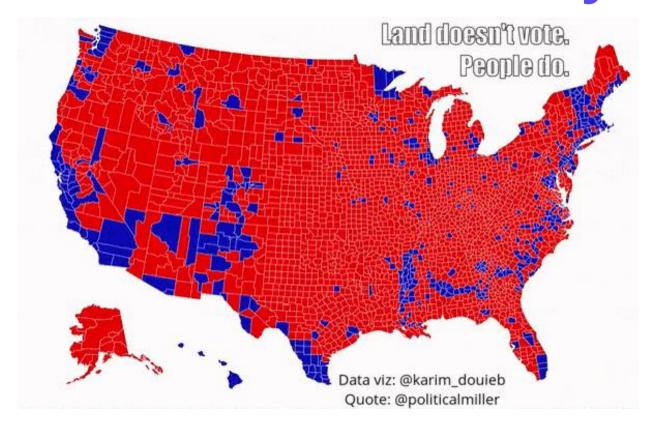
Inchiesta del The

Washington Post

Dati condivisi con
datori di lavori e
assicuratori



Freedom and Democracy



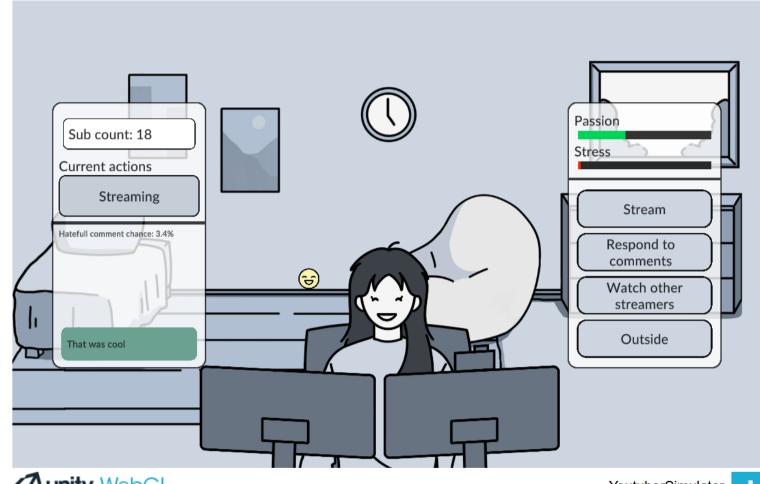
https://eu.usatoday.com/in-depth/graphics/2020/11/10/election-maps-2020-america-county-results-more-voters/6226197002/



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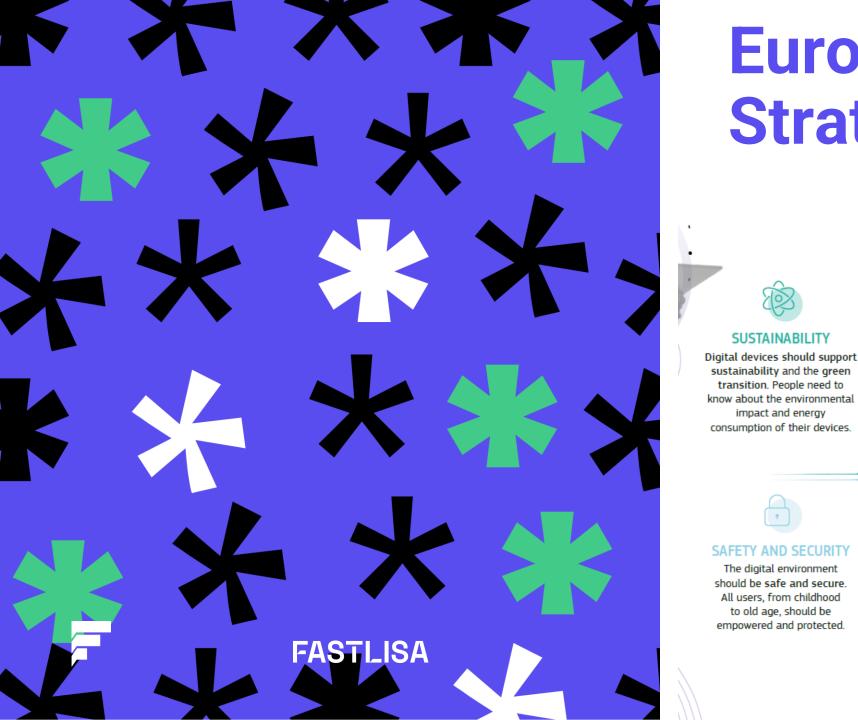
Gamification fighting hate speech

https://www.playyourrole.eu/youtuber-simulator/









European Data Strategy



PEOPLE AT THE CENTRE

Digital technologies should protect people's rights, support democracy, and ensure that all digital players act responsibly and safely. The EU promotes these values across the world.

DIGITAL



SOLIDARITY AND INCLUSION

Technology should unite. not divide, people. Everyone should have access to the internet, to digital skills, to digital public services, and to fair working conditions.



SUSTAINABILITY

sustainability and the green

transition. People need to

impact and energy consumption of their devices.

SAFETY AND SECURITY

The digital environment should be safe and secure. All users, from childhood to old age, should be empowered and protected.





PARTICIPATION

Citizens should be able to engage in the democratic process at all levels, and have control over their own data.



FREEDOM OF CHOICE

People should benefit from a fair online environment, be safe from illegal and harmful content, and be empowered when they interact with new and evolving technologies like artificial intelligence.

NextGenerationEU











Make it Equal

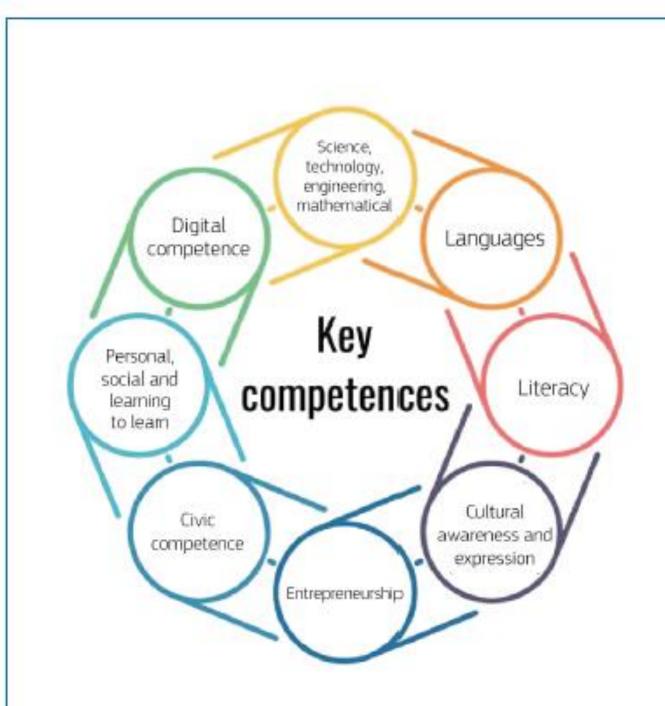
Next
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DigComp 2.2

The Digital Competence Framework for Citizens

With new examples of knowledge, skills and attitudes

Riina Vuorikari Stefano Kluzer

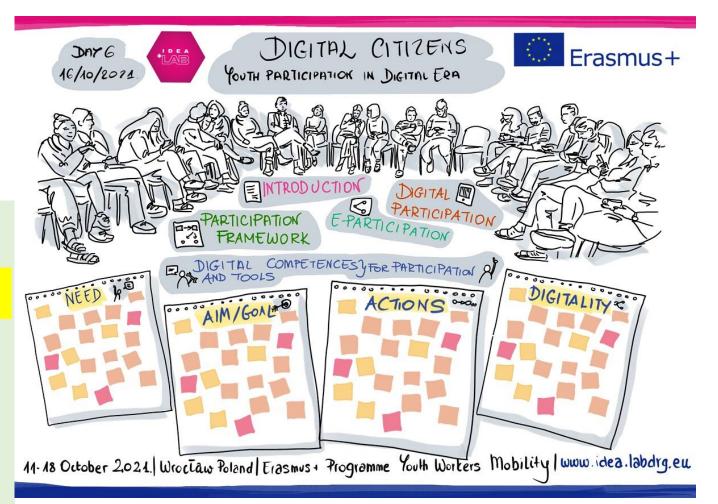
EUR 31006 EN



Riina Vuorikari Stefano Kluzer Yves Punie



Be ready to become Digital Citizen for protecting data, rights, people, institutions, society, environment and make the world better





Partners

















