

AI for Good

*Accelerating the United Nations
Sustainable Development Goals*

ALL YEAR
ALWAYS **ONLINE**

aiforgood.itu.int



38 UN PARTNERS



AI for Good

THE leading action-oriented,
global & inclusive United Nations
platform on AI

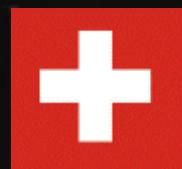
ALL YEAR, ALWAYS ONLINE



Organizer



40 UN Orgs



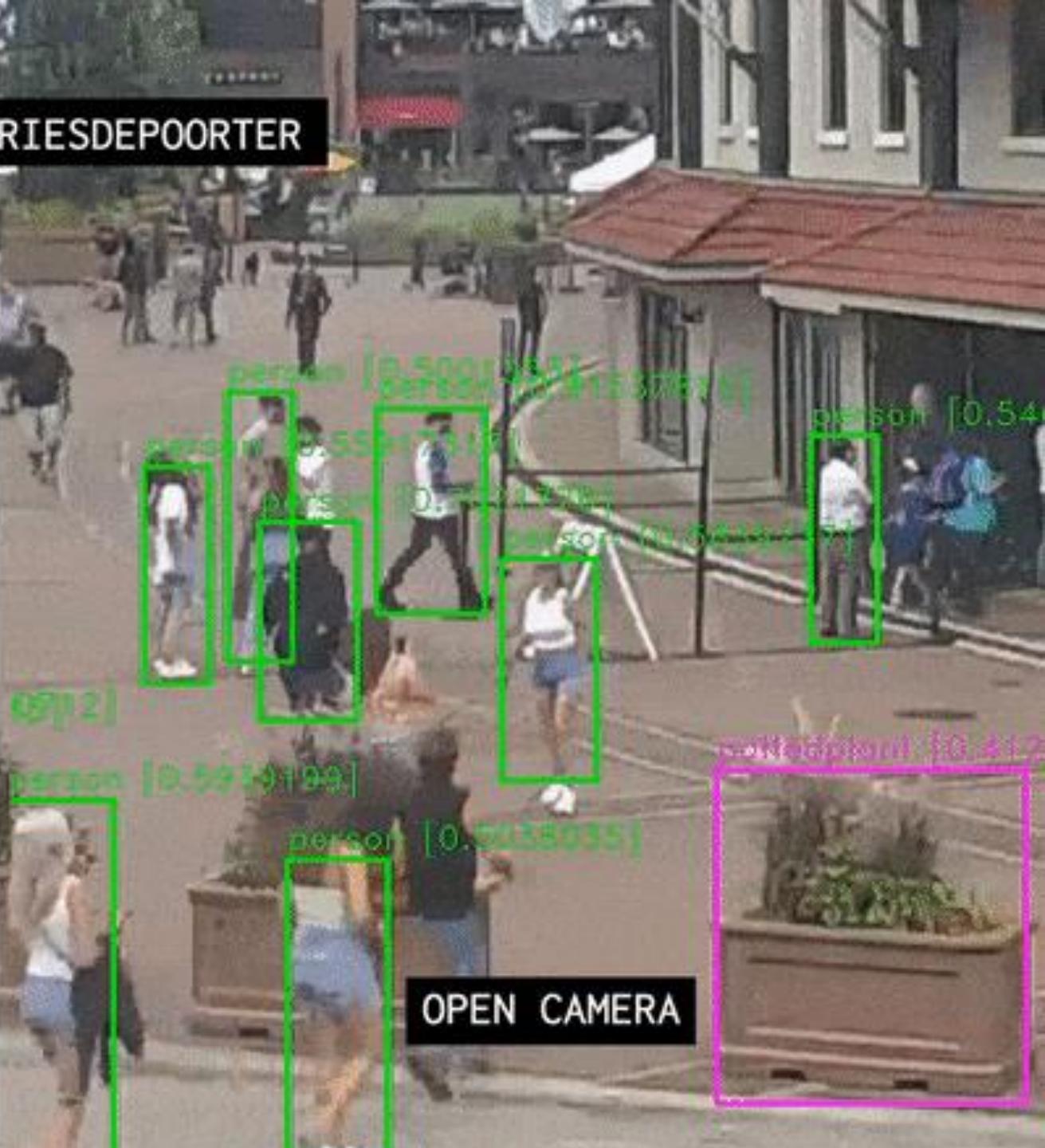
Co-convener





PROJECT BY @DRIESDEPOORTER

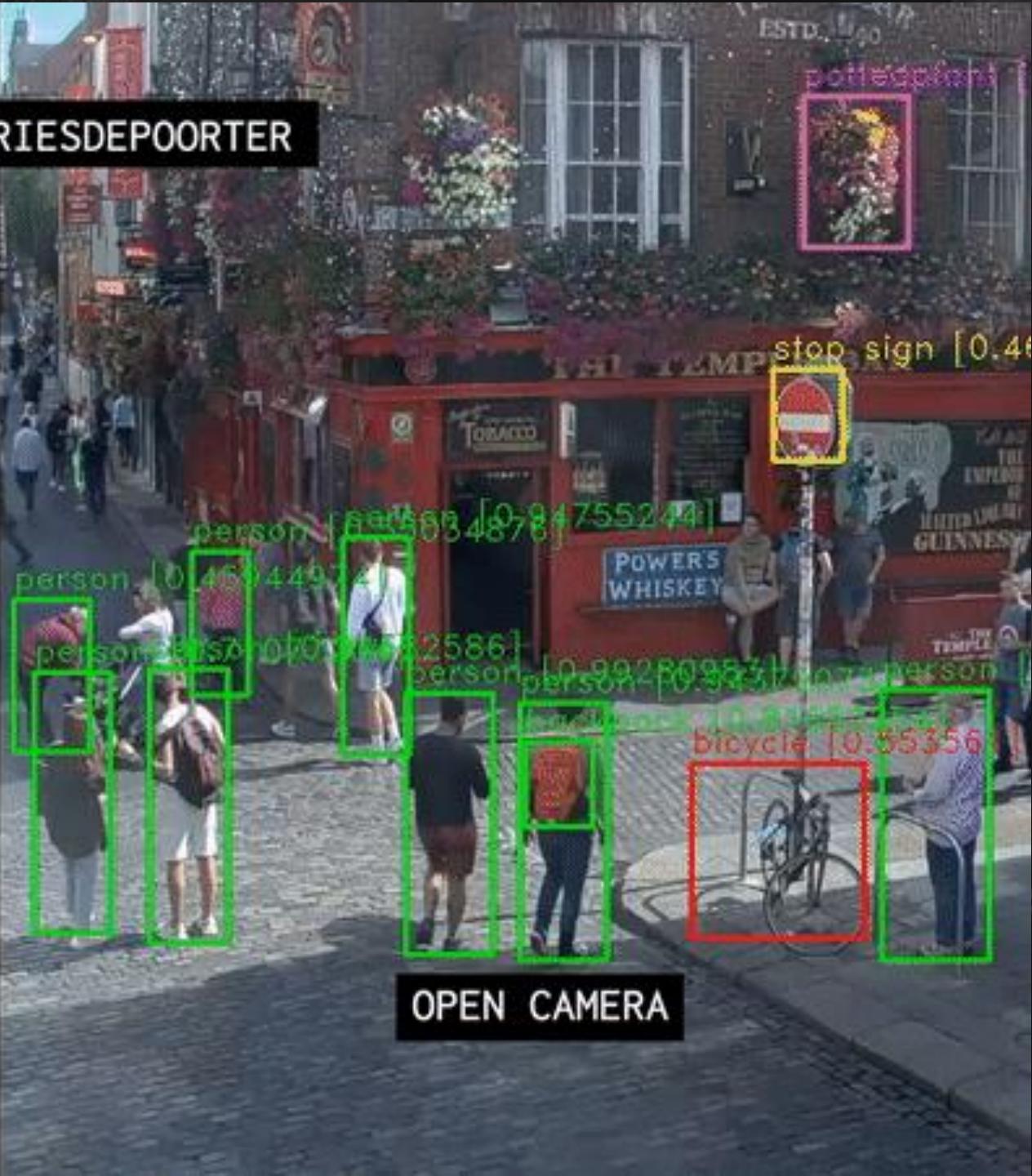
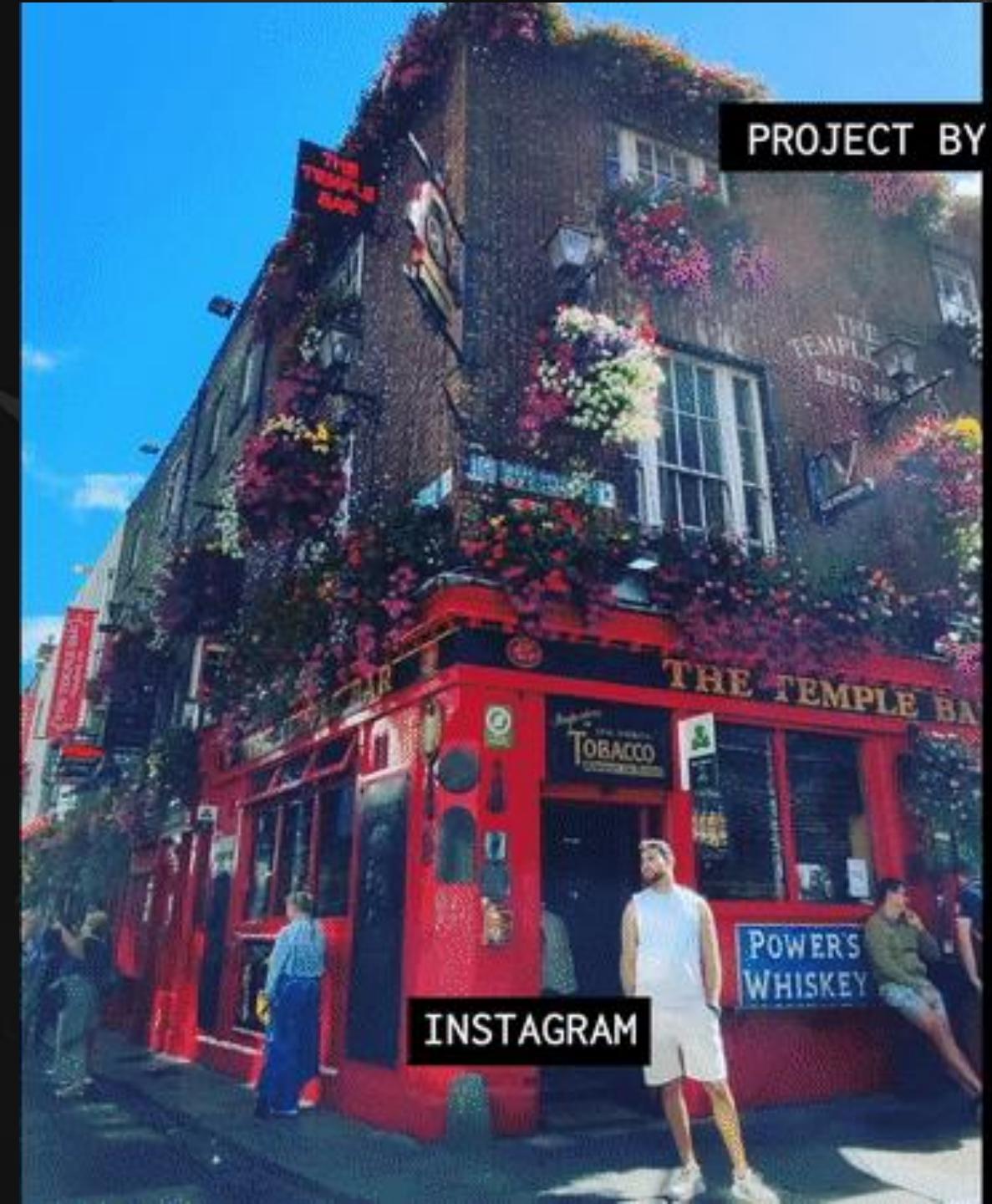
INSTAGRAM



OPEN CAMERA

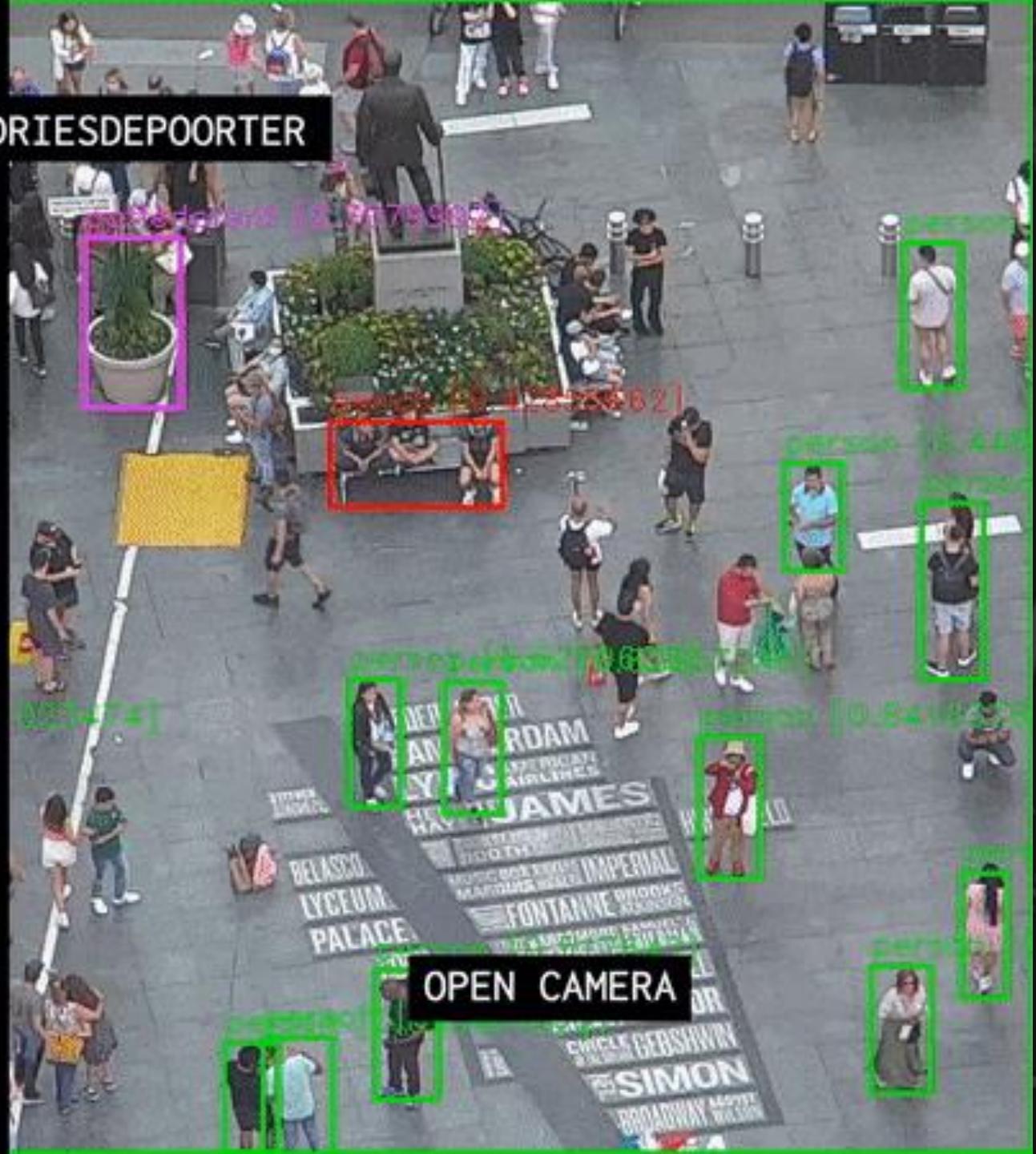
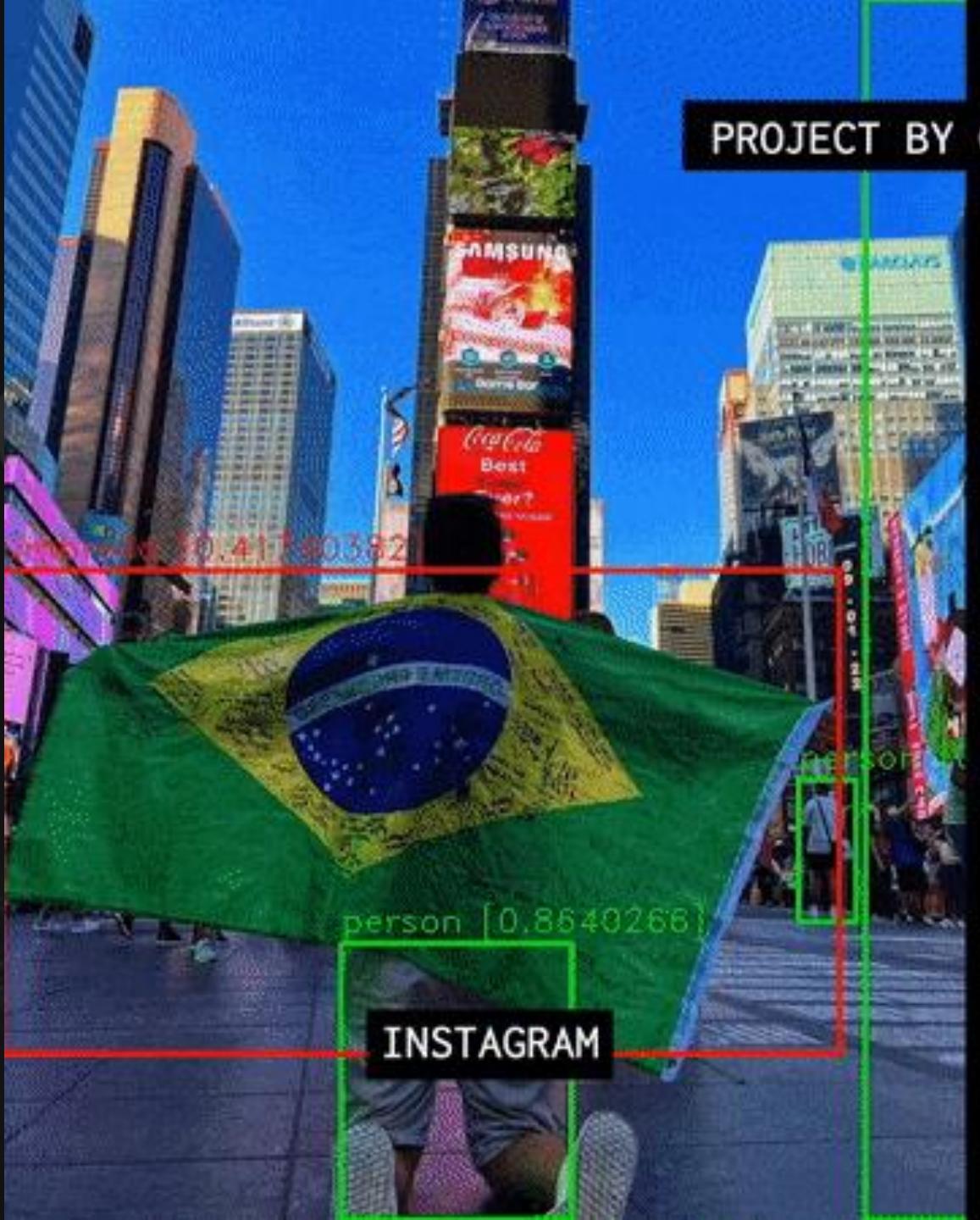
PROJECT BY @DRIESDEPOORTER

INSTAGRAM



OPEN CAMERA

PROJECT BY @DRIESDEPOORTER





AI can help
solve
humanity's
greatest
challenges



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How do we know what problems to work on?



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AI for Good

Accelerating UN SDGs

17 Goals and 169 targets creating
the blueprint to achieve a more
sustainable future for all by 2030

Adopted by all United Nations
Member States



40 UN PARTNERS





AI for Good

Accelerating UN SDGS

Less than 10 years to achieve
the United Nations Sustainable
Development Goals.

AI holds great promise.



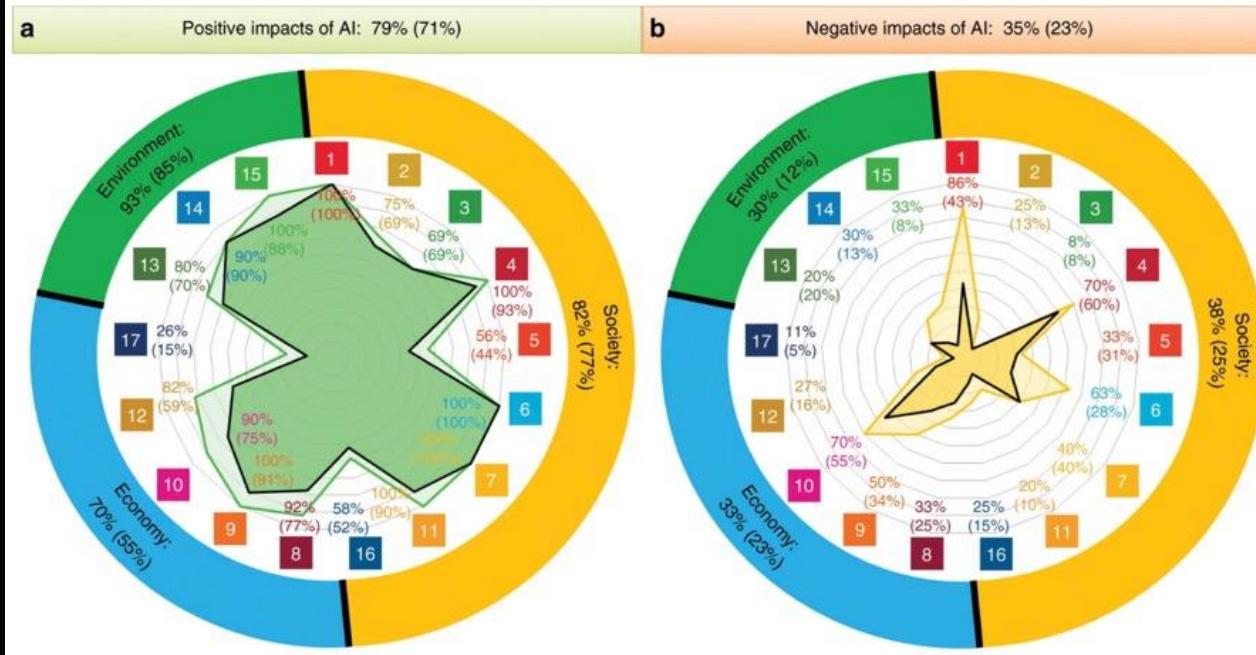
Mapping AI to SDGs

AI can help to **positively impact 134 targets** across all the goals.

AI can also **inhibit 59 targets**.

Fig. 1: Summary of positive and negative impact of AI on the various SDGs.

From: [The role of artificial intelligence in achieving the Sustainable Development Goals](#)





AI for Good | The goal



Identify

Practical applications
of AI



Scale

Solutions for
global impact



Accelerate

Progress towards the
UN SDGs





AI for Good

| 40 UN Organizations





AI for Good | Multi-stakeholder Interdisciplinary Inter-generational





AI for Good | Products

Learn



Build



Connect





Neural Network

- Your AI powered matchmaking community platform, connecting AI innovators with problem owners

- Smart matching of people to people, needs and content
- Secure face to face virtual networking and networking events
- Virtual exhibits, poster boards and galleries
- Personalized programme of past, current and future content

A screenshot of a virtual event interface. At the top, there are tabs for 'MANAGE', 'BOOTH', 'HOME', 'STAGES' (which is highlighted in yellow), and 'EXHIBITS'. On the right, there are buttons for 'EN', a search bar, and account settings. The main area shows a video conference with three participants: a man in a brown jacket, a woman in a grey top, and a man in a black shirt with headphones. The background features logos for ITU, UN Partners, and Switzerland. A banner at the bottom of the screen says 'Organized by AI for Good Neural Network AI-powered networking community platform aiforgood.itu.int'. The video call interface includes standard controls like zoom, volume, and a 'LIVE' button.

A screenshot of the AI for Good virtual event interface. The top navigation bar includes 'MANAGE', 'BOOTH', 'HOME' (highlighted in yellow), 'STAGES', and 'EXHIBITS'. The right side has language selection ('EN'), a search bar, and account options. The central content area features a large 'Exhibits' section with a thumbnail of a hallway and text 'Total stands: 41 Showfloors: 4'. To the left is a 'Matchmaking' section with a 'LIVE' video feed showing three people. To the right is another 'Matchmaking' section with profiles for Adam Grabowski, Andrej Verity, Caterina Berbenni-Rehm, and Daming Zhang. Each profile includes a small photo, name, title, and social media links. The bottom of the screen shows a taskbar with various application icons.



AI for Good

Innovation Factory

*Start-ups, ideas, challenges
realized.*





AI for Good | AI for Climate Innovation Factory



Finapp



SI analytics



Energy consumption
of 5G networks

ITU Events

AI for Good
AI 4 Climate

AI solutions for Climate Change

aiforgood.itu.int

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ITU





AI for Good

Machine Learning in 5G Challenge

*Applying machine learning
in communication networks*

aiforgood.itu.int





AI for Good | ITU has been organizing > 80 Challenges

- Specializing Large Language Models for Telecom Networks
- Retrieval Augmented Generation (RAG) for Public Services and Administration Tasks
- Multi Modal V2V Beam Prediction
- AI/ML for 5G-Energy Consumption Modelling
- Intrusion and Vulnerability Detection in SDN using AI/ML





AI for Good | ML5G Challenges: open source and publications

- 150+ GitHub repositories
- Code, Reports, Slides
- ITU Journal (peer-reviewed): special issues on the papers submitted
 - 10 Papers in 2020
 - 19 Papers in 2021
- Papers in ACM, IEEE, ...
- > 100 authors

The image shows the cover of the ITU Journal's special issue. The title "ITU Journal" is at the top left, followed by "Future and evolving technologies". Below that is "Special issue" and the main title "AI and machine learning solutions in 5G and future networks". The central graphic features a profile of a person's head filled with a globe of digital connections. The background is white with orange and blue abstract shapes. The ITU logo is in the bottom right corner.

- 100+ demos (Challenge finale)
- 2020: <https://www.itu.int/pub/S-JNL-VOL2.ISSUE4>
- 2021: <https://www.itu.int/pub/S-JNL-VOL3.ISSUE3>
- 2023: <https://www.itu.int/pub/S-JNL-VOL4.ISSUE3>





AI for Good | GeoAI activities

Geospatial activities launched in 2021

Behind the rise of geospatial AI

- Increased availability of geospatial Earth Observation data
- Advancement of AI
- Availability of massive computational power





Sky



Satellite



Aircrafts



Drone

Optical (images and videos), LIDAR, SAR, Multi/hyper spectral and GNSS



Ground



Surveying



Points of
interest



Govt
records



Enterprise
data



IoT



Public
cameras



Navigation
support



GPS



Geotagged
media



User
reviews



Social
media



Geotagged
actions



Wifi
metadata



Bluetooth

User-generated
content



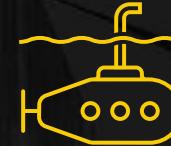
Water and below surface level



Ships



Boats



Submarines

Optical (images and videos), SONAR, LIDAR, Bathymetric



AI for Good | ITU GeoAI Challenge 2023

Landslide Susceptibility Mapping

Develop ML algorithms that can analyze large dataset to identify patterns indicating high probability of landslide occurrence and create a landslide susceptibility map.

Curated by GEOlab at Polytechnic di Milano

[LEARN MORE](#)

Cropland Mapping

Develop accurate, cost-effective classification model for cropland extent mapping with ML techniques in three test regions.

Curated by UNODC (United Nations Office on Drugs and Crime) and FAO (Food and Agriculture Organization of the United Nations)

[LEARN MORE](#)

The Hyperview Challenge

Estimating soil parameters from hyperspectral images.

Curated by ESA (European Space Agency)

[LEARN MORE](#)

Location Mention Recognition (LMR)

This challenge aims at automatically extracting toponyms (places or location names) from the given text.

Curated by QCRI (Qatar Computing Research Institute), QU (Qatar University), and Qen Labs Inc.

[LEARN MORE](#)

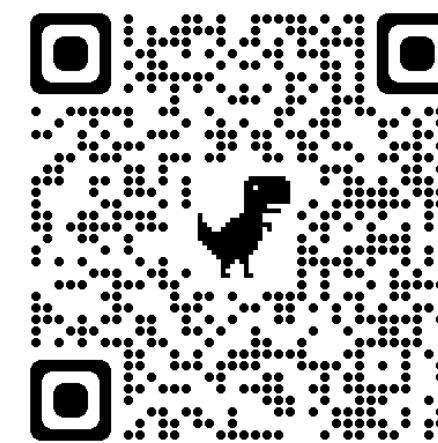
Air Pollution Susceptibility Mapping

Implement a machine learning method which can accurately estimate the pollution levels (AQI) of the metropolitan city of Milan

Curated by GEOlab at Polytechnic di Milano

[LEARN MORE](#)

GitHub Repos





Problem statement	Countries	Africa
Cropland Mapping	60	23
Air Pollution Susceptibility Mapping	45	20
Landslide Susceptibility Mapping	46	20
Estimating soil parameters from hyperspectral images	40	19
Location Mention Recognition (LMR)	35	21



AI for Good | ITU, GeoAI Challenge 2023

Air pollution susceptibility mapping in Milan, Italy





AI for Good | ITU, GeoAI Challenge 2023

Landscape susceptibility mapping in Northern Italy





AI for Good | ITU, GeoAI Challenge 2023

Cropland mapping with
satellite imagery





AI for Good Innovate for Impact

Harness the power of Artificial Intelligence (AI) for the betterment humanity and the preservation of our planet. Supported by the Ministry of Industry and Information Technology (MIIT) of China, AI for Good extends a global invitation to innovate and propel AI solutions forward, aimed at achieving the the United Nations Sustainable Development Goals (SDGs).

There are two independent ways to be part of our journey: Submit use cases and/or apply for a scholarship as described below to contribute to a global repository of AI-driven solutions for sustainable development.



Submit your innovative AI use cases

Submit your innovative AI use cases to potentially feature them at the AI for Good Global Summit. In addition, selected use cases would receive mentorship and be awarded prizes in July 2024.



Apply now to become an AI for Good Scholar

Respond to our call for AI for Good Scholars. Aimed at nurturing aspiring talent dedicated to leveraging AI for the attainment of the SDGs, AI for Good Scholars would work closely with ITU to develop, analyse and refine AI use cases.

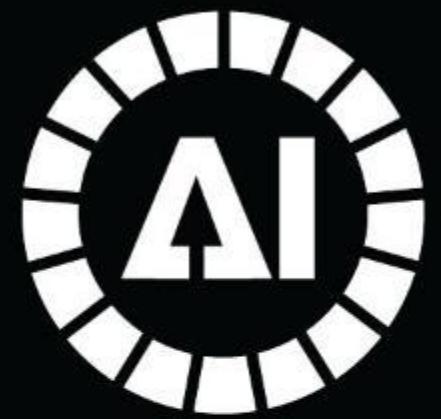




AI for Good | ITU, GeoAI Challenge 2023

Location mention recognition
from social media crises-
related text, Qatar

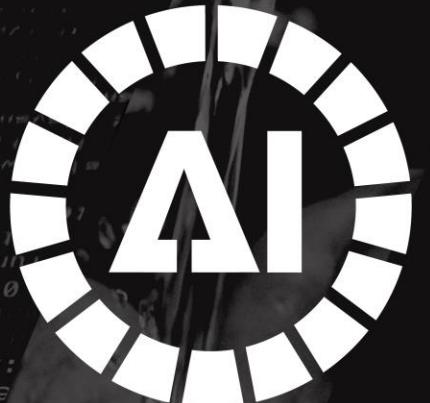




AI-powered visions for a sustainable future

aiforgood.itu.int





*AI-driven visions
of a sustainable world*

aiforgood.itu.int

AI for Good

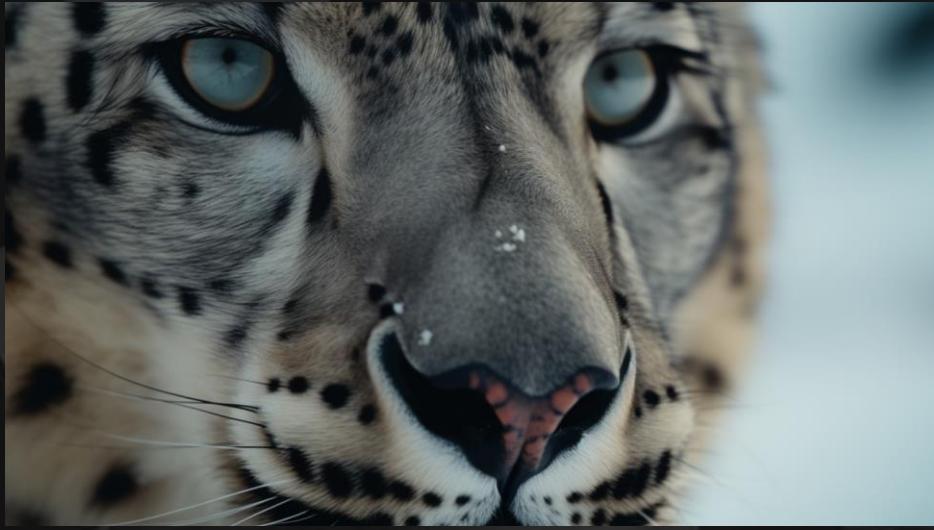
Canvas of the future



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AI for Good | AI ART



"Snow Leopard in AI Focus" by Alena Gorbacheva, (UNDP Kazakhstan)



"Embracing Hope" by Danielle Tinyiko Baloyi (South Africa)



"Harmony in Ascent: Nurturing Sustainable Progress" by Isaac Lukambagire (Uganda)



"Hello human, what happened to my home?" by Kevin Abanto (Peru)



"The Desperation of Earth" by Rema Lab, Benedikt Falkenstein, Emine Arikan and Reshma Ramrattan (United States)





AI for Good

AI-RELATED FOCUS GROUPS & INITIATIVES



AI:+ **AI for Health**
ITU-WHO Focus Group

World Health Organization

AI: **AI and Internet of Things for Digital Agriculture**
ITU Focus Group

FAO

AI: **AI for Natural Disaster Management**
ITU Focus Group

WORLD METEOROLOGICAL ORGANIZATION + UN environment programme

AI: **Machine Learning and 5G**
ITU Focus Group

AI: **AI for Environmental Efficiency**
ITU Focus Group

AI: **AI and Data Commons**
Global Initiative

AI: **AI for Road Safety**
Global Initiative =

AI: **AI for Autonomous and Assisted Driving**
ITU Focus Group

+ **UN Special Envoy for Road Safety**

+ **UN Envoy on Technology**





AI for Health

ITU-WHO Focus Group

Developing a benchmarking process
for health AI models that can act as
an international, independent,
standard evaluation framework.

Collaboration from medical, public
health, AI, and policy experts, to
update traditional certification
models

itu.int/go/fgai4h



World Health
Organization





AI for Autonomous and Assisted Driving

ITU Focus Group

Define a minimal acceptable performance threshold:

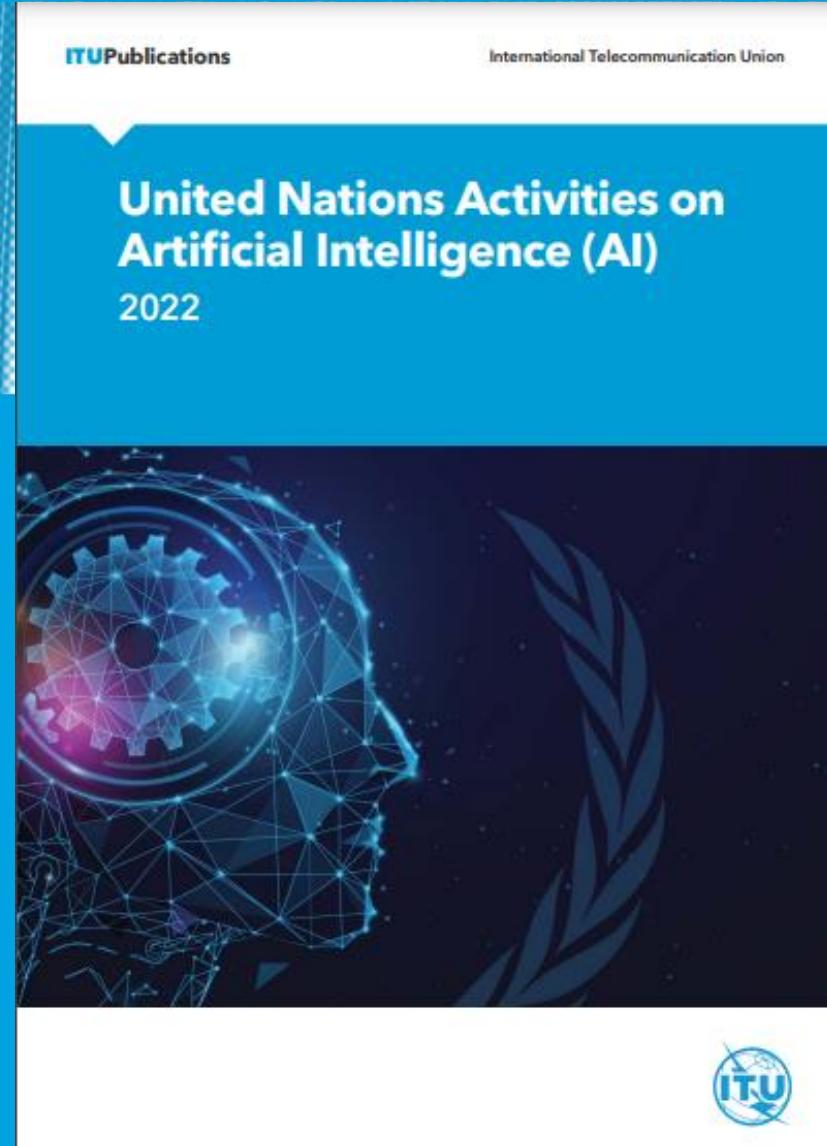
- AI never engages in careless, dangerous, reckless driving behavior
- AI remains aware, willing and able to avoid collisions at all times
- AI meets, or exceeds, the performance of a competent & careful human driver

itu.int/go/fgai4ad





AI for Good | United Nations Activities on AI





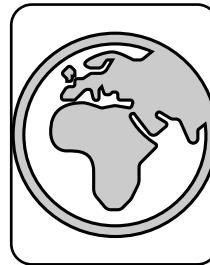
AI for Good

Issues and challenges of AI



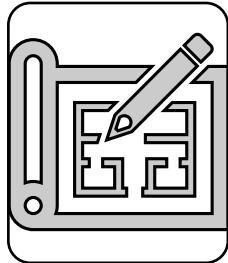
Ethical

- Bias and Fairness Privacy
- Surveillance and Control



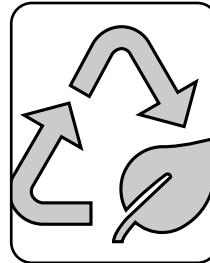
Regulatory /Governance

- Lack of Oversight
- International Collaboration & Competition



Technical

- Explainability
- Generalization
- Robustness and Security



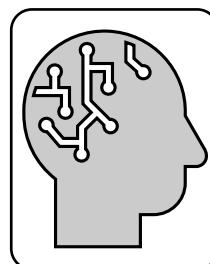
Environmental

- Energy Consumption



Economic & Labor

- Job Displacement
- Inequality



Safety Concerns

- AI Alignment
- Autonomous Weapons



AI for Good | AI standards Landscape - details

ITU-T	ISO/IEC JTC 1/SC 42	IEEE	NIST	UNESCO
<ul style="list-style-type: none">• Technical frameworks• Trust• Authenticity• Privacy• Security• Intelligence levels• ML/AI monitoring metrics• Accessibility	<ul style="list-style-type: none">• Concepts and terminology• Ethical and societal concerns• Governance implications• Technical frameworks	<ul style="list-style-type: none">• Ethical concerns• Transparency• Accountability	<ul style="list-style-type: none">• Trustworthiness• Reliability• Security	<ul style="list-style-type: none">• Ethics





AI for Good AI standards Landscape – ITU-T deep dive

Study Group 13

Technical
Framework

Trustworthiness

Study Group 16

Authenticity

Accessibility

Metrics

Study Group 17

Security

Privacy

Study Group 5

Environmental
Impact

Energy
Efficiency





AI for Good

Interested in participating or
making impact using AI?





AI for Good

Global Summit

*Accelerating the United Nations
Sustainable Development Goals*

6 - 7 July 2023
Geneva, Switzerland

aiforgood.itu.int



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43



AI for Good | Global audience reach



of AI-powered networking with
2.5 K+ participants in-person and
25K+ online Neural Network
members

countries
developed / developing



117



39



137K+

AI for Good
global community

3 Billion+

Cumulative media reach



55/45 Gender
balance

182 countries

UN leaders,
Ambassadors,
Ministers, NGOs,
C-Level industry,
academics, artists,
start-ups

+ Online public
streaming





AI
AI for Good

Media Coverage

INSIDER	The Guardian	The New Times	The Economic Times	WION	THE HINDU	CISION	Zia De Sud	adevărul.ro	ALEPH NEWS	ITU	DW	SBS NEWS	연합뉴스 YONHAPNEWS	
	CNN	yahoo/news	REUTERS	AP Associated Press	DW Deutsche Welle	the Gazette	JTC news	news 1 뉴스	MBN NEWS	OBS 뉴스	CCTV NEWS	KUKA	DER TAGESPIEGEL	
NATIONAL REVIEW	euronews.	NEW YORK POST	WUOL	Tim: Economic Times	THE DAILY SENTINEL	FINANCIAL REVIEW	KURIER	Cryptopolitan	WELT	NEWSZONE	future zone	gagadget.com	Krypto News	
	iTforall	USA TODAY	THE TIMES OF ISRAEL	UN News	CN BUSINESS	the _byte.	abc NEWS	DHN Die digitale Nachrichten	WOCHE BLITZ	UNTERNEHMER-HEUTE	Tacc	СМОТРИМ	КРАСАЯ ВЕЧИЯ	SecurityLab.ru
SWI swissinfo.ch	LE TEMPS	FRANCE 24	BBB NEWS JAPAN	20 Minuten	AGEFI	lemanbleu-tv	хайтек+	24 часа	gadget.com	ЛАЙФХАКЕР	SPUTNIK	RGRU	TechInsider	
Global NEWS	salon	TechRepublic	Cointelegraph	LE DAUPHINE	proactive	Geo News	INTELLIGENTIA ARTIFICIALIS	الأمم المتحدة	Los Angeles Times	JENTEL MX	rfi	CRONICA	vitea	
Courrier International	HUAWEI	한국판	FORTUNE KOREA	CCTV. 中国中央电视台	Ai타임스	CGTN	Tribuna	elpost	EL DEBATE	Semana	WIRED	CONTTELEGRAPH	ONDA CERO	
CHINA DAILY	한국판 etnews	한국판	ajet.com	JBC	io-bench	KBS	ES DE LATINO	26	Cryptopolitan	N+	el lajornada	LA TRIBUNA BAJA CALIFORNIA	CONTRAST MULTIMEDIOS	
TEC	MBN	OBS	SBS	South China Morning Post	NEWS	yahoo/新闻	BUSINESS INSIDER	CORREO	EXCELSIOR	Forbes	Forbes	Naciones Unidas	eTrade for all	
YTN	СМОТРИМ	tacc	V 카페	로봇신문	매일경제	FT FINANCIAL TIMES	FP	FOX NEWS	VOA	BBC NEWS	NDTV	NEXTVIEW FWD		
이데일리	한국일보	中国科技网 stdaily.com	中国财经网 www.ce.cn	OCBC	光明日报	澎湃新闻	The Economic Times	MARKETING EDGE	IISD	MailOnline	RPP	LA PRENSA LATINA BILINGUAL MEDIA	DIGITAL Bridge Asia-Pacific	
环球网	腾讯网 QQ.com	C财联社	第1财经	InvestorNEWS	Ziare Live	STIRIDIINSURSE	The National	TV5 MONDE	AsumeTech	MILENIO	INSPIREZONE	BREITBART NEWS	lounge	
LIBERTATEA	ZU NEWS	DC NEWS radio	ZUMA PRESS	ECONOMICA.NET	DIGI 24 HD	euro news. RO	ON Medium	blooloop.						



AI for Good

Global Summit

*Accelerating the United Nations
Sustainable Development Goals*

30-31 May 2024

Geneva, Switzerland

aiforgood.itu.int/



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AI for Good | Confirmed Speakers 2024



António Guterres
Secretary-General
United Nations

*Video address



Doreen Bogdan-Martin
Secretary-General
International
Telecommunication Union (ITU)



Geoffrey Hinton
Advisor for the Learning in
Machines & Brains

*presenting remotely



Sam Altman
CEO
OpenAI

*presenting remotely



Anna Koivuniemi
Head of Google DeepMind
Institute
Google DeepMind



HRH Princess Beatrice
United Kingdom



Stuart Russell
Professor of Computer
Science at University of
California, Berkeley, Author
'Human Compatible:
Artificial Intelligence and the
Problem of Control'
UC-Berkeley

What to expect

- AI Governance
- Watermarking (Deepfakes)
- Generative AI
- AI Trustworthiness
- AI for Health
- AI and Climate Change
- AI futures: potential of AI to shape our future
- tinyML





AI for Good | Our platform at your service...



Attend

Join weekly sessions and learn; something for everyone on all SDGs



Programming

Join existing panels or propose new jointly curated sessions



Network

Find experts, partners, collaborators inside and outside the UN



Collaborate

Join Focus groups, challenges, initiatives to work on building blocks of AI for Good



Be visible

Leverage Neural Network to share AI activities



Innovate

Use platform to propose new activities, initiatives, pitching sessions & challenges





AI for Good | Links

AI for Good Website

<https://aiforgood.itu.int/>

AI for Good Global Summit 2023

<https://aiforgood.itu.int/summit23/>

AI for Good Neural Network

<https://aiforgood.itu.int/neural-network/>

AI for Good Media Kit

<https://trello.com/b/Z9W21ZIA/ai-for-good-digital-media-toolkit>



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@AiforGood



AlforGood



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**Shape
the future of
#AlforGood**

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 [ITU News](#)

 [@aiforgood](#)

 [Website](#)

 [@ITU_AIForGood](#)

 ai@itu.int

 [Group](#)

 *Volunteers welcome!
Please reach out for details*

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