12TH FEMBoSA ANNUAL CONFERENCE

Kathmandu, 4 - 5 September 2024

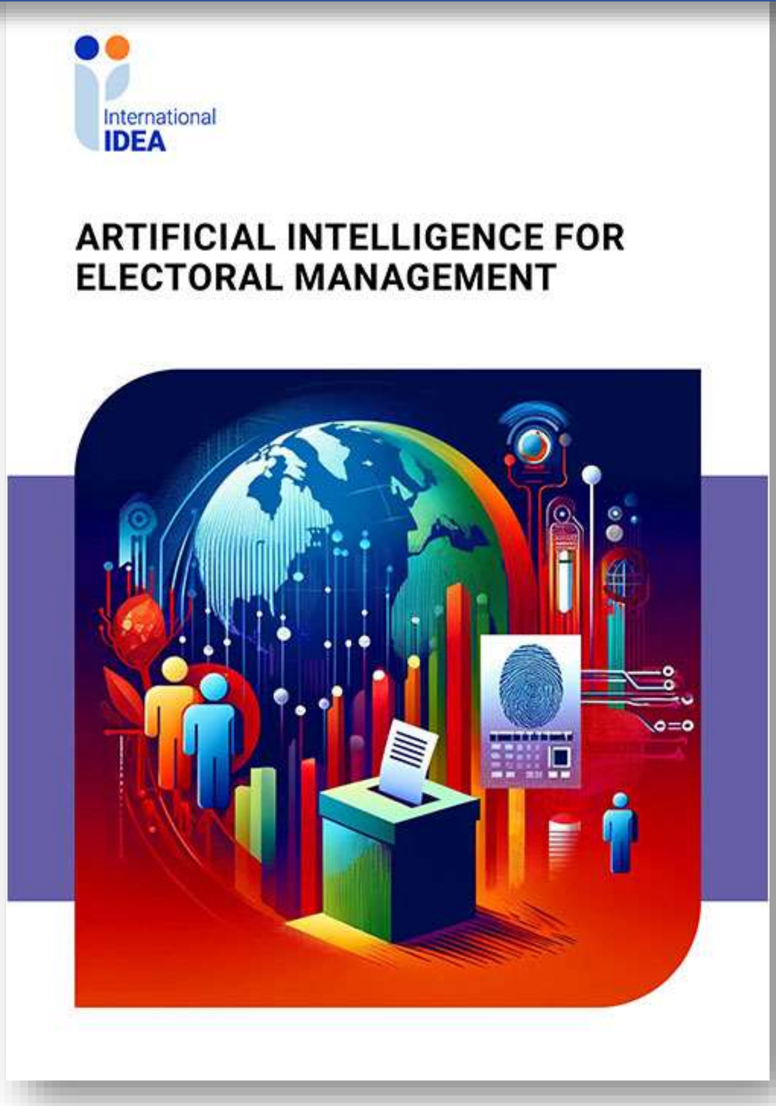
AI & ELECTIONS

THREATS, OPPORTUNITIES, GOVERNANCE

Antonio Spinelli

Senior Advisor
Elections, Political Participation
& Representation
International IDEA

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE


International IDEA

ARTIFICIAL INTELLIGENCE FOR ELECTORAL MANAGEMENT

https://www.idea.int/publications/catalogue/artificial-intelligence-electoral-management

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

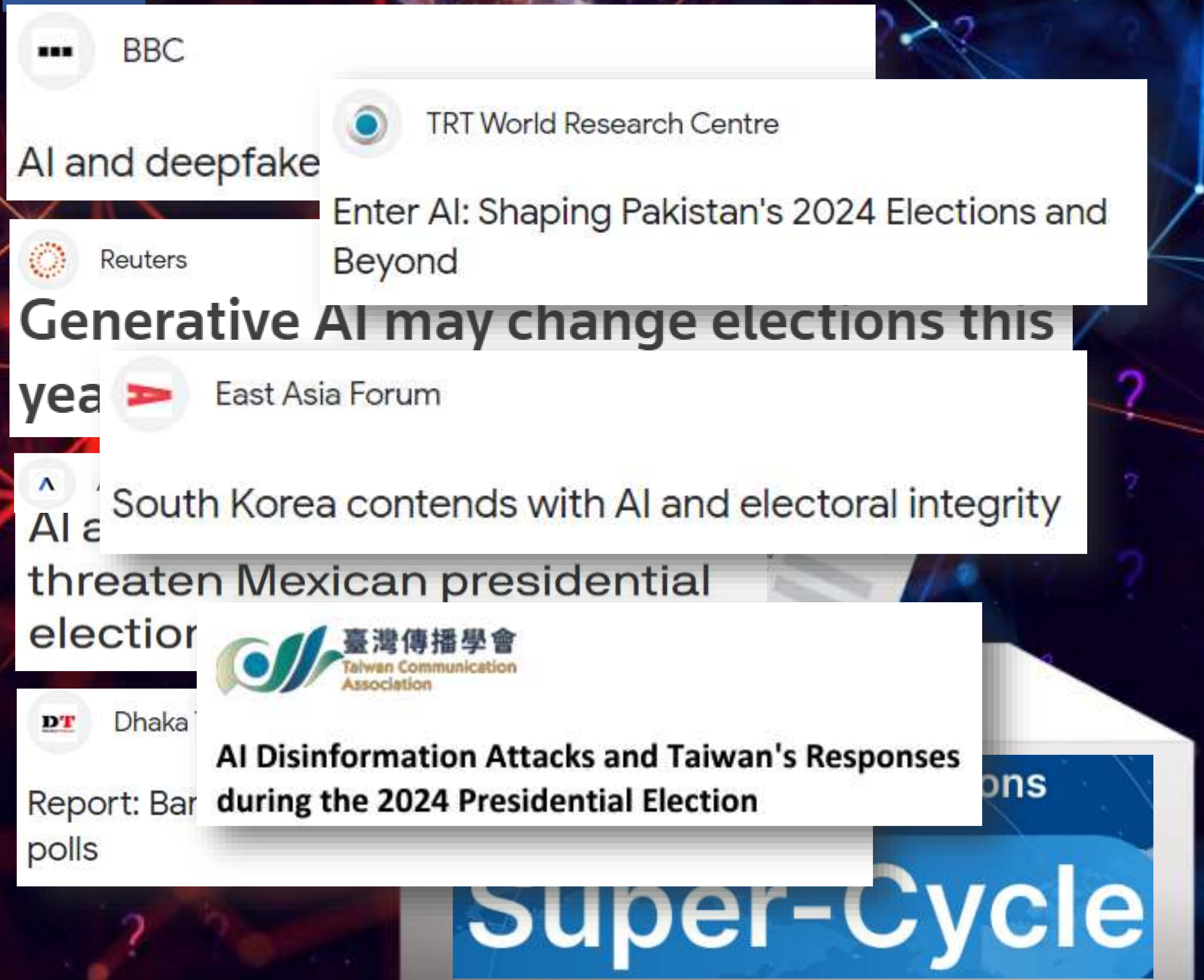
since the **first release** of **ChatGPT** in early **December 2022**, **artificial intelligence** (AI) **models** and **technology** are continuing in their **rapid advance**

the **relationship** of AI with **democracy** and, mostly, its **impact** on **elections**, have become increasingly **important topics** in **global conversations**

with more than half the **global population** heading to the polls in **2024**, we have by now enough evidence of the already **significant impact** that AI has had on **elections** held so far in this **super election year**

International IDEA

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE



BBC

AI and deepfake

TRT World Research Centre

Enter AI: Shaping Pakistan's 2024 Elections and Beyond

Reuters

Generative AI may change elections this

yea

East Asia Forum

South Korea contends with AI and electoral integrity

AI a

threaten Mexican presidential

election

臺灣傳播學會
Taiwan Communication Association

AI Disinformation Attacks and Taiwan's Responses during the 2024 Presidential Election

Dhaka

Report: Bar

polls

ons

Super-Cycle

if we **look back**, most of the **2024 elections** – if not of all - have experienced a **sharp uptick** in the **deceitful, malicious** and **harmful use** of AI aimed at undermining their **integrity**

we have seen this in elections in **India, Indonesia, Mexico, Bangladesh, Pakistan, South Korea** and **Taiwan** - just to name some

if we **look ahead**, we have **good reasons** to believe that this uptick **will continue** not only to **characterise elections** to be held in the remaining months of the **year** – but also **beyond** that

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

REGULATORY VACUUM

A DOUBLE-EDGED SWORD?

while the relationship between AI and elections is increasingly being analysed and discussed around the world - its use and misuse, however, continue to remain largely unregulated

as governance requirements for AI and elections have received insufficient attention and in-depth scrutiny, key regulatory issues remain unknown or, while known, they are left unaddressed, unresolved

A DOUBLE-EDGED SWORD?

the persisting absence of regulations, or governmental guidance, on the use AI in elections is harmful, in that it:

- amplifies and deepens the threats the application of this novel technology is posing to the integrity of elections
- limits the adoption of appropriate risk mitigation and prevention strategies, the establishment of safeguards, clear responsibilities, rules and accountability lines, and the ability to ensure transparency and clear, fair and ethical considerations in its use

REGULATORY VACUUM

A DOUBLE-EDGED SWORD?

in global conversations, the application of this AI models and technology to elections is often referred as a "**double-edged sword**"

analysis and discussions covering the impact of AI on elections have so far predominantly focused only on **one side** of such impact

this metaphor is misleading

THREATS

that is - on the sharpest edge of the sword's blade

A DOUBLE-EDGED SWORD?

at present global knowledge and concerns remain largely focussed on the **threats** that the disruptive and deceitful (mis)use of AI has so far presented - and still has the potential of continuing present – to undermine election integrity, trust in democratic systems and the legitimacy of elected governments

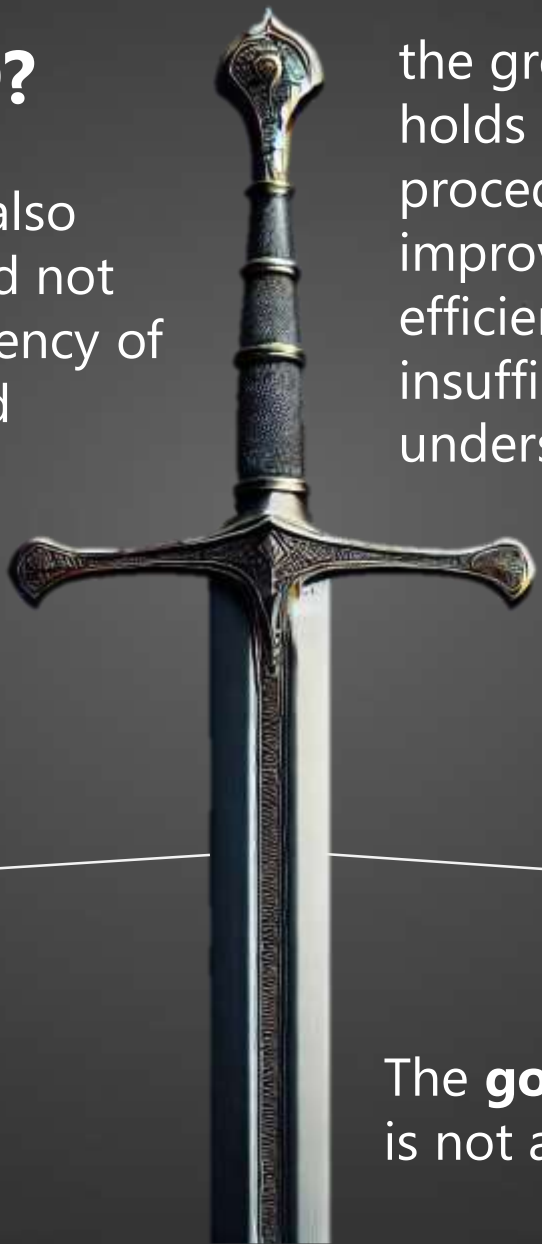
THREATS

as of now, the **other edge** of the blade has not received the same levels of consideration which instead it so urgently deserves

A DOUBLE-EDGED SWORD?

the applicability of AI-enabled tools to also leverage opportunities to enhance – and not just undermine – the integrity and efficiency of elections remains significantly untapped

the great potential such novel technology holds to modernise elections, streamline procedures, expedite multiple operations, improve their accessibility, convenience, efficiency, transparency, costs and security is insufficiently explored and not entirely understood and harnessed



THREATS

OPPORTUNITIES

The **good edge** of the sword’s blade is not as sharp as the other one

A DOUBLE-EDGED SWORD?

The stakes are high, they call for a recalibration of the two edges of the blade and therefore for urgent action to:

- First - bolster efforts to sharpen the **good edge** of the AI sword by harnessing its positive dimensions and leveraging the many potentials this technology has to offer, and particularly those to combat, contain and stop its own nefarious use
- Second - regulate its **governance** – that is how that sword must - or mustn't - be used, who is responsible for its use, and what consequences are there for those who are not using it appropriately

THREATS

OPPORTUNITIES

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

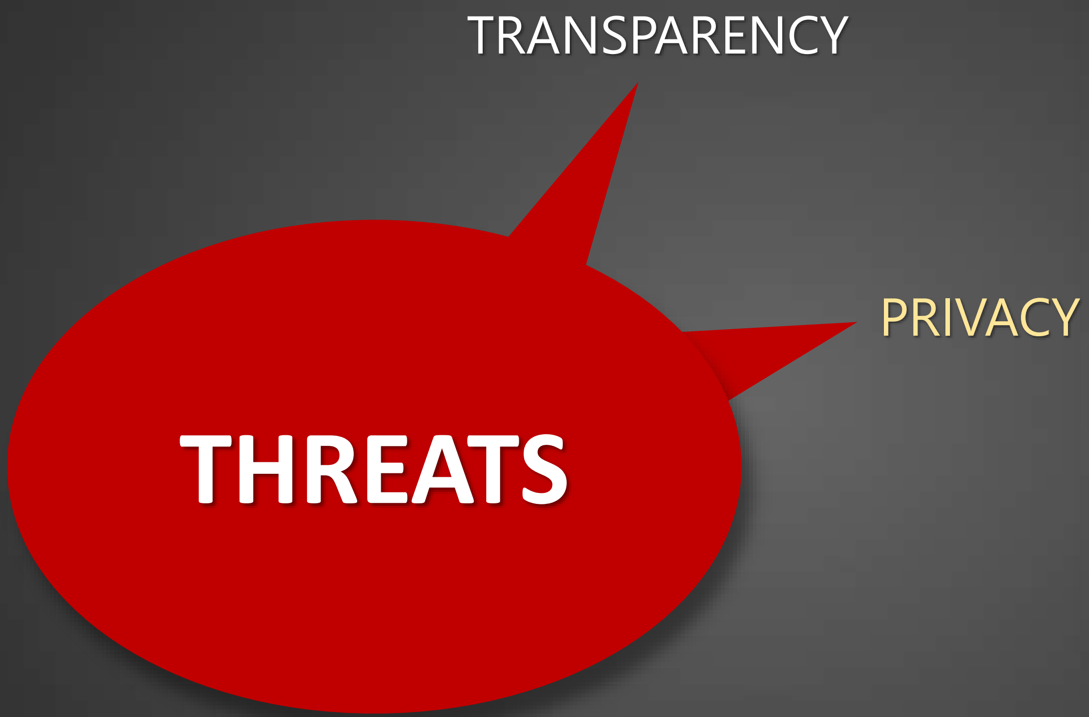
TRANSPARENCY

THREATS

TRANSPARENCY

The opaque nature of AI algorithms makes it difficult to understand how decisions are made, the sources, methodologies, and criteria used for such decisions, as well as to evaluate their equity, accuracy, and integrity

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE



TRANSPARENCY

PRIVACY

THREATS

PRIVACY

AI systems often collect and analyse vast amounts of personal data, often without the owner's knowledge or consent. Data can be misused for voter profiling, targeting individuals with specific disinformation, infringing on voter anonymity, thereby compromising the confidentiality and integrity of the electoral process

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

TRANSPARENCY

PRIVACY

THREATS

ACCURACY

ACCURACY

AI models can spread disinformation, misinform voters, and undermine trust in the electoral process. If AI systems deliver incorrect or misleading information, it can lead to confusion and erode the integrity of the election

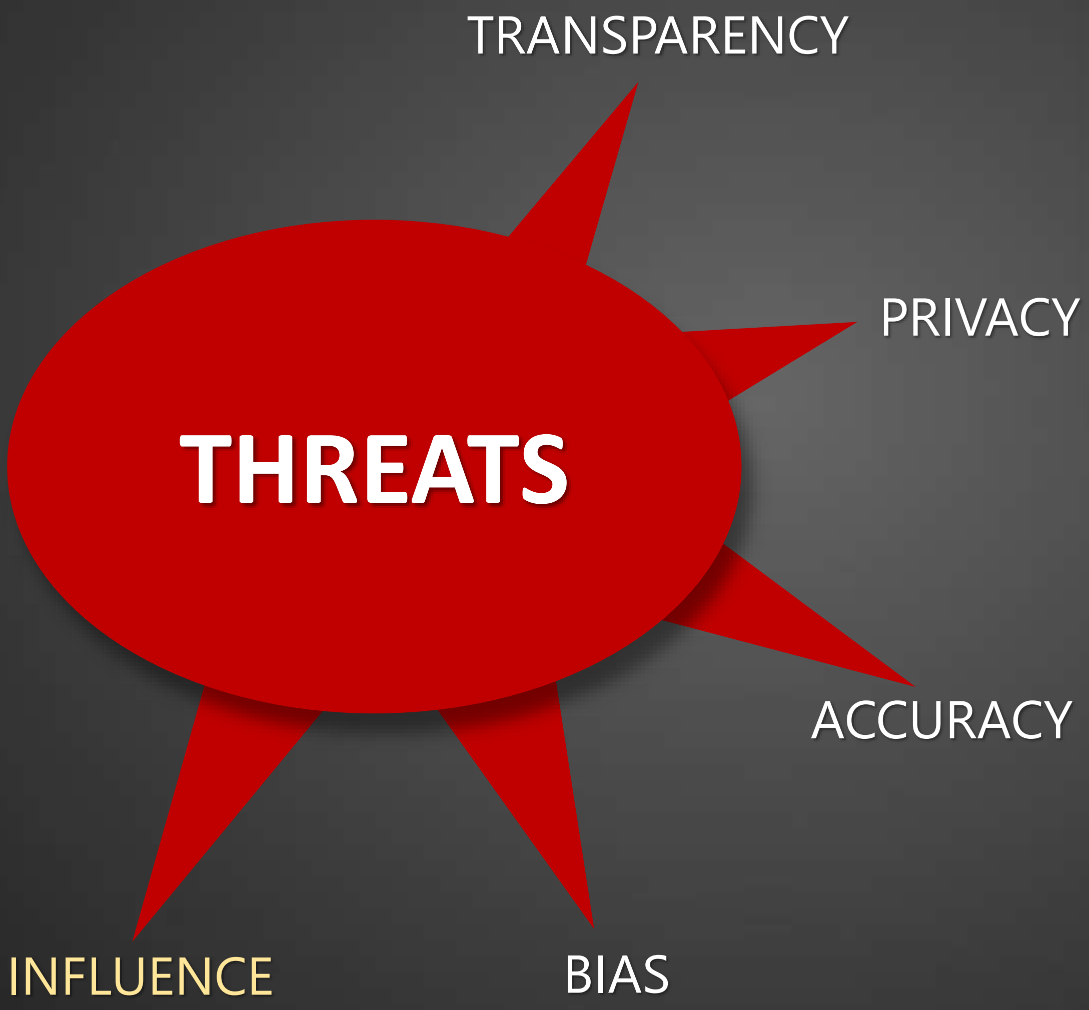
AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

TRANSPARENCY
PRIVACY
THREATS
ACCURACY
BIAS

BIAS

AI models are prone to historic and societal biases inherent in the records they have been trained on, so if implemented without considerate human oversight, they can perpetuate and exacerbate existing systemic inequalities, socio-economic disparities, demographic imbalances, partisan divides

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

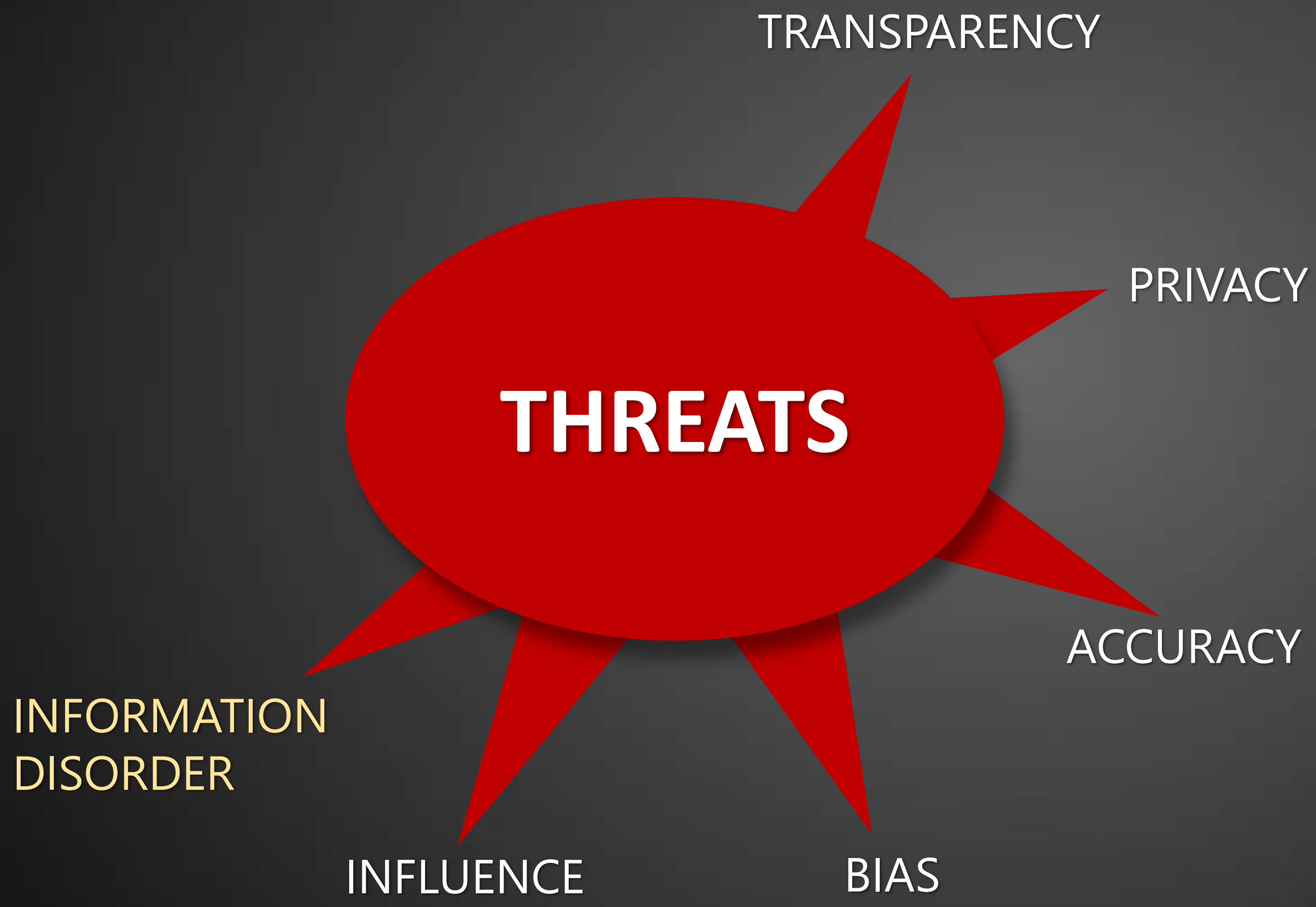


UNDUE INFLUENCE

The line between campaigning and election influence is thin. The use of large volumes of data to microtarget voters and influence their behaviour and voting patterns/choices is concerning

International IDEA

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE



THREATS

TRANSPARENCY

PRIVACY

ACCURACY

BIAS

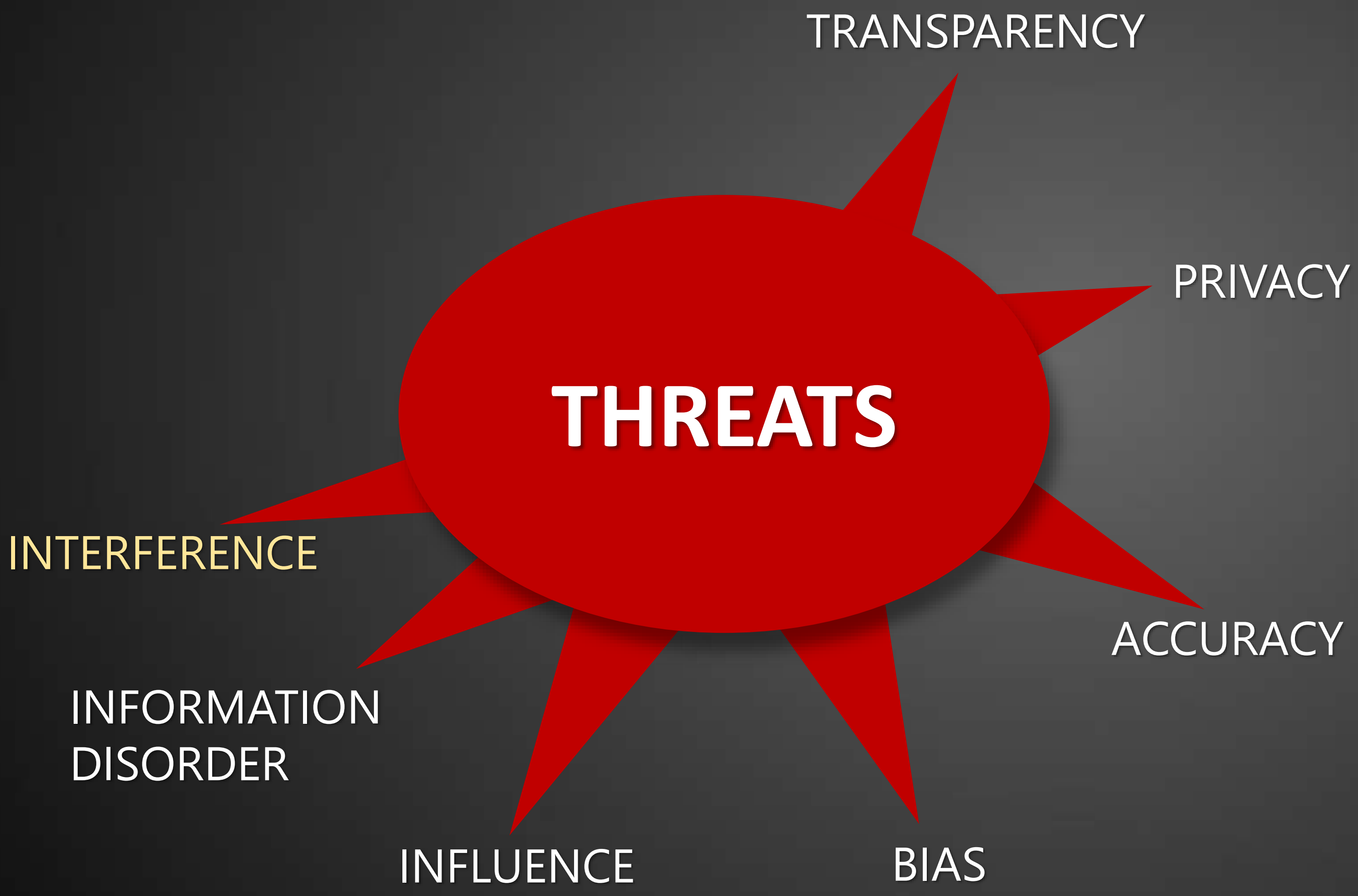
INFLUENCE

INFORMATION DISORDER

INFORMATION DISORDER

AI's impact on our information ecosystem is profound, changing how we engage with and trust information and its sources. Advanced AI tools could make disinformation more effective, leading to online spaces filled with manipulated content. This proliferation of AI-generated false and deceitful content may accelerate public distrust in election information, creating confusion and making it harder to discern truth from falsity, ultimately eroding trust in even accurate, real and authoritative sources

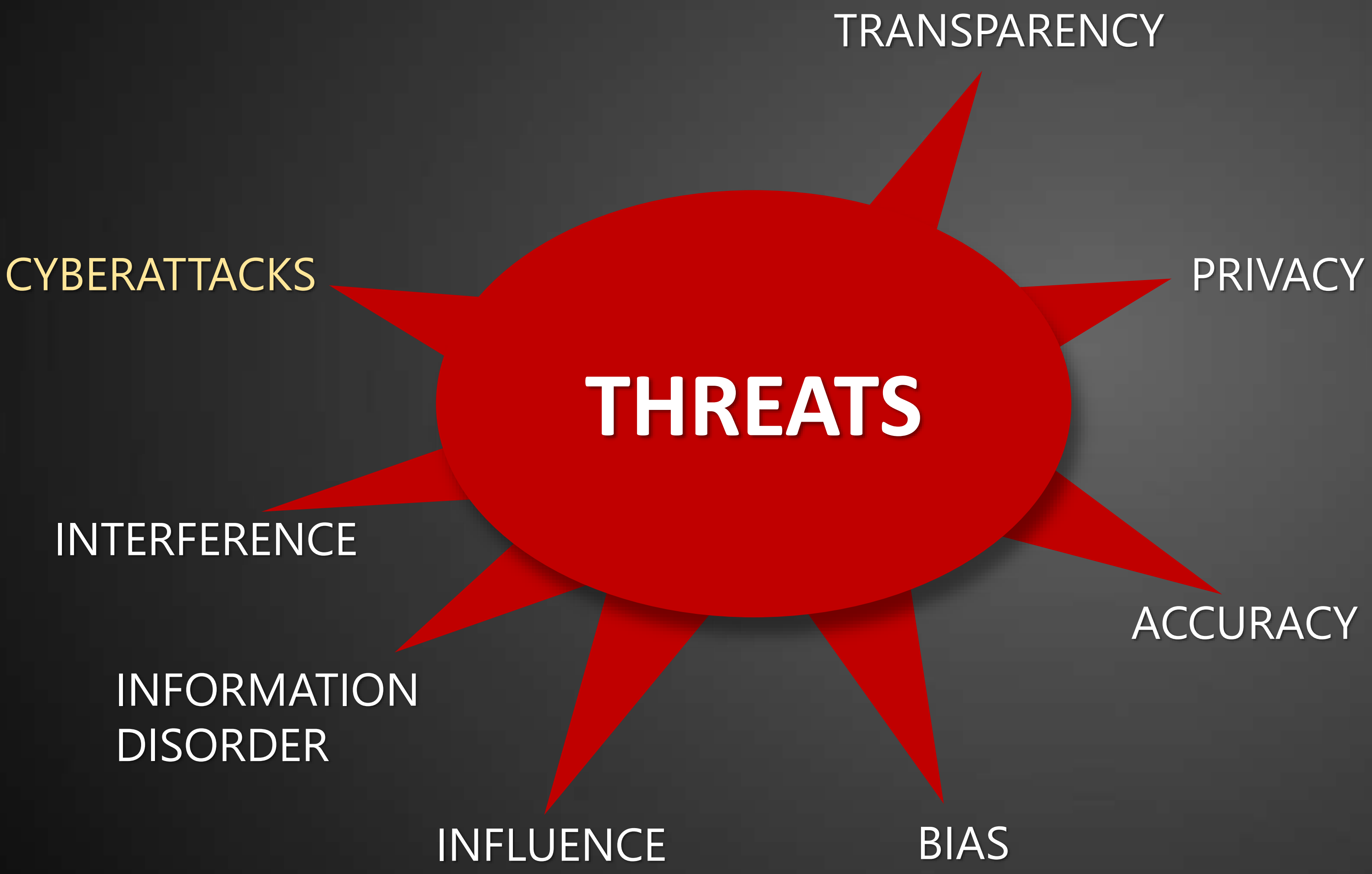
AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE



INTERFERENCE

AI can enhance foreign or domestic interference in elections by automating the creation and spread of disinformation, targeting specific voter groups with tailored messages, and generating convincing fake content, which can undermine trust in the election process and influence voter behaviour

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE



CYBERATTACKS

The use of AI in elections increases the likelihood of cyberattacks by automating and enhancing the sophistication of phishing attempts, social engineering, and exploitation of system vulnerabilities

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

THREATS

ACCOUNTABILITY

TRANSPARENCY

CYBERATTACKS

PRIVACY

INTERFERENCE

ACCURACY

INFORMATION DISORDER

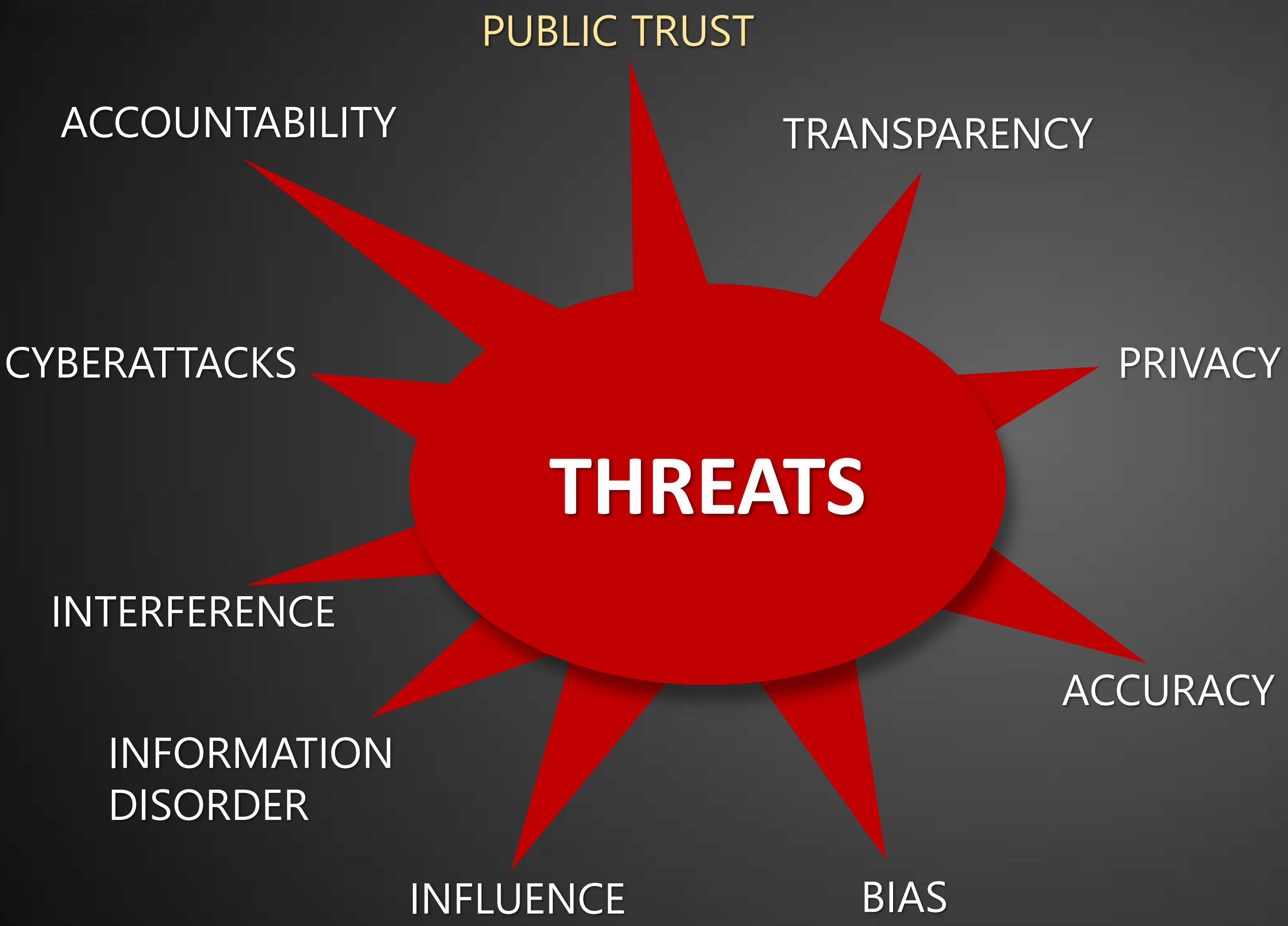
INFLUENCE

BIAS

ACCOUNTABILITY

Automated decision-making in elections is problematic because many AI tools operate in ways that are difficult to understand or interpret, making it challenging for humans to oversee and ensure their decisions are accurate and unbiased. This removes accountability, as it is unclear how conclusions are reached or who is responsible for potential errors

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE



PUBLIC TRUST

Even low failure rates in the use of AI can undermine electoral integrity and public trust. Visible AI use in elections may make voters skeptical of impartiality and security. AI's unreliability and opaque decision-making can erode citizens' right to vote and their trust in the process

International IDEA

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

PRE-ELECTION PERIOD

- Voter registration and verification
- Electoral roll/voter list management
- Electoral boundary delimitation
- Voting accessibility mapping
- Budgeting and cost forecast
- Voter information
- Political campaigning
- Social media misinformation monitoring
- Predictive analytics

ELECTION PERIOD

- Fraud detection
- Voter identification and verification
- Voter turnout analysis

POST-ELECTION PERIOD

- Post-election analysis
- Survey analysis
- Social media analysis
- Simulation and modelling
- Predictive analytics

- **Black**: application of AI only potential
- **Red**: application of AI already a reality

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

PREDICTIVE ANALYSIS

POLLY, Canada: an AI-enabled market research system that uses a combination of public social media data, news articles, and other public content to gauge sentiment analysis about candidates, parties, and election issues. It processes, aggregates and analyses massive amounts of data to predict how people might vote. Polly successfully predicted several election outcomes in Canada and the US

VOTER REGISTRATION

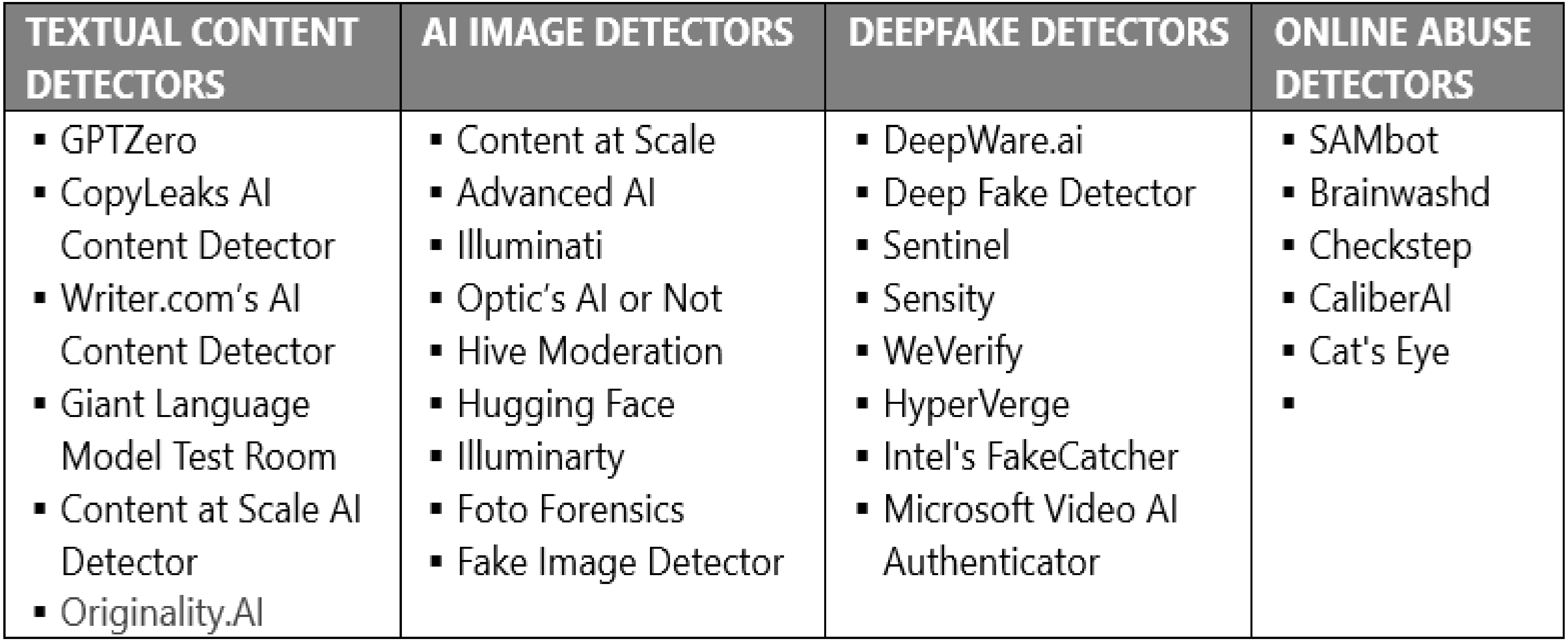
Electronic Voter Registration Center (ERIC), US: interstate voter list maintenance system, allows identifying duplicate entries across different datasets, validates matches, requires human review before sending matching data to other states

ELECTION CAMPAIGN

PEMILU, Indonesia: an AI political consultant, pulls together demographic data and crawls social media and news websites, allowing it to generate speeches, slogans, and social media content tailored to a constituency. Candidates list their political priorities and choose how they seek to be portrayed

Virtual Assistant, Canada: city of Markham in Toronto. It can provide answers on more than 100 topics, such as where to vote, who their candidates are, how to register or vote online. It is capable to transfer any voter to live agents, as needed

WHAT TOOLS ARE ALREADY THERE



TEXTUAL CONTENT DETECTORS	AI IMAGE DETECTORS	DEEPFAKE DETECTORS	ONLINE ABUSE DETECTORS
▪ GPTZero ▪ CopyLeaks AI Content Detector ▪ Writer.com's AI Content Detector ▪ Giant Language Model Test Room ▪ Content at Scale AI Detector ▪ Originality.AI	▪ Content at Scale ▪ Advanced AI ▪ Illuminati ▪ Optic's AI or Not ▪ Hive Moderation ▪ Hugging Face ▪ Illuminarty ▪ Foto Forensics ▪ Fake Image Detector	▪ DeepWare.ai ▪ Deep Fake Detector ▪ Sentinel ▪ Sensity ▪ WeVerify ▪ HyperVerge ▪ Intel's FakeCatcher ▪ Microsoft Video AI Authenticator	▪ SAMbot ▪ Brainwashd ▪ Checkstep ▪ CaliberAI ▪ Cat's Eye ▪

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

While governance is lagging, several countries have enacted or proposed legislative measures to regulate the use of AI in elections, focusing on preventing its misuse and protecting election integrity:

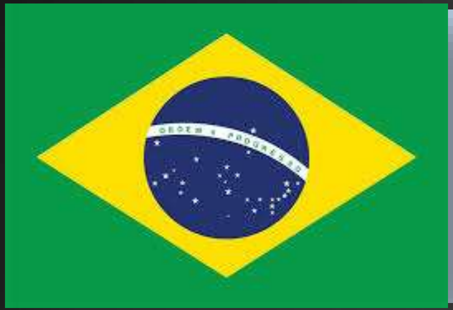
EU's Artificial Intelligence Act classifies AI apps base
stringent transparency requirements and prohi
unacceptable risks. It mandates labelling of manipul
Office/AI Board to ensure consistent enforcement acr

2023 Artificial Intelligence Executive Order requires regulators to develop guidelines for safe, secure, and trustworthy development/use of AI by infrastructure owners/operators; the "Protect Elections from Deceptive AI Act" proposed in the Senate, seeks to ban deceptive AI-generated content in political advertising

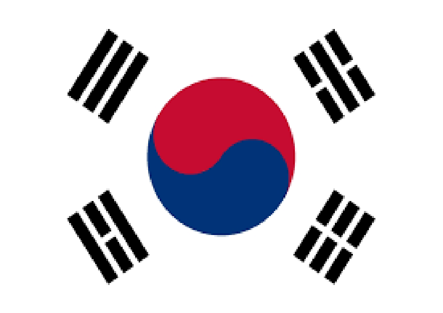
federal candidates who are affected by deceptive content would be able to initiate actions to have the content removed and be entitled to pursue damages in federal court

AI & ELECTIONS: THREATS, OPPORTUNITIES, GOVERNANCE

While governance is lagging, several countries have enacted or proposed legislative measures to regulate the use of AI in elections, focusing on preventing its misuse and protecting election integrity:



The Superior Electoral Court introduced regulations prohibiting the use of deepfake technology in electoral campaigns; mandating the disclosure of AI use; imposing penalties for misuse, including potential disqualification of candidates who use AI to spread false information or attack opponents



The 2023 revision of the Public Official Election Act bans election-related deepfake videos, photos, and audio during the 90 days leading up to an election; violators face severe penalties, including up to seven years in prison or substantial fines (up to equivalent of US$ 37,000).

AI & ELECTIONS: THE PATH FORWARD

While threats and opportunities in the use of AI continue to evolve, we can expect the regulatory environment will also continue to adjust, making it important for **legislators** to:

1 Establish clear, comprehensive, forward-looking **regulations**, **guardrails**, **oversight mechanisms**, designating a **lead body** to coordinate governance of AI issues in elections, defining roles, duties, functions of oversight bodies, the EMB, government agencies, technology developers, social media companies, to foster their **accountability** and defined their **shared responsibilities**

2 Ensure **ethical considerations** are integrated into the use of AI in elections, prioritising fairness, accountability, privacy and ensuring human involvement in any final decisions that may affect voters or the integrity of elections

3 Enforce **strong privacy protection** through measures and encryption protocols to safeguard voter data from unauthorized access, leaks, breaches, tampering, or any improper use

AI & ELECTIONS: THE PATH FORWARD

While threats and opportunities in the use of AI continue to evolve, we can expect the regulatory environment will also continue to adjust, making it important for **legislators** to:

4 Introduce **credibility indicators** - such as **rules for compulsory digital watermarks** in AI-generated content, **labelling materials** generated by AI with clear warnings to help voters distinguish between human and AI-generated content

5 **Hold misinformers** to **account** by adopting and enforcing **laws** targeting the use of AI for spreading **mis-disinformation** in elections, with clear and enforceable **penalties** for **violations**

6 Liaise with **technology companies** to develop best practices for AI use in elections and to implement mechanisms for flagging and removing harmful AI-driven content

AI & ELECTIONS: THE PATH FORWARD

Similarly, it is also important for **electoral management bodies (EMBs)** to enhance their ability to respond to the evolving technological landscape surrounding the elections they deliver and:

1. promote a **coordinated national inter-agency approach** involving collaboration across various levels of government, expert advisory panels, technological and security agencies and other key sectors

2. invest in **digital literacy** through **public education campaigns** about AI in elections to build **voter trust**, reduce their **gullibility** to **deception** and **fake news**, and encourage them to **verify reliability** and **sources** of any electoral information they receive

3. promote and encourage **learning** by expanding their **comparative research capacities** to document and assess practices and experiences of the use of AI in elections in other **international jurisdictions** and learn from them

AI & ELECTIONS: THE PATH FORWARD

Similarly, it is also important for **electoral management bodies (EMBs)** to enhance their ability to respond to the evolving technological landscape surrounding the elections they deliver and:

4 bolster their **knowledge, understanding** and **use** of **AI** to develop the ability to **counter** AI-generated **deepfake** and **phishing content** by leveraging the same technology and developing high-accuracy tools to detect, track, and defuse such **malicious attempts**

5 enhance their **fact-checking, pre-bunking** and **de-bunking abilities** with the incremental development and adoption of AI-enabled tools that **combine machine** and **human efforts** to scour the internet for deceitful content, mis- and dis-information, fake videos, and voice detections, recognise false news in advance, rather than relying solely on traditional "debunking" after the fact

6 perform **social media listening** through AI-enabled tools to **monitor trends** and **public opinion** across different communities and demographics

AI & ELECTIONS: CONCLUSIONS

Overall, we shouldn't regard AI as an independent entity

While AI models have decision-making abilities

- they are designed by humans
- built by humans
- trained by humans
- used by humans

So, it follows that ultimately, we, the humans, must be able to determine:

- how these tools must be used - or not used
- what guardrails must be put up to ensure that these tools are used properly and ethically
- how to make the coexistence of AI and elections as helpful, transparent, equitable, accountable and accurate we need it to be

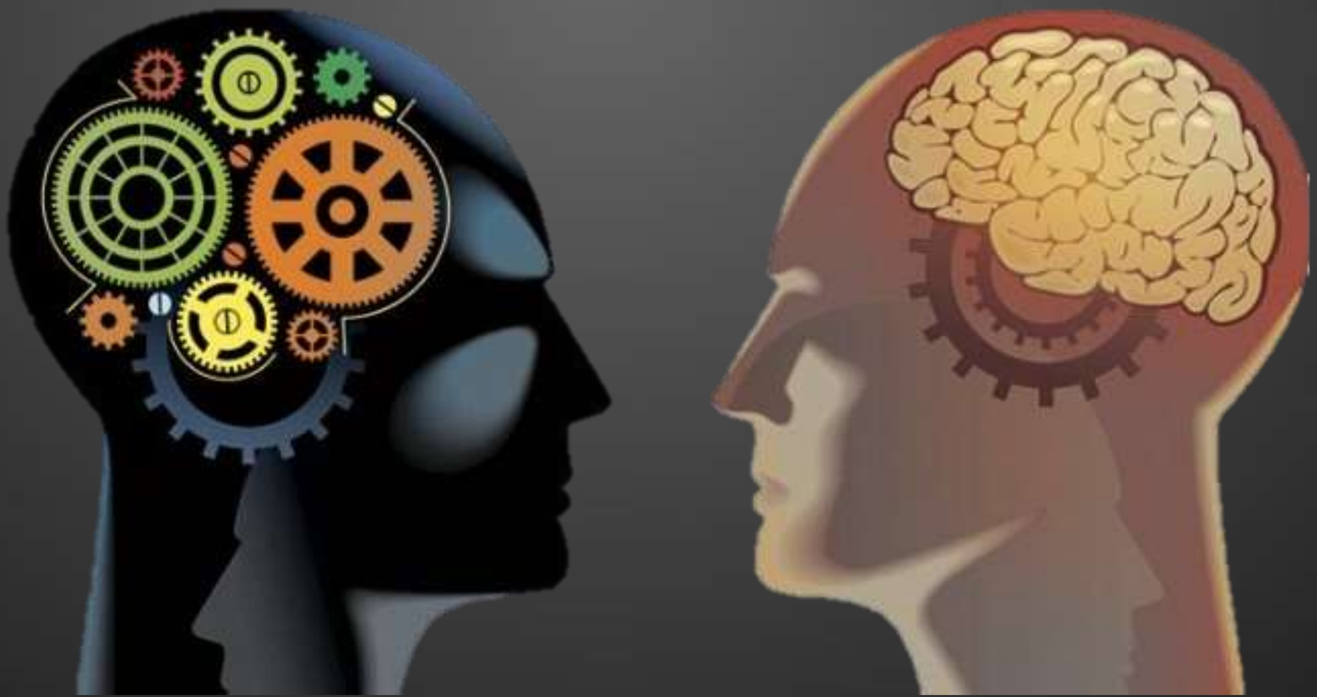
AI & ELECTIONS: CONCLUSIONS

We can only attain that ownership by more effectively deciphering:

- what the machine is doing
- what instead we want it to do
- how we, the humans, can redefine and fix the terms of such co-existence

AI OWNERS

AI SUBJECTS



AI & ELECTIONS: CONCLUSIONS

THANK YOU