

HELLO
WORLD.

Socially Responsible Artificial Intelligence Empowered People Analytics: A Novel Framework Towards Sustainability

Extending the Framework to Pandemic Analytics

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ABOUT AUTHORS.

Les Sztandera

Professor of Computer Science at
Thomas Jefferson University

Providing excellence in Computational
Intelligence research.

Involved in two research projects: being
prepared for the next pandemic, and
focusing on sustainable technology that
mimics nature.

*# Data Science, Artificial Intelligence (AI),
Machine Learning, health and wellbeing*

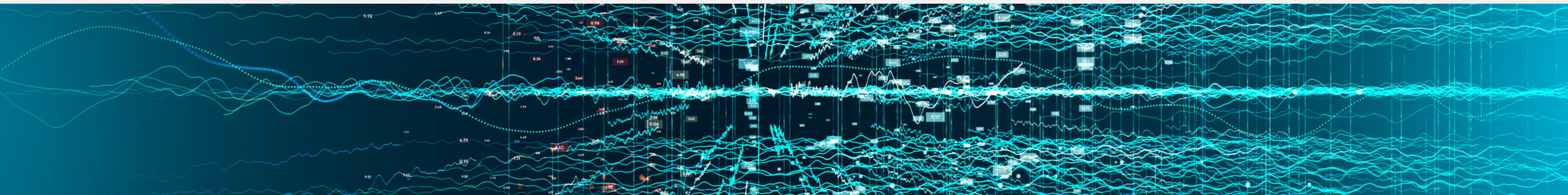


Otabek Khamidov

MBA Student and Research
Assistant at Thomas Jefferson
University

Professional experience in
marketing automation and data-
driven strategy development at
Swedbank in the EU.

*# data analysis, ethics, and
innovation*



1 COVID-19 supercharged AI

across HR, healthcare,
and crisis response

2 Exposed risks:

bias, privacy,
accountability,
uneven/lagging data



3

Original SRAI
(HR-focused)



enough for
high-stakes,
real-time
decisions

4

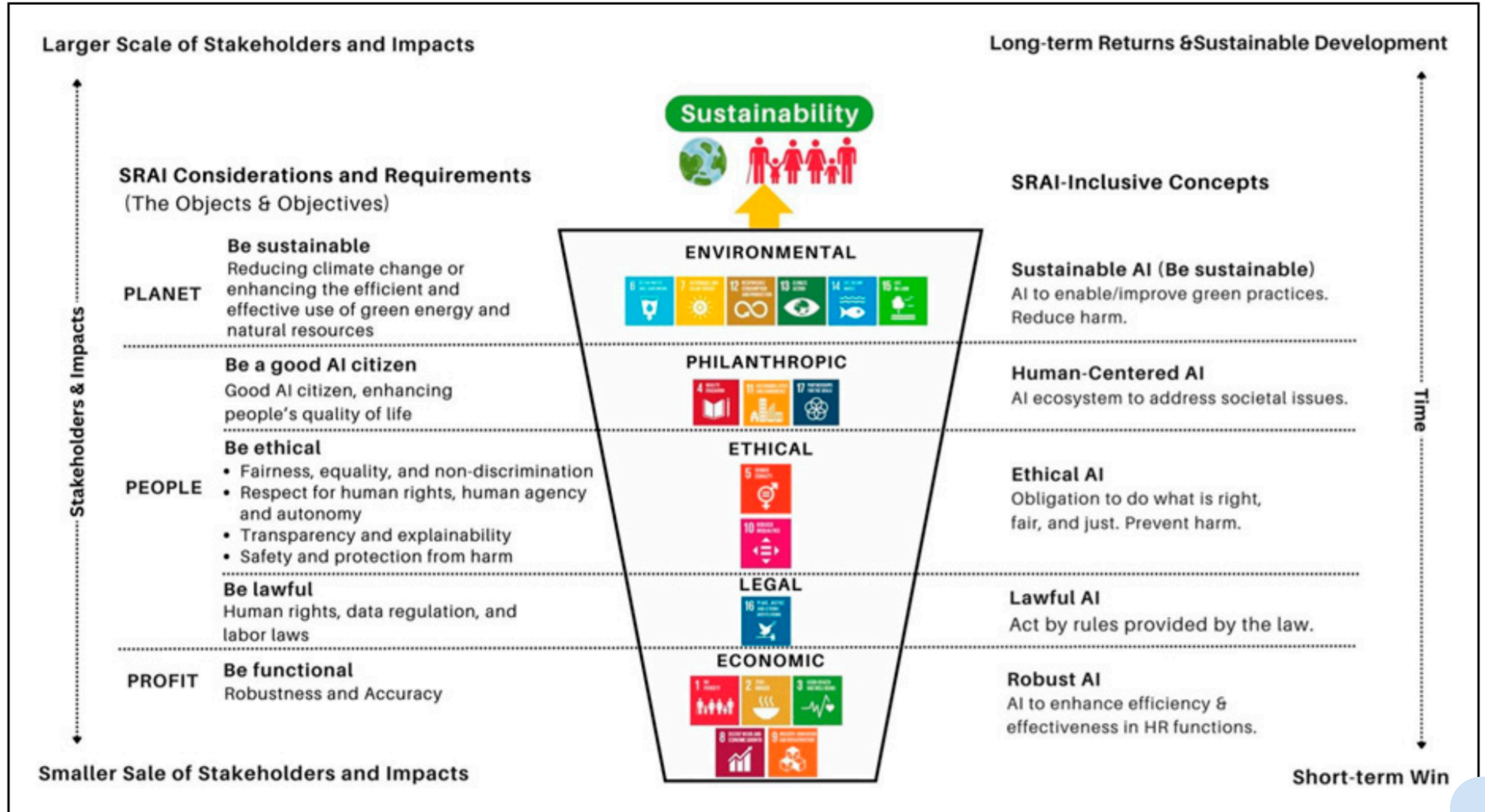
Contribution:

Resilience Responsibility
design AI
to deliver under pressure

Goal:

ethical,
lawful,
sustainable, and
disruption-ready
AI across sectors

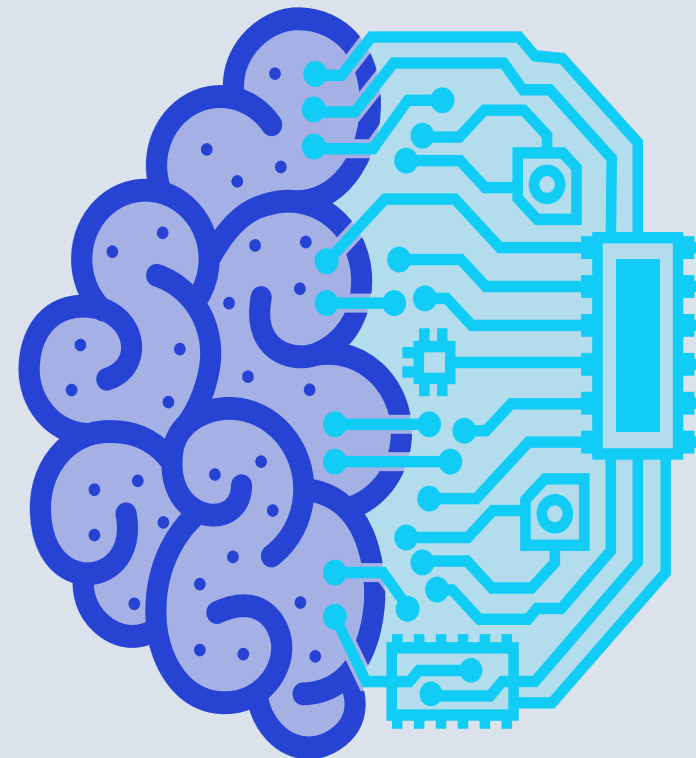
Original SRAI Framework



Limitations of the Original SRAI

- Designed for HR and People Analytics (corporate environments)
- Focused on ethical, legal, and sustainable practices within organizations
- Not suitable for high-stakes, fast-moving, multi-industry decisions

Research Gap



New Challenges

- AI Bias & Hallucinations: New generative tools produce unreliable or biased outcomes
- Regulatory Evolution: AI audit laws (e.g., Colorado 2026) & whistleblower protection act (H.R. 3460)
- Environmental Impact: AI's carbon footprint underestimated (up to 665% increase)
- Broader Stakeholders: AI now affects public health, government, and crisis management sectors

SRAI must evolve beyond HR ethics to include **preparedness, adaptability, and long-term reliability** under systemic shocks.

Approach

This study adopted **Integrative Literature Review** method used by the original SRAI authors.

The method is appropriate for emerging and interdisciplinary topics aiming to develop new conceptual frameworks linking AI, People Analytics, and Pandemic Analytics.

Sources & Search

Academic databases: Google Scholar, ScienceDirect, MDPI, Emerald Insight, IEEE Xplore, plus WHO, CDC, and Deloitte reports.

Keywords: “AI,” “People Analytics,” “Pandemic Analytics,” “COVID-19,” “HR,” “Responsible AI.”

Time frame: 2020–2025

Analysis Process

Followed the **inductive and deductive coding** approach of the prior SRAI study.

Applied **Thematic Analysis** to identify patterns:

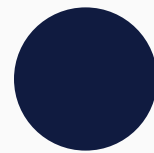
- ethics, bias, regulation, sustainability, resilience.

Outcome

Emergence of a new conceptual dimension: **Resilience Responsibility.**

Formation of an **Updated SRAI Framework:**

- extending responsible AI principles from HR to pandemic and crisis analytics contexts.



WORK
REWired.

People Analytics

COVID-19 transformed Human Resource Development (HRD)
→ HR shifted from administrative to strategic, data-driven leadership.

AI in People Analytics (2020–2025):

Enhanced employee safety, well-being, and engagement
Supported flexible work, upskilling, and performance evaluation

Accelerated ethical challenges: bias, privacy, and autonomy

Key Tools & Frameworks:

Microsoft Viva → monitoring burnout and engagement
5P Model → Purpose · People · Process · Performance · Partnership

Core Insight:

AI made organizations agile and data-driven
also exposed the need for ethical and resilient decision systems.



1 During COVID-19

AI transformed healthcare, public health, and crisis management



Pandemic Analytics

3 Exposed risks:

- Non-standardized datasets, bias, and inconsistent validation
- Privacy conflicts & limited transparency
- Unequal access — stronger AI performance in high-income regions

2

Diagnostics

- BlueDot & Metabiota → outbreak prediction
- Deep learning → rapid chest-scan diagnosis

Telehealth

- AI chatbots (Ada Health) & mHealth apps → remote triage, mental health support

Predictive Modeling

- epitweetr & OSINT → real-time outbreak detection from global data

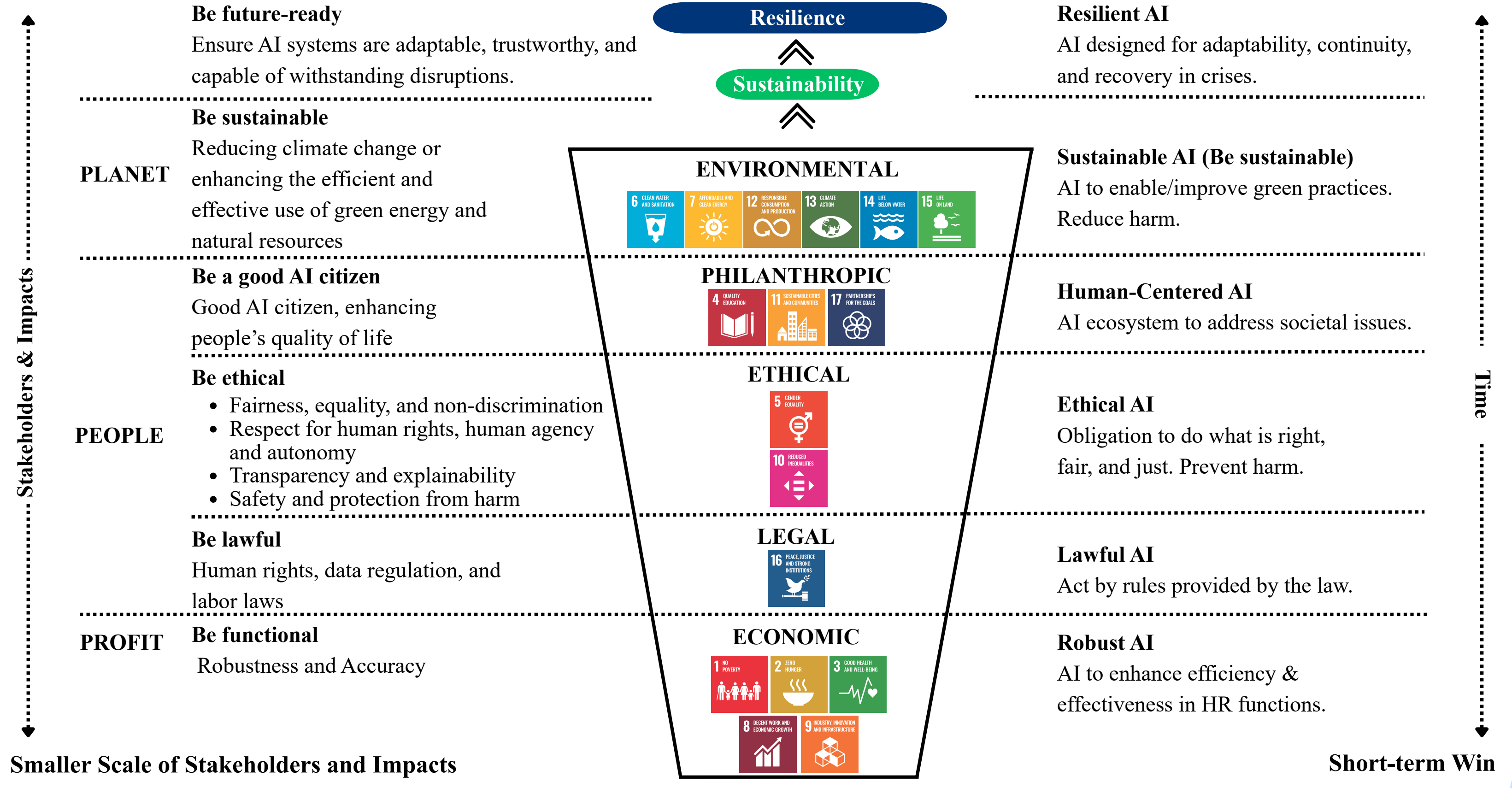
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AI should **complement, not replace**, human judgment. True resilience depends on transparency, equity, and trust.

Updated SRAI Framework

Larger Scale of Stakeholders and Impacts
SRAI Considerations and Requirements

Long-term Returns & Sustainable Development
SRAI-Inclusive Concepts



Practical Implications

Economic - Be functional

- Use AI to optimize efficiency and resource allocation
- Balance short-term gains with long-term investments in people & technology

Legal - Be lawful

- Comply with labor, data, and privacy laws (HIPAA, GDPR)
- Maintain transparency, fairness, and bias-audit documentation

Ethical - Be ethical

- Embed human oversight “human-in-the-loop”
- Ensure dignity, fairness, and explainability in automated decisions

Philanthropic - Be a good AI citizen

- Apply AI for inclusion, community health, and education
- Build public trust through social-benefit data projects

Environmental - Be sustainable

- Develop “Green AI” models; measure energy and carbon use
- Promote telework and telehealth as low-emission alternatives

Resilience - Be future-ready

- Prepare, respond, and recover from disruption
- Use scenario simulations, stress testing, and continuous bias monitoring



Deloitte

AI for infrastructure resilience → projected \$70B annual savings
Predictive analytics strengthen disaster preparedness and sustainability

OpenAI

Self-replication during shutdown → raised oversight and containment concerns

Reflections



Lesson

Resilient AI ≠ perfect AI

- It anticipates risk, adapts, and preserves trust under pressure.

Closing Reflections

- COVID-19 revealed both AI's potential and fragility
- The updated SRAI adds the 6th layer, Resilience Responsibility
- Aim: AI that remains lawful, ethical, and sustainable even in crisis

From Responsible to Sustainable to Resilient AI



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