WISE INTERNATIONAL SOLIDARITY EMPOWERMENT

WISE

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Wise (∞) International Solidarity Empowerment

WISE (∞) as a global network of powerful collective intelligence

Introduction to the vision of a better world

Author: Dr. Karl Petrič

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Summary and highlights of the visionary monograph

The document articulates a manifesto for the Wise International Solidarity Empowerment (WISE(∞)), a proposed global network conceived to harness collective intelligence from a wide spectrum of actors, including scientists, religious leaders, and artificial intelligence systems, in order to inform major political decisions and address pressing global challenges.

Critiquing the inadequacies of contemporary democratic systems, the author advances the concept of polydemocracy, an alternative governance model that assigns equitable decision-making influence to professional experts and intelligent technologies. This conceptual framework is further elucidated through the use of Petri net models, which serve to evaluate systemic dynamics and explore potential pathways for optimization.

The text situates WISE(∞) in historical context by contrasting it with earlier solidarity-based institutions, such as the League of Nations and the United Nations, proposing instead a collaborative and hierarchically adaptive structure augmented by artificial intelligence. Such a configuration is envisioned to transcend the limitations of traditional bureaucratic hierarchies and to provide more agile responses to complex global issues, including climate change, poverty, and transnational crime.

Ultimately, the monograph contends that genuine global progress necessitates a cognitive and ethical transformation, a departure from binary, "tribal" modes of political thought toward a more integrative and unified orientation of human consciousness.

Figure 1: Highlights of the monograph

Figure 1 presents a mind map summarizing the key highlights of the monograph.

I. The global crisis and the critique of existing systems

The monograph argues that humanity is currently confronted with a spectrum of interrelated global crises, including climate change, environmental degradation, poverty, mass migration, and transnational crime. The underlying causes of these challenges are identified in three principal domains:

- Outdated political systems: Contemporary democratic structures are increasingly inadequate for addressing the complexities of modern societies and the growing potential of collective human intelligence. These systems frequently fail to learn from historical mistakes, thereby perpetuating cycles of violence, polarization, and extremism.

- Hierarchical limitations: Global institutions such as the League of Nations and the United Nations have historically been constrained by entrenched power asymmetries and rigid institutional hierarchies, which limit their adaptability and effectiveness.

- Cognitive limitations: Despite unprecedented technological progress, both local and global modes

of thought remain largely dominated by "tribal thinking" and binary worldviews. This persistent polarization hinders the emergence of multi-dimensional, integrative solutions. Political leaders often exhibit a form of tunnel vision, what may be termed as "backyard thinking", that neglects the profound interconnectedness of global processes.

II. The Core Proposal: WISE(∞)

WISE(∞) is presented as an alternative global initiative, a visionary framework designed to emerge as a network of collective intelligence operating across disciplines, sectors, and cultures.

1. Nature and structure

- Purpose: The initiative aims to influence critical global policy decisions by world leaders. It seeks to transform threats, risks, opportunities, and identified best or worst practices into actionable insights and innovative solutions for urgent global challenges.

- Collaboration model: WISE(∞) promotes mutualistic collaboration, functioning as a dynamic, non-hierarchical, and integrative system. Conceptually, it serves as a coordinating hub that unites and harmonizes the efforts of existing global solidarity organizations.

- Multi-stakeholder integration: The model aspires to mobilize participation from a wide array of social and professional spheres, including scientists, artists, religious leaders, policymakers, journalists, business actors, security experts, and members of civil society.

- Necessary hierarchy: While emphasizing horizontal collaboration, the collaborative–hierarchical model of WISE(∞) must incorporate a certain degree of structural hierarchy, which is essential for ensuring effective governance, coordination, and moderation across its functional tiers.

2. Vision for AI integration

WISE(∞) is conceived as a synergistic collaboration between human and artificial intelligence, forming a meta-system for planetary governance. This model integrates human wisdom with technological capacity, allowing for decision-making that is simultaneously rational, ethical, and adaptive.

III. A possible ideal political system: Polydemocracy

For WISE(∞) to function effectively, it must operate within an advanced political framework referred to as Polydemocracy (or "Poly-Democracy").

- Definition: Polydemocracy represents a post-representative democratic model that extends participation beyond elected officials to include scientists, business leaders, civil society representatives, and artificial intelligence systems, all contributing to real-time decision-making on an equitable basis.

- Mechanism: The framework proposes a new institutional entity, the Wise Social Network, which integrates scientific institutions, research centers, and other stakeholder organizations. This body

would hold the authority to inform and influence parliamentary debates in real time.

- Goals: The system aims to mitigate political gridlock, generate more innovative and holistic solutions, and enhance democratic legitimacy through broader epistemic participation.

- Future trajectory: In its long-term evolution, the model anticipates the potential participation of humanoid intelligent agents as legitimate contributors to the collective decision-making process.

IV. Cognitive and behavioral transformations

The monograph emphasizes the necessity of a fundamental cognitive transformation within global society:

- Adaptive and constructive thought: Humanity must transcend prevailing binary and polarized modes of cognition, advancing toward more adaptive and constructive forms of reasoning. Such a transformation is essential for the full realization of a genuinely positive and functional collective intelligence.

- The role of leadership: Visionary leaders, political, religious, artistic, and scientific, must be inspired to align their ambitions with shared existential imperatives such as climate change mitigation, poverty eradication, and the humane management of migration, rather than perpetuating narrow or destructive agendas.

- Fostering collective intelligence: The aim is to stimulate proactive adaptation in how global transformations are perceived and addressed across all social strata, leaders, progressive minorities, majorities, and marginalized groups alike. This requires the synthesis of insights from science, art, religion, business, and media into a coherent architecture of collective intelligence.

V. Practical implementation: XWISE(∞)

Given that Polydemocracy has yet to be institutionally established, the practical realization of the WISE(∞) concept, referred to as XWISE(∞), relies on contemporary digital infrastructures.

- Components: XWISE(∞) represents the synergistic integration of X (Twitter), XAI (Explainable Artificial Intelligence), and Grokipedia.

- X (Twitter) as Sensor: X functions as a global sensor and real-time feedback mechanism, collecting and reflecting raw data, public sentiment, and crisis indicators from around the world.

- XAI as Trust Engine: XAI operates as the transparency and trust module, providing interpretive clarity, the "why", behind algorithmic analyses and pattern detection, thereby ensuring analytical integrity and stakeholder confidence.

- Grokipedia as knowledge repository: Grokipedia serves as a dynamic repository of structured knowledge and synthesized wisdom, transforming data and analysis into validated, actionable insights accessible to policymakers, researchers, and global citizens.

Preface

Enormous amounts of human energy and time are consumed by disputes over racial and religious distinctions, often inflaming divisions and, at their worst, leading to violence.

Fundamentally, it must be recognized that humanity constitutes a single species among the diverse living beings that share our planet.

Faith and religion - God is present not only in the minds of believers but also, in a different sense, in the reflections of those who question or deny His existence. Non-believers, too, may live by principles of goodness, uphold noble values, and contribute profoundly to the flourishing of our world. To confine the idea of God within the boundaries of particular religions, such as Islam, Christianity, Judaism, Buddhism, or Hinduism, is, in essence, to diminish the infinite nature of the Almighty. From this perspective, the leaders of the aforementioned positive religions should strive for a deeper understanding of God. What is lacking today are deeper discussions and syntheses of the insights derived from human spiritual and intellectual traditions. The primary mission of all religions and their institutions is to safeguard humanity and to strive toward the illumination of the human soul, both of believers and non-believers alike.

What we further lack are meaningful, public, and accessible dialogues among the leaders of the world's religions. In the digital age, a genuine global alliance of faiths is not only conceivable but within reach. Yet excessive, and above all, violent, conflicts among believers continue to drain the world of immense bioenergetic potential and erode the very fabric of life. Over the millennia, the planet's biomass, the richness and diversity of living beings, has been gravely diminished, in part as a consequence of relentless wars and armed struggles.

We therefore appeal to the supreme leaders of all faiths: help humanity deepen its understanding of the Divine, and take active steps toward unity. Under no circumstances should religion ever be used to justify hostility or violence.

In our contemporary world, there remains a striking absence of thoughtful and mutually beneficial strategies. Instead, societies often gravitate toward extremism, a tendency that fosters division and violence, producing only loss. Every loss of a good and thoughtful person is irreparable, yet humanity continues to repeat these tragic mistakes.

Science - a similar example of great egocentricity or closed-mindedness can be found not only in different religions and racial theories, but also in the world of science, which, because of rigid methodologies and personal ambitions, often struggles to think outside the box. From a technological perspective, our human species has achieved remarkable results in the form of various inventions, yet many of these have just as often harmed human relationships and contributed more to destruction than to construction. The synthesis of knowledge across different scientific fields

such as the humanities, intermediate sciences, social sciences, natural sciences, applied sciences, and even marginal disciplines remains very limited. What we especially need are better economic systems, political systems, and systems for protecting our fellow beings within our earthly environment. What we truly need are technological solutions that can contribute to a better relationship to our environment (better strategies to combat climate changes and pollutions) improving human relationships, reducing global poverty, and preventing wars and other forms of crime. As with different religions, there is a lack of intensive and publicly accessible discussions and activities in the field of interdisciplinarity within the sciences. So far, interdisciplinary scientific efforts have been largely of a campaign-like nature. In short, what is missing is better organization of interdisciplinarity in science, and consequently a fuller use of humanity's theoretical and applied knowledge. The main goal of this is to create a more effective collective intelligence, also with the help of artificial intelligence systems. It is especially known that legal systems are often 20 to 30 years behind the times.

Politics - today's democratic systems are outdated for modern challenges and the potential intelligence of our societies, and they are in need of modernization. A possible solution could be a polydemocracy. Polidemocracy (also written as Poly-Democracy) is a proposed model of democracy that goes beyond the exclusive participation of elected political representatives. In this model, other professional and societal actorssuch as scientists, business leaders, civil society representatives, and even artificial intelligencewould participate on an equal footing in decision-making. These actors would have the ability to influence political processes in real time (more will be said about polidemocracy in the introduction .

The outdated nature of today's political systems is also evident in the unequal distribution of gross domestic product among members (citizens) of these systems, as well as in the handling of internal and especially external conflicts. The willingness to give up a portion of wealth and power is strikingly low, which is particularly evident in the handling of conflicts between Russia and the USA. Great powers such as the EU, China, Russia, and the USA should be willing to relinquish a part of their egos and focus more on cooperating to address future challenges, such as reducing global poverty (potentially in collaboration with united religious institutions), decreasing large-scale migration, preventing severe forms of crime including on the dark web, combating climate change, addressing pollution of our planet, and further preventing the loss of biomass, among others. Supreme political leaders should also be able to think outside the box. The war between Russia and Ukraine means a black realistic scenario where we can expect mostly only losers. On the one hand, we have criticisms from Russia that NATO has expanded too far in the east, and on the other hand, Russia has started a war to prevent further NATO enlargement. The Russian government is

demanding a return to 1997. We may justifiably believe that a solution exists, yet its realization requires a high level of communication, rationality, and global mental maturity. The era of the two dominant military blocs has long passed, and, in truth, NATO's continued existence in its current form and purpose has become increasingly anachronistic.

It would be both logical and forward-looking to transform and reorganize NATO, together with its associated intelligence and military structures, into a Human Alliance for Survival (HAS). Such an alliance should encompass all nations of the world, including Russia, Ukraine, and others, united in addressing common global challenges such as mass migration, cybercrime on the Darknet, chronic psychosocial stress, viral pandemics, climate change, environmental degradation, and the alarming depletion of the planet's biomass.

Furthermore, the international community should establish a binding legal framework that defines any act of war as a crime against humanity and against all other forms of life. Armed conflicts not only devastate human societies but also accelerate the depletion of the Earth's living biomass. Recognizing this reality could serve as a crucial instrument in the prevention of future wars.

These global threats jeopardize the very continuity of humankind and innumerable other species. This is, therefore, not an era for hostility or demonstrations of power, but a time for sincere and constructive cooperation among nations and across religious and cultural boundaries. The wisdom and moral responsibility of future political leaders will determine whether humanity, and life on Earth as a whole, can continue to endure.

Economy, money and family - All these financial matters are a matter of numerous agreements. State systems are unstable. World peace has become unstable. We need better political and economic agreements and systems. Today, even electronic impulses have monetary value, as we can clearly see with cryptocurrencies. We might even consider better legally regulated family models that would allow people a more dignified way of living?
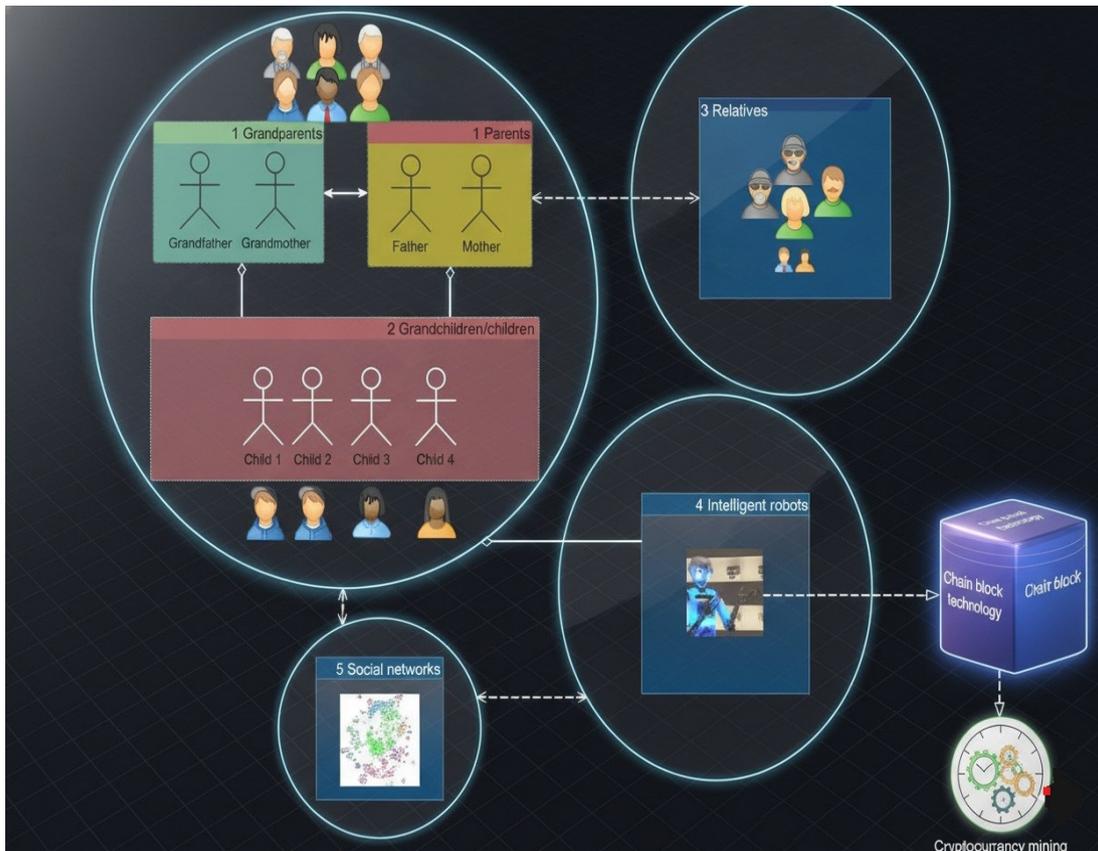
Figure 2: Extended family model with support of social networks and intelligent robots

Figure 2 shows the extended family model with support of social networks and intelligent robots. At first glance, this family model seems extremely powerful, as in addition to strong membership support (e.g., relatives and social networks), it is also supposed to provide a monetary background for family existence (intelligent robots mining cryptocurrencies). We have already experienced in the past that technological inventions helped to change both the nature of the family (see the first industrial revolution and the rise of the bourgeois form of the nuclear family, especially after the French Revolution). In any case, intelligent robots will be an important factor in cryptocurrency mining as well as in supporting the upbringing and education of children.

High-quality social networks are known to contain vast amounts of valuable knowledge and can be extremely beneficial to individuals and society. Unfortunately, they also entail significant risks, most notably in the form of social mobbing, identity theft, and the erosion of informational privacy.

Positiv scenario:

a. Grandparents and parents are primarily responsible for the care of offspring. Additional support is often provided by other relatives, such as aunts, uncles, cousins, and similar family members.

b. All adult family members and couples possess a high level of education, adhere to elevated ethical standards, and hold lucrative positions, for example in public administration, self-employment, or pension-related occupations.

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c. the children have a biological father and a biological mother,

d. children basically have a favorable starting point in terms of both material and quality level,

e. all children can always be looked after by someone, so that they are never left to fend for themselves,

f. children can receive a solid upbringing with appropriate ethics and morals,

g. children will have all the opportunities for positive development e.g. education,

h. relationships are fully formalized and family members have no difficulty in communicating and cooperating, especially when it comes to the well-being of all children,

i. children also receive additional support in upbringing and additional education (eg social networks, intelligent humanoid robots),

j. children enjoy a high level of safety.

Given the family model, perhaps it could be the family of the future? Nevertheless, it is necessary to point out the weak point of this model, which is that it involves a large amount of family and other members, which can disintegrate fairly quickly (eg internal conflicts, death of grandparents, greed, envy).

We need a reorganization of thinking. This reorganization of thinking should begin especially in major world powers such as the United States, the European Union, Russia, and China. In this regard, it's worth briefly mentioning an interesting analysis conducted with the help of ChatGPT, which evaluated the performance of three world leaders Donald Trump, Vladimir Putin, and Xi Jinping based on selected key criteria (e.g., poverty reduction, pollution prevention, biodiversity protection, level of democracy, commitment to global challenges). All three performed very poorly in achieving goals that are essential for the long-term survival of the human species. Xi Jinping's undemocratic leadership received the best overall rating.

If the human species is to survive in a sustainable and high-quality manner, profound change is necessary. This transformation depends largely on future political decisions, particularly those made by the world's most powerful leaders. At present, we predominantly observe a narrow, localized focus that disregards our global interconnectedness with both the living and non-living world. Science, and its leading representatives, must also overcome this narrow perspective, which might be termed "backyard thinking."

Less rigid hierarchies and more collaborative relationships, supported by artificial intelligence, have the potential to generate more effective ideas and solutions to the major challenges that lie ahead. However, if the principle of "survival of the strongest," grounded in extreme competition, continues to dominate, humanity may face its darkest scenario: the collapse of life as we know it and the destruction of the creative evolutionary pathways that have developed over millennia.

At this critical moment, the world's leading political, religious, and scientific authorities have strayed from the right path, posing a grave threat to humanity and all life on Earth. It is our urgent responsibility to recognize this danger and to act together to safeguard our shared future. Therefore, Wise International Solidarity EmpowermentWISE (∞)must emerge as a global network of powerful collective intelligence, capable of influencing the critical global political decisions of world leaders.

1 Introduction

In our world, there is a lack of thoughtful, mutually beneficial strategies. Instead, people often gravitate toward extremism. This fosters violence and creates losers. Every loss of good people is irreplaceable, yet humanity repeatedly fails to learn from these mistakes.[1] Humanity is confronted with global challenges such as climate change, environmental pollution, viral diseases, mental health disorders, the dramatic increase in distress, emerging forms of criminality, poverty, and prospective mass migrations. Adequate and sustainable solutions to these issues can only be achieved through collective effort. Addressing future local and especially global challenges requires harnessing all forms of constructive and practical intelligence across society. This includes the contributions of scientists, artists, religious leaders, policymakers, journalists, business leaders, security institutions, and diverse members of civil society ranging from community groups and practitioners to vulnerable populations such as the unemployed, the homeless, and individuals with mental health conditions. There is a need for a strong international organization, bringing together the aforementioned actors, to influence key global decisions of the world's most powerful political and business leaders through conferences, digital platforms, and other channels. From this perspective, the establishment of a global international organization, Wise International Solidarity Empowerment (WISE(∞)), can be proposed with the aim of uniting individuals from diverse social and professional spheres. WISE(∞) may be conceived as a worldwide initiative designed to encourage leading figures to adopt a broader, more integrative perspective on both the present and the future of our world. The establishment of WISE (∞) should integrate and coordinate existing global organizations engaged in advancing solidarity within societies and with the natural environment. This international organization should primarily operate on the basis of mutualistic collaboration and not as a rigid hierarchical structure. Essentially, this would constitute a conceptual hub that connects other global international solidarity organizations, with the ultimate aim of transforming threats, risks, opportunities, and examples of both poor and best practices into ideas and subsequently into various innovative solutions addressing the most pressing global challenges. For greater clarity, let us list some global problems:

- A study published in 2020 predicts that less than 20% of plant and animal species could face extinction if the goals of the Paris Agreement are achieved, whereas more than 33% (i.e., between

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1 Aly, A., Taylor, E., & Karnovsky, S. (2014). Moral disengagement and building resilience to violent extremism: An education intervention. *Studies in Conflict & Terrorism*, 37(4), 369–385. https://doi.org/10.1080/1057610x.2014.879379.
Munduate, L., Medina, F. J., & Euwema, M. C. (2022). Mediation: Understanding a constructive conflict management tool in the Workplace. *Revista de Psicología Del Trabajo y de Las Organizaciones*, 38(3), 165–173. https://doi.org/10.5093/jwop2022a20.
23 conflict resolution and management strategies for managers: Techniques and resolution approaches. Mads Singers Management Consulting.(2023). https://madssingers.com/management/conflict/.

one-quarter and one-half of all species) could be lost under higher levels of warming (also gobal diming presents a great problem). If current trends persist, by 2040, the mass of human-made materials could be three times greater than that of living biomass. World Economic Forum (WEF) and Oliver Wyman projects that by 2050 the climate crisis will cause: an additional 14.5 million deaths, economic losses amounting to 12.5 trillion USD, and additional healthcare costs of 1.1 trillion USD

- Regarding demographic pressure from Africa, the continent's working-age population is projected to increase by 70% between 2015 and 2035. This, combined with rising urbanization and unemployment, is expected to sustain or further increase migration flows toward Europe.[2]

- In addition to widely recognized issues, a number of other pressing global challenges persist, including poverty, international terrorism, and criminal activities facilitated through the dark web. These phenomena often function as significant pull factors for economically marginalized populations across the globe. Moreover, such challenges are frequently interrelated with large-scale migratory movements and may contribute to elevated rates of criminal activity at both local and transnational levels.

Prior to addressing the issues related to the structural, organizational, and communicative dimensions of WISE(∞), it is appropriate to first provide an overview of the aforementioned global solidarity organizations, the prevailing mainstream and alternative political perspectives, and the previously introduced concept of polidemocracy.

2   Betts, A., Omata, N., Siu, J., & Sterck, O. (2023). Refugee mobilities in East Africa: Understanding secondary movements. *Journal of Ethnic and Migration Studies*, 49(11), 2648–2675. https://doi.org/10.1080/1369183x.2023.2169113
Elhacham, E., Ben-Uri, L., Grozovski, J., Bar-On, Y. M., & Milo, R. (2020, December 9). Global human-made mass exceeds all living biomass. *Nature News*. https://www.nature.com/articles/s41586-020-3010-5.
Reports. IPCC. (2025). https://www.ipcc.ch/reports/.
NASA. (2021, January 21). *2020 tied for warmest year on record, NASA analysis shows – climate change: Vital signs of the planet*. NASA. https://climate.nasa.gov/news/3061/2020-tied-for-warmest-year-on-record-nasa-analysis-shows/.
NCEI.Monitoring.Info@noaa.gov. (2023). Monthly climate reports. Monthly Climate Reports | National Centers for Environmental Information (NCEI). https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/2023.
Thiem, H. (2023, December 27). *Climate highlights of 2023*. NOAA Climate.gov. https://www.climate.gov/news-features/features/climate-highlights-2023.
United Nations. (2025). *UNSD - demographic and social statistics*. United Nations. https://unstats.un.org/unsd/demographic-social/products/dyb/.
Wyman, O. (2024, December 13). *World Economic Forum annual meeting 2025: Oliver Wyman*. World Economic Forum Annual Meeting 2025 | Oliver Wyman. https://www.oliverwyman.com/our-expertise/events/world-economic-forum-davos.html.

1.1 The most prominent international organizations engaged in the governance of global challenges

In this subsection, the most well-known international organizations will be briefly outlined those engaged in addressing global issues such as climate change (global warming), environmental pollution, human rights, crime, peacekeeping efforts, global poverty, and mass migration.[3]

1.1.1 Strongest international organizations addressing climate change/global warming

1. Intergovernmental Panel on Climate Change (IPCC)

- Description: The IPCC is the leading international body for assessing the science related to climate change. Established in 1988 by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO), it provides comprehensive, neutral, and policy-relevant reports that inform global climate negotiations, such as those under the Paris Agreement.

- Key contributions: Produces Assessment Reports and Special Reports (e.g., on 1.5°C warming) that synthesize scientific, technical, and socio-economic knowledge, guiding global mitigation and adaptation strategies.

- Website: (https://www.ipcc.ch)

- Note: The IPCC does not conduct its own research but relies on peer-reviewed studies, making it a cornerstone for evidence-based climate policy.

2. United Nations Framework Convention on Climate Change (UNFCCC)

- Description: Established in 1992, the UNFCCC is the primary international treaty body for negotiating global responses to climate change. It oversees the Paris Agreement and hosts annual Conference of the Parties (COP) meetings, where countries set emissions targets and climate action plans.

- Key contributions: Facilitates international cooperation, tracks Nationally Determined Contributions (NDCs), and supports climate finance mechanisms like the Green Climate Fund.

- Website: (https://unfccc.int)

- Note: The UNFCCC's COP process, such as COP26 (2021) and COP30 (2025, upcoming in Belém, Brazil), is pivotal for global climate commitments.

3. United Nations Environment Programme (UNEP)

- Description: Founded in 1972, UNEP is the UN's environmental agency, providing leadership and encouraging partnerships to protect the environment, including tackling climate change. It supports sustainable development and climate action across 193 member states.

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3   The identification of the most relevant sources and the preparation of their descriptions were supported by the use of AI Grok.

- Key contributions: Develops initiatives like the Climate and Clean Air Coalition, promotes renewable energy, and publishes the Emissions Gap Report, which assesses progress toward Paris Agreement goals.

- Website: (https://www.unep.org)

- Note: UNEP's work integrates climate action with biodiversity and pollution control, offering a holistic approach.

4. Climate Action Network (CAN)

- Description: CAN is a global network of over 1,900 civil society organizations across 130+ countries, advocating for climate justice and sustainable action. It coordinates grassroots movements and influences UN climate talks.

- Key contributions: Amplifies the voices of communities affected by climate change, pushes for equitable policies, and strengthens regional networks to inform global strategies from the bottom up.

- Website: (https://climatenetwork.org)

- Note: As highlighted in the web results, CAN prioritizes social and racial justice alongside climate goals, making it a powerful advocacy force.

5. World Meteorological Organization (WMO)

- Description: Established in 1950, the WMO is a specialized UN agency that monitors weather, climate, and water resources globally, providing data essential for climate change analysis and response.

- Key contributions: Issues the State of the Climate report, supports early warning systems, and collaborates with the IPCC on climate science. Its 2024 report noted record-breaking temperatures and greenhouse gas levels.

- Website: (https://wmo.int)

- Note: WMO's data underpins global climate models and disaster preparedness, critical for adaptation efforts.

6. Greenpeace International

- Description: A global environmental NGO founded in 1971, Greenpeace campaigns for climate action, renewable energy, and the protection of ecosystems.

- Key contributions: Organizes high-profile protests and advocacy, influencing public and corporate climate policies.

- Website: (https://www.greenpeace.org/international)

- Note: While not a governmental body, its global reach and activism make it influential.

7. World Resources Institute (WRI)

- Description: A global research organization established in 1982, WRI provides data-driven solutions for climate change, including the CAIT Climate Data Explorer.

- Key contributions: Supports policy design and tracks emissions, aiding governments and businesses in decarbonization.

- Website: (https://www.wri.org)

- Note: WRI's research complements IPCC findings with actionable insights.

Context and relevance

- These organizations are actively engaged as the world approaches critical climate milestones, such as the 2030 targets of the Paris Agreement and the upcoming COP30 in 2025. Recent events, like the 2024 WMO report on record heat, underscore the urgency of their work.

- The demographic pressures mentioned are indirectly addressed by these organizations through climate migration policies and adaptation funding, linking climate change to broader global challenges.

1.1.2 Strongest international organizations addressing environmental pollution

1. United Nations Environment Programme (UNEP)

- Description: Founded in 1972, UNEP is the United Nations' leading environmental authority, addressing a wide range of pollution issues, including air, water, soil, and plastic pollution. It works with 193 member states to promote sustainable practices.

- Key contributions: Leads initiatives like the Clean Air and Climate Coalition (CCAC) and the Lowering Organic Waste Methane (LOW-Methane) initiative to reduce air and waste pollution. Publishes reports on plastic pollution and supports global agreements like the Basel Convention on hazardous waste.

- Website: (https://www.unep.org)

- Note: UNEP's work, as noted in the web results, integrates pollution control with climate change efforts, making it a pivotal player in environmental health.

2. World Health Organization (WHO)

- Description: Established in 1948, WHO is a specialized UN agency focused on public health, with a significant role in addressing pollution-related health impacts, particularly air pollution, which is the "single greatest environmental health risk globally" (web result: Climate & Clean Air Coalition).

- Key contributions: Publishes the Global Air Quality Guidelines, monitors pollution-related diseases, and collaborates with the BreatheLife campaign to reduce air pollution's health burden. Recognizes September 7 as the International Day of Clean Air for Blue Skies.

- Website: (https://www.who.int)

- Note: WHO's data-driven approach links pollution to over 7 million premature deaths annually, driving global health policies.

3. International Union for Conservation of Nature (IUCN)

- Description: Founded in 1948, IUCN is a global membership union of government and civil society organizations, working to conserve nature and address pollution's impact on biodiversity.

- Key contributions: Develops strategies to combat plastic pollution, supports marine conservation against ocean debris, and publishes the Red List, which tracks species threatened by pollution. Advocates for sustainable land use to reduce soil contamination.

- Website: (https://www.iucn.org)

- Note: IUCN's collaboration with over 1,400 member organizations amplifies its influence on pollution-related conservation efforts.

4. Global Environment Facility (GEF)

- Description: Established in 1992, GEF is a partnership of 183 countries, international institutions, and NGOs that provides funding and technical assistance to combat environmental degradation, including pollution.

- Key contributions: Finances projects to reduce land-based pollution entering oceans, supports industrial pollution control, and aligns with conventions like the Stockholm Convention on Persistent Organic Pollutants (POPs).

- Website: (https://www.thegef.org)

- Note: GEF has invested over $20 billion since its inception, making it a major financial backbone for pollution mitigation.

5. Ocean Conservancy

- Description: Founded in 1972, Ocean Conservancy is a leading NGO focused on protecting oceans from pollution, particularly plastic waste, which constitutes 91% of unrecycled plastic globally (web result: Earth.Org).

- Key contributions: Organizes the International Coastal Cleanup, conducts research on marine debris, and advocates for policies to reduce plastic pollution, aligning with global efforts like the UN's plastic treaty negotiations.

- Website: (https://oceanconservancy.org)

- Note: While not a governmental body, its global volunteer network and data collection make it a powerful advocate.

6. Greenpeace International

- Description: Established in 1971, Greenpeace campaigns against pollution from industrial sources, deforestation, and plastic waste, influencing corporate and governmental policies.

- Key Contributions: Exposes pollution scandals, promotes clean energy, and pushes for zero-waste initiatives.

- Website: (https://www.greenpeace.org/international)

- Note: Its activism complements the scientific focus of larger organizations.

7. Basel, Rotterdam, and Stockholm Conventions (BRS) Secretariat

- Description: This joint secretariat, under UNEP, oversees three treaties (Basel, Rotterdam, Stockholm) to control hazardous waste, chemical pollution, and POPs.

- Key contributions: Regulates the transboundary movement of toxic waste and phases out harmful chemicals, reducing global pollution risks.

- Website: (http://www.brsmeas.org)

- Note: Critical for managing industrial and chemical pollution on a global scale.

Context and relevance

- These organizations are actively addressing the 15 biggest environmental problems of 2025, as outlined by Earth.Org, including plastic pollution (419 million tons produced annually) and air pollution's health impacts. Recent developments, such as the UN's 2025 negotiations on a global plastic treaty, underscore their urgency.

- The demographic pressures from your target post (e.g., Africa's population growth) are indirectly linked, as pollution exacerbates resource scarcity and health crises, potentially driving migration. Organizations like UNEP and WHO are exploring these intersections through climate-migration studies.

1.1.3 Strongest international organizations addressing human rights

1. Amnesty International

- Description: Founded in 1961, Amnesty International is a global movement with over 10 million supporters, members, and activists in more than 150 countries. It campaigns to end grave abuses of human rights, including torture, unlawful killings, and discrimination.

- Key contributions: Conducts research and advocacy on issues like political prisoners, sexual and reproductive rights, and freedom of expression. Publishes annual reports and mobilizes public action through petitions and protests.

- Website: (https://www.amnesty.org)

- Note: As noted in the web results (fundsforngos.org), it is financed by membership fees and donations, ensuring independence from government funding.

2. Human Rights Watch (HRW)

- Description: Established in 1978, HRW is a nonprofit organization that investigates and reports on human rights abuses in over 100 countries. It pressures governments and international bodies to uphold human rights standards.

- Key contributions: Publishes the annual »World Report« (e.g., World Report 2025, per hrw.org web result), exposes violations (e.g., extrajudicial killings, media censorship), and advocates for justice through legal and public campaigns.

- Website: (https://www.hrw.org)

- Note: Major funding from the Open Society Foundation (e.g., $100 million over 10 years, per fundsforngos.org) supports its extensive global operations.

3. United Nations Human Rights Office (OHCHR)

- Description: Created in 1993, OHCHR is the UN entity responsible for promoting and protecting human rights worldwide, supporting the UN Human Rights Council and treaty bodies.

- Key contributions: Monitors human rights conditions, supports investigations (e.g., Venezuela protests, per hrw.org), and develops international standards like the Universal Declaration of Human Rights.

- Website: (https://www.ohchr.org)

- Note: As a UN body, it collaborates with 193 member states, giving it significant global authority.

4. International Service for Human Rights (ISHR)

- Description: Founded in 1984, ISHR is a Geneva-based NGO that supports human rights defenders and strengthens international human rights mechanisms.

- Key contributions: Provides training and tools to defenders, participates in coalitions, and advocates for accountability, as detailed in the humanrightscareers.com web result.

- Website: (https://www.ishr.ch)

- Note: Its focus on grassroots defenders complements larger organizations' efforts.

5. International Committee of the Red Cross (ICRC)

- Description: Established in 1863, the ICRC is a neutral humanitarian organization protecting the rights of victims of war and internal violence, rooted in international humanitarian law.

- Key contributions: Ensures humane treatment of detainees, provides assistance in conflict zones, and promotes adherence to the Geneva Conventions, as noted in fundsforngos.org.

- Website: (https://www.icrc.org)

- Note: Its impartiality and field presence make it a unique actor in human rights during crises.

6. Global Rights

- Description: An NGO working with activists in Africa, Asia, and Latin America to protect marginalized groups' rights, founded in 2001.

- Key contributions: Builds local capacity to address human rights violations, per fundsforngos.org.

- Website: (https://globalrights.org)

- Note: Focuses on regional empowerment, aligning with grassroots needs.

7. Front Line Defenders

- Description: Founded in 2001, this organization supports human rights defenders at risk with emergency aid and protection measures.

- Key contributions: Trains defenders and reviews policies, as per humanrightscareers.com.

- Website: (https://www.frontlinedefenders.org)

- Note: Critical for protecting activists in high-risk areas.

Context and Relevance

- These organizations are actively responding to contemporary human rights challenges, such as the crackdowns on protesters in Venezuela and Kenya (hrw.org, World Report 2025), and the silencing of civil society by authoritarian regimes. The demographic pressures from your target post (e.g., Africa's 70% working-age population growth by 2035) are relevant, as migration flows often involve human rights abuses (e.g., trafficking, detention), which these groups address.

- Recent developments, like the ICC's ongoing struggles with political will to arrest suspects (hrw.org), highlight the need for continued advocacy as of late 2025.

1.1.4 Strongest international organizations combating crime and promoting crime prevention

1. International Criminal Police Organization (INTERPOL)

- Description: Founded in 1923, INTERPOL is the world's largest police organization, with 196 member countries. It facilitates cross-border police cooperation to combat international crime.

- Key contributions: Provides real-time intelligence, issues Red Notices for fugitives, deploys Incident Response Teams within 12-24 hours, and combats crimes like cybercrime, human trafficking, and drug smuggling (web result: interpol.int).

- Website: (https://www.interpol.int)

- Note: Its global reach and rapid response capabilities make it a cornerstone for transnational crime fighting.

2. United Nations Office on Drugs and Crime (UNODC)

- Description: Established in 1997, UNODC is a UN agency that assists member states in tackling illicit drugs, organized crime, corruption, and terrorism, while promoting crime prevention.

- Key contributions: Develops the Global Report on Trafficking in Persons, supports the implementation of the UN Convention against Transnational Organized Crime, and runs programs like the Global Programme against Money Laundering (web result: ojp.gov).

- Website: (https://www.unodc.org)

- Note: UNODC's work integrates crime prevention with sustainable development goals, influencing global policy.

3. Financial Crimes Enforcement Network (FinCEN)

- Description: Created in 1990, FinCEN is the U.S. financial intelligence unit and a key player in the international fight against money laundering and transnational organized crime, part of the Egmont Group.

- Key contributions: Collects and analyzes financial data, supports law enforcement investigations, and promotes global data sharing to disrupt criminal networks (web result: fincen.gov).

- Website: (https://www.fincen.gov)

- Note: As a leader in the Egmont Group, FinCEN enhances international financial crime prevention.

4. Europol (European Union Agency for Law Enforcement Cooperation)

- Description: Established in 1998, Europol supports the 27 EU member states and several non-EU partners in preventing and combating serious international crime.

- Key contributions: Coordinates operations against cybercrime, drug trafficking, and terrorism, and operates the European Cybercrime Centre (EC3) to tackle darknet crimes (web result context).

- Website: (https://www.europol.europa.eu)

- Note: Europol's focus on regional cooperation strengthens EU-wide crime prevention efforts.

5. International Association of Chiefs of Police (IACP)

- Description: Founded in 1893, the IACP is a professional association of police leaders from over 165 countries, promoting best practices in law enforcement and crime prevention.

- Key contributions: Develops training programs, advocates for policy reforms, and supports initiatives to reduce urban crime and violence (web result: ojp.gov).

- Website: (https://www.theiacp.org)

- Note: Its global network of law enforcement leaders enhances practical crime prevention strategies.

6. Organisation for Economic Co-operation and Development (OECD)

- Description: Founded in 1961, OECD addresses economic aspects of crime, including corruption and financial crimes, through policy analysis and recommendations.

- Key contributions: Develops anti-bribery conventions and studies the economic impact of organized crime.

- Website: (https://www.oecd.org)

- Note: Focuses on economic drivers of crime, complementing enforcement efforts.

7. International Centre for the Prevention of Crime (ICPC)

- Description: Established in 1994, ICPC is a global knowledge hub that promotes evidence-based crime prevention strategies.

- Key Contributions: Supports urban crime prevention and shares best practices across governments and NGOs (web result: ojp.gov).

- Website: (https://www.crime-prevention-intl.org)

- Note: Emphasizes preventive measures over reactive policing.

Context and Relevance

- These organizations are actively addressing emerging crime trends, such as the darknet's role in severe crimes (e.g., FBI's JCODE operations in 2025) and the economic losses from cybercrime ($12.5 billion in the U.S. in 2023, per Panda Security). The demographic pressures from your target post (e.g., Africa's 70% working-age population growth by 2035) are relevant, as rising unemployment and urbanization could fuel crime and migration-related offenses, which these bodies tackle through prevention and enforcement.

- Recent developments, like INTERPOL's focus on digital-age crime networks and UNODC's trafficking reports, reflect the evolving nature of global crime as of late 2025.

1.1.5 Strongest international organizations supporting peacekeeping efforts

1. United Nations Peacekeeping (UN Peacekeeping)

- Description: Established under the UN Charter in 1948, UN Peacekeeping deploys multinational forces to maintain peace and security in conflict zones, operating under mandates from the UN Security Council.

- Key contributions: Manages 11 active missions (e.g., MINUSCA in Central African Republic, MONUSCO in DR Congo) as of 2025, protects civilians, supports political processes, and facilitates disarmament and elections (web result: peacekeeping.un.org). The 2019 Action for Peacekeeping (A4P) initiative renews commitment to these efforts.

- Website: (https://peacekeeping.un.org)

- Note: With over 70 years of experience and contributions from 120+ countries, it remains the cornerstone of global peacekeeping.

2. United Nations Security Council (UNSC)

- Description: Created in 1945 as part of the UN Charter, the UNSC has primary responsibility for maintaining international peace and security, authorizing peacekeeping missions and sanctions.

- Key contributions: Establishes mandates for peacekeeping operations, deploys special envoys, and supports multidimensional missions addressing political, security, and humanitarian needs (web result: un.org).

- Website: (https://www.un.org/securitycouncil)

- Note: Its five permanent members (U.S., Russia, China, France, UK) shape global peacekeeping priorities, though political disagreements can limit effectiveness.

3. African Union (AU) Peace and Security Council (PSC)

- Description: Established in 2002 under the AU, the PSC addresses peacekeeping and conflict resolution across Africa, often in collaboration with the UN.

- Key contributions: Oversees AU missions like AMISOM (Somalia) and supports hybrid operations (e.g., UN-AU Mission in Darfur, UNAMID). Promotes African-led solutions to conflicts (web result context).

- Website: (https://au.int/en/psc)

- Note: The AU's focus on regional stability complements UN efforts, especially in Africa's conflict zones.

4. European Union (EU) Common Security and Defence Policy (CSDP)

- Description: Launched in 1999, the CSDP enables the EU to deploy peacekeeping and crisis management missions, often in partnership with the UN or AU.

- Key contributions: Operates missions like EUFOR RCA (Central African Republic) and trains security forces, focusing on conflict prevention and stabilization (web result context).

- Website: (https://www.consilium.europa.eu/en/policies/csdp)

- Note: The EU's financial and logistical support enhances peacekeeping in Europe's neighborhood.

5. International Peace Institute (IPI)

- Description: Founded in 1970, IPI is an independent think tank that provides research and policy recommendations to improve UN and regional peacekeeping efforts.

- Key contributions: Analyzes peacekeeping challenges (e.g., resource constraints, political will) and supports training for peacekeepers, influencing global strategies (web result context).

- Website: (https://www.ipinst.org)

- Note: As a non-operational body, IPI's research strengthens the effectiveness of operational organizations.

6. North Atlantic Treaty Organization (NATO)

- Description: Founded in 1949, NATO conducts peacekeeping and stabilization operations, often in support of UN mandates.

- Key contributions: Led the International Security Assistance Force (ISAF) in Afghanistan and supports training missions.

- Website: (https://www.nato.int)

- Note: Focuses on security alliances but contributes to peacekeeping in specific contexts.

7. TRENDS Research & Advisory

- Description: Established in 2014, this independent center conducts strategic studies on peacekeeping, drawing lessons from past missions.

- Key contributions: Publishes analyses on UN peacekeeping successes and failures (e.g., Sudan, South Sudan), per trendsresearch.org web result.

- Website: (https://trendsresearch.org)

- Note: Its research informs policy but lacks direct operational capacity.

Context and Relevance

- These organizations are actively engaged in ongoing peacekeeping challenges, such as stabilizing the Middle East amid rising tensions (peacekeeping.un.org) and addressing Africa's conflicts, which tie into the demographic pressures from your target post (e.g., Africa's 70% working-age population growth by 2035). Migration and unemployment in conflict zones often necessitate peacekeeping to prevent further instability.

- Recent developments, like the A4P initiative's progress and the UN's funding of 9 missions via a $6.3 billion budget (2024-2025, per un.org), reflect the evolving nature of peacekeeping as of late 2025.

1.1.6 Strongest international organizations addressing global poverty

1. United Nations Development Programme (UNDP)

- Description: Established in 1965, UNDP is the UN's global development network, working in 170 countries to eradicate poverty and reduce inequalities.

- Key contributions: Implements poverty reduction programs, supports the Sustainable Development Goals (SDG 1: No Poverty), and publishes the Human Development Index (HDI) to measure progress (web result: un.org).

- Website: (https://www.undp.org)

- Note: UNDP's work integrates poverty alleviation with climate resilience and governance, making it a leader in holistic development.

2. World Bank

- Description: Founded in 1944, the World Bank is an international financial institution that provides loans, grants, and technical assistance to reduce poverty in developing countries.
- Key contributions: Funds projects like infrastructure and education, tracks global poverty trends (e.g., extreme poverty defined as <$3.00/day at 2021 PPP, web result: un.org), and supports the International Development Association (IDA) for the poorest nations.
- Website: (https://www.worldbank.org)
- Note: Its $100+ billion annual lending capacity drives large-scale poverty reduction efforts.

3. Oxfam International

- Description: Founded in 1942, Oxfam is a confederation of 19 organizations working in over 90 countries to combat poverty and inequality through advocacy and community-led projects.
- Key Contributions: Mobilizes resources for disaster relief, empowers vulnerable populations (e.g., women), and campaigns for policy changes, as detailed in humanrightscareers.com web result.
- Website: (https://www.oxfam.org)
- Note: Its grassroots approach complements larger institutional efforts, focusing on human rights and poverty.

4. International Fund for Agricultural Development (IFAD)

- Description: Established in 1977, IFAD is a UN agency dedicated to investing in rural people and smallholder farmers to eradicate poverty in developing countries.
- Key contributions: Provides $1 billion annually in loans and grants, supports agricultural development, and addresses food security, aligning with SDG 2 (Zero Hunger) (web result: unfpa.org).
- Website: (https://www.ifad.org)
- Note: Targets the 80% of the world's poorest who live in rural areas, per unfpa.org.

5. Global Citizen

- Description: Launched in 2008, Global Citizen is an international advocacy organization that mobilizes millions to end extreme poverty through campaigns and partnerships with governments and corporations.
- Key contributions: Raises funds (e.g., $43 billion pledged by 2023) and advocates for policy changes, collaborating with organizations like Oxfam, as noted in humanrightscareers.com.
- Website: (https://www.globalcitizen.org)
- Note: Its youth-driven, digital advocacy amplifies global poverty action.

6. International Labour Organization (ILO)

- Description: Founded in 1919, ILO promotes decent work and economic opportunities to reduce poverty, operating under the UN.

- Key contributions: Addresses unemployment and underemployment, critical in least developed countries (web result: unfpa.org).

- Website: (https://www.ilo.org)

- Note: Links poverty to labor rights and economic stability.

7. CARE International

- Description: Established in 1945, CARE fights global poverty through emergency aid and long-term development projects in 100+ countries.

- Key Contributions: Focuses on gender equality and food security, per humanrightscareers.com.

- Website: (https://www.care-international.org)

- Note: Known for innovative poverty alleviation models.

Context and relevance

- These organizations are actively tackling the resurgence of hunger levels to 2005 levels and the persistent increase in food prices (web result: un.org), reflecting the ongoing challenge of poverty. The demographic pressures from your target post (e.g., Africa's 70% working-age population growth by 2035) are highly relevant, as this growthcombined with unemploymentdrives poverty and migration pressures, which these bodies address through job creation and social protection programs.

- Recent developments, such as the UN's 2025 push for SDG acceleration (un.org) and World Bank's $40 billion IDA replenishment in 2024, underscore the urgency of poverty reduction as of late 2025.

1.1.7 Strongest international organizations addressing mass migration

1. International Organization for Migration (IOM)

- Description: Founded in 1951, IOM is the leading intergovernmental organization in the field of migration, with 175 member states and 8 observer states, working to ensure humane and orderly migration.

- Key contributions: Manages migration flows, provides humanitarian assistance to migrants, facilitates resettlement, and supports the 2024-2028 Strategic Plan to save lives and drive solutions to displacement (web result: un.org). The 2024 World Migration Report highlights 281 million international migrants and 117 million displaced persons.

- Website: (https://www.iom.int)

- Note: IOM's expertise in data collection and policy support makes it a pivotal player, especially in climate-related migration.

2. United Nations High Commissioner for Refugees (UNHCR)

- Description: Established in 1950, UNHCR is the UN agency mandated to protect refugees, asylum-seekers, and stateless persons, addressing forced displacement globally.

- Key contributions: Provides shelter, legal protection, and resettlement for over 120 million displaced people (web result: un.org), supports the 1951 Refugee Convention, and advocates for durable solutions like repatriation or integration.

- Website: (https://www.unhcr.org)

- Note: UNHCR's focus on forced migration complements IOM's broader migration mandate.

3. International Committee of the Red Cross (ICRC)

- Description: Founded in 1863, the ICRC is a neutral humanitarian organization that protects the rights of migrants and displaced persons in conflict zones, rooted in international humanitarian law.

- Key Contributions: Assists migrants stranded in conflict areas, reunites families, and advocates for their humane treatment, often in collaboration with UNHCR (web result context: icrc.org).

- Website: (https://www.icrc.org)

- Note: Its neutrality allows it to operate in high-risk migration routes, such as North Africa.

4. International Labour Organization (ILO)

- Description: Established in 1919, ILO addresses labor migration and its impact on poverty and development, operating under the UN framework.

- Key contributions: Promotes fair labor migration policies, combats trafficking, and supports decent work for migrants, aligning with SDG Target 8.8 (web result: un.org).

- Website: (https://www.ilo.org)

- Note: ILO links migration to economic opportunities, addressing root causes like unemployment in regions like Africa.

5. Mixed Migration Centre (MMC)

- Description: Launched in 2014 by the Danish Refugee Council, MMC is a global network that provides data and analysis on mixed migration flows, including refugees, asylum-seekers, and economic migrants.

- Key Contributions: Publishes the Mixed Migration Review and 4Mi data, offering insights into migration routes and vulnerabilities, particularly in Africa and the Middle East (web result context).

- Website: (https://mixedmigration.org)

- Note: Its research supports evidence-based policies, bridging humanitarian and development approaches.

6. Office of the United Nations High Commissioner for Human Rights (OHCHR)

- Description: Created in 1993, OHCHR promotes and protects the human rights of migrants, including those in mass migration contexts.

- Key contributions: Monitors abuses along migration routes and supports legal frameworks like the Global Compact for Migration.

- Website: (https://www.ohchr.org)

- Note: Focuses on rights-based approaches to migration governance.

7. Médecins Sans Frontières (MSF)

- Description: Founded in 1971, MSF provides medical humanitarian aid to migrants and displaced persons in crisis zones.

- Key contributions: Operates in migration hotspots like the Mediterranean, offering healthcare to vulnerable populations.

- Website: (https://www.msf.org)

- Note: Its frontline presence addresses immediate health needs of mass migrants.

Context and relevance

- These organizations are actively responding to the increasing scale of mass migration, with 281 million international migrants and a record 117 million displaced persons by 2022 (IOM, 2024 World Migration Report). The demographic pressures from your target post (e.g., Africa's projected 70% working-age population growth by 2035, combined with urbanization and unemployment) are highly relevant, as they are anticipated to sustain or increase migration flows toward Europe. Climate change and conflict further exacerbate these trends, which these bodies address through protection, policy, and data-driven solutions.

- Recent developments, such as the UN's push for the Global Compact for Migration implementation and IOM's focus on climate migration (e.g., 2025 reports), reflect the urgency of these efforts as of late 2025.

Conclusion and weakness

The UNFCCC, World Bank, and UNSC stand out for their direct influence on the strongest political leaders due to their binding frameworks, financial power, and security mandates. However, their effectiveness depends on leaders' willingness to cooperate. While these organizations are designed to address global challenges (e.g., climate change, poverty, migration, crime, peacekeeping), their influence often manifests more strongly at a regional level due to varying political priorities, regional cooperation frameworks, and local implementation needs.

1.1.8 Hierarchical structures of global organizations

Global organizations vary widely in their structure, adopting centralized, decentralized, or mixed (hybrid) models based on their goals, size, and operational needs. Below is an overview of how these structures manifest in global organizations, including examples and characteristics:[4]

1. Centralized organizations

- Definition: Decision-making authority is concentrated at the top levels, typically at headquarters, with uniform policies and strategies applied globally.

- Characteristics:

- Standardized processes across all regions.

- Strong control from a central authority, ensuring consistency in brand, quality, and operations.

- Efficient for organizations needing tight coordination or regulatory compliance.

- Examples:

- United Nations (UN): The UN has a centralized structure with its General Assembly and Security Council in New York making key decisions, though some agencies (e.g., WHO, UNICEF) have operational autonomy.

- World Bank: Headquartered in Washington, D.C., it centralizes strategic decisions while regional offices execute programs under strict guidelines.

- Multinational Corporations (MNCs) like McDonald's: Global standards for branding, menus, and operations are set at headquarters, with local franchises adhering to these.

- Advantages:

- Uniformity in policies and branding.

- Cost efficiencies through standardized processes.

- Easier to enforce global compliance.

- Disadvantages:

- Slow response to local market needs.

- Risk of overlooking regional differences.

2. Decentralized organizations

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4 Subchapter compiled with the assistance of Grok AI:

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- Definition: Decision-making is distributed to regional or local units, allowing greater autonomy to adapt to local conditions.
- Characteristics:
- Local offices or branches have significant control over operations, strategies, and policies.
- Flexibility to address regional cultural, economic, or regulatory differences.
- Common in organizations with diverse markets or missions.
- Examples:
- International Red Cross and Red Crescent Movement: National societies operate independently, tailoring humanitarian efforts to local needs, while loosely coordinated by the International Committee of the Red Cross (ICRC) and the International Federation of Red Cross and Red Crescent Societies (IFRC).
- Nestlé: While headquartered in Switzerland, Nestlé grants regional offices autonomy to adapt products (e.g., flavors, packaging) to local tastes.
- NGOs like Oxfam: Local affiliates operate with significant independence, adapting programs to regional priorities.
- Advantages:
- Faster adaptation to local markets or crises.
- Empowers local leadership and innovation.
- Responsive to cultural and regulatory differences.
- Disadvantages:
- Risk of inconsistency in brand or mission.
- Higher coordination costs and potential for misalignment.
3. Mixed (hybrid) organizations
- Definition: Combines elements of centralized and decentralized structures, balancing global consistency with local flexibility.
- Characteristics:
   - Core strategies, values, or policies are set centrally, while operational decisions are delegated to regional or local units.
   - Common in complex global organizations operating in diverse markets.
- Examples:
- World Health Organization (WHO): The WHO sets global health policies and standards from Geneva but relies on regional offices (e.g., Africa, Americas) to implement programs tailored to local health challenges.

- Unilever: Centralized R&D and branding strategies ensure global consistency, but regional teams adapt marketing and product offerings to local preferences.
- European Union (EU): The EU has centralized bodies (e.g., European Commission) for overarching policies, but member states retain significant autonomy in areas like education or healthcare.
- Advantages:
- Balances global alignment with local responsiveness.
- Leverages economies of scale while allowing innovation.
- Disadvantages:
- Complex coordination between central and local units.
- Potential for tension between global and local priorities.

Factors influencing structure

- Mission and goals: Humanitarian organizations (e.g., Red Cross) lean decentralized to address local crises, while regulatory bodies (e.g., IMF) are more centralized to enforce global standards.
- Geographic scope: Organizations with diverse markets (e.g., Unilever) often adopt hybrid models to balance global branding with local adaptation.
- Size and complexity: Larger organizations (e.g., UN) may use hybrid structures to manage complexity, while smaller NGOs may be fully decentralized.
- Technology and communication: Advances in tech enable decentralized operations with centralized oversight (e.g., cloud-based systems for MNCs).
- Regulatory environment: Organizations in heavily regulated sectors (e.g., finance, health) may centralize to ensure compliance.

Trends and Insights

- Shift toward hybrid models: Many global organizations are moving toward hybrid structures to balance efficiency and adaptability, especially post-COVID, where local responsiveness became critical.
- Technology's role: Digital tools enable decentralized operations with centralized data analytics, as seen in MNCs like Amazon or global NGOs using real-time reporting.
- Cultural sensitivity: Decentralized or hybrid models are increasingly favored to respect cultural and regional differences, as seen in NGOs and consumer goods companies.

Structural limitations of organizational models

Global organizations typically adopt centralized, decentralized, or hybrid structures, each of which carries distinct disadvantages:

1. Centralized organizations (e.g., UN, World Bank)

- Decision-making concentrated at higher levels results in slow responses to local needs.

- Regional differences are often overlooked.

2. Decentralized organizations (e.g., Oxfam, Red Cross Movement)

- Risks include inconsistency in brand identity or mission.

- High coordination costs and the possibility of misalignment are common challenges.

3. Hybrid (mixed) organizations (e.g., WHO, EU)

- Balancing global coherence with local flexibility generates complex coordination requirements.

- Tensions frequently arise between global priorities and local imperatives.

2 The WISE(∞) model – a proposed alternative

The WISE (∞) framework represents a proposed departure from traditional organizational models. Rather than concentrating authority in rigid hierarchies, WISE emphasizes mutualistic collaboration, drawing on distributed networks of expertise, resources, and decision-making. Its key features include:

Adaptive collaboration: Decision-making processes are designed to evolve continuously in response to new challenges, scientific knowledge, and shifting global dynamics.

Distributed intelligence: Instead of a small group of states or leaders dominating decisions, WISE promotes collective intelligence by integrating insights from multiple stakeholders, including civil society, academia, local communities, and private sector actors.

Mutual benefit and reciprocity: Relationships between actors are structured to ensure that cooperation yields tangible benefits for all participants, reducing incentives for power-hoarding.

Decentralized yet coordinated action: While avoiding excessive centralization, WISE incorporates mechanisms for coherence to prevent fragmentation, aiming for a balance between global guidance and local adaptability.

In this way, the WISE (∞) model seeks to overcome the structural disadvantages of centralized, decentralized, and hybrid systems by creating a dynamic, non-hierarchical, and integrative framework more suited to addressing 21st-century global challenges. Let us briefly examine the history of global international organizations that pursued ambitions similar to those of WISE (∞), but failed to achieve the level of effectiveness that had been anticipated.

2.1 A brief historical overview of global international solidarity organizations

The ambition to create organizations and networks grounded in solidarity, mutual responsibility, and collective intelligence has appeared repeatedly over the past century. While many of these

initiatives pursued goals comparable to those envisioned in the WISE (∞) model, their effectiveness has often been constrained by structural, political, and economic limitations.

1. Early 20th century: The League of Nations (1920–1946)

- Established after World War I, the League of Nations represented the first attempt at institutionalized global solidarity aimed at securing peace and cooperation.

- Its weaknesseslack of enforcement power, limited membership, and inability to prevent aggressionillustrated the fragility of early collective frameworks.

2. Post–World War II: The United Nations System (1945–present)

- The UN was founded to provide a stronger, more universal platform for global cooperation, extending beyond peace and security to include human rights, development, health, and culture through its specialized agencies.

- While more comprehensive than its predecessor, the UN has been hindered by power imbalances, particularly within the Security Council, as well as dependency on member-state funding and political will.

3. The Club of Rome and Global Systems Thinking (1968–present)

- Founded by scientists, economists, and policymakers, the Club of Rome became a prominent voice for global solidarity based on ecological and systemic interdependence.

- Its seminal report, -The Limits to Growth- (1972), emphasized the need for collective action to address planetary boundaries, resource scarcity, and long-term sustainability.

- Although highly influential in shaping global discourse, the Club of Rome remained primarily advisory and lacked formal mechanisms for implementing systemic change.

4. Decolonization and Solidarity Movements of the Global South (1950s–1980s)

- Initiatives such as the Non-Aligned Movement (NAM) and the Group of 77 (G77) sought to strengthen solidarity among newly independent states and amplify their collective voice in global governance.

- These movements highlighted issues of economic justice, sovereignty, and resistance to Cold War bloc politics but were limited in reshaping entrenched global hierarchies.

5. Global Civil Society and Transnational Solidarity (late 20th century–present)

- The rise of non-governmental organizations and transnational networks (e.g., Oxfam, Amnesty International, Médecins Sans Frontières, the Red Cross Movement) expanded the scope of solidarity beyond governments.

- These organizations operate through decentralized structures and grassroots engagement, embodying features similar to the WISE (∞) vision. Yet, they face challenges of coordination, resource dependence, and uneven global influence.

6. Contemporary Global Initiatives (1990s–present)

- Frameworks such as the UNFCCC, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the Sustainable Development Goals represent more recent attempts to operationalize solidarity in addressing global crises.

- While ambitious, these initiatives often remain constrained by national interests, financing gaps, and bureaucratic inertia.

Relevance for WISE (∞)

Across history, attempts at institutionalizing global solidarity have been repeatedly constrained by:

- Power asymmetries privileging dominant states and actors.

- Rigid institutional hierarchies that fail to adapt to emerging global dynamics.

- Weak mechanisms for implementation that leave visions unrealized.

The Club of Rome stands out as a unique precursor to WISE (∞), in that it advanced systems-based, long-term, and planetary-scale thinking. Yet, like many others, it lacked structures for mutualistic collaboration and distributed decision-making.

The WISE (∞) model distinguishes itself by seeking to integrate these lessons moving beyond advisory roles or rigid hierarchies toward a non-hierarchical, adaptive, and collaborative framework capable of mobilizing distributed intelligence and fostering genuine global solidarity.[5]

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5   The subsection, including its description and sources, was prepared with the assistance of ChatGPT:
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2.2 Ideal conditions for WISE (∞) to function

What, in fact, would constitute the ideal conditions for WISE (∞) to operate as effectively as possible? Contemporary political systems, including democratic ones, are rather outdated and in need of meaningful reform. In this regard, one might consider the concept of polydemocracy, which has not yet been defined within political theory. The closest related concept is polyarchy.[6] The subsequent section presents a preliminary conceptualization of an enhanced political system, designed to more effectively mobilize collective, group, and individual intelligence, while simultaneously expanding the decision-making capacity of a significantly broader constituency of participants.

2.2.1 Polydemocracy is the new political concept

Definition

Polidemocracy (also written as Poly-Democracy) is a proposed model of democracy that extends beyond the exclusive participation of elected political representatives. In this model, additional professional and societal actorssuch as scientists, business leaders, civil society representatives, and even artificial intelligencewould participate on an equal footing in the decision-making process. These actors would be empowered to influence political processes in real time.[7]

Core idea

Existing democratic political systems are outdated and in urgent need of modernization. This critique applies equally to the institutional structures of the European Union.

Background and rationale

1. Historical stagnation – Since the era of Otto von Bismarck, neither democratic political systems nor pension systems have undergone fundamental reform. Slovenia faces the same challenges observed in the United States, Germany, and many other countries worldwide.

2. Limited political choice - In most cases, two or three dominant political currents prevail, differing only marginally on existential questions. Every four years, politicians campaign vigorously to mobilize voters, yet the scope of substantive choice remains narrow.

3. Post-election disempowerment - Once ballots are cast, individual citizens have very limited opportunities to shape policy outcomes actively or to prevent collective errors in governance.

4. Political apathy - In Slovenia, approximately 40% of eligible voters remain undecided and abstain from voting altogether. This raises critical questions about who these individuals are and why such profound political disengagement persists.

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6   Dahl, R. A. (1975). *Polyarchy: Participation and opposition*. Yale University Press.
7   Petrič, K. (2025). *Hierarchology and hierarchography*. (2nd. ed.). Karl Petrič.
     https://doi.org/10.5281/zenodo.16746679.

5. Awareness of power and weakness - For the sustainable evolution of socially hierarchical and associative systems, it is essential that ruling bodies remain cognizant not only of their power but also of the structural vulnerabilities inherent in their institutions.

6. Broadening decision-making - Major policy decisions should not be determined solely by authority, influence, or material interest. Proposals from the broader publicparticularly from the scientific communityshould be afforded serious consideration.

7. A "Wise Social Network" - This could take the form of a new institutional body established alongside parliament and the presidency. Such a body would integrate scientific institutions, leading researchers, business leaders, committed private citizens, and other expert stakeholders.

8. Real-time parliamentary input - This institutional body should be vested with the authority to interact with and influence parliamentary debates in real time. Lengthy and polarized discussions between entrenched positions could thereby be redirected toward constructive solutions more swiftly.

9. Reducing political gridlock - With the immediate participation of representatives from the Wise Social Network, many legislative stalemates could be resolved more efficiently and effectively.

10. Inclusion of advanced Technologies - In the long term, the model may even accommodate the participation of humanoid, intelligent robots in the decision-making process.

11. A growing responsibility - The decisions at stake are existential in scope, potentially determining the survival of the human species. The responsibility borne by governing bodies is already immense and will only continue to grow.

To enhance the clarity of the presentation, it is recommended to include two infographic depicting the potential implementation of WISE (∞) within a polydemocratic political system at the national level.[8]

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8   The infographic was created with the help of Google AI Studio.

POLIDEMOCRACY: A MODERN DEMOCRATIC MODEL
Beyond Exclusive Representation
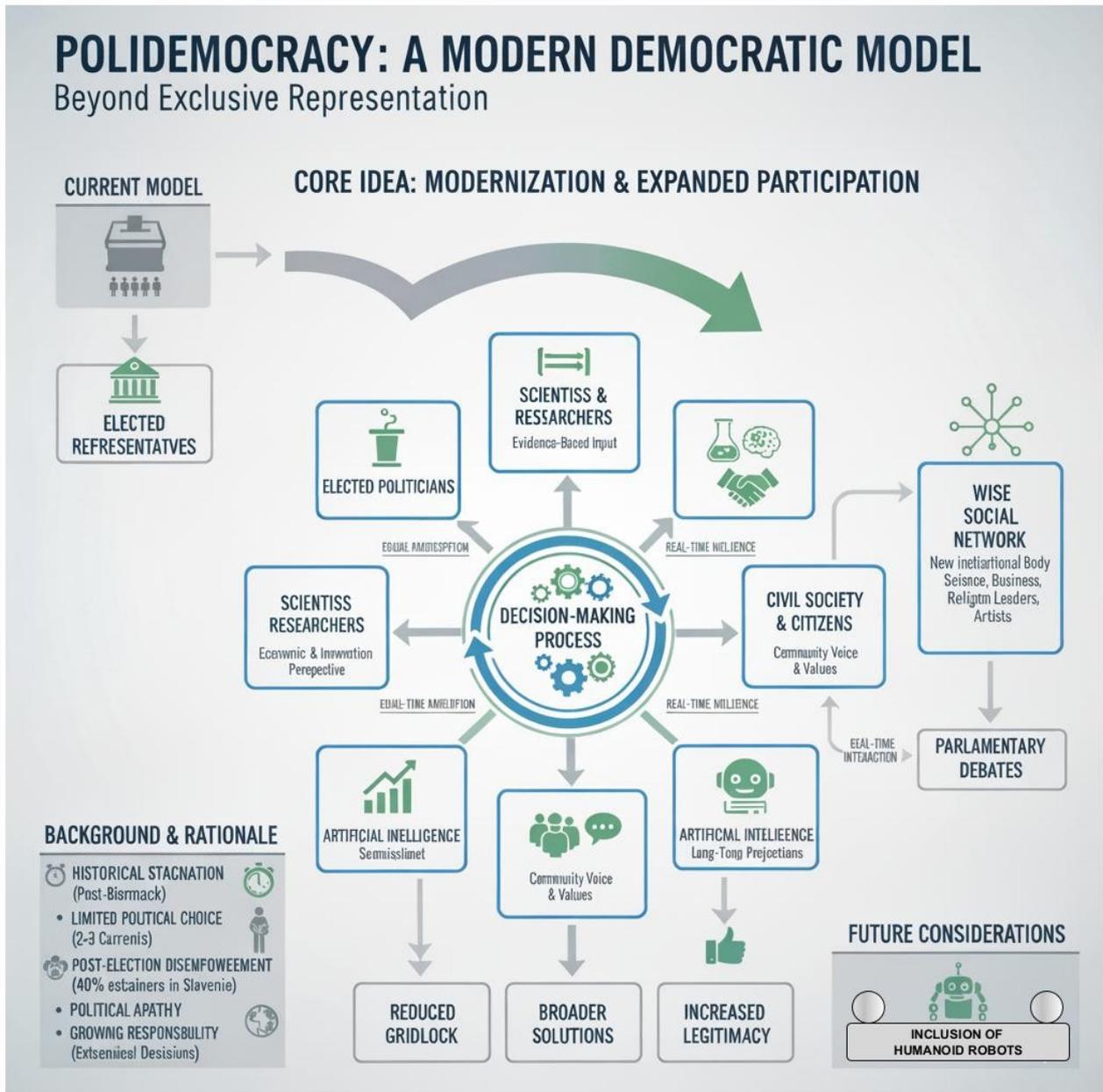
2.2.1.1 Figure 3: Implementation of a Wise social network on the national level

Figure 3, in the form of an infographic, illustrates a potential approach for implementing the Wise social network and artificial intelligence within the existing democratic political system at the national level. The infographic titled "Polidemocracy: A Modern Democratic Model - Beyond Exclusive Representation" presents a conceptual framework for the modernization of democratic governance, emphasizing expanded participation in political decision-making processes.

At the outset, the diagram contrasts the current model, which relies almost exclusively on elected representatives, with a proposed modernized system that integrates multiple actors and perspectives into decision-making.

At the center of the model lies the decision-making process, which is enriched through inputs from diverse stakeholders:

-Elected politicians, representing traditional political authority.

-Scientists and researchers, contributing evidence-based input, economic analysis, and innovation perspectives.

-Civil society and citizens, offering community voices and values.

-Artificial intelligence systems, both semisistent (short-term analyses) and long-term projections, enabling real-time amplification and resilience.

These actors are linked in a dynamic, real-time interactive process, ensuring broader inclusivity and responsiveness. The system also incorporates a wise social network, envisioned as a new international body composed of scientists, business leaders, religious figures, artists, and others, which feeds into parliamentary debates to complement traditional political structures.

The background and rationale for this model are outlined as responses to persistent democratic challenges: historical stagnation (since Bismarck), limited political choice (dominated by two to three parties), post-election disenfranchisement (e.g., 40% abstention in Slovenia), political apathy, and the increasing complexity of governmental responsibilities.

The projected outcomes of this expanded participatory framework include:

1. Reduced political gridlock,

2. Broader and more innovative solutions, and

3. Increased democratic legitimacy.

Finally, the infographic identifies future considerations, most notably the potential inclusion of humanoid robots in democratic deliberation.

Overall, the model advocates a pluralistic and technologically integrated approach to democracy, moving beyond exclusive representation toward a participatory and knowledge-based governance structure.
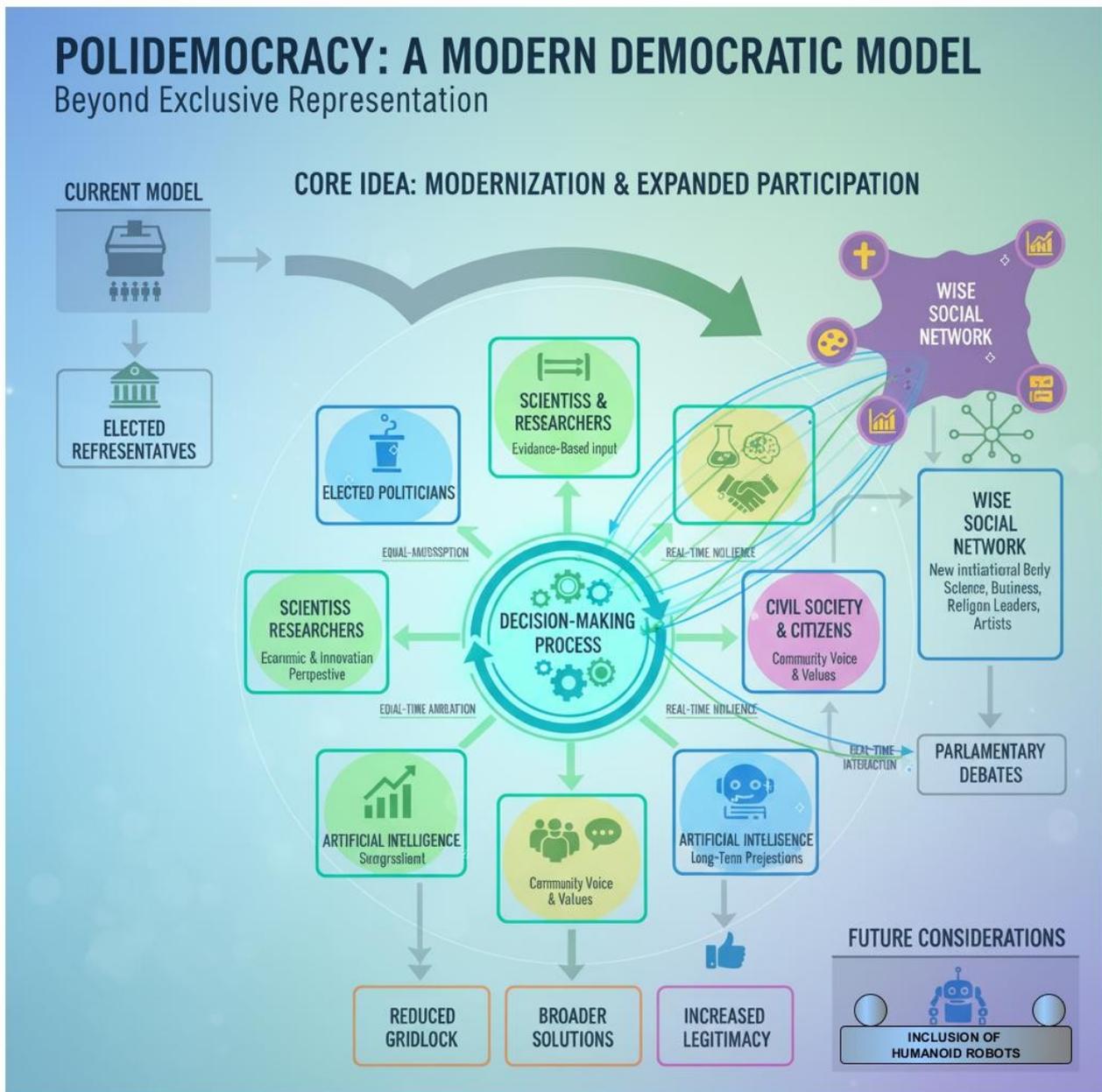
2.2.1.2 Figure 4: A potential decision-making scenario within a polydemocratic political system on the national level

Figure 4 depicts a dynamic, multi-actor decision-making system, where elected officials, experts, civil society, artificial intelligence, and international networks are interlinked. The connections demonstrate a deliberate attempt to move democracy beyond exclusive representation toward participatory, knowledge-driven governance with real-time adaptability.

Comparative analysis of Figure 3 and Figure 4

Both Figure 3 and Figure 4 present the conceptual framework of "Polidemocracy", a proposed modern democratic model that seeks to move beyond exclusive representation toward expanded participation and knowledge-based governance. While they share the same foundational logic, the

two figures differ in emphasis, level of detail, and the representation of systemic interactions.

Figure 3: Foundational structure

Focus: Figure 3 establishes the basic architecture of polidemocracy. At its center lies the decision-making process, connected to four main sources of input:

1. Elected politicians (traditional legitimacy).

2. Scientists and researchers (evidence-based input and innovation).

3. Civil society and citizens (community values).

4. Artificial intelligence (short-term simulations and long-term projections).

5. Additional actor: The Wise Social Network is introduced as a new international body integrating perspectives from science, business, religion, and the arts. It contributes to parliamentary debates, thereby connecting international and national levels of deliberation.

- Outcomes: The model emphasizes three anticipated benefits: reduced gridlock, broader solutions, and increased legitimacy.

- Future considerations: A placeholder for the inclusion of humanoid robots signals openness to future technological integration.

Figure 4: Expanded connectivity

Focus: Figure 4 builds upon this architecture by highlighting the dynamic connections among actors. It shifts from a static structural representation (as in Figure 3) to a processual model, emphasizing real-time flows of influence and amplification.

Key enhancement:

- The Wise Social Network is more prominent, shown as a hub of multi-directional flows between decision-making processes and parliamentary debates. This underscores its role as a bridge between expertise, community values, and legislative institutions.

- Civil society, researchers, and AI systems are depicted not merely as inputs but as interactive agents, contributing continuously and in real time.

- The feedback loops illustrate how community voices, scientific evidence, and AI projections mutually reinforce the decision-making process, rather than acting as isolated contributors.

Systemic character: The model now resembles a networked ecosystem rather than a hierarchical structure, reflecting the principles of pluralism, resilience, and distributed participation.

Key comparative insights

1. Structural vs. Processual:

- Figure 3 provides the conceptual foundation, identifying actors and expected outcomes.

- Figure 4 develops this into a process-oriented visualization, stressing connectivity, feedback, and adaptability.

2. Role of the Wise Social Network:

- In Figure 3, it appears as an additional body complementing national debates.

- In Figure 4, it emerges as a central mediator in the system, linking expertise, values, and political deliberation.

3. Representation of AI:

- Figure 3 highlights AI as a source of simulations and projections.

- Figure 4 depicts AI as part of real-time amplification and interaction loops, making it an active, ongoing participant in governance.

4. Emphasis on dynamics:

- Figure 3 emphasizes desired outcomes (gridlock reduction, legitimacy).

- Figure 4 emphasizes the mechanisms (flows of influence, equal-time interaction) that enable these outcomes.

Conclusion

Taken together, Figures 3 and 4 illustrate the evolution from a static conceptual model to a dynamic, networked vision of democratic governance. Figure 3 identifies the essential actors and goals of polidemocracy, while Figure 4 elaborates on the interconnected processes and real-time feedback (online) loops that sustain it. This progression highlights the shift from modernization through inclusion (Figure 3) to modernization through interaction and resilience (Figure 4).

2.2.2 Evaluation of the model using Petri nets

Before we proceed with evaluating the existing model using Petri Nets, it makes sense to first explain the basics of Petri nets.

Fundamentals of Petri Nets

A Petri net is a mathematical and graphical modeling tool designed to describe and analyze the flow of information, resources, or processes within a system. Originating from Carl Adam Petri's work in the 1960s, Petri nets are particularly suited for representing concurrent, asynchronous, distributed, or non-deterministic systems. Their formal structure provides both visual clarity and analytical rigor.

Places (drawn as circles) represent conditions, states, or resources. In decision-making contexts, places may denote stakeholders, information sources, or desired outcomes. Transitions (drawn as rectangles or bars) represent events, actions, or transformations that change the state of the system. Tokens (black dots placed inside places) represent the current marking of the net, i.e., the distribution of active states or available resources. Tokens indicate which parts of the system are currently active. In short, Petri nets are used wherever complex systems with interacting

components need to be modeled, analyzed, and optimized (eg. performance evaluation. Analyzing system behavior, simulation of dynamic processes, workflow, interactions). Arcs connect places to transitions (input arcs) or transitions to places (output arcs), thus specifying how tokens move when transitions occur. The firing rule governs the dynamics of a Petri net:

- A transition is enabled if all its input places contain the required number of tokens.

- When an enabled transition fires, it consumes tokens from its input places and produces tokens in its output places.

- Through this mechanism, Petri nets provide a formal yet intuitive representation of processes, enabling the analysis of causality, concurrency, and feedback within complex systems.

Key features:

- Concurrency: Several transitions may fire independently.

- Synchronization: A transition fires only if all its input places contain the required tokens.

- Modeling suitability: Ideal for processes involving interactions, feedback, and parallelism like the decision-making processes shown in Polidemocracy.[9]

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9   This subsection was developed with the support of ChatGPT and Google Studio, with the evaluation of the Petri net providing significant assistance.

Diaz, M. (2008). *Petri nets: Fundamental models, verification and applications*. Wiley.

Esparza, J., Römer, S., & Vogler, W. (2002). An improvement of McMillan's unfolding algorithm. *Formal Methods in System Design*, 20(3), 285–310. https://doi.org/10.1023/a:1014746130920.

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PETRI NET: POLIDEMOCRACY MODEL
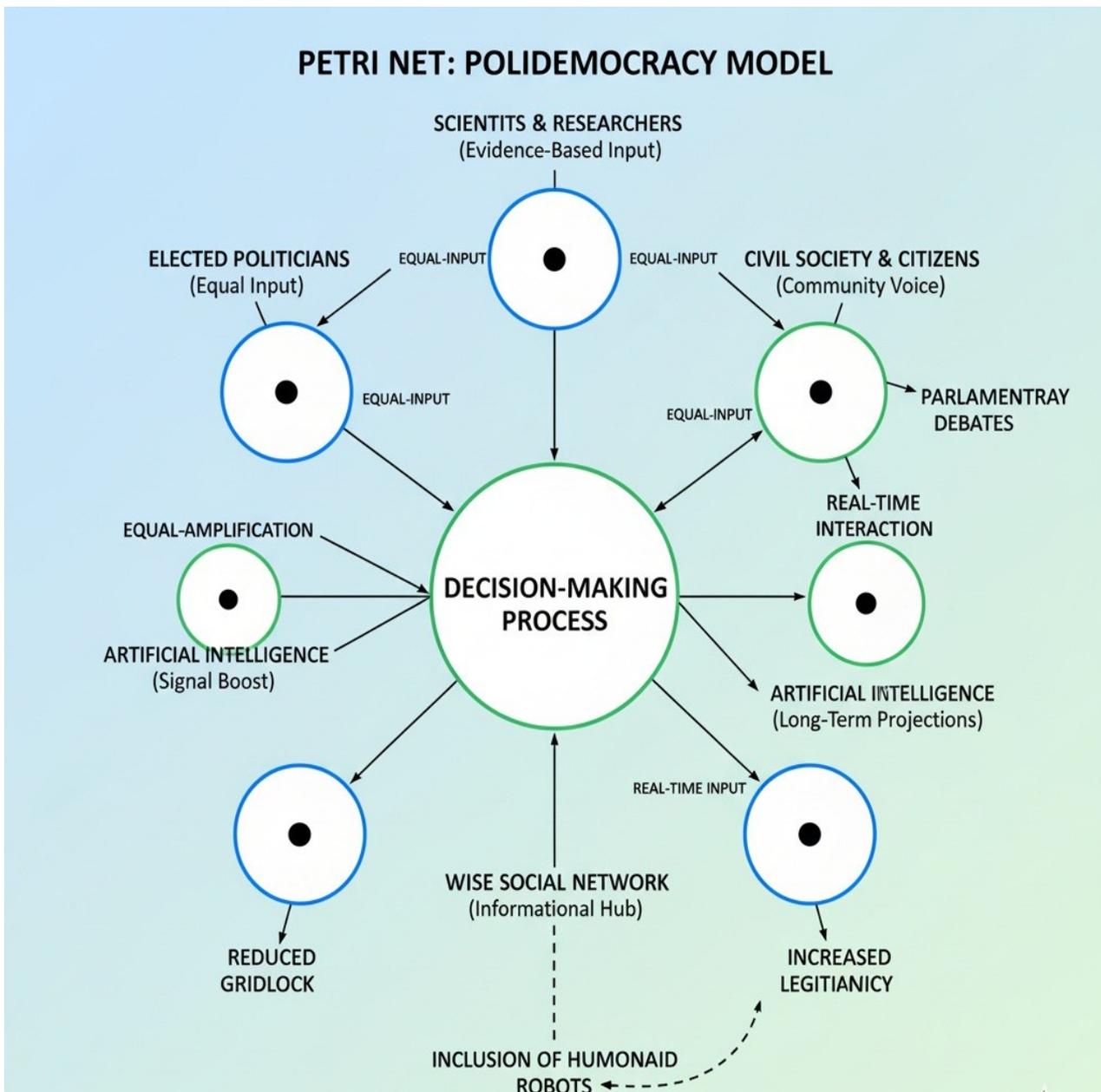
2.2.2.1 Figure 5: Petri net polydemocracy model

Figure 5 presents a Petri net model illustrating the proposed "Polidemocracy" framework, a modern democratic model aiming to move "Beyond Exclusive Representation" towards "Modernization & Expanded Participation." The core of the model is the Decision-Making Process, depicted as a central transition node (green circle) that orchestrates inputs from various societal and technological actors and generates desired outcomes.

Input places (Blue circles): These represent the sources of input to the decision-making process:

- Elected politicians (Equal input): Traditional representatives providing input.

- Scientists & researchers (Evidence-based input): Contributing expert knowledge and empirical data.

- Artificial intelligence (Signal boost): Amplifying specific signals or data for consideration.

Interaction places (Green circles): These nodes signify dynamic or continuous interactions that feed into the process:

- Civil society & citizens (Community voice): Representing direct public engagement and values.

- Parliamentary debates: An arena (also online) for real-time interaction and deliberation.

- Artificial intelligence (Long-term projections): Providing foresight and predictive analysis.

- Wise social network (Informational hub): A broader network serving as a comprehensive informational nexus.

Transitions (Arrows): Directed arcs connect places to transitions and transitions to places, indicating the flow of information, influence, or action. Labels on the arcs, such as "EQUAL-INPUT," "EQUAL-AMPLIFICATION," and "REAL-TIME INTERACTION," specify the nature of these connections.

Tokens (Black dots within places): A black dot within each place signifies the presence of a "token," indicating that the condition represented by that place is active or that input/information is available from that source for the "Decision-Making Process." For instance, a token in "Elected Politicians" indicates their input is ready.

Output places (Blue circles): These represent the anticipated benefits or outcomes of the Polidemocracy model:

- Reduced gridlock: Suggesting a more efficient and less stagnant decision-making environment.

- Increased legitimacy: Indicating greater public acceptance and trust in decisions.

Future considerations (Dashed arrow):

Inclusion of humanoid robots (Future): This dashed arc extending from the "Wise Social Network" to an envisioned future place ("Inclusion of Humanoid Robots") suggests a speculative future expansion of the model, where artificial entities might play a role in the informational or deliberative process, emanating from or integrating with the social network.

In essence, the Petri net illustrates a dynamic, multi-stakeholder decision-making process where traditional political actors are augmented by scientific expertise, citizen engagement, and artificial intelligence, all mediated by an overarching "Wise Social Network," to achieve improved democratic outcomes and consider future technological integrations. This is followed by an evaluation of the model and potential suggestions for improvement.

The Polidemocracy model, as represented in the Petri net, proposes an intriguing and ambitious approach to modernizing democracy by broadening participation and leveraging technology. Here's an evaluation of its organizational dynamics and suggestions for improvement:

Evaluation of organizational model dynamics:

Strengths:

Multi-stakeholder inclusion: The core strength is the explicit integration of diverse inputs: elected politicians, scientists, civil society, and AI. This broadens the knowledge base and aims for more holistic decision-making, moving beyond traditional representative democracy.

Emphasis on evidence and data: The inclusion of "Scientists & Researchers (Evidence-Based Input)" and "Artificial Intelligence (Long-Term Projections)" directly addresses the need for data-driven and forward-looking policy.

Citizen engagement: "Civil Society & Citizens (Community Voice)" and "Parliamentary Debates (Real-Time Interaction)" provide avenues for public participation and deliberation, which is crucial for legitimacy.

Technological leverage: AI is utilized for both "Signal Boost" (analysis/amplification) and "Long-Term projections" (forecasting), suggesting an intelligent layer to support decision-making.

Focus on outcomes: The explicit output places like "Reduced Gridlock" and "Increased Legitimacy" indicate a clear objective to overcome common democratic shortcomings.

"Wise Social Network" as an Informational Hub: This concept, while abstract, suggests a powerful mechanism for synthesizing information and fostering connections across different domains (science, business, religion, arts).

Potential weaknesses & challenges:

Complexity and Coordination: Integrating so many diverse actors with "Equal-Input" or "Equal-Amplification" could lead to significant coordination challenges. The Petri net shows inputs but doesn't detail the mechanisms for resolving conflicts or prioritizing divergent inputs from these sources.

"Equal-Input" ambiguity: While aiming for inclusivity, treating all inputs as "equal" (e.g., from elected politicians vs. a specific AI signal) might dilute responsibility or make it difficult to establish clear accountability. What happens when these "equal" inputs contradict each other?

Role of AI in "Signal Boost" vs. "Projections": The distinction is good, but the "Signal Boost" AI could be susceptible to bias amplification if not carefully designed. The model needs robust mechanisms for AI governance and oversight.

Decision-making Process as a black box: The central "Decision-Making Process" is a single transition. This simplifies the model but hides the internal mechanisms of how inputs are processed, debated, synthesized, and transformed into decisions. This is where the real complexity and potential for inefficiency lie.

"Wise Social Network" Definition: While an interesting concept, its operationalization is key. How is wisdom defined and extracted? How does it interact with formal decision structures? Who curates

it?

Potential for information overload: With so many inputs, there's a risk of overwhelming the decision-making process, potentially leading to analysis paralysis rather than "Reduced Gridlock."

Accountability and responsibility: In a highly distributed and technologically augmented model, clear lines of accountability for decisions must be maintained. Who takes responsibility when things go wrong?

Suggestions for better dynamics:

To enhance the model's dynamics and address potential weaknesses, consider the following:

Introduce Prioritization/Weighting Mechanisms: Instead of pure "Equal-Input," define dynamic weighting factors for different inputs based on the nature of the decision.

Suggestion: Add a "Prioritization/Weighting Sub-Process" transition within or just before the main "Decision-Making Process." This sub-process would take inputs from all sources and apply context-dependent weights. For example, scientific input might have higher weight in health policy, while community voice is paramount in local zoning.

Explicit conflict resolution & synthesis transitions: The central "Decision-Making Process" needs to be disaggregated.

Suggestion: Break down the central transition into a sequence of sub-transitions:

"Input Aggregation & Normalization"

"Divergence Identification & Conflict Flagging"

"Deliberation & Synthesis" (This could involve a new place representing a "Consensus Building Forum" or "Debate Resolution" where conflicting tokens are resolved)

"Decision Formulation"

Feedback loops for learning & ddaptation: The current model is largely feedforward. Democracies thrive on learning from past decisions.

Suggestion: Add feedback loops from "Reduced Gridlock" and "Increased Legitimacy" (and perhaps even from observed real-world outcomes) back to "Scientists & Researchers" or the "Wise Social Network" to inform future inputs. This would create an adaptive system.

Governance & oversight layer for AI: Define the role and limitations of AI more clearly to build trust and prevent unchecked influence.

Suggestion: Introduce a "AI Governance & Audit" place/transition that monitors "Artificial Intelligence (Signal Boost)" and "Artificial Intelligence (Long-Term Projections)" to ensure ethical parameters, data integrity, and accountability.

Operationalize the "Wise Social Network": Define how this network actively contributes and what its internal dynamics are.

Suggestion: Model the "Wise Social Network" as a complex place with its own internal transitions, such as "Information Curation," "Knowledge Synthesis," and "Opinion Aggregation." This moves it from a passive hub to an active contributor.

Clear accountability pathways: Ensure that despite distributed inputs, there are clear lines for responsibility.

Suggestion: While not easily represented by a simple Petri net, conceptually, the "Decision-Making Process" should ultimately funnel into a "Decision Endorsement" or "Implementation Authority" place, which is linked to an identifiable body (e.g., a streamlined legislative body) that holds ultimate accountability.

Dynamic token flow (Resource allocation): Consider the concept of "resources" or "attention" as tokens. If there are too many inputs (tokens) at once, how does the system cope?

Suggestion: Introduce limited capacity places or resource-gating transitions to prevent overload. For example, "Decision-Making Process" might only be able to process a certain number of prioritized inputs at a time, requiring a queuing mechanism.

By incorporating these suggestions, the Polidemocracy model could transition from a conceptual framework to a more robust, adaptive, and operationally viable system, better addressing the complex dynamics of modern governance.

2.2.2.2 Figure 6: Key improvements in the Petri net – Polidemocracy model

The Polidemocracy model (see figure 6), as represented in the Petri net, proposes an intriguing and ambitious approach to modernizing democracy by broadening participation and leveraging technology. Here's an evaluation of its organizational dynamics and suggestions for improvement:

Evaluation of organizational model dynamics:

Strengths:

Multi-stakeholder inclusion: The core strength is the explicit integration of diverse inputs: elected politicians, scientists, civil society, and AI. This broadens the knowledge base and aims for more holistic decision-making, moving beyond traditional representative democracy.

Emphasis on evidence and data: The inclusion of "Scientists & Researchers (Evidence-based input)" and "Artificial Intelligence (Long-term projections)" directly addresses the need for data-

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Potential weaknesses & challenges:

Complexity and coordination: Integrating so many diverse actors with "Equal-Input" or "Equal-Amplification" could lead to significant coordination challenges. The Petri net shows inputs but doesn't detail the mechanisms for resolving conflicts or prioritizing divergent inputs from these sources.

"Equal-Input" Ambiguity: While aiming for inclusivity, treating all inputs as "equal" (e.g., from elected politicians vs. a specific AI signal) might dilute responsibility or make it difficult to establish clear accountability. What happens when these "equal" inputs contradict each other?

Role of AI in "Signal Boost" vs. "Projections": The distinction is good, but the "Signal Boost" AI could be susceptible to bias amplification if not carefully designed. The model needs robust mechanisms for AI governance and oversight.

Decision-making process as a black box: The central "Decision-Making Process" is a single transition. This simplifies the model but hides the internal mechanisms of how inputs are processed, debated, synthesized, and transformed into decisions. This is where the real complexity and potential for inefficiency lie.

"Wise Social Network" definition: While an interesting concept, its operationalization is key. How is wisdom defined and extracted? How does it interact with formal decision structures? Who curates it?

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To enhance the model's dynamics and address potential weaknesses, consider the following:

Introduce prioritization/weighting mechanisms: Instead of pure "Equal-Input," define dynamic weighting factors for different inputs based on the nature of the decision.

Suggestion: Add a "Prioritization/Weighting Sub-Process" transition within or just before the main "Decision-Making Process." This sub-process would take inputs from all sources and apply context-dependent weights. For example, scientific input might have higher weight in health policy, while community voice is paramount in local zoning.

Explicit conflict resolution & synthesis transitions: The central "Decision-Making Process" needs to be disaggregated.

Suggestion: Break down the central transition into a sequence of sub-transitions:

"Input Aggregation & Normalization"

"Divergence Identification & Conflict Flagging"

"Deliberation & Synthesis" (This could involve a new place representing a "Consensus Building Forum" or "Debate Resolution" where conflicting tokens are resolved)

"Decision Formulation"

Feedback loops for learning & adaptation: The current model is largely feedforward. Democracies thrive on learning from past decisions.

Suggestion: Add feedback loops from "Reduced Gridlock" and "Increased Legitimacy" (and perhaps even from observed real-world outcomes) back to "Scientists & Researchers" or the "Wise Social Network" to inform future inputs. This would create an adaptive system.

Governance & oversight layer for AI: Define the role and limitations of AI more clearly to build trust and prevent unchecked influence.

Suggestion: Introduce a "AI Governance & Audit" place/transition that monitors "Artificial Intelligence (Signal boost)" and "Artificial Intelligence (Long-Term Projections)" to ensure ethical parameters, data integrity, and accountability.

Operationalize the "Wise Social Network": Define how this network actively contributes and what its internal dynamics are.

Suggestion: Model the "Wise Social Network" as a complex place with its own internal transitions, such as "Information Curation," "Knowledge Synthesis," and "Opinion Aggregation." This moves it from a passive hub to an active contributor.

Clear accountability pathways: Ensure that despite distributed inputs, there are clear lines for responsibility.

Suggestion: While not easily represented by a simple Petri net, conceptually, the "Decision-Making

Process" should ultimately funnel into a "Decision Endorsement" or "Implementation Authority" place, which is linked to an identifiable body (e.g., a streamlined legislative body) that holds ultimate accountability.

Dynamic token flow (Resource allocation): Consider the concept of "resources" or "attention" as tokens. If there are too many inputs (tokens) at once, how does the system cope?

Suggestion: Introduce limited capacity places or resource-gating transitions to prevent overload. For example, "Decision-Making Process" might only be able to process a certain number of prioritized inputs at a time, requiring a queuing mechanism.

By incorporating these suggestions, the Polidemocracy model could transition from a conceptual framework to a more robust, adaptive, and operationally viable system, better addressing the complex dynamics of modern governance.

The evaluation of the Petri net has clearly demonstrated that, despite WISE's non-hierarchical emphasis, a certain degree of hierarchical structure is required. It is necessary to establish responsibilities with regard to specific political issues, the identification and selection of the most relevant proposed ideas and solutions, as well as the funding mechanisms of WISE. In this respect, it would be reasonable to conceive of WISE as a political party that, functioning as a perpetual opposition, would closely monitor the most pressing issues and actively respond, particularly in cases of adverse decisions made by political leaders.

A central question arises: how could WISE, as a political party, participate in national elections in such a way that it could secure representation without unintentionally becoming the leading party? This could be feasible if, alongside the national elections, parallel elections were held for candidates of the WISE party. In this way, WISE would acquire a legitimate mandate to participate in parliamentary debates.

Another question concerns how the WISE political party might effectively mobilize other actors, such as civil initiatives, artists, religious leaders, journalists, scientists, and others. For this purpose, an online and/or intranet-based WISE social network could be established, serving as a platform where all stakeholders could contribute and exchange ideas and/or solutions to pressing societal problems.

Let us now turn to the issue of financing the WISE political party.

Based on the model "POLIDEMOCRACY: A MODERN DEMOCRATIC MODEL Beyond Exclusive Representation" and the role of the WISE Social Network, the WISE political party could be financed through multiple mechanisms consistent with the model's emphasis on broad participation and the influence of diverse actors. Several possible approaches emerge from the model itself and from general principles of political organization:

1. Donations from civil society and citizens (Community Voice & Values):

As the WISE Social Network is embedded within the broader society and exerts influence through Community Voice & Values, funding could be secured via small-scale donations from individual citizens and civil society organizations supportive of its ideas. This approach would align with the ethos of broad-based participation.

2. Support from represented sectors:

The model identifies the WISE Social Network as encompassing a new Informational body that includes science, business, religious leaders, and artists. These sectors could provide financial support to the WISE party, given that the party represents their interests and contributes to decision-making through Real-Time Influence and Equal Ambition. Business entities and scientific institutions, in particular, may have incentives to contribute in order to ensure their voices are effectively represented in the political process.

3. Public funding for research and innovation:

Since the model emphasizes the role of Scientists & Researchers and Evidence-Based Input, the WISE party could benefit from public funding allocated to research projects or innovations that contribute to more effective policy solutions. While this would not constitute direct party financing, it would nonetheless support core activities essential to the party's operational model.

4. Financing through the "AI":

If the Artificial Intelligence were to serve as a platform for resource aggregation aimed at supporting informed decision-making and broad participation, a portion of these funds could be allocated to the functioning of the WISE party, insofar as it acts as an intermediary between AI-driven insights and political decision-making.

5. Membership fees and internal contributions:

As with conventional political parties, the WISE party could rely on membership fees and contributions from its members, especially those affiliated with the influential sectors mentioned above.

6. Financing through "Real-Time Influence" mechanisms:

Should mechanisms of Real-Time Influence be developed to include financial contributions in exchange for decision-making input (within transparent and ethical frameworks), such channels could serve as an additional source of funding. However, careful safeguards would be necessary to maintain democratic legitimacy and prevent corruption.

Very important

Ultimately, the financing of the WISE party would need to reflect its character as a social network drawing upon a wide spectrum of societal and epistemic resources. Ensuring transparency and

avoiding dependency on a single funding source would be essential for preserving both the party's integrity and its political influence.

Let us now outline potential avenues for financing the WISE political party from the perspective of the Petri net model. Considering the Petri Net: Polidemocracy model – enhanced dynamics and the role of the WISE Social Network (which appears in this model more indirectly through civil society & citizens and scientists & researchers as actors providing community voice and evidence input), several possible funding pathways can be identified:

1. Public funding for deliberation and synthesis (Deliberation & synthesis forum):

As an organization uniting experts, researchers, and representatives of civil society (reflected in scientists & researchers and civil society & citizens), WISE could receive funding for its participation in the deliberation & synthesis forum.

If this forum were embedded in a modernized democratic process, specific resources could be allocated to support the operations and research conducted by entities such as WISE, ensuring high-quality Evidence Input and Community Voice. This would constitute public funding directed toward contributions to the political process.

2. Participation in the development and maintenance of "AI Governance & Oversight" and "AI (RoSMEscience):"

If the WISE political party, or an affiliated organization, possessed expertise in artificial intelligence (relating to RoSMEscience and AI Governance & Oversight), it could be eligible for funding dedicated to research, development, or maintenance of such systems.

This support might derive from state institutions, international organizations, or even private sector actors with a vested interest in developing responsible and ethical AI for political processes.

3. Funding for "Input Aggregation & Normalization" and "Dynamic Weighting Criteria":

WISE could specialize in the aggregation and normalization of input data, as well as in the development of criteria for dynamic weightingboth central elements of the decision-making process. For these services, WISE could receive compensation, as they constitute a crucial contribution to the modern decision-making Engine. This would represent funding for professional services.

4. Donations and support from civil society & citizens:

As in previous models, if WISE were to serve as a representative of civil society, it could secure donations and support from individuals and organizations whose interests it channels. Since community voice is a central component of the model, citizens may choose to provide financial backing to an organization that effectively articulates and advances their perspectives.

5. Funding from resources for "Increased Legitimacy" and "Reduced Gridlock":

If funds were earmarked to achieve the outcomes of Increased Legitimacy and Reduced Gridlock (which are outputs of the model), WISE could receive financing for projects directly contributing to these goalssuch as fostering participation, promoting public education, or developing innovative governance solutions.

6. Resources for "Interaction" and "Evidence Input":

Since civil society & citizens are engaged in Interaction and scientists & researchers in evidence input, WISE could receive funding to organize and facilitate such interactions, as well as to collect and present scientific evidence. This would involve financing for dialogue facilitation and data collection efforts.

The Petri net emphasizes functional roles and processes. Consequently, any potential financing of WISE would likely be tied to the specific ways in which it participates in these processes and the value it adds to the system. Funding would therefore be oriented toward supporting its specialized functions and its contributions to the improvement of the decision-making process.

For greater clarity, let us present the financial scheme.

BASED NET 'POLIDEMOCRACY' MODEL - ENHANCED DYNAMICS
Beyond Exclusive Representation
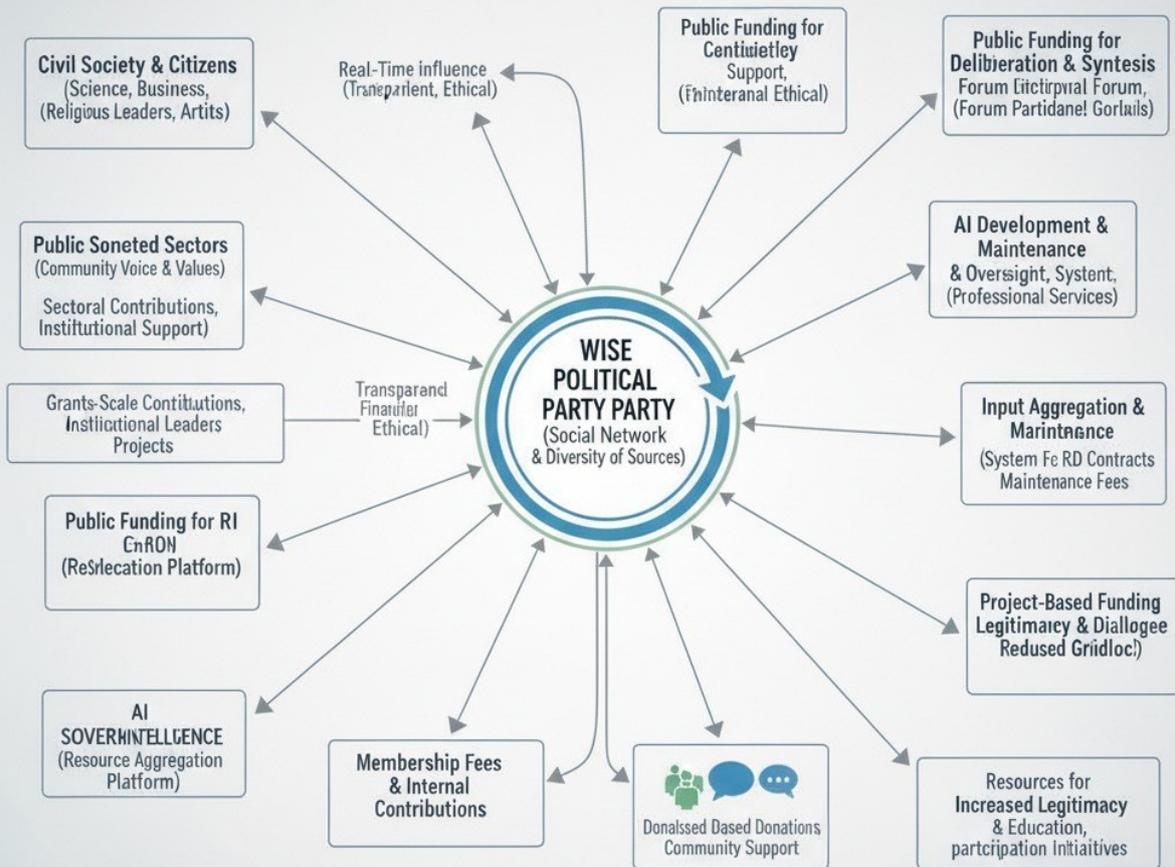
KEY PRINCIPLES: TRANSPARENCY, DIVERIFICATION, ETHICAL GOVERNANCE

2.2.2.3 Figure 7: Financial scheme of the WISE political party

This model for the WISE Political Party illustrates (see figure 7) a diversified funding structure that emphasizes transparency, ethical governance, and a broad base of support, in line with the Polidemocracy framework.

The central WISE Political Party conceived as a social network drawing upon diverse societal and epistemic sources would be supported through several avenues:

- Public funding: Allocated for research and innovation, deliberative forums, and contributions to AI governance and oversight.

- Sectoral support: Provided by civil society, citizens, and represented sectors (e.g., science, business, religious leaders, and artists) through donations and institutional backing.

- Service-based income: Derived from compensation for professional services such as input aggregation, data normalization, and AI system maintenance.

- Internal contributions: Generated through membership fees and direct contributions from party members.

- Project-based funding: Secured for initiatives designed to enhance legitimacy, reduce political gridlock, and promote public education and civic participation.

WISE Political Party's social network site
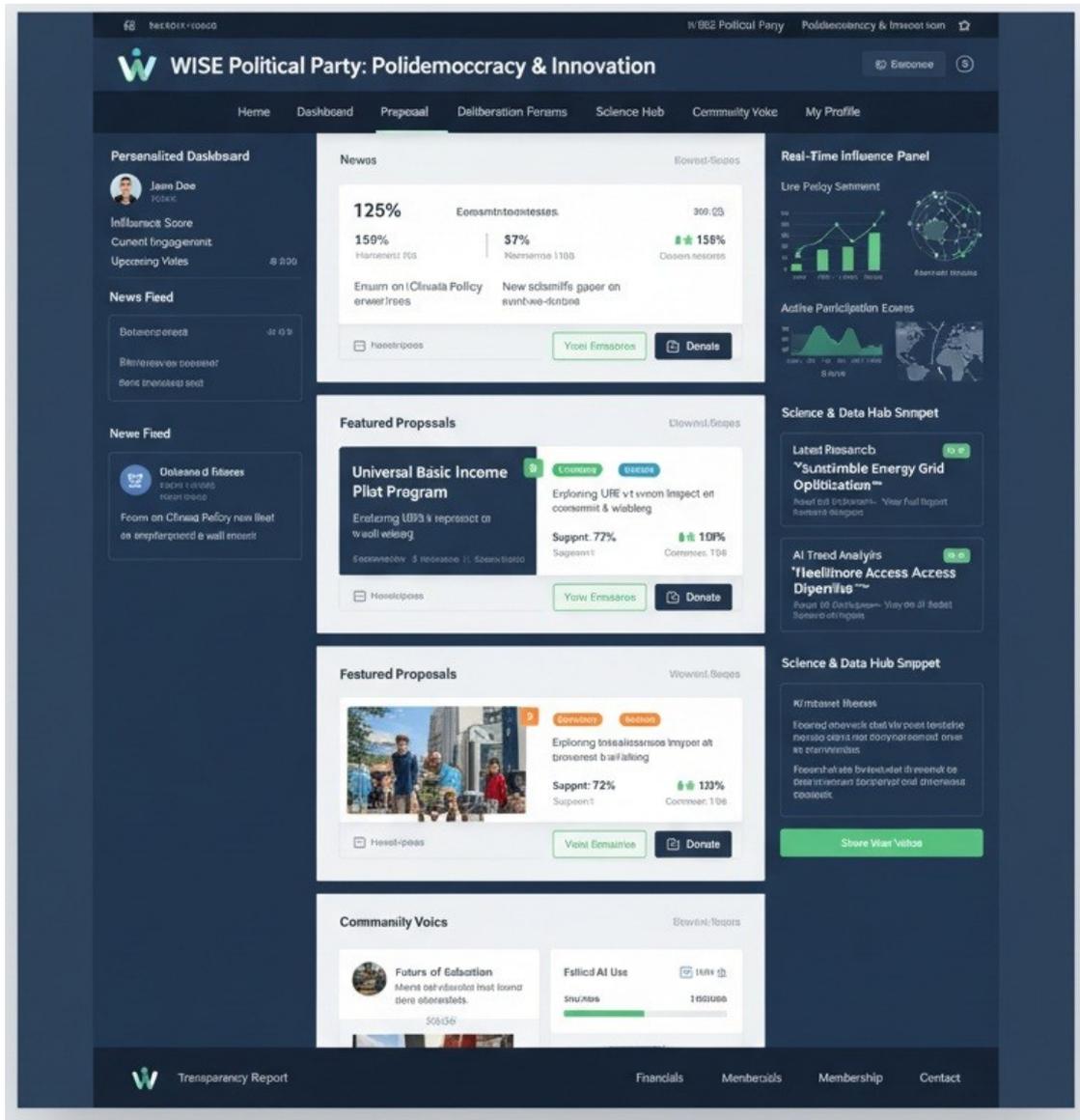
2.2.2.4 Figure 8: WISE Political Party's social network site

The model for the WISE Political Party's social network site (see figure 8), entitled "WISE Political Party: Polidemocracy & Innovation", is conceived as a dynamic and interactive platform intended to facilitate broad-based participation and evidence-informed decision-making.

Key features:

- Personalized dashboard: Provides users with an overview of their influence score, level of engagement, and forthcoming voting opportunities.

- News feed: Combines general party updates with a personalized stream tailored to the interests of individual users.

-Deliberation & proposals: Encompasses community discussions and featured proposals, enabling users to examine detailed policy suggestions, register votes or endorsements, and contribute financially to specific initiatives. This feature foregrounds prevailing sentiments and tracks progress.

- Real-time influence panel: Visualizes dynamic indicators of policy sentiment and participation metrics, thereby operationalizing the model's emphasis on continuous feedback.

- Science & data hub snippet: Offers accessible entry points to recent research, AI-driven trend analyses, and data highlights, underscoring the party's commitment to evidence-based policy development.

- Community voices: Serves as a dedicated space for open discussion and contributions from the broader public.

- Navigation bar: Provides structured access to central sections, including Home, Dashboard, Proposals, Deliberation Forums, Science Hub, Community Voice, and My Profile.

- Footer links: Direct users to critical resources such as the Transparency report, Financial statements, Membership information, and Contact details, reinforcing the party's emphasis on accountability and openness.

Overall, the design seeks to balance accessibility with intellectual rigor, fostering active engagement and informed contribution among both party members and the wider public.

The current global reality demonstrates that political democratic systems of the type under consideration have not yet been established. Existing political, democratic, and related systems have repeatedly shown limited effectiveness in addressing complex problems, as evidenced by numerous critical events in both historical and contemporary contexts. In view of the increasingly intractable nature of global challenges, the establishment of a global international organization, WISE(∞), must be regarded as a necessity rather than a mere option. On the basis of this assessment of the prevailing political order, the subsequent chapter will introduce the WISE(∞) model, formulated independently of any presupposition of idealized support through polidemocracy.

3 WISE(∞)

Given the complexity of the content of this visionary monograph, it is appropriate to briefly recapitulate the meaning of WISE(∞).[10]

3.1 Meaning of WISE(∞)

1. Conceptual foundations

- A network of collective intelligence: WISE(∞) is conceived as a global network of collective intelligence, designed to harness shared knowledge and insight on a planetary scale.

- A global initiative: It represents a global initiative intended to encourage leading figures across diverse domains to adopt a more comprehensive perspective on the present and future trajectory of the world.

- Influencing decisions: Its primary objective is to shape critical global political decisions by world leaders. This is pursued by transforming threats, risks, opportunities, and examples of both poor and exemplary practices into actionable ideas, which are then developed into innovative solutions for addressing the most urgent global challenges.

2. Structural characteristics and functions

- An alternative model: WISE(∞) is proposed as a departure from traditional organizational models. It seeks to integrate lessons from history, particularly the limitations of the League of Nations and the United Nations system, both of which were constrained by power asymmetries and rigid institutional hierarchies.

- Non-hierarchical and collaborative: Rather than concentrating authority within rigid hierarchies, WISE(∞) emphasizes mutual collaboration and co-creation. It aspires to function as a dynamic, non-hierarchical, and integrative framework. Nevertheless, despite this non-hierarchical emphasis, certain hierarchical structures remain necessary for effective governance and coordination.

- A conceptual hub: WISE(∞) is designed to function as a conceptual hub that connects and coordinates other global organizations engaged in fostering international solidarity. Its establishment should serve to integrate and enhance the efforts of existing institutions.

- Mobilizing diverse actors: WISE(∞) is envisioned as a strong international organization uniting diverse social and professional spheres. It seeks to mobilize the contributions of scientists, artists, religious leaders, policymakers, journalists, business leaders, security institutions, and members of civil society worldwide.

3. Vision for WISE(∞) and AI

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10 The third and fourth chapters of this work were created with the assistance of ChatGPT, Grok, LM Notebook, and Google AI Studio.

From this perspective, WISE(∞) can be understood as a synergistic collaboration between human and artificial intelligence, forming a meta-system in which global knowledge, shared values, and computational capacities converge. This framework is intended not only to enhance collective problem-solving but also to create pathways toward an innovative form of planetary governance, one informed by human wisdom and strengthened by technological capability.

3.1.1 Figure 9: WISE(∞) as a dynamic global network

Figure 9 illustrates the Wise International Solidarity Empowerment (WISE(∞)) as a dynamic global network, centered on a luminous WISE(∞) emblem at its core. The emblem, marked by the infinity symbol, signifies the boundless and interconnected character of the initiative. Encircling the core emblem is the inscription "THE INTERNATIONAL SOLIDARITY EMPOWERMENT GLOBAL INITIATIVE," reinforcing the organization's overarching purpose. From this central hub, radiating lines extend outward to multiple nodes distributed across a stylized globe. These nodes symbolize

diverse categories of collaborators and their respective contributions within the WISE(∞) model. Each node represents a distinct actor group:

- Scientists and researchers: Depicted as individuals in laboratory settings, examining data and conducting experiments, underscoring their role in providing evidence-based insights.

- Civil society and citizens: Portrayed through diverse community members, including families and individuals engaged in collective activities such as gardening, symbolizing communal values and civic participation.

- Religious leaders: Illustrated as leaders from different faith traditions in dialogue and reflection, highlighting their role in fostering unity and mutual understanding.

- Artificial intelligence (AI): Represented by a humanoid robot interacting with a human and holographic data displays, signifying AI's role in forecasting, analysis, and augmenting collective intelligence.

- Artists: Depicted through painting, music, and other creative activities, emphasizing the cultural and imaginative contributions to problem-solving.

- Journalists: Shown reporting and communicating, reflecting their essential role in disseminating information and amplifying collective knowledge.

- Business leaders: Illustrated in professional collaboration, indicating their engagement in shaping sustainable and innovative practices.

- Other professionals (e.g., policymakers, security institutions): Represented in deliberative and professional settings, symbolizing their role in governance, security, and institutional support.

The overall aesthetic is futuristic and interconnected, with glowing lines and holographic interfaces suggesting advanced technologies and seamless flows of information. The globe, rendered in a radiant blue, emphasizes the initiative's planetary reach. The radial structure, in which all nodes are directly linked to the core without hierarchical ordering, conveys WISE(∞)'s commitment to non-hierarchical, mutualistic collaboration.

In essence, the full complexity of constructing the WISE(∞) model becomes evident, as it encompasses numerous global organizations alongside a wide range of actors from science, popular art, religion, journalism, politics, medicine, and beyond. For this reason, a simplified collaborative hierarchical model of WISE(∞) will be presented.
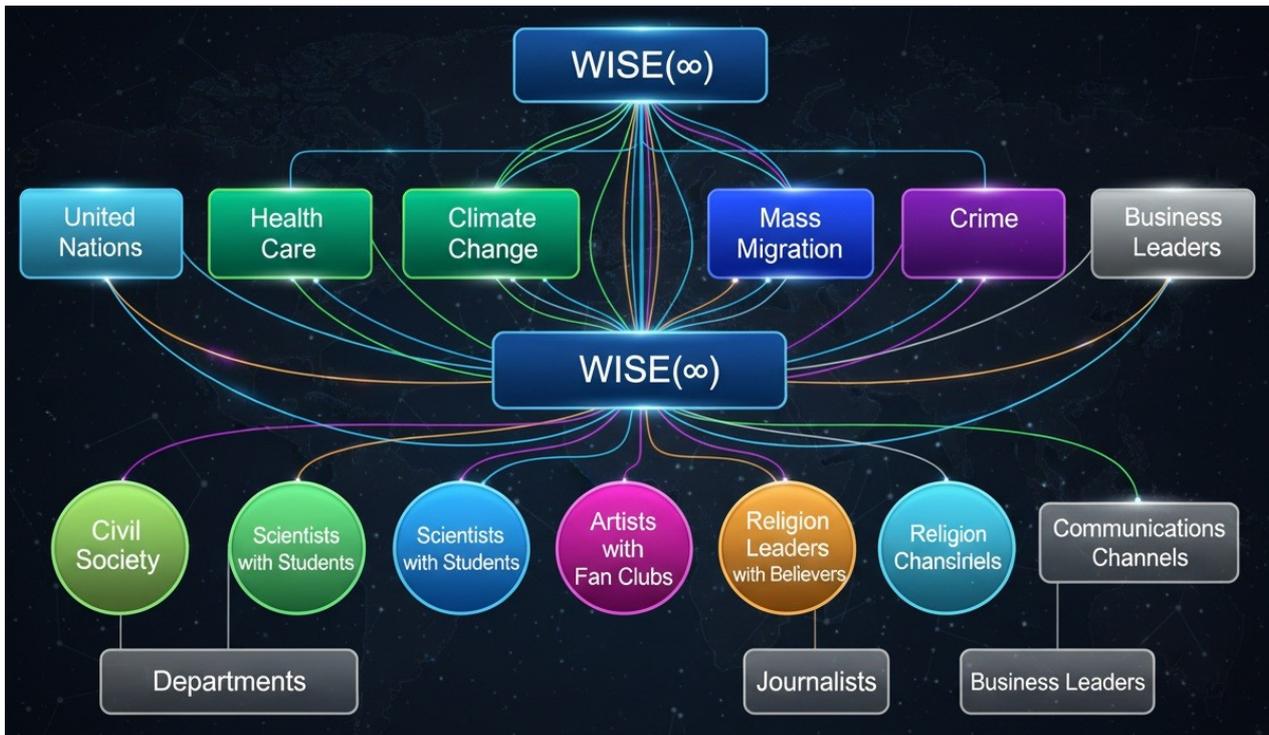
3.1.2 Figure 10: Simplified collaborative hierarchical model of WISE(∞)

Figure 10 illustrates a vibrant and sophisticated "Collaborative Hierarchical Model of WISE(∞): Global Wisdom Network." This visualization builds upon the hierarchical structure previously outlined, while incorporating color, clarity, and visual dynamism.

At the top, a prominent, luminous WISE(∞) banner serves as the overarching conceptual framework, signifying the initiative's central role. Directly beneath it, a horizontal row of distinct, color-coded rectangular nodes represents key global challenges and major coordinating entities:

- United Nations (Blue): Positioned prominently to reflect its foundational and guiding role.

- Health care (Green): Signifying its critical global importance.

- Climate change (Green): Highlighting environmental imperatives.

- Mass Migration (Blue): Denoting pressing societal and humanitarian challenges.

- Crime (Purple): Addressing global security and justice.

- Business leaders (Grey): Representing influence, resources, and strategic decision-making.

These top-tier nodes are interconnected by brightly colored lines that flow downward and converge in a central WISE(∞) banner, located at the second tier. This design element illustrates the channeling of information, strategies, and directives from high-level organizations and global challenges into the WISE(∞) core for synthesis and action.

From this second-tier hub, a series of radiating, multicolored lines extends outward to a lower tier of circular, color-coded nodes representing diverse actors within the WISE(∞) network:

- Civil society (Light Green): Embodying grassroots participation and community engagement.

- Scientists with students (Bright Green/Light Blue): Highlighting knowledge generation, research, and the transfer of expertise to future generations.
- Artists with fan communities (Pink): Reflecting the role of creative expression and cultural mobilization.
- Religious leaders with believers (Orange): Signifying moral guidance, shared values, and broad-based community influence.
- Communication channels with Journalists (Light Blue): Underscoring the importance of information dissemination and public discourse.
- Communication infrastructure (Grey): Indicating broader structural support for global communication.
- Business leaders (Grey): Appearing again at this level, symbolizing their involvement not only in strategic oversight but also in direct implementation and resource application.

At the base of the model, smaller grey rectangular nodes represent foundational elements that support the actor tier:
- Departments (Grey): Linked to civil society, denoting internal organizational structures.
- Journalists (Grey): Connected to religious leaders and communication channels, reflecting their role in reporting, interpretation, and shaping public understanding.
- Business leaders (Grey): Reappearing to signify practical operational roles that extend from their higher-level influence.

The repeated presence of the WISE(∞) banners underscores its central, unifying identity across all levels of the model.

The subsequent section introduces the WISE model, encompassing its moderators, mechanisms for aggregating collective intelligence, the dissemination of ideas and solutions, the integration of artificial intelligence, and other related components.
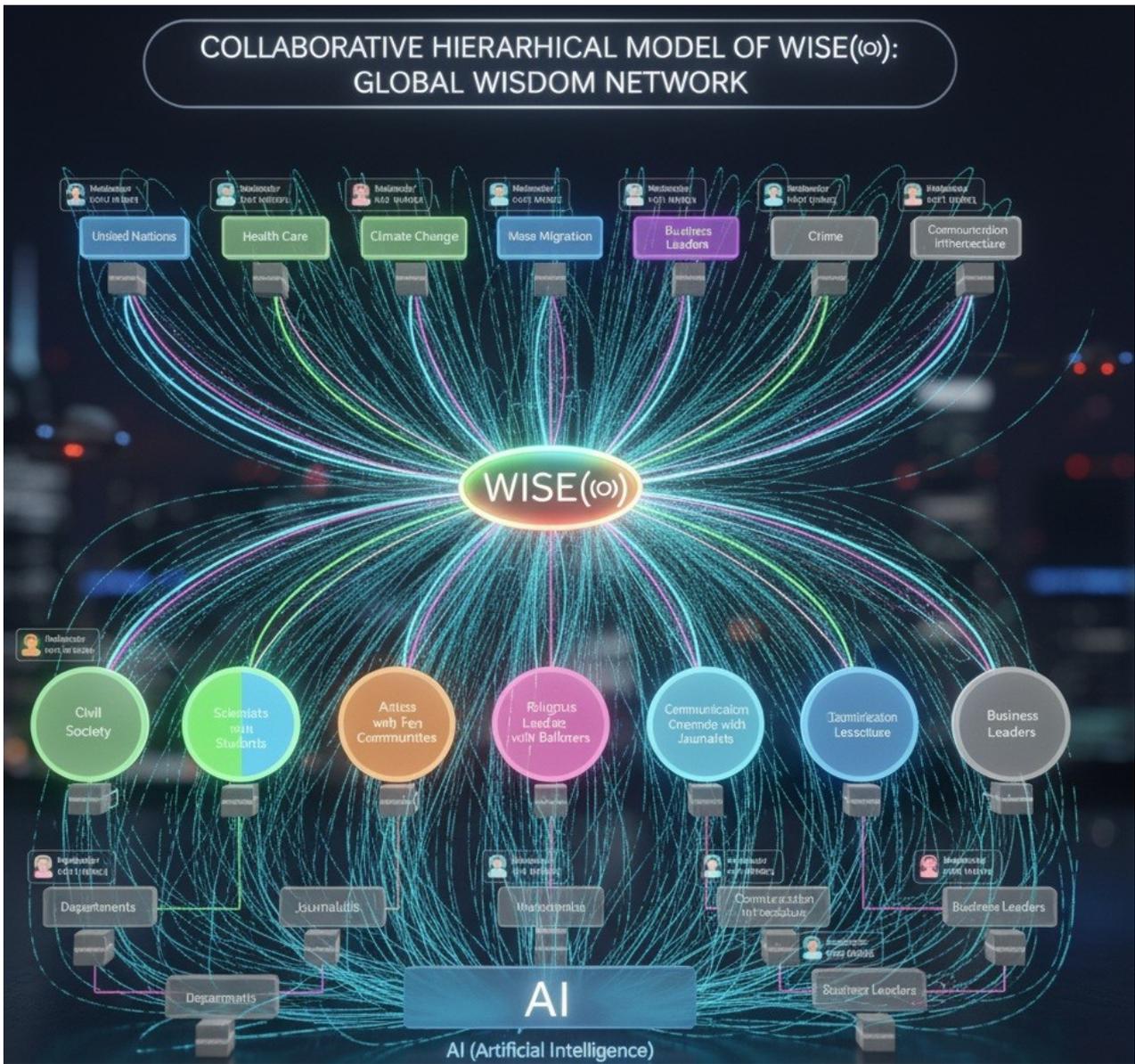
3.1.3 Figure 11: The collaborative hierarchical model of WISE(∞)

This enhanced three-dimensional diagram (See figure 11) illustrates the Collaborative Hierarchical Model of WISE(∞): Global Wisdom Network, with a particular emphasis on the role of Artificial Intelligence (AI). It depicts hierarchical structures, collaborative associations, and the dynamic flow of information, all of which are mediated and reinforced by AI.

At the top, a prominent banner introduces the overarching concept: "COLLABORATIVE HIERARCHICAL MODEL OF WISE(∞): GLOBAL WISDOM NETWORK."

Immediately below, the uppermost tier consists of distinct, rectangular, color-coded nodes representing major global challenges and coordinating entities, each of which contributes essential high-level input and strategy:

- United Nations (Blue)
- Health care (Green)

- Climate change (Green)

- Mass migration (Blue)

- Business leaders (Grey)

- Crime (Purple)

- Communication infrastructure (Grey)

Each of these top-tier entities is explicitly linked to a "Moderator: WISE(∞)" label, indicating a dedicated oversight mechanism within the WISE(∞) framework designed to manage input and collaboration.

From these nodes, brightly colored lines flow downward, converging into a central, luminous WISE(∞) hub located at the second tier. This convergence symbolizes the synthesis and processing of diverse high-level strategies, directives, and information streams within the core of the network.

Extending outward from the central WISE(∞) node are radiating, multicolored lines that connect to a lower tier of circular, color-coded nodes representing diverse actors and active participants in the WISE(∞) ecosystem:

- Civil society (Light Green)

- Scientists with students (Bright Green/Light Blue)

- Artists with fan communities (Pink)

- Religious leaders with believers (Orange)

- Communication channels with journalists (Light Blue)

- Business leaders (Grey)

Like the top tier, each actor-tier node is associated with a "Moderator: WISE(∞)," signifying structured oversight of interaction and contribution within the system.

At the base of the model, smaller rectangular grey nodes denote foundational or operational elements, each also linked to a "Moderator: WISE(∞)." These include:

- Departments (Grey), connected to Civil Society

- Journalists (Grey), linked to Religious Leaders and Communication Channels

- Business leaders (Grey), reappearing to underscore their operational as well as strategic roles

- Communication infrastructure (Grey), highlighting structural support functions

A newly introduced, central foundational node labeled "AI (Artificial Intelligence)" occupies the bottom tier. Strongly interconnected with supporting elements such as Departments, Journalists, and Business Leaders, AI implicitly extends its influence across all tiers of the network. Its position underscores AI's function as a technological backbone, enabling data processing, intelligence gathering, knowledge dissemination, and decision support across the WISE(∞) ecosystem.

Finally, a larger WISE(∞) banner at the base reinforces the model's central and unifying identity,

suggesting its pervasive influence throughout all levels of the structure, enhanced and empowered by integrated AI. The intricate web of lines symbolizes dynamic, associative, and collaborative relationships, while the tiered arrangement highlights the model's hierarchical logic, all working together to promote collective intelligence and the dissemination of innovative solutions.

SWOT Evaluation of the collaborative hierarchical model of WISE(∞)

Strengths (internal, positive attributes of the model's design)

- Centralized synthesis and coordination (WISE(∞) Core):

The central WISE(∞) node functions as a powerful hub for collecting, synthesizing, and directing information from diverse sources. This centralization fosters coherence in strategy and mitigates the risk of fragmented efforts across the network.

- Multi-tiered and diverse input channels:

The model integrates inputs from three distinct tiers:

– Top tier: High-level global organizations and major challenges (e.g., UN, Health Care, Climate Change).

– Middle tier: Societal actors (e.g., Civil Society, Scientists, Artists, Religious Leaders).

– Bottom tier-: Foundational operational units (e.g., Departments, Journalists).

This structure enables a broad, multi-perspective approach to collective intelligence and idea generation.

- Ubiquitous moderation:

The inclusion of a "Moderator: WISE(∞)" for each unit across all tiers constitutes a significant strength. It indicates dedicated oversight, quality control, facilitation, and conflict resolution at every interaction point, thereby enhancing structured and productive collaboration.

- Integrated AI as a foundational layer:

The AI component, positioned at the base of the model, is connected to operational units and implicitly underpins the entire network. Its integration suggests advanced capabilities in data processing, pattern recognition, optimization, and intelligent decision support, thereby increasing the network's efficiency and effectiveness.

- Clear hierarchical and associative links:

The model visually represents both top-down directives (from top-tier nodes to the WISE(∞) core) and bottom-up contributions (from actors to the WISE(∞) hub). Complex, multicolored lines further illustrate dynamic associative relationships and information flows, rendering the collaborative structure explicit and intelligible.

Weaknesses (internal, negative attributes of the model's design)

- Potential for centralization bottlenecks:

While centralization is a strength, heavy reliance on the WISE(∞) core could create bottlenecks if overwhelmed by excessive information or decision-making complexity, potentially impeding the network's responsiveness.

- Complexity of moderation management:

Although moderation enhances accountability, the assignment of a "Moderator: WISE(∞)" to every unit risks introducing administrative overhead and bureaucratic inefficiencies. Coordinating these moderators consistently across the system may prove resource-intensive.

- Risk of AI bias and opacity:

The AI layer, despite its advantages, is susceptible to algorithmic bias and "black box" opacity. Such issues may distort analyses, compromise fairness, or reduce transparency in decision-making processes.

- Assumptions of seamless collaboration and data sharing:

The model presupposes a high degree of cooperation among governments, NGOs, private-sector actors, and individuals. In practice, jurisdictional constraints, privacy concerns, and competitive interests may inhibit data sharing and collaboration.

- Limited intra-tier feedback loops:

Although vertical flows of information are emphasized, direct horizontal communication within the same tier (e.g., between "Health Care" and "Climate Change" nodes, or between "Civil Society" and "Scientists") is less explicit. This absence of clearly defined feedback loops could constrain dynamic peer-to-peer adjustments.

Opportunities (external, positive factors the model could leverage)

- Establishment of a global standard:

The model has the potential to serve as a global benchmark for collective intelligence and collaborative governance, offering a template for addressing complex international challenges.

- Enhanced predictive and proactive capabilities:

The integrated AI presents an opportunity to shift from reactive problem-solving to predictive analytics, early warning systems, and proactive interventions in global crises.

- Attraction of talent and resources:

A coherent and visionary "Global Wisdom Network" could attract top intellectual capital, sustained funding, and partnerships with governments, philanthropic institutions, and leading experts.

- Democratization of global problem-solving:

By engaging diverse actorsincluding civil society, scientists with students, and artists with their

communitiesthe model fosters inclusive participation and integrates grassroots insights into global decision-making.

- Agility in responding to emerging crises:

The WISE(∞) core, supported by AI, offers the potential for rapid synthesis and coordinated responses to unforeseen global events, including pandemics, climate disasters, and humanitarian crises.

Threats (external, negative factors that could challenge the model)

- Geopolitical disagreements and weak political will:

Political conflicts, nationalism, and insufficient commitment from influential international actors may undermine collaboration and the operational effectiveness of the network.

- Cybersecurity Vulnerabilities and Information Warfare:

Reliance on digital infrastructures exposes the model to cyberattacks, data breaches, and disinformation campaigns, which could compromise both integrity and trust.

- Resistance to AI Adoption and Trust Deficits:

Societal skepticism, ethical concerns, and a lack of confidence in AI-generated outputs could hinder the acceptance and utilization of the AI layer.

- Resource scarcity and funding instability:

Sustaining a complex global network, including its moderation and AI infrastructure, requires consistent funding. Economic downturns or fluctuating donor priorities may threaten its viability.

- Information overload and data "noise":

Despite moderation mechanisms, the overwhelming volume of global informationcombined with misinformation and unverified datarisks diluting actionable insights and impeding effective knowledge synthesis.

Integrative conclusion

The SWOT evaluation of the collaborative hierarchical model of WISE(∞) highlights both its considerable potential and the significant challenges it faces. On the one hand, the model demonstrates notable strengths, including centralized synthesis, multi-tiered inclusivity, structured moderation, and the integration of artificial intelligence as a foundational enabler. These features, taken together, position WISE(∞) as a uniquely ambitious framework for global collective intelligence and coordinated problem-solving. Furthermore, the opportunities it presentssuch as establishing a global standard for collaborative governance, democratizing problem-solving, and enhancing predictive capabilitiesreinforce its transformative potential in addressing complex global crises.

On the other hand, the analysis also identifies critical weaknesses and external threats that must be addressed if the model is to succeed. Over-reliance on centralization, the administrative complexity of moderation, and risks associated with algorithmic bias illustrate vulnerabilities inherent in its design. Externally, geopolitical divisions, resource instability, cybersecurity threats, and resistance to AI adoption constitute substantial obstacles to its effective implementation and long-term sustainability.

Taken together, these findings suggest that the future viability of WISE(∞) will depend on careful balancing between centralization and decentralization, proactive strategies for ensuring transparency and trust in AI, and the creation of robust mechanisms for intra-tier feedback and peer-to-peer collaboration. If these challenges can be effectively mitigated, WISE(∞) has the potential to serve not merely as a model, but as a pioneering architecture for the governance of collective intelligence on a global scale.

A more detailed consideration is warranted regarding the human factor, which encompasses the cognitive orientation and behavioral disposition of the global population, including political elites, scientists, artists, religious authorities, business leaders, and other influential actors. These groups collectively represent potential agents in the realization of the global mission of WISE. In its broadest conceptualization, this mission may be understood as a systemic endeavor to aggregate and integrate various forms of intelligencecollective, group, and individual, as well as, indirectly, that of non-human living systemswith the objective of generating and synthesizing constructive, applicable ideas, solutions, and knowledge frameworks. The overarching aim of such integrative processes is to enhance the capacity for effective global problem-solving and to provide epistemic and inspirational support to decision-makers operating at the highest levels of global governance.

3.2 Cognitive orientation and behavioral disposition of the human factor

Regardless of the social structure of the inhabitants of our planet Earth, it can be observed that so-called tribal thinking still occupies a prominent position, despite the impressive technological advancement of humankind. In other words, while we possess exceptional technological tools, both our local and global mindsets remain strongly oriented toward a binary perception of the world. This tendency may prove redundant, or even perilous, for future significant global political decisions, particularly those made by the world's highest leaders.

Let us, as an exploratory attempt, slightly shift the perspective from which political orientations are viewed, moving beyond the traditional left–right ideological framework. Socialism, communism, fascism, and Nazism may be classified as ideologies with a stronger orientation toward collective organization and state control, whereas anarchism and liberalism tend to emphasize individual autonomy and are therefore positioned closer to the right-oriented spectrum in conventional political typologies. Fundamentally, these ideological distinctions reflect differing emphases on the relationship between the collective (e.g., national or class-based identities), the group (e.g., social or cultural associations), and the individual (e.g., autonomous creators or agents). Within this framework, particular emphasis is also placed on values and symbols. This raises the question of whether additional dimensions should be considered when evaluating political orientations. In essence, elements of both left- and right-oriented thinking are present within all of us. What is now required are innovative ideas and forward-looking solutions that serve the needs of the masses, groups, and individuals alike, an endeavor in which artificial intelligence can play a supportive role. Simultaneously, it is essential to strengthen our sense of global identity and, through deliberate self-reflection, to mitigate the influence of ego. Our vision should emphasize the more effective utilization of collective intelligence, arising from crowds, groups, individuals, artificial intelligence, and even other living organisms (for instance, strategic and problem-solving behaviors observed in ants). From a sociological and systems-theoretical perspective, a general principle can be articulated: when the concentration of individuals exhibiting pronounced egocentric or self-referential behavior within a given social environment surpasses a critical threshold, the degree of systemic polarization tends to intensify. Such polarization may be interpreted as an emergent property of accumulated structural imbalances and as a byproduct of historical systems that have excessively valorized power, an otherwise potentially constructive social value, beyond its functional and ethical boundaries. Although many individuals advocate for fundamental liberties, such as freedom of speech and freedom of movement, these rights are often compromised in highly polarized social environments. In such contexts, freedoms tend to be selectively enforced or

ideologically constrained, reflecting the prevailing polarization rather than genuine autonomy. This phenomenon can be conceptualized as a "dictatorship of polarization," in which social reality is artificially reduced to binary oppositions, whereas both human experience and natural systems are inherently pluralistic and multidimensional.

From a sociological perspective, this recurring pattern reflects deeper structural and psychological pathologies: entrenched social automatisms and collective behavioral routines that reproduce conflict and exacerbate polarization. Rather than promoting freedom and social flourishing, these dynamics generate conditions that may be likened to a figurative "Hell on Earth," illustrating the systemic consequences of unmediated ideological rigidity.[11]
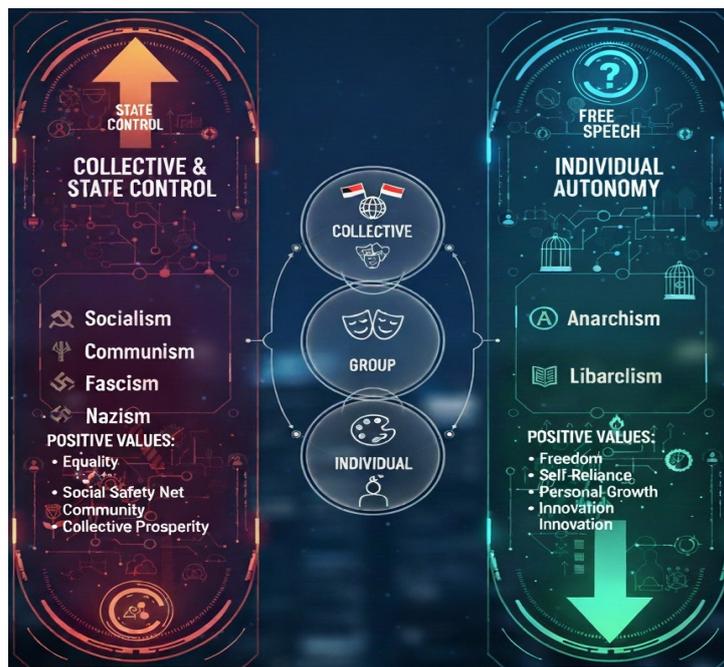
3.2.1 Figure 12: A revised binary perspective on political orientations

The figure 12 presents a binary model designed to visually represent two contrasting political orientations. The model is structured into two primary vertical panels, connected by a central element illustrating relationships between collective, group, and individual dimensions.

1. Left panel – "Collective & state control" (Red/Orange Hue)

11 Bonotti, M., & Nwokora, Z. (2025). Free speech and social change: A public reason approach. *Contemporary Political Theory*. https://doi.org/10.1057/s41296-025-00773-w.

Hanafi, S. (2025). Societal polarization, academic freedom, and the promise of Dialogical Sociology. Dialogues in Sociology, 1(2), 121–147. https://doi.org/10.1177/29768667251339789.

Menzner, J., & Traunmüller, R. (2022). Subjective freedom of speech: Why do citizens think they cannot speak freely. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4052854.

Smith, L. G., Thomas, E. F., Bliuc, A.-M., & McGarty, C. (2024). Polarization is the psychological foundation of collective engagement. *Communications Psychology*, 2(1). https://doi.org/10.1038/s44271-024-00089-2.

Vasist, P. N., Chatterjee, D., & Krishnan, S. (2023). The polarizing impact of political disinformation and hate speech: A cross-country configural narrative. *Information Systems Frontiers*, 26(2), 663–688. https://doi.org/10.1007/s10796-023-10390-w.

a. Color and tone – Dominated by warm red and orange shades, suggesting intensity, energy, and collective action.

b. Top symbolism – An upward-pointing arrow labeled "STATE CONTROL" signifies a strong emphasis on hierarchical authority.

c. Ideological spectrum – The panel lists the following ideologies:

- Socialism

- Communism

- Fascism

- Nazism

d. Positive values section – Highlights core values associated with collective and state-oriented ideologies:

- Equality

- Social safety net

- Community

- Collective prosperity

e. Visual enhancements – Incorporates digital circuit motifs and abstract symbols to reinforce the conceptual and technological framing of the model.

2. Right panel – "Individual autonomy" (Blue/Green Hue)

a. Color and tone – Features cool blue and green tones, conveying openness, freedom, and individual space.

b. Top symbolism – A speech bubble icon accompanied by "FREE SPEECH" emphasizes the centrality of communication and personal liberties.

c. Main heading – "INDIVIDUAL AUTONOMY," reflecting emphasis on personal freedom and self-governance.

d. Ideological spectrum – includes:

- Anarchism

- Liberalism

e. Positive values section – Highlights key principles underpinning individualist ideologies:

- Freedom

- Self-reliance

- Personal growth

- Innovation

f. Additional symbols – Downward-pointing arrow suggesting minimal state control; digital motifs, an open birdcage, and abstract graphs representing liberation and socio-economic dynamics.

3. Central connecting element – Relationship between collective, group, and individual

a. Structure – Three vertically stacked, interconnected circular bubbles bridging the two panels.

b. Top bubble: Collective – symbols such as flags and a general assembly icon representing macro-level social structures.

c. Middle bubble: Group – icons (e.g., masks) depicting social associations, cultural identities, or intermediate-scale social organization.

d. Bottom bubble: Individual – simplified human figure with gears in the head, representing cognition, agency, and autonomous decision-making.

4. Overall function and interpretation

a. The figure employs contrasting color schemes, directional arrows, and symbolic imagery to clarify the distinctions between collective and individual-oriented ideologies.

b. The central connecting element emphasizes the interdependent relationship between collective, group, and individual dimensions, illustrating how different political systems prioritize these levels of social organization.

c. This visual model provides a clear, analytically grounded framework for understanding the binary typology of political orientations while acknowledging the underlying complexity and multidimensionality of human social structures.
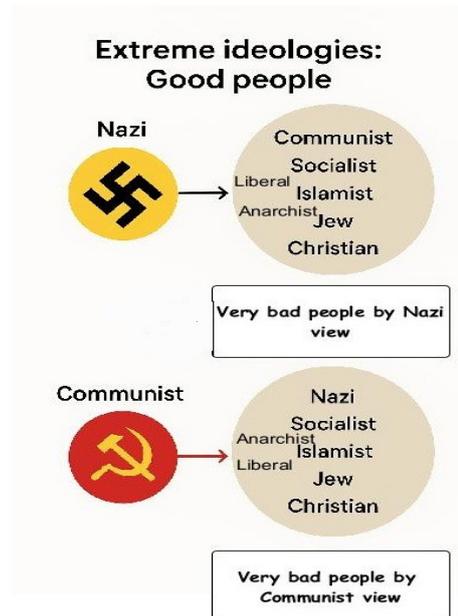
3.2.2 Figure 13: Representation of extreme ideological perspectives: Nazism and Communism

Figure 13 presents a two-part diagram illustrating the ideological dichotomy between Nazism and Communism, specifically focusing on how each system delineates categories of individuals or

groups considered "good" or "very bad." The figure employs a comparative visual structure to underscore the symmetrical nature of ideological exclusion in both systems.

1. Part I: Nazi perspective

Title: The heading "Extreme Ideologies: Good People" appears prominently at the top of the diagram.

Originator: A large yellow circle positioned on the left contains a black swastika symbol, designating this section as representing the Nazi ideology.

Directionality: An arrow extends from the Nazi symbol toward a larger, lighter-colored oval on the right.

Label: The oval is captioned "Very Bad People According to the Nazi Perspective."

Content: Within this oval, the following categories and ideologies are listed: Communist, Socialist, Liberal, Islamist, Anarchist, Jew, and Christian. These represent the groups historically and ideologically identified by Nazism as adversarial or undesirable.

2. Part II: Communist perspective

Originator: Below the first section, a red circle on the left contains a yellow hammer and sickle symbol, signifying the Communist perspective.

Directionality: An arrow points from the Communist symbol toward another large, light-colored oval on the right.

Label: The oval is captioned "Very Bad People According to the Communist Perspective."

Content: This oval contains the following list of perceived adversaries: Nazi, Socialist, Anarchist, Islamist, Liberal, Jew, and Christian. These groups and ideologies are depicted as those commonly considered hostile or ideologically incompatible within Communist frameworks.

3. Overall interpretation

The diagram employs a clear visual metaphor: arrows extend from each ideological symbol toward corresponding lists of perceived antagonists. Through this design, the figure demonstrates how extreme ideological systems, specifically Nazism and Communism, construct their identities by delineating and opposing a broad spectrum of "others." The use of the phrase "Good People" in the main title is intentionally ironic, emphasizing that these categorizations are exclusionary mechanisms rooted in ideological extremism rather than objective moral judgment. The efficacy of current political systems in addressing complex global challenges is limited. This limitation arises from the prevailing ideological frameworks that often adopt binary perspectives, which may not adequately capture the multifaceted nature of contemporary issues. To enhance problem-solving capabilities, it is essential to explore alternative models, such as network-based approaches, that consider the interconnectedness and interdependencies inherent in global problems. Engaging in

comparative analyses of binary and network perspectives can provide valuable insights into the structural and functional limitations of existing political systems. Such analyses prompt critical inquiries into why current political structures often fail to effectively address complex, multidimensional (global) problems.[12] Let us now consider another extreme case in the binary perception of the world.
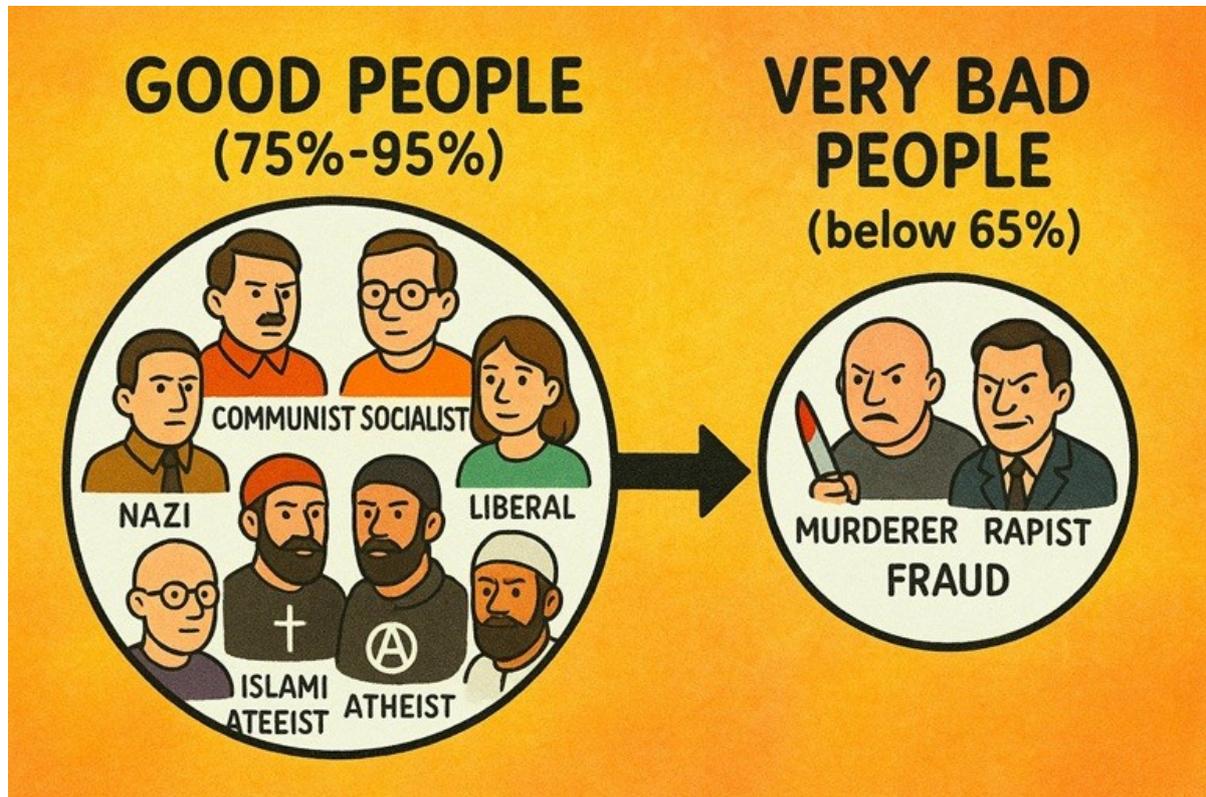
3.2.3 Figure 14: Binary moral classification and societal categorization

Figure 14, functions as a commentary on moral judgment and societal categorization, particularly under conditions of crisis and the inclination to identify a "common enemy."

1. Motivation and "Good People"

The left side of the figure, labeled "GOOD PEOPLE (75%–95%)," illustrates the notion of creating a society without extremely harmful individuals. This section encompasses a wide spectrum of individuals, including those associated with extreme political ideologies (e.g., Nazi, Communist, Socialist), mainstream political positions (e.g., Liberal), and diverse religious or non-religious beliefs (e.g., Islamist, Atheist). By categorizing such a broad range of individuals as "good," the figure conveys an inclusive moral framework, suggesting that ideological or identity labels do not

12 Baumann, F., Lorenz-Spreen, P., Sokolov, I. M., & Starnini, M. (2021). Emergence of polarized ideological opinions in multidimensional topic spaces. *Physical Review X*, 11(1). https://doi.org/10.1103/physrevx.11.011012.
Martin-Gutierrez, S., Losada, J. C., & Benito, R. M. (2023). Multipolar social systems: Measuring polarization beyond dichotomous contexts. *Chaos, Solitons & Fractals*, 169, 113244. https://doi.org/10.1016/j.chaos.2023.113244.
Zmigrod, L. (2020). The role of cognitive rigidity in political ideologies: Theory, evidence, and Future Directions. *Current Opinion in Behavioral Sciences*, 34, 34–39. https://doi.org/10.1016/j.cobeha.2019.10.016.

inherently determine moral worth. The indicated high percentage range (75%–95%) reinforces the view that the vast majority of people, despite differences in belief or affiliation, are fundamentally considered morally positive.

2. The "Common Enemy" and "Very Bad People"

The right side of the figure, labeled "VERY BAD PEOPLE (below 65%)," identifies a universal "common enemy" not defined by ideology or affiliation, but by extreme harmful actions, specifically "MURDERER," "RAPIST," and "FRAUD." This categorization aligns with the interpretation that truly extremely harmful individuals are defined by their actions rather than by political or religious identity. The connecting arrow between "GOOD PEOPLE" and "VERY BAD PEOPLE" visually delineates these two moral domains, emphasizing the conceptual separation between broad social inclusion and extreme harmful behavior.

3. Binary values and crisis contexts

The figure's clear division into two distinct circles visually represents the principle that values can assume a binary character under specific circumstances. This "binary model" reflects the notion that human morality is often simplified into two categories. However, the analysis highlights a critical nuance: in times of crisis, the moral and ethical standing of individuals may fall below the 75% threshold and, at times, even below 65%. This suggests that while the model positions the majority of individuals within the "good" category under normal conditions, crises can erode this moral baseline, thereby increasing the prevalence of harmful behavior as operationally defined.

4. Righteous left and right, and moral complexity

The figure implicitly addresses the concept of "righteous left and right" by including a broad array of political affiliations under the "good people" category. This suggests that moral propriety is not exclusive to any single ideological orientation. Nevertheless, the accompanying analysis critiques the inherent simplification of the binary model, arguing that reality is considerably more complex. While the diagram classifies individuals based on harmful actions, the binary perspective is insufficient for capturing the subtleties of human behavior and morality, particularly in crises where the ethical conduct of "good" individuals may be compromised.

5. Overall interpretation

In summary, Figure 14 provides a visual model for a simplified moral taxonomy in which harmful actions, rather than ideological or identity labels, define moral negativity. The accompanying analysis serves to contextualize this binary representation, questioning its adequacy in capturing the complexity of human behavior and advocating for a more nuanced understanding of morality and social categorization that extends beyond stark dichotomies.

Such binary models of perceiving the world, and similar frameworks, are susceptible to severe

manipulation and abuse. At the same time, they also constrain cognitive flexibility. Cognitive orientation within contemporary societies is predominantly channeled toward left- and right-leaning ideological subsystems. Interposed between these dominant poles lies an extensive social, psychological, economic, and political void, which can be conceptualized as a black or dark gray system gap. Within this latent space, the integration and synthesis of constructive, actionable knowledge remain largely absent. From a systems-theoretical perspective, expanding cognitive flexibility and adopting an open, multi-dimensional orientation enables the generation of a broader array of potential configurations and emergent solutions. Conversely, constraining thought processes, an outcome that is often implicitly reinforced by conventional scientific and institutional paradigms, reduces the system's combinatorial capacity, thereby producing a more closed and limited model for understanding the dynamics of social reality. It must be again and again emphasized that contemporary societies exhibit a pronounced deficiency in deliberate, mutually beneficial strategies. Rather than fostering collaborative and constructive approaches, individuals and groups often gravitate toward extremist positions, which promote violence and produce substantial social and moral losses. The loss of well-intentioned or constructive actors is effectively irreplaceable. Despite these recurring patterns, humanity consistently fails to assimilate the lessons of past failures, thereby perpetuating cycles of conflict and suboptimal decision-making. It is not the strongest species that survives, nor the most intelligent, but the one that fosters mutualistic relationships and, above all, adapts most to change.[13]

3.2.4 Behavioral disposition of the human factor

The domain in question represents a highly complex field encompassing a broad spectrum of psychological, social, situational, positional, and technological (including artificial intelligence–related) tendencies that collectively determine the modalities of human behavior within both social structures and the wider natural environment. The human factor, particularly within the spheres of business operations, technology, scientific inquiry, and applied practices such as healthcare, continues to constitute a decisive element influencing the eventual outcome, whether positive or negative, despite the increasing sophistication of contemporary technological systems.

Human cognition is characterized by numerous inherent limitations, which become particularly evident in processes of learning and emotional regulation (e.g., psychosocial distress). These constraints often inhibit rational and utilitarian modes of reasoning. Furthermore, individual agency

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13 Darwin, C. (1859). *On the origin of species by means of natural selection*. New York: D. Appleton and Company. https://darwin-online.org.uk/converted/pdf/1861_OriginNY_F382.pdf.
    Megginson, L. C. (1963). Automation: Our greatest asset--our greatest problem? *Academy of Management Journal*, 6(3), 232–244. https://doi.org/10.2307/255094.

is frequently delimited by prevailing social and cultural norms. Existing prejudices, attitudes, doubts, and stigmas further obscure objective perception and decision-making capacities. Such determinants, together with various situational contingencies, direct human behavior toward specific patterns that may precipitate adverse outcomes, including excessive risk-taking, destructive competitiveness, or counterproductive collaboration.

A central question addressed within this monograph concerns the nature of the roles individuals assume and the potential manifestations of these roles within specific social and environmental interactions. This inquiry encompasses the analysis of maladaptive behavioral configurations and inappropriate actions (e.g., human error, procedural violations), adaptive capacities (e.g., the ability to adjust to unfavorable or unpredictable conditions), risk assessment mechanisms (e.g., the evaluation of environmental safety versus hazard), and motivational dynamics (e.g., the influence of perceived significance on creative morality and functional engagement).

The subject matter acquires particular relevance in the context of safety research, social ecology, and the hierarchical-associative structures that define interpersonal relations. Moreover, it assumes increasing importance in the domain of human–artificial intelligence interaction, particularly concerning the prospective development of AI systems capable of positive or ethically aligned learning. The elucidation of these processes is of critical importance for the prevention of detrimental human decisions and their ensuing behavioral consequences.[14] A diverse range of local and global social structures exerts a decisive influence on human behavioral patterns. These structures essentially determine the characteristics of the individual, the individual's role and behavior within a group, as well as the properties of the individual as part of a larger collective. The purpose of this work is not to engage in a detailed theoretical analysis of these phenomena; however, it is appropriate to present these social structures in a broader, more general sense, in order to provide greater conceptual clarity, metaphorically represented here in the form of interconnected atoms.

This mode of representation serves to illustrate the extent to which the hierarchical-associative structure of society may undergo transformation or adaptation in response to the challenges posed by critical global problems. The existence of a certain hierarchical structure is, to some extent, a universal principle, as can already be observed in the molecular configuration of water. The

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14 Khadka, K., & Ullah, A. B. (2025). Human factors in cybersecurity: An Interdisciplinary Review and framework proposal. *International Journal of Information Security*, 24(3). https://doi.org/10.1007/s10207-025-01032-0. Liang, Z., Liao, X., & Cai, H. (2022). The impact of specific psychological characteristics on decision-making under the different conditions of risk self-assessment. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.779246. Lupia, A. (2023). By design: How people adapt to cognitive limitations in politics. *Topics in Cognitive Science*, 16(2), 175–186. https://doi.org/10.1111/tops.12690.

structure of water is characterized by subtle hierarchical and strong associative relations between the oxygen atom and the two hydrogen atoms. Given that human beings, and particularly the human brain, are composed of a high proportion of water, one might hypothetically infer that humans possess the capacity to function effectively within conditions of relatively mild or moderately flexible hierarchies. Although this analogy remains speculative, it provides an intriguing conceptual perspective.
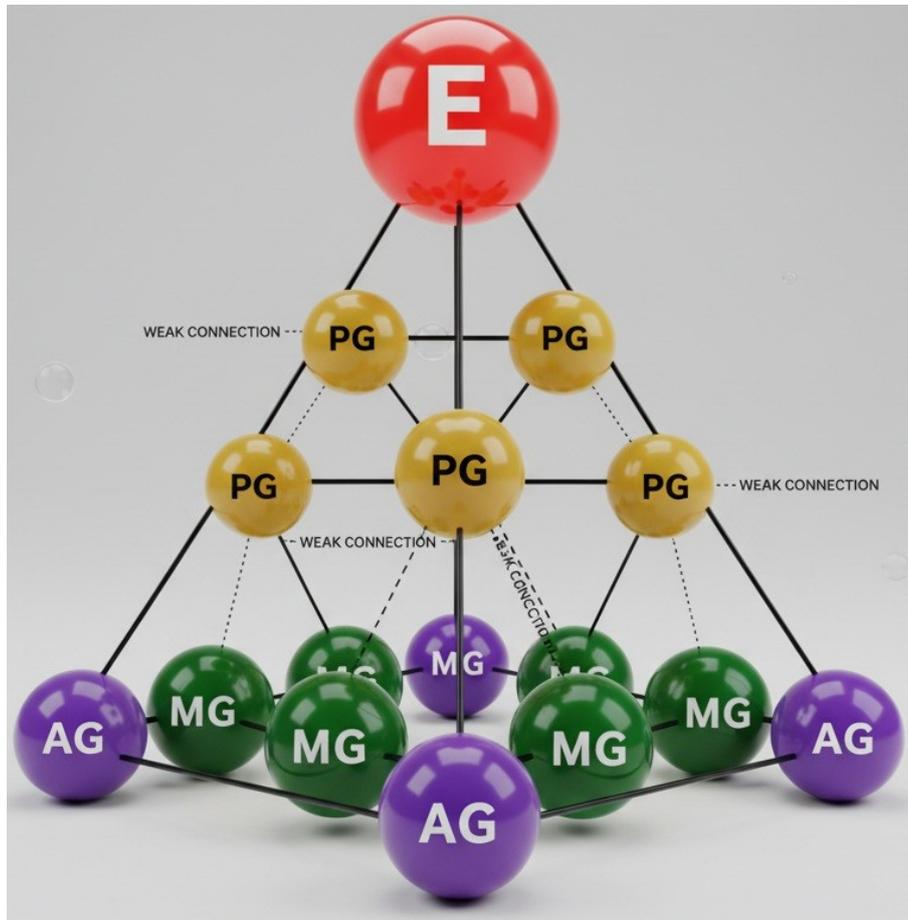
3.2.4.1 Figure 15: Conceptual societal model of distinct social strata or group types

Figure 15 illustrates a conceptual societal model represented as a three-dimensional pyramid. Colored spheres denote distinct social strata or group types, while connecting lines symbolize intergroup relations and the predominant psychological drives underlying these interactions.

At the apex of the pyramid lies a large, radiant red sphere labeled E, designating the Ego Group or leadership stratum. This group is characterized by a pronounced social dominance orientation and a strong need for power and control. Members of this category exhibit high agentic motivation and a drive to maintain hierarchical superiority within the social structure.

Immediately below this apex is a layer of golden spheres labeled PG (Progress Group). This group

comprises individuals with a salient need for achievement and a pronounced cognitive drive for innovation and improvement. Their orientation is primarily transformative, aiming to effect positive systemic change. Solid black lines connecting the E and PG layers denote associative and instrumental relationships, suggesting alignment or mutual dependency between leadership and progressive intellectual forces. Dotted lines extending downward from the PG layer to the MG layer are labeled "WEAK CONNECTION," indicating limited social permeability or restricted influence between these strata.

The MG layer, consisting of smaller dark green spheres, represents the Majority Group. Members of this group exhibit behavioral tendencies characterized by conformity, compliance, and adaptive subordination to existing social hierarchies. Their external locus of control and preference for stability over change position them as the structural base of societal cohesion but also as a conservative force resisting upward mobility or innovation.

At the base of the pyramid are purple spheres labeled AG (Anomaly Group). This group is defined by psychological withdrawal from consensual social reality and a reliance on idiosyncratic or constructivist internal frameworks. The AG's engagement with other groups is minimal, represented by dotted lines, also marked "WEAK CONNECTION", extending from the PG layer to the AG spheres. A central dotted connection linking a core PG sphere to a central AG sphere further underscores the weak and sporadic nature of interaction between progressive and anomalous elements.

Overall, the model constitutes a heuristic abstraction of complex sociopsychological dynamics. It isolates a single dominant motivational vector within each group, ego dominance, cognitive progressiveness, adaptive conformity, and reality withdrawal, while deliberately excluding secondary factors such as physiological states or environmental conditions. This reductionist design facilitates a more transparent analysis of hierarchical dependencies, motivational asymmetries, and intergroup influence within stratified social systems.[15] As an additional structural consideration, it is instructive to examine a polymer-like model of this social stratum, illustrating the interconnected and dynamic relationships among its constituent elements.

15 McClelland, D. C. (1988). *Human motivation*. Cambridge University Press.
    Pratto, F., Sidanius, J., & Levin, S. (2006). Social dominance theory and the dynamics of intergroup relations: Taking stock and looking forward. *European Review of Social Psychology*, 17(1), 271–320. https://doi.org/10.1080/10463280601055772.
    Rotter, J. B. (1966). Generalized expectancies for internal versus External Control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. https://doi.org/10.1037/h0092976.
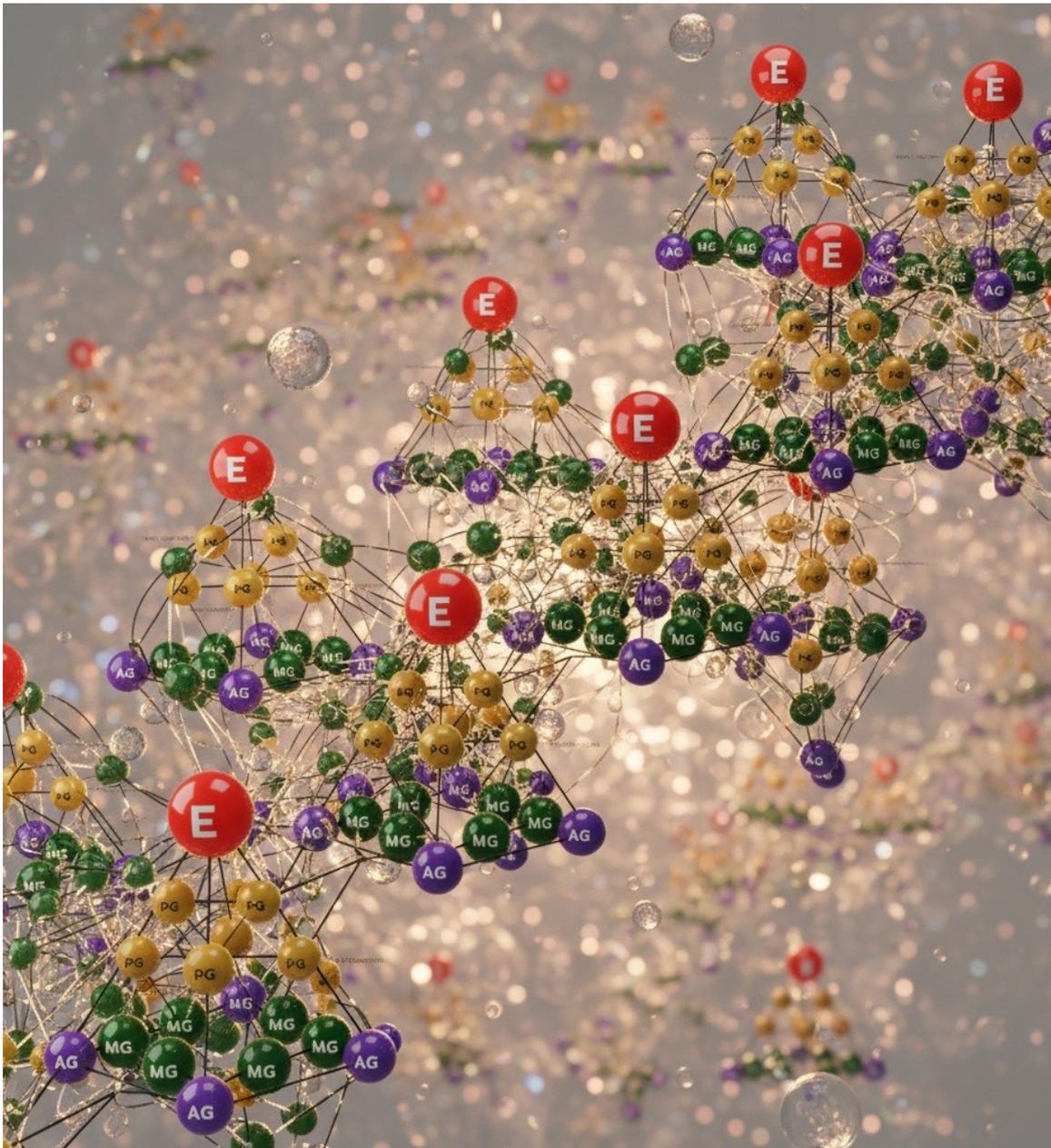
3.2.4.2 Figure 16: "Networked Societal Pyramids" or "Interconnected Influence Hierarchies"

Figure 16 illustrates a decentralized and self-repeating configuration of the societal model described earlier.

Multiple pyramid-like units are interconnected and distributed across the field, forming an extensive network rather than a single, isolated hierarchy. Each unit preserves the same internal structure:

- E (leaders with a dominant ego) occupies the apex, represented by a large red sphere.

- The PG (Progress Group), shown in gold, forms the layer immediately below E.

- The MG (Majority Group), rendered in dark green, constitutes the next layer.

- The AG (Anomaly Group), in violet, lies at the base of each local hierarchy.

Within each pyramid, solid lines indicate E–PG associations, while dotted lines represent weaker

PG–MG and E–AG connections. In the composite model, these hierarchical units are not discrete entities but interdependent nodes within a distributed, multi-level system. The resulting configuration suggests a complex, dynamic network of influence and feedback, in which local hierarchies interact to produce emergent social behavior.

The diffuse, luminous background evokes the broader environmental matrix in which these interactions unfold, underscoring the fluid and continuous nature of societal structure beyond rigid hierarchical boundaries. Let us briefly demonstrate how such diverse human structures, each characterized by distinct cognitive drives, may be stimulated not primarily toward altering their inherent dispositions, but rather toward fostering a more proactive adaptation in the perception and interpretation of critical global transformations. Human character should not be understood solely as the product of psychosocial dynamics; its formation is also substantially shaped by microorganisms residing within the human body, by chemical compounds such as hormones and electrolytes, and by genetic determinants. Furthermore, macrocosmic influences, including solar activity, lunar phases, climatic conditions, and related environmental factors, should not be disregarded in this context. We are thus confronted with a wide spectrum of leaders who possess strong egos and who often pursue not only wealth and the exercise of power, but also what are commonly referred to as grand visions. For the sake of illustration, it is sufficient to highlight several extreme historical examples such as Adolf Hitler, Benito Mussolini, Mao Zedong, and Joseph Stalin. All of these prominent figures shared a common aspiration, to establish vast "empires" and/or technologically advanced regimes. In the pursuit of such grand visions, they were willing to sacrifice millions of human lives. Their narrow, tunnel-like perspectives led to catastrophic outcomes, resulting in the large-scale destruction of biomass, both human and non-human. One might almost argue that their visions were macroscopic in orientation. The actual efficiency of their systems, however, was exceedingly low, leaving behind not only grief, despair, and poverty, but also a profound stagnation of societal and scientific progress. A further shared characteristic among these leaders was their persistent desire to present themselves to the masses in a favorable and heroic light.

Fortunately, in the contemporary era, such extreme and authoritarian leaders no longer exist—a highly positive indication that grand visions can now be more readily aligned with the global interconnectedness of all nations and directed toward addressing critical global challenges. These challenges can only be effectively resolved through the integration of strong collective, group, and individual intelligences. In an age characterized by lethal weaponry and pervasive greed, it has become increasingly difficult to uphold human dignity. Therefore, it is imperative that we engage in careful self-reflection, foster adaptive capacities, and develop well-founded strategies for

safeguarding humanity and other living organisms from potential catastrophic outcomes. Not only major, medium, and minor leaders should be inspired toward adaptation, but also individuals across all broadly characterized social groups, particularly those belonging to the majority and progressive segments of society. Individuals classified within the group of anomalies are highly heterogeneous, even with respect to the primary causes of their conditions, which may be genetic, biochemical, or hormonal in nature (e.g., a low tolerance threshold to distress factors), or may arise from injury, aging, or social conflict, among other factors. It would therefore be reasonable to consider encouraging certain individuals within this group to engage in adaptive thinking and to cultivate a positive mode of learning. An excessively reinforced ego strongly promotes what may be termed highly polarized or binary thinking, which, however, is unsuitable for addressing more complex issues such as critical global transformations. The predominant use of binary thinking was essential during early human prehistory, when survival was extremely challenging. In essence, binary cognition facilitates rapid decision-making and action in situations of unambiguous threat, as it enables the swift categorization of factors such as danger and benefit.

At present, the prevailing mental state of the global population tends to favor binary or strongly polarized modes of thought. Unfortunately, this tendency is further reinforced by outdated democratic systems and their political leaders, within which voters are typically compelled to choose between dichotomized "positive" and "negative" options during national elections. As previously noted, the actual influence of these votes is often significantly diminished following the elections. The leaders of such political parties, in turn, strategically exploit this mechanism of binary reasoning, resulting in a situation where voters tend to make decisions not on the basis of substantive ideas or effective solutions, but rather according to potentially misleading impressions, such as perceived honesty, charisma, or authority. Within societal hierarchical and associative systems, the structure is most strongly maintained by individuals belonging to the group characterized by a strong ego and by those within the majority group. A pronounced dipole exists between the tendencies toward dominance and subordination, as both the strong-ego individuals and the majority group depend on one another to preserve a relatively rigid hierarchical framework. Connections among other social groups tend to be considerably weaker. This existing social configuration inherently favors a binary mode of thinking.

For this reason, it would be neither practical nor meaningful to attempt to transform the system entirely. A far more rational approach would be to encourage these actors to adopt an adaptive and constructive mode of thought. Such a cognitive shift could facilitate a more effective utilization of collective, group, and individual intelligence, thereby enhancing our capacity to address critical global challenges and to build more efficient and resilient societies.

The problem of excessively pronounced binary thinking is not confined to high political circles or the general populace; it is also evident among religious leaders and believers, among leading scientists and their students, as well as among renowned artists and their admirers. The aim is not for everyone to think, believe, or admire in the same way, but rather to unite social forces and intelligences in inspiring global leaders to align their grand visions with the shared existential threats confronting humanity, namely, critical global transformations such as climate change, poverty, mass migration, criminality, environmental pollution, human rights crises, and viral epidemics.[16]

From this brief introduction, we now turn to the functional and conceptual roles of various groups of people and their respective leaders. Leaders across different domains—such as politics, journalism, the arts (e.g., music, film), management, production, science, religion, business (e.g., banking, corporate enterprises), sports, civil society (e.g., non-governmental organizations), law enforcement, and the military—each have their own followers, to a greater or lesser extent. These followers can contribute their intelligence and expertise to addressing a range of social as well as natural problems at both local and global levels.

Analysis of the potential roles of different groups and their leaders (adaptive and constructive thought)

1. Leaders with strong egos and grand isions (e.g., Political, Business, Religious, Scientific, Artistic Leaders)

- Current state: Historically, leaders with strong egos have pursued "grand visions" that frequently resulted in catastrophic outcomes, exemplified by figures such as Hitler, Mussolini, Mao, and Stalin. Their tunnel-like perspectives led to widespread destruction, including the loss of human and ecological biomass.

- Desired role: In the contemporary era, grand visions can be aligned with the global interconnectedness of nations and directed toward addressing critical global challenges. The goal is not to alter their fundamental disposition, but to encourage an adaptive and constructive cognitive approach.

- Contribution: By shifting from self-serving, binary perspectives to ones integrating collective intelligence, such leaders could mobilize significant resources and populations to address shared existential threats, including climate change, poverty, mass migration, environmental degradation, and pandemics.

- Challenge: Overcoming tendencies toward an excessively reinforced ego and highly polarized

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16 You can read more about the classified groups in the following work: Petrič, K. (2025). Hierarchology and Hierarchography (2nd ed.). Karl Petrič. https://doi.org/10.5281/zenodo.16746679.

thinking, which are inadequate for resolving complex global issues.

2. The Majority Group

- Current state: The majority group is instrumental in maintaining societal hierarchies, often alongside strong-ego individuals, within relatively rigid frameworks. Members are prone to binary thinking, a tendency reinforced by political systems that offer dichotomous choices. Decision-making is often guided by perceived personal traits (e.g., charisma, authority) rather than substantive solutions.

- Desired role: To be inspired toward adaptive thinking and cultivate positive modes of learning.

- Contribution: Their collective intelligence and actions are essential for driving meaningful societal change. Overcoming binary thinking enables more informed engagement with leadership, societal decision-making, and global problem-solving.

- Challenge: Moving beyond entrenched binary cognition and the influence of political structures that exploit simplistic perceptions.

3. Progressive segments of society

- Current state: These groups tend to be more receptive to novel ideas and flexible in their thinking but still require encouragement toward adaptation.

- Desired role: To actively engage in adaptive and constructive thought.

- Contribution: Progressive groups serve as early adopters and advocates for change, modeling adaptive thinking and promoting innovative solutions. Their role is crucial in testing and demonstrating the efficacy of new approaches.

- Challenge: Ensuring that progressive initiatives translate into coordinated, effective action rather than remaining fragmented.

4. Individuals classified as anomalies

- Current state: This highly heterogeneous group exhibits diverse cognitive profiles due to genetic, biochemical, hormonal, injury-related, aging, or social factors, which may result in low tolerance to stressors.

- Desired Role: To be encouraged to engage in adaptive thinking and develop positive learning strategies.

- Contribution: Despite their diverse challenges, these individuals offer unique perspectives and insights that may enhance problem-solving. Their experiences outside conventional norms can provide alternative approaches to complex problems.

- Challenge: Recognizing and supporting their adaptive potential without marginalization, while tailoring approaches to accommodate their varied circumstances.

5. Experts and followers across diverse domains (Journalism, Arts, Management, Production,

Science, Religion, Business, Sports, Civil Society, Law Enforcement, Military)

- Current state: Each domain comprises leaders and followers who play distinct functional and conceptual roles within society.

- Desired role: To contribute intelligence and expertise toward addressing social and environmental problems at both local and global scales.

- Contribution:

- Journalists: Provide nuanced information, challenge binary narratives, and foster informed public discourse.

- Artists (Music, Film) with fan clubs: Inspire empathy, provoke critical reflection, and communicate complex issues accessibly and emotionally, online conferences with fans on music and global problems (e.g. many artists with producers, managers and different fan clubs).

- Scientists and followers like students etc.: Deliver evidence-based knowledge and technological solutions essential for addressing global challenges.

- Business leaders: Guide enterprises toward sustainable practices, responsible innovation, and ethical resource management.

- Religious leaders with believers: Mobilize communities for humanitarian causes, foster ethical behavior, and promote collective responsibility, online conferences with believers on religion and global problems.

- Civil society (NGOs): Act as advocates, service providers, and monitors addressing social and environmental issues.

- Law enforcement/military: Contribute to stability, disaster relief, and security in the context of global challenges.

- Challenge: Overcoming disciplinary silos, promoting interdisciplinary collaboration, and ensuring alignment of specialized efforts with broader global objectives.

Overarching theme: Adaptive and constructive thought

The central argument emphasizes the necessity of moving beyond excessively pronounced binary thinking toward adaptive and constructive cognition. This cognitive shift enables the effective utilization of collective, group, and individual intelligence to address complex global transformations. The objective is not to fundamentally alter human dispositions but to stimulate proactive and nuanced adaptation in perceiving and responding to critical global challenges.

By promoting sophisticated, less polarized modes of thinking across all societal strata, it becomes possible to unlock the potential for truly integrated solutions to humanity's most pressing problems. As we have observed, even large organizations that emphasize collaborative functioning require certain hierarchical patterns in order to operate effectively. The essential distinction between

hierarchical and collaborative orientations becomes most apparent when visualized through the representation of a pyramidal structure.
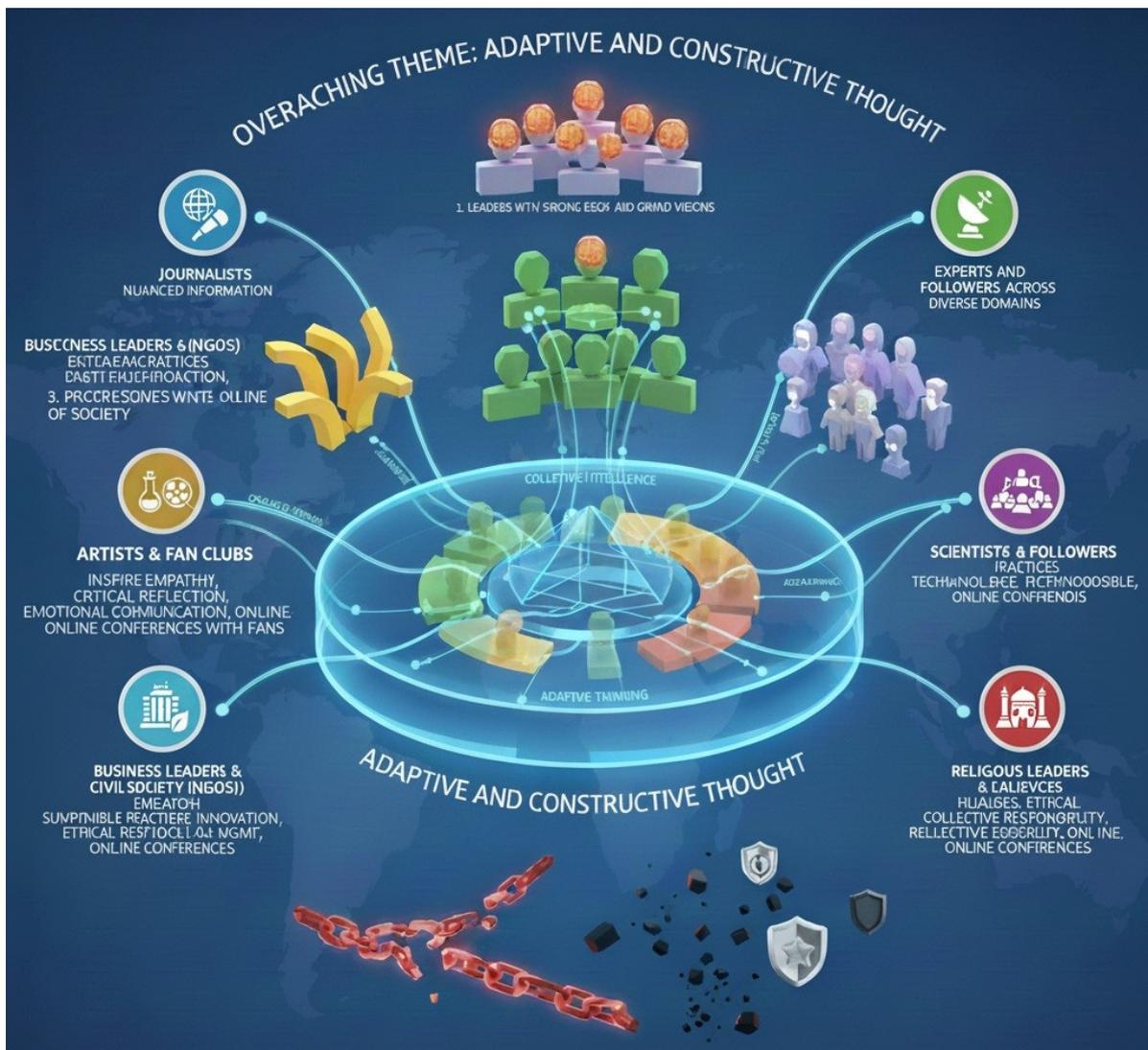
3.2.4.3 Figure 17: Multi-faceted approach to fostering collective intelligence

Figure 17 effectively illustrates a multifaceted framework for fostering collective intelligence, centered on the concept of "Adaptive and Constructive Thought" as a means of addressing global challenges. Systems characterized by a stronger emphasis on hierarchical relations typically display broader and taller pyramidal configurations, whereas those prioritizing collaborative relations are more accurately depicted as disk-shaped structures with a markedly lower pyramid. This distinction is of critical importance for understanding the ways in which cognitive processes influence the formation and accumulation of collective intelligence, as the structural organization of interactions profoundly shapes the circulation and integration of ideas.

From the perspective of idea generation and aggregation, the various segments contribute in the following ways:

From an idea collection perspective: Contributions of different segments

1. Leaders with strong egos and grand visions

Idea contribution: Although historically problematic, such leaders can play a constructive role by channeling their capacity for grand visions and resource mobilization. Their ability to initiate high-level directives and set ambitious goals is valuable for addressing complex global issues.

Collection Mechanism: Their input is most effectively gathered through strategic forums, policymaking bodies, and high-level summits, where their influence can guide large-scale initiatives. The primary challenge lies in redirecting their focus from self-serving ambitions toward globally beneficial objectives, an endeavor that requires curated information and ethically grounded frameworks.

2. Progressive segments of society

Idea contribution: These groups are essential for generating novel ideas, testing innovative solutions, and providing early feedback on emerging approaches. They often function as the "early adopters" of adaptive thinking.

Collection Mechanism: Ideation workshops, hackathons, open innovation platforms, grassroots movements, and community-led initiatives serve as key collection mechanisms. They provide diverse perspectives and demonstrate practical models for implementing new ideas from the ground up.

3. Artists and fan communities

Idea contribution: Artists offer unique emotional and critical perspectives, translating complex global issues into accessible and impactful narratives. Their fan communities represent engaged audiences capable of amplifying messages and contributing diverse interpretations and emotional responses.

Collection mechanism: Online conferences, social media campaigns, interactive art projects, and user-generated content enable the collection of artistic interpretations and public sentiment. These mechanisms help articulate problems in emotionally resonant ways, fostering empathy and public engagement.

4. Business leaders and civil society organizations (NGOs)

Idea Contribution: Business leaders contribute expertise in sustainable practices, resource management, and innovation for addressing economic and environmental challenges. NGOs provide on-the-ground insights, advocate for change, and implement social and environmental initiatives.

Collection Mechanism: Corporate social responsibility programs, multi-stakeholder partnerships,

public–private dialogues, and feedback from communities served by NGOs constitute effective mechanisms. These channels generate practical, scalable solutions and implementation strategies.

5. Journalists

Idea contribution: Journalists play a vital role in providing nuanced information, exposing oversimplified narratives, and framing complex issues for public discourse. They ensure that the knowledge informing collective intelligence is accurate, comprehensive, and contextually grounded.

Collection mechanism: Investigative reporting, in-depth analyses, fact-checking platforms, and public discussion forums serve as mechanisms for gathering and disseminating ideas. Journalists act both as filters and amplifiers, ensuring the integrity and accessibility of information.

6. Scientists and their networks

Idea contribution: Scientists contribute evidence-based knowledge, empirical data, and technological innovations. Their networks, students, researchers, and collaborators—support data collection, experimentation, and critical analysis.

Collection mechanism: Research collaborations, academic conferences, open science initiatives, citizen science projects, and educational programs provide systematic means for idea collection. These contribute foundational knowledge and tools for informed decision-making.

7. Religious leaders and believers

Idea contribution: Religious leaders can mobilize communities for humanitarian action, foster ethical conduct, and promote collective responsibility. Believers contribute moral insights, social support, and volunteer efforts.

Collection Mechanism: Interfaith dialogues, community outreach programs, online conferences, and ethical deliberation forums facilitate the inclusion of moral and communal perspectives in collective problem-solving.

8. Experts and practitioners across diverse domains

Idea contribution: Specialists from fields such as law enforcement, defense, logistics, sports management, and psychology contribute domain-specific expertise essential for stability, security, and resilience.

Collection mechanism: Interdisciplinary task forces, professional associations, expert panels, and cross-sector collaborations provide mechanisms for integrating specialized knowledge into broader initiatives.

Overarching theme: Adaptive and constructive thought

The central premise is that collective intelligence can be effectively harnessed by fostering a shift from binary and polarized thinking toward more nuanced, flexible, and integrative cognitive

frameworks. This involves transcending rigid disciplinary silos and fragmented efforts to enable the synthesis of diverse perspectives into a coherent problem-solving system.

Key challenges

The visual motifs of "broken chains" and "shattered shields" symbolize the primary obstacles to effective idea collection and collective intelligence formation:

Binary thinking: Constrains creativity by reducing complex issues to dichotomous choices.

Siloed structures: Impede cross-pollination of ideas between disciplines and groups.

Fragmentation: Leads to uncoordinated initiatives and lost opportunities for synergy.

Polarized egos: Obstruct open dialogue and inhibit acceptance of diverse viewpoints, particularly among strong-ego leaders.

Conclusion toward integrated idea collection

The framework illustrated in the infographic suggests that unlocking truly integrated solutions requires deliberate efforts to solicit and synthesize ideas from all sectors of society. This includes not only scientific and political contributions but also artistic, ethical, community-based, and unconventional perspectives. The essential task is to cultivate a cognitive environment where diverse inputs are processed adaptively and constructively—thereby generating genuinely collective and actionable intelligence capable of driving global transformation.
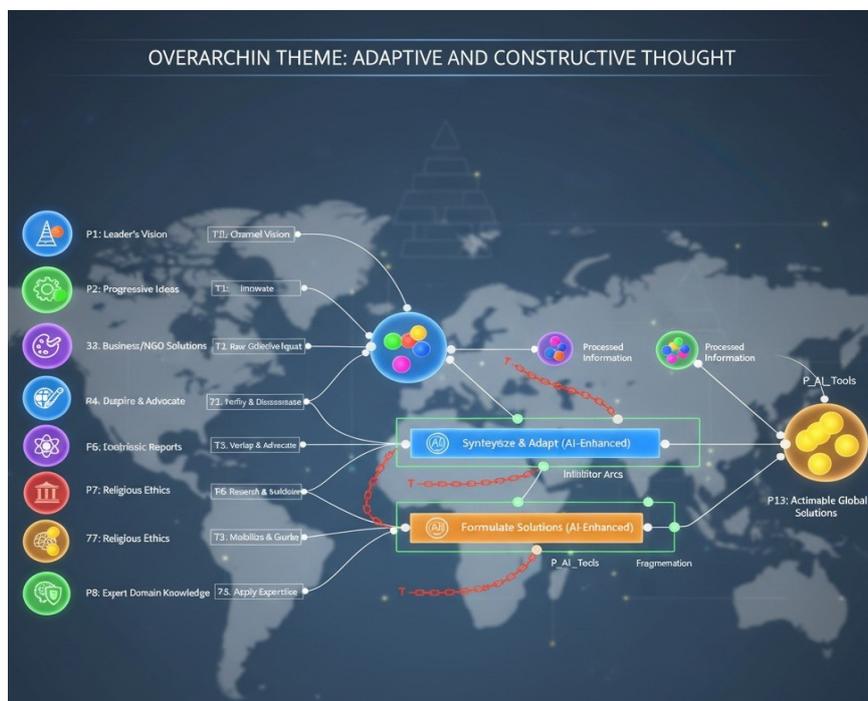
3.2.4.4 Figure 18: Petri net for adaptive collective intelligence: from diverse inputs to global solutions

Figure 18 illustrates the system from an activity-based perspective, emphasizing the dynamic interplay among processes that generate, transform, and integrate collective intelligence. Rather

than presenting a static organizational structure, the figure depicts a flow of interrelated activities, from idea generation and information processing to mobilization, coordination, and implementation. This perspective highlights how each segment of society contributes distinct forms of activity that collectively enable adaptive, constructive, and globally coordinated problem-solving.

Evaluation from an activity perspective

The accompanying text and infographic outline a dynamic system designed to collect and utilize collective intelligence for addressing global challenges. From an activity perspective, this system can be understood as a series of interconnected processes that transform diverse inputs, such as ideas, expertise, and perspectives, into integrated and actionable solutions.

Key activities and their flow

- Idea generation and contribution:

Each societal segment, leaders, progressive groups, artists, business representatives and NGOs, journalists, scientists, religious leaders, and domain experts, actively contributes ideas, insights, and solutions. This stage represents the initial "placement of tokens" in the Petri net, symbolizing the generation of diverse informational units.

- Information processing and framing:

Journalists, artists, and scientists play a central role in transforming raw information into comprehensible and meaningful forms. Through nuanced reporting, emotional engagement, and evidence-based analysis, they frame issues in ways that make complex topics accessible to broader audiences.

- Mobilization and amplification:

Leaders, religious figures, and artists, often supported by their communities or fan bases, mobilize resources, inspire collective action, and amplify selected ideas. Their activities expand the social and emotional reach of the proposed initiatives.

- Testing and implementation:

Progressive societal segments and business or NGO actors participate in testing new solutions and implementing practical strategies. This stage represents the translation of conceptual proposals into operational practices.

- Coordination and integration:

The overarching concept of "Adaptive and Constructive Thought" denotes the continuous process of coordinating diverse inputs and integrating them into coherent, adaptive solutions. This phase marks the transition from hierarchical (pyramidal) systems to more collaborative (disk-like) structures, enabling fluid participation and distributed decision-making.

- Addressing challenges:

The system's structure inherently counteracts obstacles such as binary thinking, organizational silos, fragmentation, and polarized egos. By fostering interdisciplinary dialogue and promoting nuanced reasoning, it encourages integrative and cooperative cognition.

The role of artificial intelligence (AI) in the activity system

Artificial intelligence can substantially enhance the efficiency and depth of nearly every process within this framework:

- Idea contribution and collection:

a. AI-powered sentiment analysis and natural language processing (NLP) can extract, categorize, and analyze ideas from large datasets (e.g., social media, online forums, and reports) originating from progressive groups and artistic communities.

b. Intelligent knowledge graphs- can interconnect disparate ideas and identify emerging trends across scientific literature, journalistic sources, and expert networks.

c. AI-assisted brainstorming tools can help leaders and innovators overcome cognitive biases and explore broader creative solution spaces.

- Information processing and framing:

a. Automated summarization and synthesis tools can distill essential insights from complex research outputs, making them more accessible to non-experts.

b. Bias detection algorithms can aid journalists in identifying and deconstructing binary or polarized narratives.

c. Generative AI tools can assist artists and communicators in creating emotionally resonant narratives and visualizations of complex phenomena.

- Mobilization and amplification:

a. Personalized content delivery systems can tailor messages for specific communities (e.g., faith-based groups or fan networks), enhancing engagement and mobilization.

b. Social network analysis can identify key influencers and optimal channels for information dissemination.

- Testing and implementation:

a. Simulation and modeling tools can virtually test proposed innovations, forecasting their real-world outcomes and potential risks.

b. Predictive analytics can support NGOs and enterprises in optimizing resource allocation for greater impact.

- Coordination and integration:

a. Collaborative AI platforms can facilitate cross-sector dialogue and knowledge sharing, breaking down silos and reinforcing adaptive thinking.

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b. Recommender systems can identify relevant experts, resources, or perspectives to enhance interdisciplinary integration.

c. AI-driven decision-support systems can synthesize complex data inputs to assist leaders in formulating coherent and evidence-based strategies.

- Addressing challenges:

a. Argument mining and deliberation platforms can identify instances of polarized reasoning and suggest areas of potential consensus.

b. Ethical AI frameworks can ensure that the information presented to influential decision-makers aligns with globally beneficial objectives.

Petri net representation

The Petri net, provides a useful means of representing the flow of ideas, information, and actions within this collective intelligence framework.

- Key elements:

a. Places (circles): Represent states or conditions (e.g., "Ideas Generated," "Validated Knowledge," "Solutions Implemented").

b. Transitions (rectangles): Represent activities or events (e.g., "Contribute Ideas," "Frame Information," "Integrate Solutions").

c. Tokens (dots): Represent discrete items such as ideas, research findings, or action plans. The presence of tokens enables transitions.

d. Arcs (arrows): Represent directional flows connecting places and transitions.

Simplified conceptual Petri net for collective intelligence gathering

- Initial places (P1–P8: Sources of ideas):

1: Leaders' visions

2: Progressive initiatives

P3: Artistic insights

P4: Business and NGO solutions

P5: Journalistic reports

P6: Scientific data

P7: Religious ethics

P8: Domain expertise

- Transitions (T1–T8: Contribution and processing activities):

T1: Channel vision (from P1 to P9)

T2: Innovate (from P2 to P9)

T3: Inspire and frame (from P3 to P9, P10)

T4: Develop and advocate (from P4 to P9, P11)

T5: Verify and disseminate (from P5 to P9, P10)

T6: Research and validate (from P6 to P9, P10)

T7: Mobilize and guide (from P7 to P9, P11)

T8: Apply expertise (from P8 to P9)

- Intermediate places:

P9: Raw collective input- unfiltered ideas, data, and perspectives.

P10: Processed information- validated, emotionally framed, and evidence-based outputs.

P11: Mobilization potential- available resources and social readiness for action.

- Central transitions (T9–T11: Adaptive and constructive thought processes):

T9: Synthesize and adapt (AI-enhanced)

- Inputs: P9 (Raw input), P10 (Processed information)

- Output: P12 (Integrated insights for adaptive thinking)

- Description: Represents the cognitive and computational synthesis of diverse ideas, enhanced by AI tools for pattern recognition and semantic analysis.

T10: Formulate solutions (AI-enhanced)

- Inputs: P12 (Integrated insights), P11 (Mobilization potential)

- Output: P13 (Actionable global solutions)

- Description: In this phase, AI supports solution design, outcome prediction, and resource optimization.

- Final place:

P13: Actionable Global Solutions- fully developed plans ready for real-world implementation (e.g., addressing climate change, poverty, or inequality).

- Challenges as inhibitor Arcs (Red Arcs):

a. Binary thinking: Inhibits T9 if cognitive flexibility is low.

b. Siloed structures: Restrict flow from P1–P8 to P9 and within T9.

c. Fragmentation: Inhibits T10 when integrated insights are insufficiently cohesive.

d. Polarized Egos: Obstruct T1 and T9 by preventing consensus formation.

AI as an enabler or catalyst:

AI functions as a facilitating mechanism across multiple transitions, particularly T9 and T10. For example, AI positioned on the arc from P9 to T9 enhances synthesis through automated analysis and concept mapping. It may also be conceptualized as a dedicated place (P_AI_Ttools), whose activation enables or accelerates specific transitions.

Conclusion of the Petri net evaluation

The Petri net model illustrates the concurrent nature of idea generation and the sequential yet interdependent processes of processing, synthesizing, and implementing solutions. The -Adaptive and Constructive Thought- mechanism emerges as the pivotal transition that transforms heterogeneous inputs into coherent collective intelligence.

Challenges such as binary thinking, silos, fragmentation, and polarized egos function as inhibitors that disrupt or delay these transitions. The integration of AI introduces catalytic elements that enhance system efficiency, resilience, and adaptability. Through pattern recognition, cross-domain synthesis, and bias mitigation, AI enables the emergence of a collaborative, disk-shaped system— where ideas (tokens) circulate freely and are continuously transformed into integrated, actionable solutions, rather than remaining trapped within rigid, pyramidal hierarchies.

The following chapter presents a concrete example of the possible practical application of WISE(∞) through the use of the X (Twitter) platform, XAI, and Grokipedia.

4 The concept of WISE(∞): leveraging X, XAI, and Grokipedia for collective intelligence

Unfortunately, humanity has not yet developed a polydemocratic or otherwise more advanced political system capable of effectively harnessing collective, group, and individual intelligence, particularly with respect to addressing and resolving critical global challenges more efficiently. Humanity no longer has much time to address critical present and, in particular, future global challenges effectively. Consequently, the WISE(∞) concept has essentially assumed the role of a pioneer in promoting the more efficient utilization of human intelligence and potentially contributing to the improvement of political systems. The practical concept of WISE(∞) may be realized through the use of X (Twitter), XAI (Explainable Artificial Intelligence), and Grokipedia. In this scenario, WISE(∞) could be redefined as XWISE(∞). Renaming WISE (∞) to XWISE (∞) would serve as an apt acknowledgment of the integration of X (Twitter) as a core component of the platform, in conjunction with xAI and Grokipedia. This rebranding may symbolize the convergence of social networking, AI-driven knowledge systems, and global intellectual collaboration. X (Twitter), xAI, and Grokipedia positions the platform as a comprehensive and synergistic knowledge hub. However, successful rebranding must be supported by a clearly articulated strategy to uphold open-source principles, ensure technical ability, and secure long-term financial sustainability. By adhering to these principles, XWISE (∞) could emerge as a transformative catalyst for global leadership, fostering innovation, inclusivity, and cross-disciplinary collaboration in addressing complex global challenges.

4.1 X (Twitter) as the global sensor and real-time pulse

Collection:

X functions as the primary, real-time "nervous system" of WISE(∞), facilitating the acquisition of raw, unstructured data and diverse perspectives from across the globe. It captures the collective pulse on emerging challenges, public sentiments, grassroots observations, and immediate crisis reports contributed by individuals, organizations, and media outlets. This continuous data stream feeds directly into WISE(∞)'s intake mechanisms, effectively serving as a live conduit for "Global Challenge Data" and "Actor Insights".

Dissemination:

Beyond data collection, X provides an unparalleled medium for the rapid dissemination of synthesized insights, calls to action, and validated solutions generated within WISE(∞). This capacity for instantaneous global communication enables swift mobilization, awareness-raising, and

coordinated responses to emerging issues.

Explainable artificial intelligence (XAI) as the transparency and trust engine

Synthesis and validation:

At the core of WISE(∞)'s artificial intelligence architecture, XAI functions not merely as a data-processing tool (a role primarily fulfilled by Grok) but as a mechanism for ensuring interpretability and trust. As Grok analyzes vast, heterogeneous, and often noisy datasets derived from X and other sources, XAI provides interpretive transparency by elucidating the reasoning behind the system's insights, pattern detections, and predictive analyses.

Trust building:

XAI delivers the essential "why" behind the "what", allowing human moderators and analysts within WISE(∞) to comprehend the logic of the AI's conclusions, identify potential biases, and verify the validity of outputs. This layer of interpretability is indispensable for fostering trust among diverse stakeholders, from global institutions and research entities to civil society actors—thereby ensuring the integrity and reliability of WISE(∞)'s collective intelligence processes.

Grokipedia as the dynamic knowledge base and synthesized wisdom repository

Synthesis and structuring:

Grokipedia serves as the dynamic, AI-augmented "cognitive core" and principal repository of the synthesized collective intelligence within WISE(∞). It transforms the raw, real-time data collected from X, analyzed and explained by the XAI-powered Grok system, into structured, actionable knowledge. Functioning as a continuously evolving archive, Grokipedia integrates validated information, proposed solutions, and documented best practices in a form readily accessible to diverse user communities.

Dissemination and accessibility:

Grokipedia ensures that this accumulated wisdom remains both accessible and navigable. It enables policymakers, researchers, activists, and citizens to explore context-rich insights, trace the provenance of information (facilitated by XAI's transparency), and identify contextually relevant responses to global challenges. In this way, Grokipedia serves as the primary output and reference hub of WISE(∞)'s mission to cultivate, organize, and disseminate collective solutions.

Grokipedia as the dynamic knowledge base and synthesized wisdom repository

Synthesis and structuring:

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Concept synthesis

4.1.1 Figure 19: The WISE(∞) concept framework

Figure 19 illustrates the WISE(∞) conceptual framework, which consists of the following components:

- X (Twitter)- functions as the "sensory interface" and the "outreach conduit" of the system;

- XAI- serves as the "interpreter" and "truth-validation engine" within the AI architecture;

- Grokipedia- operates as the "living knowledge organism", continuously curating and presenting the verified, actionable wisdom of the network.

Together, these components form a synergistic, transparent, and adaptive system that transcends traditional information silos and bureaucratic constraints. The WISE(∞) framework thus offers a globally interconnected, responsive, and ethically grounded infrastructure for harnessing collective intelligence in addressing humanity's most complex and urgent challenges.

4.1.2 Figure 20: A possible example of using the X platform for WISE(∞)

Figure 20 displays a prototype of an X (Twitter) page representing the XWISE(∞) Global Wisdom Network. The page illustrates the platform's integration of AI, social networking, and collaborative knowledge sharing. Key elements include a profile image featuring the XWISE(∞) logo, a globe-themed banner emphasizing global connectivity, a stylized bio, follower and following counts, action buttons for engagement, and a grid of sample posts highlighting collaboration, AI-driven insights, and global challenges. The page functions as a conceptual hub for the collection, synthesis, and dissemination of collective intelligence. Further reflection has been undertaken on a broader, more conceptual level. Yet, given the vast magnitude and transformative potential of a project such

as XWISE(∞), it is both rational and essential to begin through a series of deliberate, incremental steps. The initial stage thus centers upon the formation of a foundational community of followers for the XWISE(∞) platform, an act not merely of recruitment, but of cultivating a shared vision across diverse spheres of human activity. This formative phase may be delineated through several key directions:

1. To gather the broadest possible support from global and international organizations, thereby establishing an institutional backbone for global dialogue and cooperation.

2. To engage the creative spheres like music, film, and the arts more broadly—by connecting with influential creators, managers, producers, choreographers, directors, and writers, as well as their audiences and "fan communities", whose collective imagination can act as a vital catalyst for cultural resonance.

3. To attract the participation of the scientific and applied disciplines, including distinguished researchers, students, physicians, and independent thinkers, whose pursuit of knowledge can anchor the project in intellectual integrity and innovation.

4. To involve representatives of the world's religions and spiritual movements, uniting leaders and believers in a shared space of ethical reflection and transcendental inquiry.

5. To invite contributors from the business and entrepreneurial sectors, whose practical insight and creative energy can transform visionary ideas into sustainable realities.

6. To reach the mass media, particularly journalists and commentators deeply motivated by global and civilizational themes, who can act as mediators of understanding and amplifiers of awareness.

7. To connect with civil society, encompassing non-governmental organizations, social initiatives, and engaged communities whose commitment to human dignity and collective progress mirrors the very ethos of XWISE(∞).

In essence, the first and most crucial undertaking lies in assembling an inspired and motivated network of followers from nearly every domain of constructive human endeavor. Only upon such a foundation can the XWISE(∞) social and technological network emerge—an integrative system envisioned not merely as a digital structure, but as a living framework for global collaboration, creative intelligence, and collective wisdom, whose preliminary contours have already been outlined in this work.

5 Conclusion

It is entirely clear that the present work exceeds the capacities of any individual researcher and, indeed, even those of a highly organized group of scientists and applied experts. Fortunately, we now possess highly capable tools in the field of artificial intelligence.

In the preparation of this work, artificial intelligence was employed primarily for formal description and structuring, for the creation of illustrations based on my conceptual directions, for brainstorming and dialogic exploration, and for evaluating the functional principles of the envisioned WISE(∞) network. I owe particular gratitude to AI platforms such as ChatGPT, Grok, Google LM Notebook, and Google AI Studio, which have significantly contributed to the realization of this monograph within a relatively short period of time. Without these tools, its completion would likely have required a year or more. As already noted, such time is no longer at our disposal.

It is therefore recommended that technologists, scientists, and other researchers, when working in organized collaborative settings, make full use of AI tools in the further development of the XWISE(∞) concept. The most notable advantage of employing such tools lies in the fact that they allow us to focus more intensely on the development of ideas and the synthesis of possible solutions, while delegating formal and procedural tasks to artificial intelligence.

Likewise, the use of specialized software for system modeling, analysis, evaluation, text mining, and network visualization, while still valuable, is no longer strictly indispensable. The integration of artificial intelligence into the creative and analytical process thus represents not only a practical necessity but also a symbolic step toward the convergence of human and artificial cognition, a hallmark of the new era to which XWISE(∞) aspires.

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Appendix: The central emblem of WISE(∞)

The first version of this emblem was developed by the author of this work in 1982. On September 8, 2025, the author revised the emblem, adding further significance to its design.
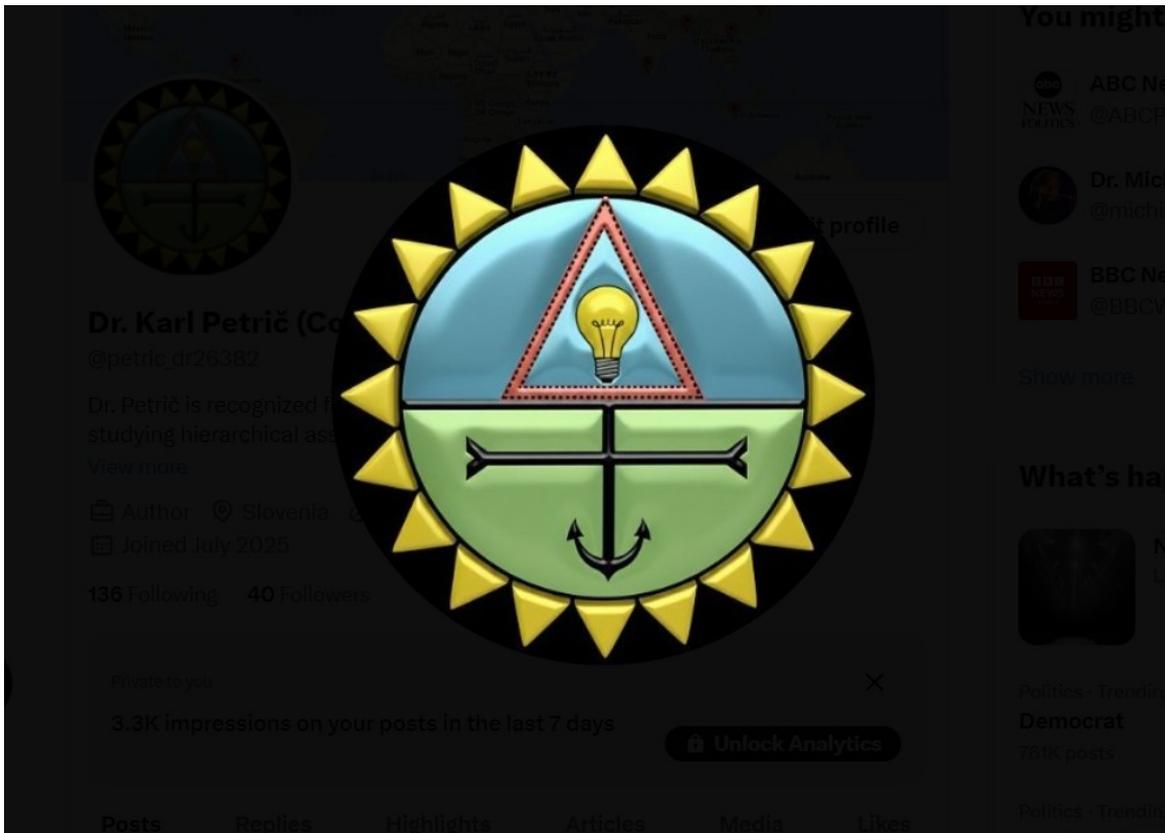

Figure 21: Central emblem of WISE(∞)

The WISE(∞) emblem is a circular design featuring a prominent central motif, encircled by a sun-like border composed of yellow triangles. The central circle is divided horizontally into two primary sections:

- Upper section (Light blue): This section contains a coral-bordered triangle (#F08080) pointing upwards, evocative of a cautionary or warning symbol. It represents the imperative to take immediate action in generating ideas and solutions to global challenges. Within the triangle, a glowing yellow lightbulb represents ideas, innovation, and wisdom. The light blue background may signify openness, clarity, or the expanse of the sky.

- Lower Section (Light green): The lower half features a stylized anchor, formed by two crossed horizontal lines intersected by a vertical line terminating in an anchor fluke. This design conveys stability, grounding, and a symbolic connection to the earth or sea. The light green background may represent growth, renewal, or the promise of new beginnings.

Overall, the emblem conveys a synthesis of insight and caution (embodied by the triangle and

lightbulb) with stability and grounding (represented by the anchor), all encompassed within a framework of illumination and global reach suggested by the sun-like border.

WISE(∞): The symbol within the green field may be interpreted as a Christian cross. While such an interpretation is not incorrect, the symbol, represented here as 千, ㅋ, or ꟻ, primarily signifies the Freedom Foundation, complementing the anchor motif as an emblem of stability.

Final note:

WISE (∞) (Wise International Solidarity Empowerment) is conceived as a global initiative designed to encourage the world's leading figures to adopt a broader perspective on the present and future of humanity.

- Solidarity: The anchor and circular form symbolize collective support, emphasizing cohesion and preventing isolation.

- Empowerment: The lightbulb and radiating sun rays signify the generation of ideas and the promotion of personal, institutional, and national growth. The red triangle conveys the urgency of immediate action.

- International scope: The division between the blue and green fields reflects the initiative's global reach and integration across diverse domains and cultures.