



## Sources and Solutions for Global Turbulence

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### Abstract

*This paper is intended to provide the conceptual background for discussion during the WAAS@65 conference in July 2025. The central focus of the paper is on the origins, root causes and potential solutions for the rising levels of global turbulence associated with the multidimensional polycrisis confronting humanity today. It explores possible solutions and raises challenging questions regarding the events unfolding and the deep sources behind the destabilizing threats. Our discussions are intended to serve as an introductory step in an ongoing process to enhance understanding of our human dilemma, to identify possible solutions, formulate practical strategies, and clarify the potential role that WAAS and partner organizations can play in addressing the global challenges that confront us.*

### 1. Turbulent Times

We live in turbulent times characterized by rising levels of uncertainty, doubt, distrust, and insecurity. Rising insecurity is leading to the polarization of societies, social unrest, extremism, violence, war and geopolitical instability. These characteristics reflect symptoms of deeper underlying structural and systemic causes rather than isolated events. The world is in the midst of a multidimensional global crisis encompassing political, economic, technological, social, cultural and environmental components. Some refer to it as a Polycrisis, some others as a Perfect Storm.<sup>1</sup> Regardless of the name, its essential origins can be traced back to events that followed the end of the Cold War in particular, which evidenced the rapid globalization of society, accelerated pace of social change, rising levels of inequality and financial instability, competitive economic nationalism, and a scramble for global leadership and effective policies to fill the vacuum.

Since 2020 the process has been further fuelled by the COVID-19 pandemic, wars in Ukraine and the Middle East, the renewal of the arms race, a retreat to the Cold War mentality of competitive security, the acceleration of global warming, the threats posed by recent advances in generative AI (GenAI), the anticipation of artificial general intelligence (AGI) in the near future, and other real and potential existential risks.

The polycrisis is characterized by a weakening of democratic institutions, the rise of extreme nationalism and authoritarianism, the declining effectiveness of multilateral

institutions, and loss of confidence in the media, business, technology, science and other institutions. The sense of shared vision and universal values that has provided a platform for international collaboration and global leadership since the end of the Second World War are being challenged by a retreat to national self-interest that is fracturing domestic priorities and international relationships and undermining the capacity of multilateral institutions to effectively play the role for which they were created.

The turbulence is expanding simultaneously in many unpredictable directions, like a tsunami of global proportions rapidly swelling in size, speed and intensity. This storm seems to defy both the efforts of leaders and the collective will of humanity to control, master or direct it, with some leaders' actions serving to make it stronger. As a result, its power now threatens the world with unintended and unanticipated consequences.

### ***1.1. The Global Context and Enabling Conditions***

An understanding of the surface symptoms and consequences of the turbulence is not sufficient for mastering it. We require knowledge of the root causes that spur and energize it, the process that determines and drives its direction, and practical strategies that can alter its speed, direction, velocity and consequences and transform it into a conscious evolutionary movement.

The causes of the turbulence are multidimensional, complex and interdependent. But they are all linked to extraordinary movements characteristic of the current period of global social evolution. The process of social evolution from isolated local communities to a single, interconnected global community has been taking place for millennia, but the speed, magnitude and complexity of growth, development and evolution exceed that of any prior period in human history.<sup>2</sup> Population growth, modernization, urbanization, economic development, the evolution of international relations and globalization continue to accelerate. The rate of technological innovations and dissemination that has brought us computers, renewable energies, cloud computing, algorithmic trading, AI and robotics continues to accelerate. As a result, the speed and quantity of communications have multiplied exponentially since the advent of the internet, smartphones, social media, and the viral instant cultural exchange. Accelerating growth, technological innovation, communications and migration have brought along with them increases in inter-cultural contacts, influences and impacts between people around the world. The increasing contacts have brought with them increasing exposure to the full spectrum of global cultural values and rapid changes in social aspiration, expectations, styles and standards of living. And at the same time, all these movements have contributed to rapidly rising levels of pressure generating environmental instability and taxing planetary limits.<sup>3</sup>

Never before has humanity been subject to change of this speed, magnitude and intensity.<sup>4</sup> Historically, evolution has been a very slow, gradual process spanning countless centuries. It took Homo sapiens almost 200 millennia to reach a population of 10 million, another 10 millennia to reach 100 million, 18 centuries to raise it to one billion and only two centuries to raise that to eight billion.<sup>5</sup> During the last 200 years, global economic growth has multiplied

100-fold.<sup>6</sup> Humanity has evolved from a predominantly rural agrarian society to an urban cosmopolitan interconnected global society interacting instantaneously via the internet, mobile phones, and social media.

We are in turbulence, major turbulence and it is not just in the air, it is in our systems, in our institutions and in our everyday lives in education. And our lives are increasingly full of uncertainty and instability in the sense that the future is arriving much faster than our ability to anticipate or respond.<sup>7</sup>

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*“Turbulence is causing a major fear reaction because it’s essentially about fear for our very survival and the pandemic particularly.” – Joanna Nurse*

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Each stage in social evolution opens up unprecedented opportunities but also generates new pressures and stresses on established traditional and conventional customs, beliefs, values, attitudes, social institutions, family and lifestyles.<sup>8</sup> And these things change much more slowly than the changes in technology, transport, communications and the pressures of work, population and migration. Increasing speed brings with it increasing uncertainty, insecurity, anxiety, stress, polarization of society and social turbulence. While some look forward with anticipation to a better future, many others feel that the speed and magnitude of change threaten and undermine their security, power, position and achievements. Turbulence is a natural and inevitable consequence of rapid change. When the turbulence exceeds the capacity of society to adapt, it disrupts the social fabric and gives rise to discontent, the polarization of attitudes, conflict and violence.<sup>9</sup>

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*“There have been many periods of turbulence in the past and many periods of transition to new states of social evolution.”*  
– *Eden Mamut*

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The pace of change since the end of the Cold War led to unprecedented achievements. Peace, demilitarization, the founding of the European Union and WTO, the birth of the Internet, the globalization of communications, economy and finance, and countless other wonders. But it also brought with it the frictions and pressures of close contact between traditional and modernized societies and cultures, increasing competition for scarce resources, international competition that shifted from military to economic dominance, financial instability, rising levels of unemployment and economic inequality. In addition, the increasing levels of environmental stress on the global habitat have led to a rapid shift in energy from fossil fuels to renewable forms.

## ***1.2. Struggle for Solutions***

In 2013, the World Academy of Art and Science launched a project in collaboration with the United Nations Office at Geneva to inquire into the emerging nexus of global challenges: political, economic, social, cultural and ecological. The study confirmed that all these challenges share certain common attributes. They are all global in reach, impact, complexity, and interdependent with one another. None can be successfully addressed by the unilateral initiatives of nation states, by unidimensional policy measures, or by specialized institutions at the national and international level. None can be effectively understood and explained by uni-disciplinary perspectives, prevailing theoretical frameworks, and predominant ways of thinking. Our research concluded that fundamental changes would be required at all these levels to address these challenges effectively. It called for the development of integrated modes of thinking, a transdisciplinary approach to education, and a new paradigm for global development.<sup>10</sup>

Two years later, in 2015, 193 UN member nations took the unanimous decision to adopt a comprehensive approach to address this complex nexus of interrelated global challenges. They adopted Agenda 2030, a program to achieve 17 Sustainable Development Goals (SDGs) and 169 targets within 15 years.<sup>11</sup> For the first time in history, the entire human community has joined together to address the global challenges confronting humanity.

After an impressive beginning, Agenda 2030 has met with increasing resistance and obstacles to realization. A decade after its inception, it is evident that the unprecedented levels of international cooperation, coordination and momentum required to address the existential threats to human security and sustainable development have not been achieved. The global community seems to have lost both its confidence and its commitment to its shared vision and values. It still lacks the integrated theoretical framework, institutional capabilities, essential policy measures, program initiatives, financial support, leadership, expertise and public endorsement required to respond effectively to the challenges we face. By 2024, only 17% of the SDG targets were on track, with nearly half showing only minimal or moderate progress, and over one-third stalled or regressing.<sup>12</sup>

## **2. Characteristics of Global Social Evolution**

The turbulence humanity is facing today is not unique. The record of history is marked by numerous periods of rapid change accompanied by turbulent upheaval and sudden reversals interspersed by relatively longer periods of static stability. The turbulence results from the tension between the momentum of the forward movement and of traditional or inertial forces that resist change, reflecting gains and losses of various social groups and values.<sup>13</sup> The interaction and conflict between the two opposing forces generate zigzag patterns of progress and retreat. A longer term perspective reveals a spiralling upward movement of global social evolution with distinct characteristics and direction. Today's tensions also capture the tension of some groups pushing for the forward movement of humanity while other oppositional reactionary groups resisting the change. The characteristics of the progressive and resistance movements of the current period of turbulence have much in common with history but are distinguished by their magnitude and speed.

## 2.1. Progressive Social Movement

- **Acceleration of Global Integration:** The unprecedented speed of global social evolution, through increased physical mobility, scientific advances, technological deployment, economic interdependence, and expanding multilateral institutions, is transforming the autonomy of nation-states into shared governance shaped by universal values and global legal norms.
- **Systemic Complexity and Interdependence:** Intensifying interactions and interdependence across governance, defense, business, media, transportation, health, science, technology, and education are generating multilayered systems of mutual influence, feedback, and vulnerability.
- **Accelerated Contact and Sociocultural Transformation:** Accelerated contact, dialogue, and exchange among individuals and cultures are fostering mutual understanding and co-evolving shared worldviews, driving rapid shifts in values, knowledge systems, institutional norms, and relationships that redefine societal roles and ways of life.
- **Empowerment Through Distributed Tools and Networks:** Expanding access to education, digital tools, global communication networks, and participatory governance models is enabling individuals and civil society to shape innovation, culture, and decision-making across boundaries once restricted by geography or hierarchy.
- **Technological Convergence and Expanding Human Possibilities:** The integration of artificial intelligence, biotechnology, and digital platforms is exponentially expanding human capabilities in cognition, health, work, and learning, reshaping the functional fabric of modern life.
- **Rise of Ethical Universalism:** Emergent global values, equity, sustainability, justice, and inclusion, are becoming normative reference points that shape institutions, laws, and individual aspirations, reinforcing a cohesive global identity and shared purpose.
- **Cumulative Advancement and Rising Aspirations:** These converging forces are multiplying knowledge, expanding human capacity, and raising expectations, igniting a global revolution of aspirations for well-being, dignity, and meaningful progress.

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*“Today, our capabilities are doubling every 3 or 4 months. That’s not evolution. That’s an exponential leap. And if we don’t evolve our inner architecture to match that curve, we will amplify the very flaws that got us here at scale and at speed. We are entering an age of absolute capability without having evolved our consciousness to match it.” – Lawrence Ford*

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## ***2.2. Resistance to Change***

- **Psychosocial Backlash Against Change:** The unprecedented pace of progressive transformation is generating widespread uncertainty, confusion, insecurity, and fear, provoking resistance and an urge to deny, prevent, slow, or oppose change.
- **Disruption of Established Power Structures:** Rapid shifts in social power, driven by scientific knowledge, technology, political influence, and digital communication, are displacing traditional hierarchies, sparking anxiety and rejection among entrenched institutions, elites, and populations.
- **Cultural Identity and Generational Resistance:** The pace of change challenges deeply rooted beliefs, values, and practices. Efforts to preserve national, cultural, or religious identity manifest as opposition to diversity, globalization, and universal norms, widening generational and cultural divides.
- **Economic Insecurity and Social Distrust:** Real and perceived displacement, rising inequality, and loss of relative social status intensify distrust in institutions and fuel a populist backlash against domestic and global authority structures.
- **Institutional Inertia and Adaptation Failure:** Conservative tendencies in cultural and political institutions, and their limited capacity to evolve at the speed required, undermine societal resilience, mobilizing resistance and exacerbating the clash between forward and reactionary forces.
- **Psychological Dislocation and Demand for Authoritarianism:** Disorientation in the face of complex change fosters nostalgia, ideological rigidity, and growing demands for authoritative (even authoritarian) leadership promising control, certainty, and the restoration of past norms.

The clash of the forward and reactionary movements generates tensions, conflicts, violence and stop-start progression.

## ***2.3. Shifts in Social Power***<sup>14</sup>

- The growth and changes in the distribution of all these forms of social power enhance the capacity and influence of those most prepared and capable of harnessing it compared with the relative power and influence of those who are not. The shifts in centres and levels of power result in an increase in force and impact of some groups and a reduction in that of others.
- Many centres of power are being rapidly altered from one group to another. These trends reflect a declining power of some centres and traditional seats of power relative to newly emerging centres of power.
  - From one or two dominant nation states to associations of nations such as G-7, G-20, and BRICS.
  - From physical size to the technological superiority of military power enabling even smaller entities to combat larger armies.

- From the middle of the political spectrum to the extremes, particularly towards the far right.
- From political influence of the Middle Class to increasing concentration of political and economic power of corporations and the super-wealthy resulting in plutocracy and oligarchy
- From government regulation of technology development and application to diminishing control of government over technological deployment
- From a wide distribution of wealth among many corporations and individuals to an increasing concentration of economic power in a small number of megacorporations dominating entire industries
- From dependence of business and economy on a skilled affordable workforce to increasing reliance on technology
- From government and public interest control of the media to corporates and informal social media
- From influence of scientific authorities to populist information and fake news
- From national to global financial flows, markets and banking
- From local to national and national to global markets, supply chains and global financial institutions
- From national government authority to global competitiveness of MNCs

Economic inequality, a key driver of the populism and extreme forms of government that we are seeing all over the world today, is probably set to continue unless these issues are addressed.<sup>15</sup> And technology supremacy, which has become central to military and economic power, is of course part of the solution too.<sup>16</sup>

#### ***2.4. Root Causes and Drivers of the Turbulence***

The enabling environment of rapid and accelerating change has created a fertile field for instability. But the immediate source of the symptoms described above can be traced to more specific causes that have taken root in the unstable global social environment. Our discussions have identified a wide range of these root causes.

- Failure of socio-economic policies to deliver prosperity and meaningful inclusion to working classes.
- Failure to identify and protect the public or arm them for self-protection, against misinformation.
- Fragile governance structures unable to withstand technological, geopolitical, and social disruptions.
- Inability of democratic systems to evolve in response to rapid technological and communication changes.



- Weakening of national sovereignty and power versus the power of corporations, and financial markets, weakening state control.
- Weak governance and oversight of money and market economics, leading to extreme income inequalities and systemic imbalances.
- Inadequate strength of global governance to ensure equitable benefits of advancements.
- Neglect in addressing disruptive social and economic impacts of technologies such as automation, AI, robotics, and broader technological acceleration.
- Inadequate regulation to prevent weaponization of media and technology; AI, social media, espionage, and election manipulation.
- Weak common global social values due to rising uncertainty, insecurity, and intercultural tensions driven by globalization.
- Lack of integration of environmental sustainability into economic and political decision-making and rejection of scientific evidence as the basis for science diplomacy and policy-making.
- Failure to maintain global institutions' legitimacy, trust, and authority due to increasing resistance of nation states to modernization and power sharing, and the enforcement of global rule of law, human rights and universal values.

### ***2.5. Symptoms, Outcomes and Consequences***

The enabling environment and root causes are responsible for the consequences and outcomes we witness today.

- **International:** Declining authority of global institutions and weakening adherence to jointly made commitments demonstrating incapacity to adhere to commitments, such as the sustainable development commitments in Agenda 2030, Paris Agreements regarding containing global warming, the Geneva Convention on conduct in war, and the Universal Declaration of Human Rights on protecting human rights.
- **Military:** Return of competitive nationalism and the competitive security paradigm of the Cold War period, weakening of post WWII alliances and forging of new ones, revival of the arms race and reassertion of the nuclear threat. The result is the loss of the post-Second World War peace dividend, diversion of capital into rearmament, collapse of détente, and the reemergence of territorial disputes and security threats.
- **Political:** Decline in protection and enforcement of democratic principles and human rights and a shift of democracies toward autocracy, plutocracy and oligarchy. Declining authority of national governments over tax-payers, corporates, MNCs. National sovereignty is increasingly undermined by the rising influence of financial elites, multinational corporations, global capital flows, and tax arbitrage. Weak governance and oversight of monetary and market systems have contributed to widening structural imbalances. Democratic systems are struggling to evolve in response to rapid technological and communication changes. National sovereignty is seen to be



undermined by the rising influence of financial elites, multinational corporations, global capital flows, and tax arbitrage. Weak governance and oversight of money and market systems have contributed to widening structural imbalances.

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*The magnitude and complexity of the problems confronting us today confirm the need for a radical shift to a new paradigm for global peace and development that transcends the values and theories of imperial power, competitive nationalism, neoliberal economic policies, financialization, plutocracy and autocracy that have dominated international affairs through the 19<sup>th</sup> and 20<sup>th</sup> centuries.*

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- **Economic:** Historically high levels of economic inequality due to neoliberal economic policies favouring the wealthy and high-income earners combined with rising job insecurity due to foreign trade, AI, robotics, immigration and rising unemployment. Global financial markets and digital currencies are increasingly decoupled from regulatory oversight. Socio-economic policies have failed to deliver prosperity and meaningful inclusion to working classes due to neo-liberal policies supporting market fundamentalism, financial deregulation, the financialization of the global economy. The growing power of corporations and accompanying decline of the power of unions has spurred record levels of inequality, hollowing out the middle class and concentrating wealth in the top 10% of the population. This has been aggravated by policy failure to manage displacement and job insecurity tied to globalization and technology. Economic inequality, a key driver of the populism and extreme forms of government, is therefore set to persist until these issues are addressed.
- **Technological:** Technological supremacy has become central to military and economic power. The disruptive societal impacts of automation, AI, robotics, and broader technological acceleration remain inadequately addressed. Inadequate regulation and safeguards have been inadequate to prevent the weaponization of technologies such as AI, social media, espionage, and election interference. Global governance lacks the capacity to ensure equitable distribution of technological advancements.
- **Environmental:** Increased environmental threats to human security, with climate change now recognized as the single greatest threat to global health. Incapacity to mobilize global cooperation, financial investment, and technical expertise on the scale required to address escalating ecological challenges.
- **Migration:** Uncontrolled migration due to war, environmental degradation, cultural conflicts, declining economic opportunity and rising job insecurity. The 21<sup>st</sup> century

has seen increasing migration driven by a combination of local and regional conflicts, economic opportunities, and environmental changes. The global refugee population increased dramatically, from 14 million in 2000 to 27 million in 2020, straining national capacities and fuelling political and cultural backlash.<sup>17</sup>

Declining trust, influence, effectiveness and power of multilateral institutions and global rule of law, national governments, business, the media and science. Fake news is aggravated by social media and AI-based algorithms.

### 3. Strategies and Solutions to Address the Turbulence

Humanity has come to the end of an era that cannot be governed according to the ideas and institutions of the previous century. The magnitude and complexity of the problems confronting us today confirm the need for a radical shift to a new paradigm for global peace and development that transcends the values and theories of imperial power, competitive nationalism, neoliberal economic policies, financialization, plutocracy and autocracy that have dominated international affairs through the 19<sup>th</sup> and 20<sup>th</sup> centuries.

The range and magnitude of changes required exceed even that of the founding of multilateral institutions at the end of World War II. The solutions must necessarily commensurate with the range and depth of the root causes underpinning the global turbulence and resultant polycrises. Our research and discussions have identified some of the seminal issues that need to be addressed, highlighting the need for a radical shift in approach required to guide a conscious transformation of humanity to usher in a new era of peace and prosperity.

The sections of this article which follow illustrate some of the ideas identified which can inform the future programming of WAAS, working with its partners including, Force for Good, World University Consortium, ASU Global Futures Lab, Nizami Ganjavi International Centre, UNESCO-MOST Bridges Coalition, Club of Rome and others. The list is intended to serve as an invitation to our Fellows and partners to collaborate in formulation of a more comprehensive and cohesive set of solutions.

### 4. Global Governance and Multilateralism Solutions

***RATIONALE: Strategies aimed at revitalizing and reshaping international institutions, finance, and citizen engagement to build a more inclusive and sustainable global order.***

#### 4.1. Global Solutions to Raise the World's Platform, The UN SDGs

The world's communities stand at a pivotal moment where systemic turbulence, overlapping global crises, and a fragmenting world order are threatening the very foundation of the Sustainable Development Goals (SDGs). Yet this also marks a turning point, where solutions exist, technology is ready, capital is abundant, and the opportunity to raise all of humanity is within reach. The SDGs, initially designed as a global roadmap for human progress, are not only vital goals but also the clearest path forward to ensure peace, prosperity, and sustainability. Fulfilling the vision of Agenda 2030 stands as one of the most effective

ways to reduce global turbulence and restore forward momentum on peace, human security and sustainable development. Work by Force for Good, a WAAS partner, has examined the nature of the crisis, the stock and flow of capital, sought out solution-sets, especially technological ones, and what it would take to achieve the goals.

**Transforming the SDG Crisis into Opportunity:** Despite unprecedented commitment from 193 UN Member States, progress on the SDGs is falling short, only 16% of targets are on track, and over 80% are off-course or regressing.<sup>18</sup> The annual funding gap has ballooned to over US\$14 trillion.<sup>19</sup> However, unlocking just a fraction of the US\$653 trillion in global wealth, and deploying the right solutions, can reverse this trend. The SDGs are not just obligations, they are market-making opportunities capable of unlocking trillions in economic value while addressing society's most urgent needs.

**Scaling the Nine Solution Sets:** Force for Good's research identifies nine transformative, scalable solutions which, if globally deployed, could progress achievement of nearly 90% of the SDG targets. These include:

- Climate and energy transition frameworks, closing up to 15% of the global SDG gap.
- AI-enhanced universal connectivity, contributing 14% by driving access, education, governance, and economic inclusion.
- Digital financial infrastructure, boosting financial inclusion and enabling e-services.
- Online delivery of essential services such as healthcare, education, and e-commerce.
- Sustainability reporting standards to direct capital flows.
- Scaled solutions for food, water, and human essentials.
- Unlocking human potential through digital education and skills for decent work.
- Climate resilience tools and disaster risk financing.
- Impact finance innovations like green bonds and SDG swaps to close funding gaps.

The research shows that no single entity or group has a monopoly on solutions. The diversity of innovation worldwide means solutions come from almost unlimited sources.

**Hierarchies of Solutions:** These solution areas broadly follow a hierarchy of human needs. At the foundation are essential life-support systems: clean water, sustainable food production, and access to basic services such as healthcare and education via digital platforms. Building on this, digital financial infrastructure and universal AI-enhanced connectivity unlock economic participation and social inclusion. Further progress can come from solutions to unlock human potential through education and decent work to empower individuals, while climate transition and resilience frameworks protect collective progress. System change initiatives such as pricing natural assets and including them in sustainability reporting can lead to innovative impact financing, improve institutional capacity, and fundamentally change capital allocation. Underpinning all these layers is the essential condition of global peace, without which no sustainable development can be realized.

**Digital and Technological Infrastructure as a Foundation:** Digital infrastructure is central to achieving all SDGs. India’s “India Stack” shows what’s possible: digital IDs, mobile banking, and transaction platforms financially included over 500 million people.<sup>20</sup> Scaling such models globally can deliver exponential inclusion and efficiency. Digital public goods, telecom networks, data centres, and financial platforms form the essential bedrock for scalable change. The India digital platform is now being extended to healthcare and education, offering a powerful foundation for inclusive, tech-driven development. Force for Good supported the transfer of these digital assets for transformative impact in the world, particularly across the Global South. While there are many challenges to execution, Africa is illustrative of a continent where such solutions have the potential for dramatic impact.<sup>21</sup> Solutions are required there in the form of telecoms and data centre infrastructure, banking and financial infrastructure, and execution by government to protect privacy.

**Commercial Rationale for SDG Investment:** Force for Good’s research shows that meeting the SDGs creates US\$15 trillion in new markets globally, especially across the Global South. Key opportunity areas include food systems (US\$3.2 trillion), climate and nature-based solutions (US\$2.4 trillion), gender equity (US\$2.4 trillion), and inclusive digital economies (US\$2.1 trillion). Policy is the critical enabler, by reforming barriers to capital flows, infrastructure deployment, and cross-border digital solutions, countries can transform development needs into investable markets.<sup>22</sup>

**Execution Strategy: Transactional, Targeted and Technologically Enabled:** Given global fragmentation, multilateral consensus is no longer sufficient. Achieving the SDGs will require a win-win “transactional” approach, country by country, initiative by initiative, backed by global partnerships and policies that facilitate private sector participation in markets that need special support. Key execution principles include prioritizing large developing nations, which can drive 65% of SDG progress, leveraging scalable solutions often found in developed economies, creating the conditions needed for leading private-sector actors to deploy them, securing diverse funding sources such as private investment, blended finance, and where appropriate, philanthropy, and using technology as the primary delivery mechanism to maximize reach, efficiency, and adaptability.

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*The SDGs are no less than a litmus test of the level of progress of our civilisation... They go to the root of our ability to deliver peace, prosperity, and freedom to all—regardless of our differences... This is a pivotal moment for the world and the stakes are higher than ever. The urgency of scaling proven, existing solutions to close the SDG gap is clear. Just as previous big ideas, as putting a man on the moon galvanised the human spirit, it is time to do that again and on this planet.*<sup>23</sup>

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Together, these strategies provide a roadmap for converting the current turbulence and SDG crisis into a historic turning point, one that can lift all of humanity, unlock trillions in value, and chart a path to a secure, inclusive, and sustainable future. WAAS and its partners invite collaborators to join in deploying these solutions at scale to make this future a reality.

#### ***4.2. Governance While Unlocking Innovation in Banking and International Financial Markets***

One approach to finance is to carefully manage its risk. The East Asia Financial Crisis of the late 1990s, the Global Financial Crisis of 2008, rising levels of inflation and public debt today are consequences of the globalization and liberalization of the international banking and financial system in the 1990s and the progressive decline of national control over multinational corporations. If financial markets were to become destabilised by global turbulence, the world would face a far greater challenge. The early signs of that are in the recent trade and tariff wars initiated by the current US administration as it seeks to re-balance its trade deficit and re-shore its offshore corporations' factories. A risk approach would seek to establish effective policies and governance to address the instabilities introduced by financial liberalization, deregulation of banking, cross-border financial flows, corporations and wealthy individuals. An alternative approach would seek to initiate a "big bang"—a mass liberalisation of capital—to take risk and fund new opportunities the world over; seeking to turn the SDGs into opportunities. Force for Good is examining this idea as a potential way to see if systemic change can be brought to the world's capital flows and stock.

#### ***4.3. Redesigning Multilateralism***

The foundation of the international rules-based order is undergoing a significant transformation driven by ongoing global conflicts—most notably the Russia-Ukraine war, the Israel-Gaza war, and the increasing use of tariffs as tools of foreign policy rather than adherence to World Trade Organization (WTO) rules—shifting the system from one grounded in universal law and cooperation to one shaped by power and strategic coercion. These developments are reshaping the core principles that have traditionally governed international relations, namely, the universal rule of law, multilateralism, and the primacy of human rights, into a more predatory, might-is-right paradigm.<sup>24</sup> The rule of law is increasingly being displaced by the rule of power, as powerful nations openly disregard international legal norms in pursuit of strategic advantage. Multilateralism is giving way to selective multilateralism, with institutions like the United Nations being co-opted by dominant states to serve narrow national interests. Meanwhile, the principle of human rights is being subordinated to geopolitical calculations, with violations often ignored or downplayed when they conflict with strategic alliances or factional priorities.

The retreat to national competition, the dominance of power politics and militarization will only magnify and multiply the problems, enhance the turbulence and lead to increasing levels of social unrest, conflict and war. The problems confronting humanity today can only be effectively and permanently addressed by strengthening and empowering the international institutions of governance based on global rule of law and an inclusive system of cooperative

security for all nations that renounce war as an instrument for national policy. This requires a re-imagining of the world order to handle the extremes that have arisen.

#### **4.4. Global Voices for Citizens' Participation**

The SDGs recognised the critical role of the individual as a responsible actor (SDG16.7), calling for inclusive and participatory decision-making for individuals entailing active citizen engagement, especially among youth and marginalized voices.<sup>25</sup> Social media has the potential to provide a platform for that, and it has amplified this potential by enabling billions to participate in public discourse across borders. However, these platforms also intensify polarisation as studies have shown, soliciting anger and moral indignation through their algorithms, reinforcing aggressive rather than responsible behaviour and undermining constructive debate.<sup>26</sup> Universal citizen participation, most especially that of youth and the voice of future generations, is an essential condition for giving expression to the aspirations and concerns of the global populace, encouraging active participation in public debates and political processes. Emergence of collective global social consciousness and identity can be facilitated by launching a transnational, global platform to give voice to the silent billions of people and empower the global public to support fundamental global systems change. This is an initiative that has been specified by Force for Good and WAAS jointly.

### **5. Security and Peacebuilding Solutions**

*Rationale: Strategies that promote peace, protect human life and dignity, and foster collaborative international security frameworks.*

#### **5.1. Human Security**

Human security is the essential foundation for peace and social stability. At a time of unprecedented opportunities for global progress, the collective quest for human security for all is in retreat. Those with the greatest power to lead and support global security are turning inward in a desperate pursuit of self-interest and self-assertion. The rising levels of violence and social instability are the product of a rising sense of uncertainty, insecurity and helplessness, a loss of trust in our national and multilateral institutions, a loss of confidence, commitment and momentum in implementation of Agenda 2030.

The unprecedented threats to peace and human security confronting humanity today point to the inadequacy of the current system of global governance and global rule of law. Radical change in our concept of security is needed to reverse the contagion of insecurity, violence and war spreading around the globe.

A fundamental shift in strategy must place human security at the top of the levels of investment in military preparedness for national security, which increases the temptation and propensity for war. War directly attacks all the dimensions of human security. War is the single greatest source of violence, famine, forced migration, poverty, and threats to human rights. Investment needs to be shifted to address the root causes of human insecurity.

The 17 SDGs goals represent a top-down approach to global transformation backed by in-depth data at the macrolevel. But they have not yet captured the attention and support

of the world populations at large needed to generate the awareness, social aspiration and political will required to compel governments to act with the necessary seriousness. The UN concept of Human Security represents such an approach. It addresses the same issues as the SDGs from the bottom up, from the perspective of the individual and community. It speaks the language of the common citizen on issues that everyone understands—food, health, peace, human rights, jobs, pollution, community and individual safety, etc.

The Human Security for All campaign launched by WAAS in association with the UN Trust Fund for Human Security in 2022 is a pilot project that has confirmed the efficacy of a person-centred effort that resonates with a very broad range of constituencies, including business and technology leaders of leading corporations, members of parliament, educators, scientists, and NGOs. The project is now being tested at the level of school children in Indian schools. A global public relations program based on this approach can build widespread support for reviving momentum for implementation of Agenda 2030.<sup>27</sup>

### 5.2. Peace Offensive

The concept of the Peace Offensive transcends traditional conflict management and embraces the goal of comprehensive peace. It includes efforts to transform crises into opportunities for enduring peace. The objective of the Peace Offensive is to promote positive momentum on peace and human security by innovative strategic initiatives that present viable pathways for resolving protracted crises at the local, regional and global levels. The strategy focuses on positive reciprocal initiatives for compromise and calls for unilateral, symbolic gestures to encourage reciprocal actions in response. Through citizens' diplomacy and peacebuilding initiatives spearheaded by the academic community across civil society, the Global Peace Offensive intends to support worldwide peace efforts. The Global Peace Offensive is a new initiative launched by WAAS in 2024 in collaboration with the European Academy of Sciences and Arts, Alma Mater Europea University, Club of Rome and the World University Consortium (WUC). Discussions are underway with other organizations to expand the network and commence project work.<sup>28</sup>

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*“The timeliness of the Global Peace Offensive is compelling given the heightened political polarization and violence, the failure of global leadership to address such challenges at a more official level, and the ongoing surge of social movements, groups and individuals, in particular young people, that support peace efforts. It differs from peace-building efforts that are reserved to a select few individuals representing civil society or government representatives behind closed doors.” – Donato Kiniger-Passigli*

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### 5.3. Common Security

The retreat to Cold War power struggles and nationalistic militarization highlight our failure to evolve from the competitive security system that dominated international relations during the pre-1990 period. The opportunity was missed during the early 1990s to evolve an inclusive cooperative security system supportive and protective of all nations. The Warsaw Pact dissolved but NATO survived and expanded eastward, enhancing the security only of its members. A negotiated ceasefire or peace in Ukraine will be at best temporary unless the deeper institutional foundations are created to ensure peace and security for all the nations of Europe from the Atlantic to the Pacific and beyond.

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*“The present competitive system depends on the ability of each individual nation to defend its own borders and interests against external threats. Such a system necessarily demands massive investments by each country in military capabilities. These investments are inevitably perceived by other nations as real or potential threats to their own security, thus fuelling compensatory escalation of military capabilities by other states. Calls for disarmament alone cannot and will not eliminate the problem. They must be complemented by concrete measures to establish an alternative mechanism to ensure the security of nations. This is one of the major reasons why expectations of a massive peace dividend have not been fulfilled. World military spending has not declined significantly because the competitive security system remains intact.”<sup>29</sup>*

*– International Commission on Peace and Food*

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## 6. Economic Justice and Equity Solutions

**Rationale:** Measures to ensure economic stability, counter rising inequality, and restrain the undue influence of concentrated wealth.

### 6.1. Job Security

In a world characterised by multi-tier development, some regions are stuck in an agricultural age, others in an industrial age, and others are rapidly advancing to a post-industrial information era. This multi-tier approach creates disparities in all aspects of human development with different countries, and sometimes sub-populations within countries at

different levels in Maslow's Hierarchy of Needs. However, the level and speed of change provide the opportunity and challenge of job growth for all. Over the next decade, this job growth is expected to be driven by intersecting technological, economic, and demographic trends. By 2030, 170 million new roles will emerge across sectors, notably in AI, data analytics, renewable energy, and frontline care, while 92 million existing positions are displaced, resulting in a net gain of 78 million jobs.<sup>30</sup> The fastest growing occupations include AI and machine learning specialists, big data analysts, renewable energy engineers, and nursing professionals, reflecting both rapid technological advancement and ageing populations.<sup>31</sup> However, 39 percent of current skills will become obsolete, and 59 percent of workers will require reskilling or upskilling; of these, 11 percent face redundancy if training is inaccessible.<sup>32</sup>

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*"Employment must be recognized as a fundamental human right, the economic equivalent of the right to vote. As the electoral franchise is the basis for the legitimacy and operation of democracy, access to gainful employment constitutes the economic franchise that lends legitimacy and functionality to a market economy. The right to employment must be constitutionally guaranteed to enable all citizens to exercise their fundamental right to food and health security and a share in national wellbeing."*<sup>33</sup>

*– International Commission on Peace and Food*

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However, looking further ahead to 2050, experts warn that, without absent systemic adaptation, continued convergence of AI, robotics, and other emergent technologies may drive global unemployment to nearly a quarter of the world population.<sup>34</sup> They foresee new professions emerging and advocate for lifelong learning, but warn of the potential damage to livelihoods amid automation. Without coordinated, transnational policy responses, encompassing education reform, social safety nets, and skills ecosystems, purely national strategies risk exacerbating inequality and social unrest.

The level of employment in any society is the direct result of a nation's laws, policies and modes of implementing them, not the result of impersonal forces of nature beyond human control. Studies confirm that the cost of unemployment to society arising from unutilized manpower, lost skills, declining mental and physical health, rising crime, law enforcement and imprisonment are considerably greater than the cost of providing public employment for the unemployed. There are effective instruments available to enhance employment and economic security. In India, as an example, programs such as India's National Rural Employment Guarantee Act have ensured job opportunities for tens of millions of low-income workers and raised the minimum wage in a country which does not have an effective national

minimum wage program. Recognizing the right to employment, extended vocational training through career, public job programs, Basic Minimum Wage and related welfare programs for all citizens can be effective long-term strategies to enhance job security.<sup>35</sup>

## **6.2. Taxing Technology**

As the world enters the information era, it is clear that technological innovation is essential for national security, social progress, and value creation. However, it is also clear that the beneficiaries of technology are highly concentrated in richer countries. Indeed, there is a growing disparity between where digital technology value is created and where it is consumed. In 2020, North America accounted for 40% of global information industry value creation, while only 12% of internet users lived there. In contrast, East and Southeast Asia had 41% of global users but only 22% of value creation.<sup>36</sup> This mismatch fuels tensions over taxation. Tech companies often pay lower effective taxes because they are taxed where operations occur, not where users are. As a result, many countries have introduced unilateral digital services taxes (DSTs), which apply to gross revenues, often at 2–5%, disproportionately affecting U.S. firms.<sup>37</sup> Meanwhile, the digital divide persists; only 56% of Indians and 57% of Nigerians are online, with access gaps driven by income, age, and education.<sup>38</sup> Addressing tax and equity issues in the digital economy requires global coordination and policies aligned with consumption and access realities.

Technological innovation is essential for social progress. But current practice distributes almost all the rewards of rising productivity to investors and shareholders, while reducing both the number of jobs and pay scales for human beings. Introduction of national or even international taxation on technological applications in the workplace can provide resources to redistribute a portion of the financial gains to the workforce and working age unemployed.

## **6.3. Economic Inequality**

Despite global GDP per capita increasing by 1.5x in the past 20 years, wealth and income inequality are intensifying.<sup>39</sup> The bottom 50% of the world's population owns just 2% of global wealth and 8.5% of income, while the top 10% controls 76% of wealth and 52% of income.<sup>40</sup> Many countries are caught in a middle-income trap, unable to transition to high-income status. Since the pandemic, staple costs have surged 40-60% in some countries, and inflation reached 8.8% globally.<sup>41</sup> More nations have fallen behind the U.S. in relative income than advanced over the last 60 years. By 2023, 165 million people were pushed into systemic poverty.<sup>42</sup> Even in wealthy countries, poverty and social exclusion affects up to 25% of populations, harming mental health and social cohesion. Frustrated by unresponsive governments, citizens are increasingly turning to radical political alternatives.<sup>43</sup>

Neoliberal economics and financial policies have resulted in raising levels of economic inequality to the highest level in a century. The rise of the power of money and plutocratic forms of government need to be governed to ensure the fruits of value creation flow to the population at large. This requires addressing the economic roots of insecurity, discontent, and social unrest that past theories and policies have led to. Incentives and levers for participation, including investment incentives, equitable taxation of value creation, and addressing differences in tax between countries and how they affect comparative advantage.

Such measures are required to restore a more equitable distribution of value and wealth, while not disincentivising entrepreneurial risk-taking and scaling.

#### 6.4. Money Power and Plutocracy

The American system of enterprise has proven to be the most robust at creating shareholder value, evidenced by the scale of its global market capitalization at US\$115 trillion (as of March 2024). Nearly 50% of the top 20 companies in the world by market capitalization are American, with 14 of the top 20 in technology and 11 in financial services, and American companies contribute 72% of GDP across OECD countries.<sup>44</sup> However, the dynamic at the centre of this is one akin to the ‘survival of the fittest’ and is reinforced by structures that disproportionately reward top earners and wealth holders.<sup>45</sup> This faces America with a dilemma of how to reconcile its economic dominance with the income inequality that generates it, and which in turn fuels more radical politics. One of the remedies to the use of politics to sell people politics that further divides them from prosperity is to prohibit or limit political donations by corporations and ensure full disclosure of the source of donations. However, the problem of how to sustain a scaled economic engine of the nature of a modern America while diminishing economic inequality is a critical issue requiring further investigation.

### 7. Future Education

Education is the institution devised by countless ages of civilization to pass on to future generations the cumulative knowledge and experiences of learning in a concentrated and abridged form so that today’s youth can learn from the errors of our ancestors and move forward to a better future. Education is humanity’s instrument for conscious social evolution. However like all human institutions, education is a work in progress and we are still striving to learn how to develop a system of education suited to prepare us to cope with the speed and complexity of change in the 21<sup>st</sup> century.

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*“The world is undergoing a very fast transition, faster than academia can adapt to it. We are prompted to ask ourselves profound questions... We are not connected to what the world needs. We need to come back to the point where we are an integral part of society, where we are serving society, where we fulfill the mandate that society gives us to be one of the primary knowledge generators for society to move safely into the future.”*

*– Peter Schlosser*

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At a conference partnered by WAAS and Arizona State University (ASU), the context provided by the university was that the pace of global change today is outstripping academia’s ability to keep up, prompting urgent reflection on the role, responsibility, and ethical

obligation of universities. A call was made for higher education institutions to re-examine their purpose and reconnect with society's need. It was asserted that, over time, academia has grown overly abstract and detached, leading to a loss of public trust. Universities need to re-establish themselves as vital contributors to societal progress by generating knowledge that supports a safe and sustainable future. This requires embracing not only disciplinary depth but also holistic, transdisciplinary, impact-driven thinking, along with lifelong and intergenerational learning. To meet these challenges, academic systems must be reformed with the courage to abandon outdated structures and return to the founding ideals of the university as a service to society.<sup>46</sup>

### **7.1. AI-Powered Global Higher Education Delivery System**

Global demand for higher education is soaring—experts project enrolment will double from about 250 million students today to nearly 500 million by 2050. Meeting this need through traditional brick-and-mortar campuses alone is financially and logistically impractical. Building enough universities and classrooms to accommodate this growth would require around \$10 trillion in infrastructure investment, an unattainable burden for most nations. Clearly, new approaches are needed to expand access without incurring exorbitant costs.<sup>47</sup>

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*“Technology is moving forward too rapidly. We need to harness artificial intelligence for effective analysis of global problems to fast-track creative solutions for the future.”*

*– Francis O'Donnell*

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One promising solution is the adoption of AI-powered hybrid digital (AIHD) systems to deliver higher education at scale. These approaches blend online platforms, artificial intelligence tutors, and existing institutions to teach far more students at a fraction of the usual cost. Early evidence shows that online AI-enhanced programs can educate students at one-third the cost of conventional in-person instruction. Moreover, they are highly scalable. For example, ASU already enrolls over 180,000 students (nearly half online), and Stanford professors reach hundreds of thousands of learners worldwide through Coursera. AI tools help maintain rigorous assessment and engagement even in large virtual classes. It is estimated that doubling global capacity by AIHD can be done for less than a third of the cost of expanding the brick-and-mortar system. The two models can also operate in hybrid combination to derive the advantages of both.<sup>48</sup>

Such AI-driven education systems enable personalized, self-paced learning tailored to each student's abilities and schedule. They provide *multilingual, anytime-anywhere access*, lowering language barriers and allowing students in remote areas to learn from top programs. *Real-time assessments and AI tutoring* give instant feedback and support, while *global virtual classrooms* connect peers and professors across continents for collaborative

projects. By harnessing these capabilities, AI-powered delivery can reach underserved populations, adapt to learners' needs, and make quality education more equitable and sustainable globally.

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*“Universities all across the world are under tremendous financial stress, political pressures, harassment and blackmail. This is something really important to take note of because it threatens the independence of teachers and the authenticity of what is taught.” – Mila Popovich*

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By democratizing opportunity and building human capital at an unprecedented scale, AI-powered education serves not merely as an adaptation to global challenges but as a powerful mechanism for creating more stable societies.<sup>49</sup> WAAS and WUC have already promoted seven international conferences on future education, more than a dozen curriculum development programs, and recent events presented plans for development of global online and hybrid delivery systems that harness the power of generative AI for self-paced, interactive, multilingual education. WAAS has recently projected the need for a massive effort to upgrade global higher education at the UN Summit of the Future, 2025 Consumer Electronics Show, and Alma Mater Europea University. Plans are now underway for an International Future Education Conference in India in late 2025.

## **7.2. Value-based Education**

The founders of WAAS recognized that the age of education founded on the ideal of scientific secular objectivity is not sufficient to guide us. The power humanity possesses today is too great to be employed dispassionately as part of a grand scientific experiment. The stakes for humanity are too great to assume the detached perspective of witnesses to our existence. The knowledge we need must integrate the objective facts and insights of detached scientific observation and experimentation with the subjective values and intuitions of arts. And of the two they placed arts first because universal values are closer to the truth than facts.

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*“We have to move to a model of education where students see something of a purpose that is larger than their own personal. Higher education needs to build, reform and transform curriculum and modes of teaching to engage students in being part of the solution.” – Ralph Wolff*

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### 7.3. Transdisciplinary AI-Enabled Education

Addressing today's complex problems requires an educational approach that integrates knowledge from multiple domains, encouraging students to think holistically and collaborate effectively. AI plays a vital role in enabling this transformation. Through AI-powered platforms, educators can design learning experiences that seamlessly combine insights from science, technology, policy, economics, and the social sciences to solve real-world issues. One strong example is Harvard's course *Harnessing Artificial Intelligence for a Sustainable Future*, which helps students apply AI in areas such as energy, agriculture, and transportation. The program is designed to equip learners with the skills to drive sustainability through innovative thinking. Similarly, IBM's *Quantum Learning Accelerator* shows how AI can scale transdisciplinary learning on a global level. In just six months, the initiative successfully trained 25,000 employees in 40 countries in quantum computing, a field that unites physics and computer science, achieving an impressive 92% completion rate. This blend of AI and transdisciplinary education not only fuels innovation but also cultivates a sense of global citizenship. Students develop the ability to navigate cultural and disciplinary boundaries, fostering empathy, resilience, and a shared commitment to building a better future.<sup>50</sup>

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*"ASU is the first university to partner deliberately with open AI through ChatGPT Edu, and it's a very different model. It's not just open source, it's open source with guard rails and with an Ethics Committee. And I think that's one of the key defining questions of our time. With all its power, how do we ensure that AI is used for good?" – Amanda Ellis*

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### 7.4. Lifelong Vocational Learning with AI for a Resilient Workforce

Elevating the quality, accessibility and affordability of education needs to be rapidly increased at all levels in order to better equip and prepare younger generations with the values, knowledge, and skills needed for accomplishment in a rapidly changing world. Education and employment must be synchronized at all stages of the working career in order to continuously enhance the range and quality of knowledge and skills required to keep pace with the speed of technological innovations and deployment.

In today's turbulent world, driven by rapid technological change, economic uncertainty, and industry disruption, workforce adaptability is crucial. As many jobs now require skills that did not exist a decade ago, workers can no longer depend on one-time education. Instead, lifelong learning and continuous upskilling are essential to remain employable. McKinsey has projected that AI will replace 800 million existing jobs. But it is also true that AI can create 800 million new jobs by training existing members of the workforce to acquire new skills tailored to their capability and the needs of the workplace.



AI-powered learning platforms offer a strategic response to meet these challenges. Tools like LinkedIn Learning and IBM SkillsBuild use intelligent algorithms to deliver personalized training aligned with real-time job market needs. Workers can swiftly gain new skills without long career breaks, maintaining economic stability amid change. Laing O'Rourke, a multinational construction firm, leveraged its AI-driven platform to deliver role-based training to reskill over 5,000 staff, for just 10% of its traditional L&D budget.<sup>51</sup>

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*“Globally, we have to bring the decision-makers on board to train people for the changing economy. It is one of the biggest challenges that we have to face.” – Denis Naughten*

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While digital training alone cannot replace hands-on experience, hybrid models that combine AI guidance with practical learning offer greater resilience. By democratizing access to just-in-time, lifelong vocational education, AI systems serve as economic shock absorbers, empowering workers to navigate uncertainty and thrive in the future of work.

## 8. Changing the way we think and the theory based on it

The Academy's decade of research on global challenges has confirmed that the turbulent consequences we now face are a direct reflection of fundamental limitations and flaws in the concepts and theories underpinning the management and governance of nation states and global society. A change of thinking is an essential condition. Our recent discussions and analysis highlight a few of the essential changes in thinking needed to address the sources of the social turbulence, reduce its negative consequences and support peaceful, prosperous, sustainable global social development for humanity.

To address today's global turbulence, we must go beyond policy reforms and confront the assumptions at the heart of our systems. The crises we face are symptoms of deeper structural flaws. Ten core concepts underpin the architecture of modern civilization. Each now demands critical rethinking, redesign, and renewal to serve a just, sustainable, and peaceful future. These are matters of concern to the design of a civilisation, demanding philosophical and political consideration. So, in this paper only a high-level overview is provided for each.

### 8.1. Concept of Security

Security has long been framed in militaristic terms: power projection, deterrence, and threat elimination. This doctrine, inherited from centuries of imperial rivalry, still dominates today's strategic thinking. Yet its outcomes—endless arms races, proxy wars, and global instability—have undermined real security. A shift toward human security for all is not idealism; it is the only pragmatic response in a world where no fortress can contain pandemics, climate, or cyber threats. Multi-dimensional security for others, coupled with securing oneself, may be the realpolitik of a path to lasting peace.

## **8.2. Concept of Freedom**

Freedom has become a contested battlefield between unaccountable individualism and illiberal state control. Both extremes weaponize the language of liberty while undermining democratic cohesion. In a world of surveillance capitalism, algorithmic control, and shrinking civic space, freedom must be reimagined as both personal autonomy and collective empowerment, safe-guarded by institutions capable of resisting both populism and plutocracy. The debate needs to move beyond democracy to what true liberty from barriers—economic, social, political, psychological and self—looks like.

## **8.3. Concept of Sovereignty**

Sovereignty, once a shield against external domination, has become a sword for self-interest. The traditional doctrine of sovereignty, founded to protect empires, now undermines global cooperation. In an interdependent world, narrow definitions of national self-interest destroy shared responsibility and ultimately destroy sovereignty. Today's agreements on trade, finance, security, rights, travel and more require some surrender of sovereignty for mutual benefit, making populist rhetoric mere noise. Even the most powerful nations are vulnerable to forces they cannot control alone—climate disruption, global finance, migration, pandemics. Sovereignty must evolve into cooperative agency: a capacity to act in concert with others to protect not only national interest, but planetary viability.

## **8.4. Concept of Economics**

Economics has become divorced from nature, measuring GDP rises even as forests fall, ecosystems deplete and inequality deepens. Yesterday's world grew on resources and inequality. In today's world, resource extraction fuels conflict; inequality breeds populism and collapse. A system built for exchange and accumulation has to return to its purpose: to sustain life, not simply markets. This requires a holistic economics reflecting human and planetary well-being. Economics must be redefined not as a machine for endless growth, but as a system of provisioning for long-term human welfare and wellbeing and ecological survival and sustainability, grounded in strategic resilience, not quarterly returns.

## **8.5. Concept of Identity**

Identity has become a fault line in domestic and global politics. Identity now fuels exclusion, division, and extremism. Nationalism, sectarianism, and racial grievance are tools of power as much as expressions of belonging. A new understanding would embrace differences, seeking value in them, while fostering unity through values and purpose. A global society requires inclusive narratives that value differences, fostering unity across cultures, transcending borders while preserving dignity and diversity.

## **8.6. Concept of Justice**

Justice is not neutral, it is shaped by the hands that wield it. From global impunity for powerful nations to domestic systems of control, systems of justice often protect power, not people. Restoring trust requires systemic reform: systemic justice that protects the vulnerable, enforces accountability, and fosters reconciliation, moving beyond punishment to restoration,

peace, and social cohesion. Such a shift requires that empathy and equity converge in both principle and practice, making justice a force for healing rather than retribution, punishment or control.

### ***8.7. Concept of Knowledge***

In the search for certainty and simple answers, we have lost the empathy and compassion that turn knowledge into wisdom. Knowledge was essential in building our world, yet that world now stands on the brink of a post-truth society. In the age of AI, surveillance, and strategic disinformation, knowledge itself has become a theatre of geopolitical struggle. Who controls data, defines truth, and builds narratives shapes public belief and power. Knowledge must be defended not only by scientists and academics, but by institutions. It must be open, plural, and resilient to manipulation, or it becomes just another weapon. It must be founded on the interrelationships and interdependence of phenomena and reconcile the objective and subjective dimensions of reality affirmed as universal values.

### ***8.8. Concept of Time***

Power politics operates on short-term calculations, but the crises we face—climate tipping points, AI risks, demographic shocks—are slow-burning and systemic. Our current time horizons are too narrow to manage existential risk. A realist strategy for survival must face the long-term consequences of its actions. This makes inter-generational thinking an essential ingredient in survival. Society, including work, leisure, education, finance, trade, and politics, runs on a clock that ticks too fast. Yet nature operates on multiple time cycles such as the body clock, lunar phases, seasonal rhythms, planetary movements, and the vast cycles of the universe. We have fallen out of tune with these. Our quest for control has forced everything into a tempo that is too short for success. A realistic strategy for survival must begin with confronting the short and long-term consequences of human action, across generations too.

### ***8.9. Concept of Nature/Human Relationship***

Exploitation of nature has been a driver of empire and war, from oil to water to arable land. Today, the ecological crisis is reshaping geopolitics: drought destabilizes regions, climate migrants reshape borders and wars reshape relations. Ecological-human interdependence is no longer a moral argument; it is a strategic imperative. This requires a fundamental realization that humanity is not separate from nature. Redefining humanity's relationship with the Earth is not only essential for survival, it may be an essential route to peace.

### ***8.10. Concept of Power***

Power, with its origins in military affairs, has come to be defined by control over others and is measured by its concentration. It is often considered greater when separated from accountability. However, real power is the ability to set others free, not the ability to impose one's will. The dominant view of power fails to recognize that it always carries a cost. Whatever one does to others, in some form, also affects oneself. The psychological and cognitive burden of causing harm, whether at the individual or societal level, weighs as

heavily on the perpetrator as on the target. This ultimately damages the integrity of both. A re-conception of power as a positive and growing force would be based on its use in service of others, to set them free, rather than for control. As such, it would be rooted in the capacity for achieving the highest levels of accomplishment in a manner that affirms the highest recognized universal values.

## 9. Unanswered Questions

The research and discussions hosted and participated in by WAAS have raised fundamental questions regarding the sources, nature, and potential solutions for today's global turbulence. As the Academy enters a new phase in its intellectual and institutional journey, a deeper exploration of key themes is emerging, ones that will shape the basis for future WAAS events and collaborative research.

One core area of focus is the **nature of global social evolution**. Critical questions include whether evolution has a discernible direction and what forces are driving the transformation of global society. Is this evolution shaped by conscious human agency or subconscious processes, and to what extent can it be deliberately guided? The role of leadership, the influence of aspirations and collective choices, and the potential for a global social movement to catalyse a conscious transition toward a better future are all central concerns. At the same time, we must confront whether global society can adapt quickly enough to respond to the accelerating pace and scale of crises, and what historical patterns warn us about assuming inevitable progress.

Understanding the **nature of the current crisis** is equally essential. Are there reliable early warning signals that we have failed to heed? Is today's turbulence a transitional stage toward greater integration, or the prelude to regression or collapse? Unlike earlier crises—the Age of Imperialism, the World Wars, or the Cold War—today's polycrisis is characterized by interlocking systemic challenges. To what extent is this driven by poor decisions, inertia, or deeper structural flaws? And does it reflect a moral failure that transcends governance alone?

In the domain of **governance and multilateralism**, pressing questions arise about the future of international cooperation. If today's institutions are faltering, what forms of reform or replacement are viable? Can global governance exist without a shared identity or common moral authority? What guiding principles should underpin the redesign of 21<sup>st</sup>-century institutions? Moreover, can governance become anticipatory, rather than reactive, in managing risks? How do we balance global coordination with the preservation of national autonomy and democratic accountability in an age of rising hard power?

Another critical arena is the relationship between **social evolution and cultural change**. We must examine how to reconcile rising global aspirations with cultural resistance to change, and how to accelerate value evolution without inciting backlash. Cultural narratives, digital platforms, and algorithmic systems now play powerful roles in shaping perceptions, yet they also pose risks of fragmentation and radicalization. How can we counter these dynamics and support the emergence of a more inclusive human identity, beyond narrow affiliations of locality, religion, or nationality?

Technological advances, especially in **AI and emerging technologies**, demand urgent attention. Humanity must confront whether it can govern technologies that may soon surpass human control. What does responsible AI look like in a fractured and unequal world? Can it serve to democratize knowledge and decision-making, or will it exacerbate centralization of power? There are also critical questions about how to safeguard human agency, values, and social trust in an era of automation and surveillance. Global standards may be necessary, but can they be agreed upon without sparking geopolitical conflict?

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*The intellectual challenge before us is to fully understand the circumstances and factors that have brought us to the present situation, the root causes and deeper processes governing global social evolution, and the opportunities and catalytic strategies for effective action.*

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At the heart of systemic transformation lies the reform of **knowledge systems and education**. How can we dismantle entrenched silos in academia and policy and reconcile disciplinary specialization with the integrated, holistic approaches of transdisciplinarity? What might such an educational model look like, especially in the Global South? Education must cultivate not only complex systems thinking but also ethical awareness. Furthermore, traditional and indigenous knowledge systems offer important contributions, how can they be integrated into global problem-solving frameworks, and what biases must be overcome to enable true epistemic pluralism?

The evolution of **values, ethics, and identity** is central to navigating this turbulent era. Society's values must evolve from exclusive, sectarian roots toward a more inclusive universality. This raises challenges about reconciling individual rights with collective responsibilities and institutionalizing value-based leadership. We must explore the role of spirituality, philosophy, and the arts in fostering understanding across divides, and whether ethical norms can endure in the face of geopolitical rivalry and market competition. Moreover, how do universal ethical frameworks emerge, and how can we guard against their manipulation?

Questions about **humanity's future** demand perhaps the greatest collective imagination. Is it possible to craft a shared global narrative capable of uniting humanity in a time of fragmentation? Are current authoritarian trends a reversal of democratic gains, or temporary reactions against deeper shifts toward universal rights? How can individuals act meaningfully when faced with planetary-scale problems? Are we nearing an evolutionary bottleneck that demands a civilizational leap, one in which humanity must choose between extinction and transformation? What does it mean for our species to reach maturity as a steward of the planet?

Finally, the **role of WAAS and its partners** must be re-examined in light of these questions. What unique contributions can the Academy and its allied organizations make in

addressing these profound challenges? How can we catalyze collective intelligence across institutions and disciplines to co-create real strategies? How can WAAS influence policy and institutional actors while retaining independence and avoiding co-optation? And what alliances and coalitions are needed to turn vision into real-world impact?

We live in exciting times, fraught with danger, and filled with great opportunities, catalysed both by those of ill will and those of goodwill, many with great power to change the trajectory of humanity. WAAS was founded for such times and it is our time to rise to the responsibility bestowed upon us.

## 10. Conclusions and Future Work

Addressing the impact of global turbulence and its global consequences cannot be achieved by incremental measures such as those designed simply to address the symptoms of the global turbulence. The programs described above illustrate the type of solutions needed to address the root causes of global turbulence. The magnitude of the challenges confronting humanity today will require addressing issues of this importance on a global scale by nations and institutions around the world. They must be taken as elements of a comprehensive agenda for conscious social transformation of our human community. Efforts of such magnitude are rare. But the unprecedented threats confronting humanity today are of the magnitude that warrant an effort of this nature. Nothing less will suffice.

The World Academy was founded 65 years ago at a time when the remarkable advances in science and technology opened up unprecedented opportunities for our collective progress as well as unprecedented threats to our collective survival. Either by good common sense or miracle, we have managed to survive this long by an aspiration to build a better world combined with an ambivalent, haphazard, sporadic and stumbling exercise of good judgment and self-restraint and their very opposite. Today the scope of the challenges and existential threats we face are far greater in intensity and urgency than ever before. So too are the opportunities, capacities and potential benefits for all humanity, provided we chart the right course and persist in achieving it.

The world today needs leadership in thought that leads to effective action. The intellectual challenge before us is to fully understand the circumstances and factors that have brought us to the present situation, the root causes and deeper processes governing global social evolution, the opportunities and catalytic strategies for effective action. The leadership needed is the willingness and ability to reach out and share a unifying vision and strategy with all those who share like-minded values, understanding and willingness for action to set a common course leading ultimately to peace and human security for all.

To create the next civilization, it is not enough to raise the alarm, nor is it sufficient to propose new policies, initiatives or technologies. We must also question the foundational concepts that underpin the world. Concepts such as security, freedom, sovereignty, and economics are not fixed truths, they are human constructs, historically conditioned and often outdated. Many of today's crises arise from outdated ideas. This paper proposes the need to re-examine the foundations of our world, the very ideas it was built on. This allows us to expose the hidden assumptions that limit our imagination and action, and begin to construct

a more coherent, inclusive, and future-fit civilizational logic, one capable of creating a far fit and superior future.

**WAAS and its partners are uniquely positioned to serve as a hub for this convergence of minds, disciplines, strategies, and communities. Our goal is not merely to understand the world, but to help shape it, by catalyzing a conscious evolution toward peace, prosperity, justice, and human security for all.**

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## References

1. K. Whiting and H. Park, "This Is Why 'Polycrisis' Is a Useful Way of Looking at the World Right Now," *World Economic Forum*, March 7, 2023, <https://www.weforum.org/agenda/2023/03/polycrisis-adam-tooze-historian-explains/>; Rebecca Grynspan, "Weathering a 'Perfect Storm' of Cascading Crises," *UNCTAD*, May 25, 2022, <https://unctad.org/es/isar/news/blog-weathering-perfect-storm-cascading-crises>.
2. Christopher Chase-Dunn, "Social Evolution and the Future of World Society," *Journal of World-Systems Research* 11, no. 2 (2005): 171–92, <https://doi.org/10.5195/jwsr.2005.385>; Hartmut Rosa, ed., *High-Speed Society: Social Acceleration, Power, and Modernity* (University Park, PA: Penn State Press, 2010).
3. L. R. Gale and J. A. Mendez, "The Empirical Relationship between Trade, Growth and the Environment," *International Review of Economics & Finance* 7, no. 1 (1998): 53–61, [https://doi.org/10.1016/S1059-0560\(99\)80016-1](https://doi.org/10.1016/S1059-0560(99)80016-1)
4. James Gleick, *Faster: The Acceleration of Just About Everything* (New York: Pantheon Books, 1999).
5. U.S. Census Bureau, *Historical Estimates of World Population*, last revised December 5, 2022, <https://www.census.gov/data/tables/time-series/demo/international-programs/historical-est-worldpop.html>.
6. J. Bolt and J. L. van Zanden, "Maddison-Style Estimates of the Evolution of the World Economy: A New 2023 Update," *Journal of Economic Surveys* 38, no. 2 (2024): 631–71, <https://doi.org/10.1111/joes.12618>.
7. Iveta Silova, ASU-WAAS webinar, May 1, 2025.
8. G. H. Elder Jr. and A. Caspi, "Human Development and Social Change: An Emerging Perspective on the Life Course," in *Persons in Context: Developmental Processes*, eds. N. Bolger, A. Caspi, G. Downey, and M. Moorehouse (Cambridge: Cambridge University Press, 1989), 77–113.
9. A. Toffler, *Future Shock* (New York: Random House, 1970).
10. G. Jacobs and J. Ramanathan, "Paradigm Change to Human Security," *Cadmus* 5, no. 2 (August 2023): 20–26, <https://www.cadmusjournal.org/article/volume-5-issue-2/paradigm-change-to-hs>; G. Jacobs, "New Paradigm: The Necessity and the Opportunity," *Cadmus* 2, no. 2, part 1 (April 20, 2014), <https://www.cadmusjournal.org/article/volume-2/issue-2-part-1/new-paradigm-necessity-and-opportunity>.
11. United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1, October 21, 2015, <https://sdgs.un.org/2030agenda>.
12. United Nations, *The Sustainable Development Goals Report 2024*, <https://unstats.un.org/sdgs/report/2024/>.
13. P. M. Greenfield, "Social Change, Cultural Evolution, and Human Development," *Current Opinion in Psychology* 8 (2016): 84–92, <https://doi.org/10.1016/j.copsyc.2015.10.012>.
14. Garry Jacobs, "Money, Markets and Social Power," *Cadmus* 2, no. 6 (2016), <https://cadmusjournal.org/article/volume-2/issue-6/money-markets-and-social-power>.
15. H. Ashby, "Far-Right Extremism Is a Global Problem: And It Is Time to Treat It like One," *Foreign Policy*, January 15, 2021, <https://foreignpolicy.com/2021/01/15/far-right-extremism-global-problem-worldwide-solutions/>.
16. Force for Good, *Technology as a Force for Good: Catalyzing New Markets Globally*, Report no. F4G/008.1 (2025), 84–99, <https://www.forcegood.org/tf4greport-2025>.
17. [UNHCR](https://www.unhcr.org/)
18. United Nations, *2024 SDG Report: Global Progress Alarming Insufficient* (2024), <https://unsdg.un.org/latest/stories/2024-sdg-report-global-progress-alarming-insufficient>.
19. Force for Good, *Capital as a Force for Good: Shifting the Global Order through the Mass Mobilization of Solutions*, Report no. F4G/007.2 (2024), <https://www.forcegood.org/frontend/img/CF4Greport-2024/Capital%20as%20a%20Force%20for%20Good%20Report%202024.pdf>.
20. National Payments Corporation of India, *UPI Product Statistics*, April 2023, <https://www.npci.org.in/what-we-do/upi/product-statistics>.
21. DC Byte, *Africa's Key Data Centre Markets* (2023), [https://africadca.org/wp-content/uploads/2023/07/Title\\_Africas-Key-Data-Centre-Markets.pdf](https://africadca.org/wp-content/uploads/2023/07/Title_Africas-Key-Data-Centre-Markets.pdf).
22. Force for Good Initiative, "2025 Technology as a Force for Good Report," Force for Good, March 2025, <https://www.forcegood.org/frontend/img/2025-report/2025-Technology-As-a-Force-for-Good-Report-0301.pdf>.
23. Ketan Patel, "Global Goals Are Litmus Test of Human Progress – We Are Failing – Here's How to Get Back On Track," *Reuters*, September 24, 2024, <https://www.reuters.com/sustainability/society-equity/comment-global-goals-are-litmus-test-human-progress-we-are-failing-heres-how-get-2024-09-24/>.
24. Force for Good, *Capital as a Force for Good*, 2024.
25. United Nations, *Goal 16: Promote Just, Peaceful and Inclusive Societies*, accessed June 3, 2025, <https://sdgs.un.org/goals/goal16>.

26. L. Munn, "Angry by Design: Toxic Communication and Technical Architectures," *Humanities and Social Sciences Communications* 7 (2020): 53, <https://doi.org/10.1057/s41599-020-00550-7>. W. J. Brady et al., "The Rise of Moral Outrage in Online Social Networks," *Science Advances* 7, no. 6 (2021), <https://doi.org/10.1126/sciadv.abe5641>.
27. "Human Security," *World Academy of Art and Science*, accessed June 3, 2025, <https://worldacademy.org/human-security/>; "Partners," *Human Security for All*, accessed June 3, 2025, <https://humansecurity.world/partners/>.
28. Donato Kiniger-Passigli, "Time for a Peace Offensive" *Cadmus* 5, no. 3, part 2 (2024), <https://cadmusjournal.org/article/volume-5-issue-3-p2/time-peace-offensive/>.
29. International Commission on Peace and Food, *Uncommon Opportunities: Agenda for Peace and Equitable Development*, Preface to the 2<sup>nd</sup> ed., 2005, xvi.
30. *World Economic Forum*, "Future of Jobs Report 2025: 78 million new job opportunities by 2030 but urgent upskilling needed to prepare workforces" (Press release, January 7, 2025), <https://www.weforum.org/press/2025/01/future-of-jobs-report-2025-78-million-new-job-opportunities-by-2030-but-urgent-upskilling-needed-to-prepare-workforces/>.
31. *World Economic Forum*, *The Future of Jobs Report 2025* (Geneva: World Economic Forum, January 7, 2025), <https://www.weforum.org/reports/the-future-of-jobs-report-2025/>.
32. *World Economic Forum*, "Future of Jobs Report 2025."
33. International Commission on Peace and Food, *Uncommon Opportunities: Agenda for Peace and Equitable Development*, Preface to the 2<sup>nd</sup> ed., 2005, xxiv.
34. C. Daheim and O. Wintermann, 2050: *The Future of Work—Findings of an International Delphi Study of The Millennium Project* (The Millennium Project, 2024).
35. Garry Jacobs and Ivo Šlaus, "Global Prospects for Full Employment," *Cadmus* 1, no. 2 (April 2011): 60–89, <https://cadmusjournal.org/article/issue-2/global-prospects-full-employment>.
36. Cristina Enache, "Digital Taxation Around the World," *Tax Foundation*, April 30, 2024, <https://taxfoundation.org/research/all/global/digital-tax/>.
37. Enache, "Digital Taxation Around the World"; *Our World in Data*, "Number of Internet Users by Country," accessed April 10, 2024, <https://ourworldindata.org/grapher/number-of-internet-users-by-country>; OECD, "Trade in Value Added (TiVA): Principal Indicators," accessed April 10, 2024, <https://www.oecd.org/en/topics/sub-issues/trade-in-value-added.html>.
38. *Pew Research Center*, "8 charts on technology use around the world," February 5, 2024, <https://www.pewresearch.org/short-reads/2024/02/05/8-charts-on-technology-use-around-the-world/>.
39. J. Bolt and J. L. van Zanden, "Maddison-style Estimates of the Evolution of the World Economy: A New 2023 Update," *Journal of Economic Surveys* 38, no. 2 (2024): 631–71, <https://doi.org/10.1111/joes.12618>.
40. Lucas Chancel et al., *World Inequality Report 2022* (Cambridge, MA: Harvard University Press, 2021), <https://wir2022.wid.world>.
41. *Pew Research Center*, "Eggs, Gasoline and Car Insurance: Where Inflation Has Hit Americans Hardest," August 7, 2024, <https://www.pewresearch.org/short-reads/2024/08/07/eggs-gasoline-and-car-insurance-where-inflation-has-hit-americans-hardest/>; *International Monetary Fund*, *World Economic Outlook update: Inflation peaking amid low growth* (January 2023), <https://www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023>.
42. *World Development Report 2024: The Middle-Income Trap* (Washington, DC: World Bank, 2024), <https://doi.org/10.1596/978-1-4648-2078-6>.
43. "People at Risk of Poverty or Social Exclusion in 2023," *Eurostat News*, June 12, 2024, <https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240612-1>; *Institute for Global Change (IGC)*, "Divisiveness or Delivery: Populism and the Primacy of Policy Responsiveness," January 11, 2024, <https://www.institute.global/insights/politics-and-governance/divisiveness-or-delivery-populism-and-the-primacy-of-policy-responsiveness>; Stephan De Spiegeleire, Clarissa Skinner, and Tim Sweijts, *The Rise of Populist Sovereignism: What It Is, Where It Comes From, and What It Means for International Security and Defense* (The Hague: The Hague Centre for Strategic Studies, 2017); Thorsten Wojczewski, "Trump, Populism, and American Foreign Policy," *Foreign Policy Analysis*, vol. 16, no. 3 (July 2020): 292–311, <https://doi.org/10.1093/fpa/orz021>.
44. *Greater Pacific Capital*, "Global Champions Critical to Long-Term Growth: Focus on India," April 2024, <https://www.greaterpacificcapital.com/thought-leadership/global-champions-critical-to-long-term-growth-focus-on-india>.
45. E. Saez and G. Zucman, "The Rise of Income and Wealth Inequality in America: Evidence from Distributional Macroeconomic Accounts," *Journal of Economic Perspectives* 34, no. 4 (2020): 3–26.
46. P. Schlosser, "Keynote Address at Joint WAAS-ASU Conference on the Future of Education," *Arizona State University*, April 2025.
47. UNESCO, "Higher Education," <https://www.unesco.org/en/higher-education>; *World Economic Forum*, *The Future of Jobs Report 2023*, April 30, 2023, <https://www.weforum.org/publications/the-future-of-jobs-report-2023/>.

48. Arizona State University, *Facts and Figures*, <https://www.asu.edu/about/facts-and-figures>; Stanford University, *Stanford University on Coursera*, <https://www.coursera.org/partners/stanford>.
49. HolonIQ, *Education in 2030: The \$10 Trillion Dollar Question*, <https://www.holoniq.com/2030>.
50. Harvard Extension School, *Harnessing Artificial Intelligence for a Sustainable Future*, <https://coursebrowser.dce.harvard.edu/course/harnessing-artificial-intelligence-for-a-sustainable-future/>; UNESCO, *Reimagining Our Futures Together: A New Social Contract for Education*, 2021, <https://unesdoc.unesco.org/ark:/48223/pf0000379707>; OECD, *Artificial Intelligence in Education*, <https://www.oecd.org/education/ai-in-education.html>; IBM, *SkillsBuild*, <https://skillsbuild.org>; Garry Jacobs and J. Mark Munoz, "AI and Education: Strategic Imperatives for Corporations and Academic Institutions," *California Management Review*, May 2, 2025, <https://cmr-mig.berkeley.edu/2025/05/ai-and-education-strategic-imperatives-for-corporations-and-academic-institutions/>.
51. LinkedIn, *LinkedIn Learning*, <https://learning.linkedin.com/>; IBM, *SkillsBuild*; Laing O'Rourke, "Laing O'Rourke Reimagines Employee-Led Learning with SAP," *SAP News Center*, October 2, 2024, <https://news.sap.com/australia/2024/10/02/laing-orourke-reimagines-employee-led-learning-with-sap/>.
52. Note: An early version of some aspects of this paper was posted, with permission, on the website of the World Academy of Art and Science, March 16, 2025, under the title *Root Causes and Solutions to the Great Social Turbulence*, [conference session], XII Global Baku Forum, <https://worldacademy.org/conference-page/root-causes-and-solutions-to-the-great-social-turbulence/>; World Academy of Art and Science, "Global Turbulence: An Emerging Paradigm Shift," <https://worldacademy.org/conference-page/global-turbulence/>.