

Intelligent Informatics and the United Nations: A Window of Opportunity

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Abstract —“Every one of us is responsible for the future of all of us.” Dr. Gro Harlem Brundtland, Former Prime Minister of Norway and former head of the World Health Organization.

K.A. Judd Smith, Co-Chair of the Alliance of NGOs on Crime Prevention and Criminal Justice (www.CPCJAlliance.org) and consultant to the United Nations Office of Information and Communications Technology, outlines the way the flood of new technologies has led to types of criminal activity that are cheaper, more anonymous, and with global reach. She challenges the tech sector to build protections of social good into their technologies, and to uncover novel ways to infuse compassion and empathy into the machinery and so make it safer and human friendly by integrating comprehensive perspectives of how we function socially as human beings.

Index Terms—computational and artificial intelligence, intelligent transportation systems, industry applications, systems, decision support systems, policy, ethics.

I. A STATE OF FLORIDA INITIATIVE

Ten years into the smart phone and mobile device phase of our digital revolution, transnational organized criminals have consistently been agile adopters and adapters of new technologies. Even the once-stable societies are being unsettled by this surge of change, the white noise of abundant information, and a rise in disinformation and “fake news.”

This triple play of an unprecedented pace of technological development, the human ability to integrate tools into our daily lives, and the inbuilt resistance to change of our major social institutions, is creating an ethical Gray Zone where the collective “we” strain toward anomie. Our increasing number of available sets of norms, none of which are clearly binding, blurs the clarity once afforded by social institutions in slower

times. With each day, evolving technologies multiply their impact on society leaving our twentieth century governing institutions unable to dampen the turbulence. Even the relative constancy of the most stable societies is being disrupted with dissent and family-dividing ideological differences. Fast-paced change is the new norm.

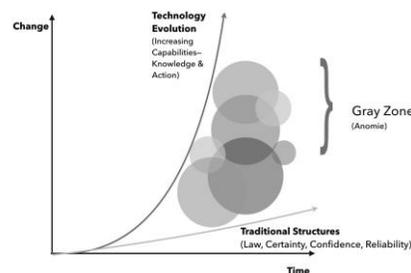


Fig. 1. The Gray Zone: This indicates the areas of social life increasingly unregulated by traditional mechanisms.

Both legitimate and criminal innovations outstrip the ability of our national and international institutions to create and implement timely and needed responses. Our key social institutions are caught in old ways of functioning that are in dire need of innovation.

It has now been seventeen years since the 2000 adoption of the United Nations Convention against Transnational Organized Crime (UNTOC). True, these years have seen an increasing number of UN member states that are party to the Convention, but little significant headway has been made.

This problem of transnational organized crime is not some distant, faceless issue. Rather, it affects the daily lives of men, women and children in all our cities as well as rural locations worldwide. Those on both sides of this dark economy are our neighbors. The anonymous agents streaming the rape of children to clients willing to pay with cryptocurrencies often have well known faces in our communities. Drug sales are

shifting from the street to the Dark Web. Zero-day exploits and sophisticated hacking tools can be bought easily in this masked economy.

Few of these types of criminal activities are totally new. What is different, however, are the increasing access, decreasing costs and increased anonymity. In short, we have an explosion of the Dark Web economy. This new territory, including social media and the Internet of Things (IoT), also brings with it, a significant decline in ethical and moral clarity. The twentieth-century forms of regulation and self-regulation still in place are unable to keep up with this increasing onslaught of changing variables.

Privacy issues blended with security concerns are also less and less easy to determine. The values associated with hacking are also complex. Thus, the democratization of information and access to evolving technologies have brought with them a plethora of opportunities both for the greater good and to the detriment of many. Few could have predicted what we face less than thirty years after the open sourcing of the World Wide Web back in 1989 by the British scientist at the Conseil Européen pour la Recherche Nucléaire (CERN), Tim Berners-Lee.

In addition to the freedoms, benefits, convenience, and remarkable progress resulting from this tidal surge of technological development, there are those on the dark side who use these technology tools without regard to human rights or the rule of law. Human trafficking, sexual exploitation, money laundering, hacking-as-a-service, drug and weapons sales, the ability to disseminate radical causes with destructive intent, etc. now fuel violent extremism and contribute to the destabilization of whole regions. Yet no

amount of sophisticated socio-political handwringing will ever be able to put this technological genie back into the bottle.

What we can do, however, is to look for opportunities to leverage institutional innovation from within this growing Gray Zone. To emphasize, we can and should determine to fight this technological fire with an at least equally dedicated technological counter-fire.

Technological advancement now enables us to pursue the social good in ways never before possible. Artificial intelligence (AI), machine language, the emergent fields of material engineering, bio-tech, and the use of biologically and linguistically motivated computational paradigms, place in our hands new ways to contribute to the global social good.

As new challenges are banging hard on our doors, there are reasons to believe we may be on the cusp of significant institutional-level innovation, if we put emerging intelligent technologies to work more strategically in our multicultural, multireligious, multinational, multi-disciplinary, and multipurposed endeavors.

Before turning our attention to one of today's underutilized and strategic opportunities for engagement, we will briefly consider the "Transilience Framework" which highlights key forces at play in any social good endeavor. These provide additional insight for the work at hand whether planning a project, assessing impact, or developing a strategy. This framework is not a strategic planning methodology with milestones and waypoints, but rather a way to assess the sea-conditions within which the endeavor takes place. As a decision-matrix of sorts, it factors in social, rational and neurological forces to our journey in today's Gray Zone.

Finally, we will conclude with the recommendation to pursue a new, if challenging partnership that could open up new levels of thinking, insight, and strategic impact. The timing is right. Just as mobile devices in Africa enabled the continent to bypass the need for building an extensive and expensive wired communications infrastructure, this

confluence of new resources and needs may well enable our global community to leap-frog over some of our most intransigent issues.

II. THE TRANSILIENCE FRAMEWORK

The definition of transilient as "passing quickly from one thing to another" comes from the Latin "transilire—to jump over." In the context of social change, this framework calls attention to our innate human capacity for inventiveness and ways to leverage this potent human capacity. Transilience pays particular attention to the transformative resilience of human beings, the factors affecting it and its role in the midst of turbulence, change, and uncertainty.

The three sets of factors this framework considers are Difference, Drivers, and Domain, each being part of a social good compass of sorts. The concept of True North here indicates pursuits that best serve our metahumanity, an holistic description that includes all aspects of optimal living for human beings as individuals, as social animals with a strong propensity for accounting, and as a species still reliant upon the health of our planet for our own health and well-being.

A. Difference

Difference recognizes the varying forces involved with change. The greater the degree of change sought or needed in a shorter space of time, will require different kinds of effort and leadership than circumstances that value stability, strict adherence to standards and system-wide trustworthiness. The former calls for bold, adaptive leadership to ensure that the culture, talent, and structures operate well in less familiar, riskier environments. The latter, management-oriented leadership focuses on managing the variables in a more closed system to ensure a quality of service output for all stakeholders. Each kind of leadership has its own place and they are not mutually exclusive. Capable leaders or project designers recognize the differing emphasis needed due to the nature of the work at hand.

Difference also takes into

consideration psychological time, that is, whether we are forward-looking or backward-looking. In reality, we cannot go back in time, but we can and do delve into our memories and our efforts. Mindset and vision tend to have an orientation that is forward and exploratory or backward and focused on sustaining a status quo.

In either case, whether the differences are larger or smaller, forward-looking or backward-looking the pathways being chosen by leaders or designers need to be adapted appropriately for the stakeholders and the forces they will encounter.

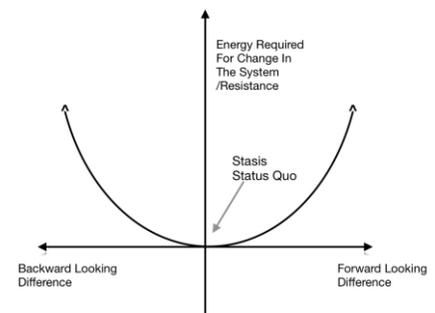


Fig. 2 Difference: This reminds us of the forces in play when endeavoring to make a difference. Resistance increases with as greater changes are sought. It also indicates that psychologically, we may be forward or backward looking in our focus.

As can be seen in Fig. 2, the greater the distance from the status quo sought, whether forward or backward, efforts are met with increasingly powerful forces or resistance to change. This resistance is compounded by the Drivers, as will be explained in the next section.

The forces at play here can be seen in the slow development of laws on cybercrime or the lack of global initiatives, for example, to globally change router security standards. So it remains possible to hack into a bank or a power plant and leave no trace because there is no extra layer of identification required. This is just one instance where legislators neither adequately understand technology nor include technologists in legislative decision-making in a timely manner.

B. Drivers

Drivers are both the rational and pre-rational dimensions of social

engagement. These are at play in all human interactions. Curiously, while it is known that humans tend to make decisions emotionally (or pre-rationally), our rational sense of self often overlooks this. Paying attention to these Drivers is an effort to acknowledge and factor in the full complexity of human interaction that is being described here as the ongoing interaction of our (evolutionarily speaking) “three brains” and the impact of each of these on our moment-to-moment decision-making.

This is an essential consideration to note because all too often the more analytical, rational actors (such as researchers and engineers) overlook these pre-rational considerations during development. This reverence for rationality can lead to the filtering out of the non-rational as irrelevant. This is especially true when intuitive responses stand in direct opposition of what makes rational, long-term sense. We then end up surprised by voting results, the eruption of violence, and unexpected aspects of social relationships.

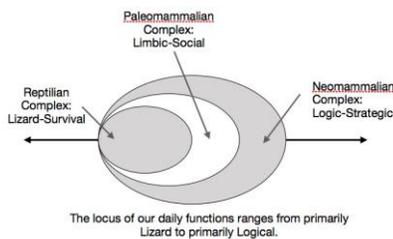


Fig. 3. The Drivers: This figure identifies in a symbolic manner, the pre-rational and rational dimensions of human decision-making: our reptilian complex, paleomammalian complex and neomammalian complex. [1] Paying attention to any one alone or ignoring any of these, can lead to poor judgment and misreading of social dynamics.

When we factor in both the logical complexity of changes being sought and the pre-rational drivers that are stimulated by those changes, we can make greater sense out of some of the political dynamics today. Nationalist surges are showing up in many countries in part as a reaction to underlying uncertainties—politically, socially and economically—as technologies hasten the pace of change. The body-language of today’s changing times stimulates our

reptilian complex and our limbic systems which, when unmediated by our more logical neocortex, naturally stirs up the desire to retreat to something more familiar and safe. We see this playing out in the Brexit vote and in the US response to “making America great again,” to mention just two of many phenomena.

The Transilience Framework, therefore, encourages consideration be given to the impact new tech may have on the pre-rational, lizard and limbic aspects of ourselves in addition to the tasks they are being designed to fulfill. We cannot change these hard-wired dimensions of our brains. But by being more fully aware of how much they impact our behavior, we can work to put each to better use. Then perhaps during the next US election, pollsters will find novel ways to measure the temperature all three areas of human concern: survival issues, social concerns and preferred political strategies.

C. Domain or Scope

The final component woven into our social good strategies as indicated by the Transilience Framework addresses the scope of work. Projects and services can target an individual or larger groupings and social institutions. The latter can range from family units, through to national and international structures. As for most systems, moving from the inner individual levels to the outer larger institutions means a shift to significantly more complex structures. Identifying the scope of work facilitates establishing time frames, methodologies, resources, the clarification of which benefits the management expectations.

How does this help identify strategic actions for today’s evolving intelligence informatics community? First, since the focus here is on developing potential partnerships with some aspect of the United Nations, it will help to clarify some notions of the UN. There is a tendency for people to view the UN as an entity that is responsible for peace and security at the global level. This is however, false. While it may be the most global oriented entity we have, it does not have global level authority. It is not

structured as an entity with a mandate to secure world peace. It can advise nations about peace and security and facilitate governmental negotiations on the issues, but the UN itself was never globally purposed. There was, and remains, an aversion to a single “global state” and its accompanying notion of a common political authority for all of humanity.

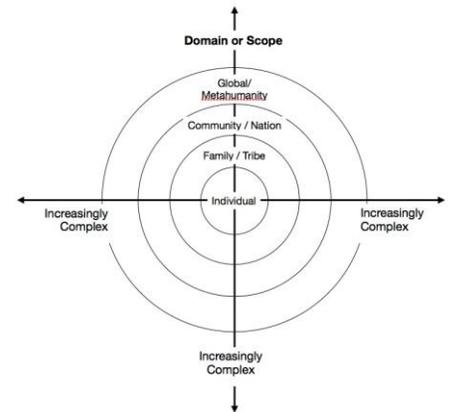


Fig. 4 Domain: This identifies the scope of work at hand ranges from the individual level to that of metahumanity. The degree of complexity of implementing solutions increases exponentially making global issues enormously more complex. This suggests the most critical and perhaps strategic space for the augmentation of human efforts by intelligence informatics is at the global or metahumanity level.

Though the UN is the agreed meeting place where governmental representatives negotiate according to their national agendas and interests. In this relatively transparent environment, Member States often do operate from enlightened self-interest. However there is nothing stopping them from putting national interests above the interests of other nations and peoples. The UN’s Charter makes this clear, that it pursues peace *between* nations; neighborly relations *among* its members; and respect *for* each other’s national sovereignty.

The Charter does encourage the use of “international machinery for the promotion of the economic and social advancement of all people,” [2] but this too is an endeavor of nations. Then there is the 1948 Universal Declaration of Human Rights that has enlightened and strengthened the work of those seeking peaceful solutions. But this universal instrument does not change the fact that

the UN does not have global authority.

When someone asks, “What did the UN do about the UN Convention on Transnational Organized Crime (UNTOC)?” for example, the more telling rephrasing of that question would be something like this series of questions: “What did each nation agree to in that meeting?” “What are they now doing to implement their commitments?” “How do we know?”

While the UN may be the one social institution endowed with the moral authority to act for the greater good, it is not structured to do so. Hence the phrase often heard, “UN resolutions have no teeth.” But none of these and other factors stop people from questing for the betterment of humanity as a whole with or without a global authority established to facilitate this.

As the ubiquity of the Internet and its attendant web-based intelligence, communications and finances evolve, it becomes clearer that significant trans-national organizational issues remain to be addressed. The UN remains the most obvious, yet still limited entity for this work. What is also needed are self-organizing efforts to step up to the plate. That is how the UN International Criminal Court (ICC) and the 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines came into existence. Those with vision, expertise and drive step up and make something happen.

III. GLOBAL GOVERNANCE AND INTELLIGENT INFORMATICS

Many of our global social challenges are already incorporated into the UN’s 2030 Sustainable Development Goals (SDGs) [3], into the work of the United Nations Office of Drugs and Crime, the Security Council, and taken up by its multiple businesses and agencies such as UNICEF, UNESCO, WHO, and dozens of others. With focused effort, the right kinds of leadership in appropriate places and technical savvy, much of this good work could be upgraded and improved further.

The UN already has innovation labs in

field offices around the world bringing together technologists with local social activists in pursuit of the UN’s development mandates. The UN also has significant efforts underway to optimize its technical infrastructure, though there is much more that can be done there too.

The more complex work of innovative uses of existing data and domain experts to provide intelligence for governance in a complex system such as the UN is still missing. But now that the multidisciplinary intelligence and security informatics communities are maturing, and the UN is creating digital platforms to better enable innovative partnerships and engagement with technically oriented civil society and the private sector, these crossing paths provide an unusual opportunity to leap forward and benefit the greater global community.

Bringing the diverse mindsets of technologists and global legislators to work together on some of the stickiest global issues has the potential to be a powerful difference engine fueling needed innovations.

There is yet another gain that could be made. If teams from the think tanks and institutes currently funded by the likes of Steven Hawking, Elon Musk, and Peter Thiel (to name just a few concerned for AI’s existential threats to the future of humanity), would forge partnerships with the UN’s Digital Blue Helmets for example, these small, targeted cross-disciplinary partnerships could work *in situ*. They would have easier access to the data and resources of the UN’s 50-plus agencies and organizations and their domain experts otherwise unavailable to AI technologists. There may be no better work place available for infusing human friendly compassion and empathy into intelligence systems than that alongside those striving to fulfill the UN’s challenging mandates.

The Digital Blue Helmet platform has already been established by forward-looking technologists at the UN for “rapid information exchange and better coordination of protective and defensive measures against information

technology security incidents for the United Nations, its agencies, funds, and programmes.” [4] What is needed now is for those in civil society, the private and philanthropic sectors to step up to these global challenges and infuse the UN’s work with additional innovative energies. Now that Google’s AI has challenged and beaten the world-champion Go player, Ke Jie, it is time to put AI, machine learning, robotics, bioinformatics, big data and the best of the best to work on something even more complex and challenging: world peace.

By bringing web intelligence resources to the challenges such as those the Digital Blue Helmets are contending with: transnational organized crime, cybersecurity, crisis intervention, and the multitude of uses of today’s technologies for the global good, we can all benefit. Of course there are risks and concerns at which those in the C-Suites of the UN, the private sector and academia will need to look. But in principle, it is wise for us all to keep an eye on the clock, and assess the risks both of action and inaction.

Governance intelligence may neither have the same dramatic optics of a moon landing nor the feel of the latest piece of shiny tech; however, bold steps with metahumanity in mind need to be taken today. The urgency of this can be measured in the numbers of people going to the streets in protest, the escalating threats of violence and war, the need for faster, better response to natural and man-made crises, the millions of displaced persons looking for refuge, the economic challenges of rapidly changing job markets, and more. A window of opportunity is opening right now—what better time for the odd couple of technologists and global legislators working for the social good decide to self-organize and step up to tackle the complex problems that affect us all?

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