PEACE INNOVATION

Reflections and ideas

Juan Carlos Sainz-Borgo
Editor

University for Peace

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Francisco Rojas Aravena

Rector of the University for Peace (UPEACE) since 2013. Dr. Rojas-Aravena has a Ph.D. in Political Science from the University of Utrecht (Netherlands) and a M.S. in Political Science from the Latin American Faculty of Social Sciences (FLACSO), and specializes in international relations, human security, integration, Latin American political systems, negotiations – theory and practice – and international security and defence. He served as the Secretary-General of FLACSO (2004-2012) and Director of FLACSO Chile (1996-2004). Dr. Rojas-Aravena also served Professor at the School of International Relations of the National University of Costa Rica (UNA) (1980-1990), Professor at Stanford University's campus in Chile, Visiting Professor at the Andres Bello Diplomatic Academy (Chile) and

a Fulbright Professor at the Latin American and Caribbean Centre (LACC) at Florida International University (USA). He is currently on the Editorial Board of several academic journals, including the Spanish edition of Foreign Affairs magazine (Mexico), Pensamiento Iberoamericano magazine (Spain) and Ciencia Politica magazine (National University of Colombia). Dr. Rojas-Aravena is a prolific author and editor and has published a large number of books, as well as contributed with book chapters, both within and outside of Latin America, many of which have been translated into other languages. In 2016 Dr. Rojas-Aravena received the Malinalli Prize from the Universidad Autonoma de Juarez (Mexico), for his contributions to the Latin American region. In 2012, he was honoured by the governments of Costa Rica, Paraguay and the Dominican Republic for his contributions to the integration between Latin America and the Caribbean. Throughout his professional career, he has also conducted advisory and consulting work for various international agencies and governments in the region.

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Juan Carlos Sainz-Borgo is Professor and Vice Rector at the University for Peace (UPEACE). He is also Associate Professor of International Law at the Universidad Central de Venezuela in Caracas and has been since 1998. He served as Fulbright Visiting Professor at the Washington College of Law at American University in Washington DC (2008-2009); Professor of Humanitarian International Law at the Universidad Sergio Arboleda (2009-2014), the Universidad Javeriana and Universidad El Rosario, both in Colombia. He is also Professor at the Universidad Alfonso X El Sabio in Madrid and has been since 2009. He was Jurist to the Regional Delegation of Venezuela and the Caribbean of the International Committee of the Red Cross (ICRC). He served as member of the Venezuelan Foreign Service in charge of border affairs as Adviser and Coordinator of the Cooperation Border Programs between 1991-1999, and Deputy Director of the Diplomatic Academy. Juan Carlos Sainz-Borgo has a Law Degree, a Master's Degree in International Law and a Doctorate Degree (Cum Laude) from the Universidad Central de Venezuela in Caracas and a Master's Degree from Oxford University (UK). He has published four books on international law and international relations and numerous articles in different publications in the field.

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Dr. Adriana Salcedo currently serves as Head of the Peace and Conflict Studies Department at the University for Peace in Costa Rica. She is a scholar-practitioner in the field of conflict transformation and peacebuilding with a focus on peace & conflict, gender, identity, and migration. She holds a Doctorate in Conflict Analysis and Resolution from The Jimmy and Rosslyn Carter School for Peace and Conflict Resolution at George Mason University, in Virginia, United States. For this degree, she conducted extensive research on forced migration, conflict, and the social integration of refugees in the Colombian-Ecuadorian borderlands and in inner cities in Ecuador.

Adriana has taught courses at The Carter School for Peace and Conflict Resolution, George Mason University in Washington D.C., at Boston University, and at the Simón Bolívar Andean University in Quito, Ecuador in conflict analysis, collaborative methodologies for building peace, tools for conflict transformation, gender, and migration.

Adriana has provided training for the Northern Virginia Mediation Center (as a Certified Instructor/Mediator) and for the United Nations Children's Fund (UNICEF), as well as for the Canadian Embassy in the Dominican Republic and the Observatory of Migration in the Caribbean (OBMICA). With more than fifteen years of experience in analyzing and transforming social conflicts, her professional practice has covered the Amazon basin, the Galapagos Islands, the Andean region (Ecuador, Colombia, and Bolivia), the United States, the Dominican Republic, Haiti, and Costa Rica. She has conducted research and collaborated with various public, private, and civil society institutions across the Americas and the Caribbean.

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Olivia Sylvester, holds a Ph.D. in Natural Resources and Environmental Management and is the Head of the Environment & Development Department at the University for Peace as well as an Associate professor. She is also an adjunct professor for Oregon State University. For over a decade, Dr. Sylvester's research program has focused on sustainable food systems, agroecology, Indigenous and feminist methodologies,

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Carlo Tognato

A cultural sociologist with 15 years of experience in higher ed and with a profound understanding of socio-political dynamics in the Global South as a result of a decade of teaching in sociology at a top-10 Latin American university. With an interdisciplinary training from top European and US universities that cuts across the social sciences, the focus of my research has shifted over the years from cultural economic sociology to a global sociology of the civil sphere and has turned to intervention and become more public. Over the past 7 years my research has focused on peacebuilding, civil reconstruction and degradation, violent extremism and its cultural legitimation, and on moral and civil courage. A faculty fellow at the Center for Cultural Sociology at Yale since 2005, I have refereed for 12 scientific journals and serve as associate editor of a leading cultural sociology journal. My books have come out with Cambridge University Press, Harvard, and Palgrave-Macmillan.

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Specialist in micro econometrics. Passionate about experimental analysis of decision-making process and neuroeconomics. Ph.D. by Faculty of Economics from the University of Valencia, Spain. Postgraduate studies in Educational Technology at the University of Salamanca. Seventeen years of experience on Boards and management positions in government and enterprises. Professor of Costa Rica Institute of Technology (TEC), has practiced for twenty years university teaching and research. His interests include science and technology, public policy and innovation, entrepreneurship, bioeconomy, experimental economics, neuroeconomics and knowledge management.

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Verónica Valarino

With 20 years of experience in the field of Diplomacy, Veronica Valarino holds a Bachelor's degree in International Studies from the Central University of Venezuela and a Master of Arts degree in Latin American Studies from the University of London, UK. She also obtained specializations in Museum and Archival Studies (2012) and in Visual Communications (2016). She served in diplomatic positions in New York, Paris, London, Port of Spain, Tokyo, and Caracas, and has extensive experience performing advanced research in digital repositories about traditional territorial and boundary disputes. Most recently,

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Melissa Wild

(she/her) is a certified mediator, linguist and anthropologist, focused on the intersection of peacebuilding and technological development. Having worked for over ten years across both the private & public sectors, throughout the Middle East region, studying the languages and cultures that define it, Melissa is especially skilled in relationship- and partnership-building across diverse, often contentious lines, including between the technically trained in digital technologies and those in peacebuilding or related fields.

Currently, Melissa serves as Special Advisor to the University for Peace (UPEACE) NY Mission to the United Nations where she supported the foundation of the Global Center of Peace Innovation. She also serves as Program Manager to the Sustaining Peace Project, currently working with data scientists to understand the dynamics of peace in speech. Melissa is a third year PhD student in Applied Anthropology at Teachers College, Columbia University. Her specific research focuses on understanding how conflict dynamics in dialogue shift across space and time, particularly across digital platforms and in-person public and private spaces. She is certified by the New York Peace Insitute as a mediator, holds an M.A. in Peace and Conflict Management from the University of Haifa and a B.A. in Arabic and Sociology from Georgetown University.

Melissa believes uplifting collective human experiences is central to a just, thriving, resilient world. To that end, Melissa is committed to strengthening the contributions of ethnographic research in the professional field of peacebuilding, and to reminding herself and others that social impact work requires self-reflection of intent and constant interrogation of impact.

Presentation

The University for Peace (UPEACE) has made a significant commitment to developing innovative approaches to the promotion of peace, fulfilling the institutional mandate granted by the United Nations General Assembly to train human resources in this vital area.

The initial discussions among the UPEACE team centered around a pivotal question: What's new in peace? Following an extensive internal debate, we initiated both internal and external dialogues aimed at constructing a conceptual framework to adapt our vision, policies, and overall institutional performance. This endeavor seeks to align our global mandate with contemporary developments on a global scale.

Throughout these discussions, two principal conceptual approaches to innovation and peace emerged. On the one hand, participants advocated that innovation involves conducting processes in newer, more efficient, and progressive ways. On the other hand, some attendees—particularly among academic staff, students, and external guests—emphasized the potential of artificial intelligence and its applications in peacebuilding.

In furtherance of this dialogue, the University for Peace organized a series of meetings both at its campus and internationally, including notable sessions in New York, with the aim of broadening the discourse. These gatherings included professionals and representatives from various sectors, including academia, private companies, governments, and the United Nations. These events were held in Costa Rica, New York, and via virtual platforms, amplifying diverse perspectives.

From an institutional standpoint, UPEACE has embraced innovation from multiple angles. Two new centers with cutting-edge perspectives have been inaugurated since these discussions began. The first, established in 2021 in Mogadishu, Somalia, was created with robust support from the Somali government. This center offers master's courses developed at the UPEACE headquarters in Costa Rica, while incorporating a local perspective, thus innovatively addressing peacebuilding

by deconstructing the notion of a one-size-fits-all approach to peace and fostering a tailored response for each process.

In Colombia, with the backing of the University of Santander, a private institution in the east of the country—an area still working toward consolidating peace—UPEACE is developing innovative training programs. These programs are specialized to suit the geographic area and its unique challenges. Additionally, in Italy, a specialized center is being established to explore the intersection of artificial intelligence and peacebuilding within UPEACE's mandate.

The University, with the generous support of Naveen and Anu Jain, has also established a doctoral research program focused on exploring the intersections of peace, health, and innovation in which UPEACE have two fellowships that are working and researching in the area. This work represents a seedbed and a lighthouse for work on the interactions between peace, innovation and the promotion of sustainable peace worldwide.

In this dual vision of innovation and peacebuilding, utilizing the new possibilities offered by technology to address emerging challenges is only part of the solution. However, this dichotomy cannot overlook the persistent need to confront old problems and the destabilizing effects that new issues have on the international order, which the global consensus worked to establish and maintain following the Second World War.

Many of today's conflicts are rooted in unresolved historical disputes or incomplete agreements. The instability and uncertainty resulting from these conflicts have had a ripple effect across the world. In the Global North, political discourse has become increasingly radicalized, driven by polarization. Meanwhile, in the Global South, the work of the United Nations—born of global consensus—is being challenged by governments that have emerged from constitutional crises. In Africa and South America, regional organizations have attempted to restore order, yet the intervention of foreign powers has often undermined majority consensus, hampering efforts to build sustainable peace.

Amidst this growing global instability, the University for Peace strives to address both new urgencies and longstanding issues.

The complexity of these challenges goes beyond the mere use of innovative tools. Re-establishing global consensus and fostering a peace dialogue rooted in the principles of the culture of peace is a necessity that can no longer be postponed. As a testimony of the debates around the topic, we decided to include the final minute of the event as an annex of this post-scriptum.

I would like to conclude by expressing my gratitude to all those, both within and outside the University for Peace, who have contributed to the consolidation of the Innovation Center. I would like to extend special thanks to Barbara Winston and her team in New York, Gordon Winston, Stephanie Winston Wolkoff, Zulfiquar Ghadiyali, and James Madison France. I am particularly grateful to Naveen and Anu Jain for his generous patronage. Within UPEACE, I would like to thank the entire UPEACE community—from the Rector to the academic and administrative teams—for their continued support. I especially want to acknowledge the unwavering support of Professors Mariateresa Garrido, Adriana Salcedo, Karen Acosta, and Mihir Kanade. Also, to Kiyan Ismali from University of Calgary for his support in the editorial process. My thanks also extend to Narinder Kakar, Ramu Damodaran, and the tireless efforts of Melissa Wild in New York. Lastly, I am deeply grateful to Sylvia León, Gabriela Montero, and the entire UPEACE support team for their constant encouragement and tireless support.

The ideas presented in this volume are a testament to the collective concerns of the global community that the University for Peace represents.

Dr. Juan Carlos Sainz-Borgo

Editor

Chapter **1**

The **UPEACE** Peace Innovation Vision

Innovations for Peace, an Area with Large Deficits.

Cooperating and Designing its Establishment from Academia.

Francisco Rojas Aravena, Rector, UPEACE[1]

Introduction

The war in Ukraine has been going on for more than two years, with serious consequences for global and regional security and a great destruction of the country. The potential for aggravation and expansion of the conflict is immense. They constitute a great danger that needs to be addressed now by the international community. The dangers are manifold, from transforming nuclear threats into realities, to a new and more complex Cold War. Various personalities - the Secretary General of the United Nations, the General Assembly and the International Court of Justice, the Human Rights Assembly, His Holiness Francis I, Henry Kissinger, Jurgen Habermas, millions of people from Civil Society Organizations - are clamoring for immediate action, for a cease-fire and effective negotiations. But these are not forthcoming. The proposals made by Turkey and Italy, and those of the parties, fail to break through.

"We are now facing a situation where Russia could move away from Europe altogether and seek a permanent alliance elsewhere (...) this may lead to diplomatic distances similar to those of the Cold War, which will set us back decades. We must strive for a long-term peace," said Henry Kissinger at the Davos Conference on May 27, 2022, in an interview with Klaus Schwab, founder and chairman of the World Economic Forum.[2] Kissinger argued that the solution lies in returning to the

1 Francisco Rojas Aravena, Chilean, Rector of the University for Peace, established by the United Nations General Assembly in 1980. PhD in Political Science from Utrecht University. Specialist in International Relations and International Security. Some of these ideas were presented in the journal *Tiempos de Paz*, issue number 146. *Innovations for Peace, an area with significant deficits*. 2022.

2 Marsden, R. (27 May, 2022). When Henry Kissinger gives advice on ending the Ukraine conflict, the West should listen. https://www.rt.com/news/556097-henry-kissinger-ukraine-conflict/

status quo ante. Asylum for Russia would not be the solution, but rather the opposite.

The official U.S. policy is to seek the further weakening of Russia and if possible, to achieve "regime change". NATO enlargement increases uncertainties and tensions. In addition to breaking with decades of foreign policies of the new countries involved in the expansion. The European Union has seconded and supported this NATO policy. Billions of dollars are involved, and they are on the threshold of an arms race and increased military spending.

For his part, Jurgen Habermas, in a long reflection, War and Indignation, published on May 8, 2022, in the País de España, points out the current dangers of war given that in this context "... Putin, who can threaten with his nuclear arsenal, it is necessary to negotiate the end of the war or at least a cease-fire". This warning relates directly to the involvement of the United States and NATO in providing millions of dollars in arms to Ukraine. Habermas notes "The West must carefully measure every additional degree of military support to Ukraine. Vladimir Putin is the one who will decide at what point Western support is tantamount to entering the war"[3]. At that point we are in the scenario of a third world war.

The war in Ukraine directly involves Russia, Belarus, Ukraine and by its indirect consequences Poland, Hungary, Slovakia, Romania and Moldova. In addition to the growing involvement of all NATO countries. Its effects are global and planetary.

Everything indicates that the conditions for negotiation are not yet ripe. These conditions are: i) collapse of the original situation. ii) establishment of a negotiation proposal, without other alternatives. iii) readjustment of power relations between the parties. iv) identification of a formula, including a transition path.[4]

3 Habermas, J. (07 May 2022). How far do we support Ukraine? Habermas, the great intellectual, addresses Europe's dilemma. El país. https://elpais.com/ideas/2022-05-07/hasta-donde-apoyamos-a-ucrania-habermas-el-gran-intelectual-aborda-el-dilema-de-europa.htmlv

4 Zartman, W. (1986). "Ripening Conflict, Ripe Moment, Formula and Mediation." In Bendahmane, D and McDonald, J. *Perspectives on Negotiation: Four Case Studies and Interpretations*. Washington, DC: U.S. Department of State, Foreign Service Institute. (pp. 205-227).

The current situation is that the war has not yet reached a stalemate. There is no proposal being negotiated. Power relations are in the process of readjustment, they have different facets on the ground and at the regional and global level, which makes it difficult to have clarity on this point. Without a firm negotiating proposal, there is no formula to be applied, let alone a transition path.

The approach to these four processes will be decisive in the evolution of the war and its impacts at different levels. This is why we emphasize that important innovations are required for peace. These can make a decisive contribution to achieving new approaches and policies for sustainable peace.

Global impacts of the European War

Peace as a Global Public Good was blown apart by the bombing of Ukraine. Doubts concerning the rules-based international system have been raised, as the continuation of war aggravates uncertainties, tensions, and the power of global relationship norms. It increases the dangers to global peace. The impacts of the breakdown of this essential public good make the exercise of human rights impossible in conflict areas and difficult elsewhere. War is wreaking havoc on millions of people and increasing pollution of the planet.

Global dangers are increasing. The main actors in the international system have failed to establish a new equilibrium, which increases the danger of greater global conflicts and systemic crises, and to which the impacts of climate change are increasingly linked.

The instruments of violence are increasing and gaining strength; they are broad and varied. Peace and coexistence are called into question. The progressive use of electronic media opens larger spaces for cybercrime, cyberterrorism, and various forms of online violence, particularly against women and girls. Disinformation on social media is on the rise. Hate speech and violence are on the rise. Pressure and threats of all kinds are escalating. There is an ever-increasing use of virtual and material violence. These horrors of modern warfare and weaponry are manifest today in Ukraine.

High inequalities, disparity, and poverty, coupled with discrimination, racism, and segregation, constitute a breeding

ground for violence in all its forms: criminal, political, social, transnational, domestic, and virtual. There are substantial increases in violence and high levels of human rights violations. This has a high impact on costs, representing between 3% and 6% of GDP, and growing perceptions of insecurity and abandonment of communities by the State.

Inequality fosters violence: a) it creates incentives for illegal activities to be more attractive; b) it breeds frustration, perceptions of disadvantage, and injustice that stimulate violence; and c) particularly vulnerable sectors suffer intensely from violence against women, ethnic, and gender minorities. To address global and national fragility and risks, the 2030 Agenda and the Sustainable Development Goals are the best roadmap. Both the pandemic and now the war in Europe have dislocated and produced setbacks in all areas.

Peace means seeking a Global Leviathan in the world, a global police and security force capable of guaranteeing peace for all. That was the Pax Romana, then the Pax Britannica, and then came the Pax Americana. A glance into the future indicates that the Pax Americana will give way to a Technological Pax[5]. Technological Pax is not present today, despite significant advances and innovations. We can say that Technological Pax has failed.

War reappeared with brutal virulence in Europe. The basic principles of the United Nations, in particular the sovereignty of states and respect for borders, were violated with the invasion of Ukraine. Russia added to and escalated the conflict when it declared, with a call by Putin, an alert on its atomic arsenal. This has not happened in 60 years since the 1962 Missile Crisis.

This is a threat to all humanity. UN Secretary-General Antonio Guterres pointed out that the war in Ukraine has brought the previously "unthinkable" nuclear war back into the realm of the "possible" and again called for peace to avoid a "hurricane of famine and a collapse of the world food system"[6].

5 Moris, I. (2017). What is War For? The Role of Conflicts in Civilization. Ático de los Libros.

6 Gallego, D. (24 September, 2022). The UN Secretary-General: “Russia's war in Ukraine shows no signs of waning.” *AA*. https://www.aa.com.tr/es/mundo/el-secretario-general-de-la-onu-la-guerra-de-rusia-en-ucrania-no-da-se%C3%B1ales-de-amainar-/2692544

After Russia's veto of the resolution of condemnation proposed within the Security Council on 25 February 2022, the United Nations General Assembly, on two occasions, condemned Russia and called for a cessation of hostilities, by a vote of 141 votes against 5 (with 35 abstentions), for a total of 193 votes by UN Member States.

On 16 March 2022, the International Court of Justice demanded that Russia immediately suspend military operations in Ukraine. It also declared itself competent to judge the case, which was brought by Ukraine.

The danger of the Anthropocene comes at the hand of man, to which we must add the environmental crisis. Uncertainties are founding vast insecurities regarding the impact of climate change on the survival of mankind. The greatest threat to humanity is climate change; the Common Home is in danger. Humanity, by its actions, is endangering its existence. The threat of the Anthropocene is effective (biodiversity, seas, forests, air, desertification, increased hurricanes, and tornadoes). Peace with Nature is required.

The effects of climate change impact the security of people and communities, as well as national security. The impacts are planetary and local simultaneously. Global warming will lead to greater human mobility and more migrants. On the regional level, it will result in hurricanes, droughts, and desertification, leading to the increased mobility of people and increased migration. On a transboundary level, it will impact the control over water (dams, rivers, and lakes). Desertification will push more and more people into migration on a national and international scale. Cooperation is the only alternative in the search for options.

The Russian invasion of Ukraine put an end to almost 50 years of stability in Europe, which had been achieved through the Helsinki Agreements of 1975. The Russian invasion of Ukraine on 24 February 2022 pulverized this agreement, which also stipulated the rejection of the use of force. To this, we can add the inaction of the United Nations Security Council before one of its member states with veto rights broke the agreements and violated the principles and Charter of the United Nations.

The international system shows high degrees of instability and crises among the powers and in various regions. The last decades have shown high degrees of uncertainty and instability, particularly in the last five years. The global crisis and uncertainties have increased exponentially with the Russian invasion of Ukraine. We are on the threshold of a new arms race. War only produces more war; violence generates more violence.

Only dialogue, trust-building, and compromise produce peace and stability. The main innovation for peace will consist of figuring out how to rebuild dialogue and give strength to words and not to weapons. War eliminates the possibility of exercising people's rights. Humanity's greatest wealth is knowledge, which cannot be gained by force.[7]

The major changes in the international system, mainly with regards to timing – everything is immediate and is witnessed in real time and space – space is planetary, and strongly overlapping – have changed the basic parameters of the international system. The models and concepts of the Cold War no longer allow us to understand reality. They fail to grasp the mutations generated since 1989. These concepts do not explain the changes, the trends, or their impact on the institutionality established after World War II.

This is even more so when global and regional multilateralism are in crisis. New paradigms, new conceptual maps, and new roadmaps are needed. It is from these new paradigms that new innovations for peace should emerge and be expressed.

Why did the Technological Pax fail in this European war?

Weeks in advance of the Russian invasion, we all witnessed, through our television screens on different news channels, satellite images showing the movement of tanks and troops toward the Ukrainian border. The images were accurate and left no doubt about the number, quality of the machinery, or the number of troops involved in this operation. Why didn't politics

7 Harari, Y. (09 February 2022). Yuval Noah Harari argues that what's at stake in Ukraine is the direction of human history. *The Economist*. https://www.economist.com/by-invitation/2022/02/09/yuval-noah-harari-argues-that-whats-at-stake-in-ukraine-is-the-direction-of-human-history

work during this time? Why didn't diplomacy work? Why didn't diplomacy stop the war?

With the information provided by technology, specific measures could have been implemented, which were codified in the Helsinki Agreements, in particular, mutual confidence and security measures (MCMS). Why didn't the UN activate early warning mechanisms, or why didn't they have the effect of stopping the war?

Answering this question will be fundamental in the perspective of thinking about specific innovation mechanisms for peace. How do we utilize, in an appropriate way and in real-time, the advances of artificial intelligence? How do we reap the benefits of preventive diplomacy? Similarly, it will be necessary to gain a better understanding of the human brain and make it possible to "understand the fears" of the different actors and the courses of action that each of these fears produces in a differentiated manner. If early warnings are implemented, it will be possible to generate more space for politics and diplomacy. It is in this area where studies on the gravitas of history and its interpretation, given its effective implications in decision-making processes and their consequences, should be deepened.[8]

War has also called into question concepts that were key to the development of globalization by pointing out that greater interdependence generated closer linkage processes, which inhibited the possibilities of violent conflict, even if relatively significant differences and disputes were expressed between the actors. This interdependence does not only refer to economic aspects or trade transfers; more important are the personal and familial ties. However, in the Ukrainian war, this factor did not seem to play a role, despite the fact that millions of Russians live there and/or have familial relations with Ukrainians. Nor is it clear what level or threshold of economic interdependence, and in which areas, can stop confrontation and an eventual, graver war. The energy interdependence between the EU and Russia, in the case of fuel, is almost 50%, which did not inhibit Russia from invading nor the EU from applying harsh sanctions.

8 Neustadt, R. & May, E. (1986). The Uses of History in Decision-Making Processes. GEL, Buenos Aires.

Why has multilateralism failed?

Firstly, the lack of political will to carry out substantial agreements has been present in the multilateral system. There was an important advance in the year 2000, during which we analyzed the main problems plaguing humanity and thus established a millennium agenda through the Millennium Development Goals (MDGs). When these agreements could not be fulfilled, the multilateral system advanced toward the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). Partial progress has been made, but significant deficits remain. War will prevent many SDGs from being met, those focused on peace, hunger, ending poverty, and achieving gender equality.

The major disruption, as pointed out earlier, is the fact that a permanent member of the UN Security Council has violated the essential principles of the institution's Charter and is also not complying with the guidelines set by the International Court of Justice. In this area, many questions arise as to how the multilateral system will be reconstituted once the war and the fighting are over and minimum agreements are reached at the negotiating table, which will necessarily come, despite the fighting that is still going on, to move on to a ceasefire and from there establish the basis for future relations. It will be necessary to think about significant innovations for peace, changes in the ways in which we relate, and our use of language and signs to re-establish norms for the functioning of the global system. It will require the construction of new stories and narrative changes to reconstruct spaces for a sustainable passage.

Additionally, it will be important to think about how to incorporate changes into the Security Council. None of the five nuclear powers seated there will allow a change in their "right to veto," but it will be essential to change the narrative, to establish new forms and rules, in order to re-establish more balanced relations and avoid generating permanent tension within the international society.

This involves developing new forms of virtual diplomacy and new forms of personal relations based on reciprocal trust, which have been fundamentally broken between the different actors

involved in the confrontation. Without rebuilding trust, there will be no possibility of stability or sustainable peace.

In a context plagued by fake news, cyber-attacks, and claims of post-truth visions, the use of technological tools capable of providing certainty will be fundamental. However, the projections of the "metaverse" suggest that the transparency and certainties provided by technology may turn out to be weak; this is a significant problem for building trust.

Securing peace implies establishing the conditions for the effective sustainability of peace.

Designing New Concepts on Peace Initiatives - What is the Prism?

1.- The new paradigms must effectively link four areas of security: human security, international security, and state security. To this, we must add a fourth dimension, which refers to the impact on life and security due to climate change, the main threat to humanity at this moment in time.

The UNDP points out that 6 out of 7 people had a moderate or high perception of insecurity before the pandemic. Perceptions of insecurity have increased, especially in countries with a low Human Development Index.[9]

Finding the relational mechanisms, technological developments, and means that can advance and facilitate this interrelationship is fundamental to achieving stability, development, and peace. Many advances in artificial intelligence, satellite developments, data analysis, and anticipatory capabilities are already available but have been unable to find the interface to produce effective results. Innovation for peace will have to be driven by the specific results that can be achieved in the common linkage of these four areas.

9 UNDP. (2022). Special Report 2022. New Threats to Human Security in the Anthropocene Demand Greater Solidarity. https://hdr.undp.org/system/files/documents/srhs2022overviewes.pdf

2.- Another area of particular significance capable of making an important contribution to innovation for peace is transparency. To the extent that progress is made in the design and use of more precise technologies for transparency, it will be possible to combat corruption and different transnational illicit activities more effectively.

Transparency in military spending is also fundamental, as it allows for greater certainty regarding important and significant changes at a time when, because of the war in Europe, we are on the verge of both an increase in military spending and an arms race. If there is transparency and reliable information, it will be possible to negotiate partial agreements and then more far-reaching commitments.

3.- The main innovations for peace must focus on preventing violence of all kinds and in all its forms, from domestic violence to state-organized violence such as war, including its virtual manifestations such as cybercrime and online harassment.

The use of violence in warfare in the 21st Century has shown a failure to reach the objectives set by the powerful actors involved. The wars in Syria, Iraq, and Afghanistan have evidenced this. However, we see wrong decisions, in addition to the human losses, mainly civilians of the most vulnerable sectors, and the great destruction of infrastructure, sowing resentment and hatred for generations, which in turn augurs' new confrontations, tensions, polarizations, and ruptures.

4.- The use of soft power should be a privileged instrument, and it should be placed at the service of peace, not nationalism, as was expressed during the Covid-19 pandemic. The pandemic has affected all areas of planetary affairs with serious negative effects, manifested in a decrease in progress and an increase in various conflicts. The pandemic has produced more hunger, malnutrition, poverty, more unemployment, as well as serious global health and educational crises. The war in Europe is showing an increasing crisis in the "collapse of the world food system." The UNSG noted that "the FAO's world food price index is at the highest level

ever recorded".[10] (Some fifty countries, mainly in Africa, are importers of grain from Ukraine and/or Russia.

This means that important changes in the use of soft power must be considered. In other words, significant initiatives for peace must be redesigned in this area of particular importance to international relations.

5. The force of words and not the force of violence is one of the keys to peace. All innovations in this area will be fundamental given the breakdown of national social pacts and the polarization of societies that break down social coexistence. In the international arena, innovation in this field will be one of the keys to re-establishing stability.

   This means that new narratives, and new stories, must be designed as instruments of innovation for peace, as pointed out by Prof. Carlo Tognato in his paper[11]. It is imperative that these can change discourses, and that they generate emotionality's – and rationality – that tend towards cooperation. Cultural change is consubstantial to peace. A global culture for peace is a central task of innovators for peace. Culture can be stronger than weapons.

   Rebuilding basic trust is essential at both the national and international levels. Designing new mechanisms and instruments for this purpose will be an important task in the development of peace initiatives, where data analysis, aided by artificial intelligence, can bring about new elements and insights.

   Intercultural issues are fundamental, as are aspects of social inclusion at the domestic level. At the macro level, rethinking Mutual Trust and Security Measures will contribute significantly; at the micro level, the development of new forms of Peace Education will be crucial after the break-up of national societies.

6.- The promotion of a Culture of Peace, dialogue, and non-violence will be decisive in facing new challenges and threats arising from unresolved conflicts or the inheritance

10 Guterres, A. (2022). Guterres warns of an "unprecedented wave of hunger and misery." UN News. https://news.un.org/es/story/2022/06/1509932

11 In this book, see Carlos Tognato's chapter.

of major conflicts. In this area, the appropriate design, planning, and development of various types of dialogues remain an essential instrument for understanding the interests involved and the perceptions that underpin them and to explore ways of satisfying them. These include inter-religious dialogues, civil-military dialogues, and academic dialogues with political and social actors, as well as the development of dialogue networks to achieve a multiplier effect. A culture of global partnership for cooperation and peace will allow for more significant and lasting progress.

The development of "soft diplomacy," "second-track diplomacy," and other mechanisms for the implementation of the culture of peace, dialogue, and non-violence should be strengthened with technical mechanisms and the development of new innovative instruments for applications and innovations for peace.

7.- Training is an essential aspect in the creation of new spheres of influence in the search for peace. The training of journalists and communicators, as well as citizen journalism, takes on greater significance today. The training of state agents and the understanding of the keys to intermestic phenomena is fundamental in facing new risks and threats, among them hybrid threats and those coming from international illicit and transnational organized crime.

In all these cases, it is a matter of training in cultural contexts that reaffirm the culture of legality and the rule of law.

8.- Investigative work is the basis for scientific progress. Heuristic work in connection with innovation for peace is essential for identifying trends and visualizing key aspects of national and international processes.

A central task here is to analyze the deep roots of conflicts and to be able to visualize the central trends within the very broad range of information that has shaped and is shaping the course of disputes. From there, it is possible to find the instruments that can generate new innovations for peace, draw positive and negative lessons, and design options for solutions within the framework of a broad culture of peace, dialogue, and non-violence.

9.- Complex problems do not have simple solutions. In the context of the Anthropocene, it is essential to look at the globality, interrelationships, and implications of the challenges and threats to human security as a whole. Comprehensive responses are required beyond focalizations. Establishing the interrelationship between human security, international security, and state security will be possible with new instruments and innovations for peace. Artificial intelligence applications and innovation in concept mapping will be central. The integration of knowledge for peace is required.

10.- Human solidarity is essential to facing new threats, new wars, new and old pandemics, the great challenges of climate change, and especially the reconfiguration of the international system based on binding rules. The design of the best future scenarios will be determined by the capacity for innovation for peace and the application of new instruments and technical capacities to make it sustainable. This is related to the stability of political systems and their respect for the established system of binding norms. Partnerships for peace will allow for higher levels of cooperation. Achieving positive peace, progress, and development requires planetary solidarity; it will foster tolerance, peaceful coexistence, and harmony.

If you want peace, work for peace!

Innovation at the University for Peace

Dr. Juan Carlos Sainz-Borgo

The mandate given by the UN General Assembly (UNGA) in the creation of the University for Peace in 1980 (A/35/55) is clear in the need to train human resources for peacebuilding within the postulates of the UN Charter. Forty years later, again, UNGA Resolution of 2021, "Requests the University, given its role in developing new concepts and approaches to security through education, training, and research in order to respond effectively to emerging threats to peace."

For an educational institution, innovation is everything. Innovation is a necessary process of adapting to reality, but it does not happen by chance. Innovation is the culmination of a long process of study and reflection that should take place within academic institutions and think tanks to provide society with fresh ideas.

The architecture of international organizations is the fruit of negotiation by sovereign states within the conferences that negotiate their establishment. It stems from a vision, normally of an academic nature, which represents a disruption with the predominant thinking, the status quo, that takes place within academia.

The League of Nations, for example, was the materialization of a set of theoretical evolutions, beginning with the reflections of Immanuel Kant and others, like the Duc de Sully, the Abbé de St. Pierre, and William Penn. However, it will emerge clearly only with President Woodrow Wilson's Fourteen Points creating the bridge between theory and practice. Later President Wilson's determination called for the establishment of a general association of nations … under specific covenants for the purpose of affording mutual guarantees of political independence and territorial integrity to great and small states alike (Tams and Planck, 2006).

The League of Nations represented, at the time, a clear innovation in the management of global relations. Although

short-lived and with short-range objectives achieved, the League represented a fundamental change in the management of international relations. The League's structure evolved within the framework of innovation to accommodate the new reality of global relations that emerged after World War II. The two main points that stood out in this innovative approach were: 1. a structure that could respond quickly to threats to peace and 2. to adjust to the rapid processes of political change, in particular, the process of decolonization that was beginning to emerge in the years following World War II. In order to accommodate these new realities, political, geopolitical, and historical, a structure reflecting these realities was born. International politics was able to innovate without problems and create new structures, such as the Security Council, with the incorporation of the very complex concept of the veto within it.

Thus, the new organization born in 1945 was an innovative structure in management but also in substance, expressly prohibiting the use of force and criminalizing war as a way of putting an end to its use as a means of resolving disputes. However, the innovative spirit of the organization lost strength and an innovative perspective over time. The idea of reform within the United Nations emerged strongly 30 years ago. However, today it has left aside the spirit that initially shaped the organization to adjust to a more conservative vision, which has reduced the efficiency and effectiveness of its management in international politics and also in the field.

The reform's key area is the so-called Agenda for Peace, launched by Secretary-General Boutros Boutros-Ghali, and at the center of the reform is the Security Council. A very frequently discussed change to the UN structure is to modify the permanent membership of the UN Security Council, which reflects the power structure of the world as it was in 1945.

There are several proposed plans by the G4 nations, the Uniting for Consensus group, global South countries, and former UN Secretary-General Kofi Annan.

The discussion has many angles. For example, "From a geographical point of view, Asia's inadequate representation poses a serious threat to the UN's legitimacy, which will only increase as the world's most dynamic and populous region

assumes an increasingly important global role. One possible way to resolve the problem would be to add at least four Asian seats: one permanent seat for India, one shared by Japan and South Korea (perhaps in a two-year, one-year rotation), one for the ASEAN countries (representing the group as a single constituency), and a fourth rotating among the other Asian countries" (Sachs, 2016).

However, geography is not the main problem. The religious agenda has a very important place in this discussion, as it does not take into account Muslim countries. On the other hand, in regions such as Latin America, the fact that the spokesperson is in the hands of a country that does not speak Spanish may represent a stumbling block to be solved.

An innovative reform within the United Nations, but especially in the Security Council, is imperative. The events around the war between Russia and Ukraine, especially the veto from the first into the resolutions, resurrected old procedures from the Cold War era, like the invoke General Assembly resolution 377A(V), "Uniting for peace," adopted in 1950. (UN, 2022).

The idea of academic institutions that can open spaces of exchange, where academics, practitioners, diplomats, and government representatives can exchange, under the umbrella of innovation, to propose new forms of state relations, recognizing, within the framework of an academic environment, the political, geopolitical, geoeconomics and historical realities.

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Chapter **2**

Peace Innovation Context and Role of **UPEACE**

UPEACE is already a sort of lab

Juan Jose Vasquez

This exercise in pure experiential peace education and conflict management is a growing pool of opportunities for human-centered design and peace and conflict research.

Here, students from all over the world are thrown into a highly diverse multicultural environment to learn about peace and conflict, with close to zero knowledge about conflict and often with very distorted notions of peace. There, [the students] must learn to coexist by understanding that their very existence is the essence of conflict and that the management of conflicts relies, to some extent, on their ability to communicate and use their uniqueness as tools to encourage bold discussions and promote critical thinking and creativity to find and discuss ideas and practical solutions for their own everyday problems. And don't get me wrong, their "everyday problems" are not as simple as the words convey because these "everyday problems" are often the very own conflicts that they want to solve, the conflicts and violence that they are victims of in their home countries.

In a crowd of 150 people, you get a very varied mix of almost sixty nationalities, cultures, and languages. Hearing these students during classes raise their issues, tell their traumas, and share their knowledge with almost complete strangers is not only admirable but deeply humbling (And quite hectic sometimes).

All dramas unfold inside the University and around the community, including El Rodeo and Ciudad Colón— all necessary "dramas." All experiential exercises in conflict management—exercises in conflict management mixed with strong socialization activities to promote creative thinking (outside of campus, of course). Pura Vida!

This is not to say that the University promotes conflict (the University can barely manage a group of 150 adults roaming between classes and the shores of Costa Rica), but it is to say that, at its core, UPEACE teaches a very important and simple

premise: conflict often arises naturally from diversity, and it can be managed, often successfully, by teaching a basic set of skills.

Conflict literacy, if we should put a word to it.

UPEACE embodies in its name its very own philosophy: UPEACE or "you peace," which means you make peace. You embody peace. You are peace. And so am I. (We are peace, but WEPEACE does not sound so nice for an International University created by the United Nations)

UPEACE promotes an orderly chaotic learning environment close to nature in a politically stable and peaceful country—a safe place for bold discussions.

Throughout the curriculum, the students are guided by teachers and facilitators through peace and conflict courses mixed with a highly specialized curriculum in International Law and Human Rights, Environment and Development, Peace Education, Gender, Media, and Regional Studies.

And all of this, mixed with their cultural and academic backgrounds (and very broken Spanish skills), leads to an extraordinary exchange of knowledge and a brilliant exercise in creativity, empathy, and problem-solving.

At UPEACE, UPEACERS embody peace by understanding the uniqueness of their interconnectedness. Students embody their stories and allow themselves to be vulnerable before their peers and teachers. Speaking and sharing their experiences is part of the learning (and healing) process, and even if they don't know it yet, they are mixing their expertise and experiences with those of their peers, promoting more complexity and more ideas.

"Usually when it comes to conflict, we want to eliminate it or avoid it altogether. In the world of innovation, we need to not only dwell in it but also make it a regular part of our lives" (Degraff, J., & DeGraff, S., 2017).

But what should UPEACE's role be when talking about peace, innovation, and technology?

On this, it seems only natural to think that UPEACERS— people committed to studying and working on topics related to Peace and Conflict studies— could be the key to understanding and unlocking peace innovation. So once again, what should UPEACE's role be in peace innovation?

On the role of other Peace Innovation Labs:

To better understand UPEACE's role in Peace Innovation, it would be useful to analyze the mission statements of other Peace-related Innovation Labs in order to identify the driving force behind their innovation. Let's examine the mission of four different innovation labs:

Peace Innovation Lab Stanford, part of Stanford University Graduate School of Business.

Peace Engineering Lab, part of George Mason University's Jimmy and Rosalynn Carter School for Peace and Conflict Resolution.

PeaceTech Lab, a project in the planning phase, is part of the United States Institute of Peace.

PeaceTech Lab is a private initiative located in the William Jefferson Clinton Center for Peace and Technology.

Peace Innovation Lab Stanford

Stanford's Innovation Lab, which is part of the Stanford University Graduate School of Business, focuses on achieving consistent positive, pro-social behavior at scale using mediating technology. Their goals include establishing a market signal for the value of Peace, creating a new curriculum for ethical innovation and safe deployment of technologies that change human behavior, and catalyzing a peace tech sector and industry. An overly simplistic reading of Stanford's Lab shows a connection between peace innovation and business, suggesting a market-oriented approach.

Notably, the word "peace" is only used in the lab's name and not in the core of the mission statement, while the word "conflict" is absent. This implies that peace is seen as a marketable concept or brand that can be leveraged to encourage pro-social

behavior while providing guidelines for the ethical deployment of technologies that influence human behavior. Thus, the focus is on technologies that can promote pro-social behavior and induce behavioral changes.

Peace Engineering Lab

In contrast, the Peace Engineering Lab at George Mason University's Jimmy and Rosalynn Carter School for Peace and Conflict Resolution draws from the concept of peace engineering, which is the application of science and engineering principles for transdisciplinary systemic-level thinking to directly promote and support conditions for peace, as well as the safe and ethical deployment of emerging technologies. The Peace Engineering Lab utilizes fast iteration, public engagement, complexity-informed measures for complex times, and practice-informed theory to develop a Carter School approach to Peace Engineering through experimental research on tools, spaces, and processes that focus on transformation, power dynamics, complexity, accountability, governance, and narrative. The mission statement of the Peace Engineering Lab centers on understanding and engineering the system in which conflict unfolds to develop a Carter School approach to Peace Engineering. Conflict is viewed as a catalyst for change, and comprehending its complexity and systemic behavior is crucial to engineer peace by promoting conditions for peace and the safe and ethical deployment of emerging technologies. Although the Peace Engineering Lab uses the word "engineering," its mission statement does not explicitly mention technology, indicating a focus that is likely more academic and theoretical than practical.

PeaceTech Lab, United States Institute of Peace

The United States Institute of Peace aims to work at the intersection of technology, media, and data to devise means of reducing violent conflict worldwide. The lab envisions being a collaborative space where technology experts, conflict management experts, and fellows from conflict zones themselves come together to imagine, develop, and deploy new tools for the field. The lab's three main areas of focus are technology, media, and data. It plans to develop technology tools customized to meet the needs of citizens and organizations working for peace and positive social change in conflict zones, produce

curriculum-based multimedia content to inspire attitude and behavior changes and utilize new methods of data collection, analysis, and visualization to enhance peacebuilders' decision-making and collaboration capabilities. While the PeaceTech Lab intends to focus on reducing violent conflicts through the utilization of technology, media, and data, its mission statement does not provide details on how this task will be carried out or for what purpose. However, it is evident that the lab's focus will be on developing technology, producing content, and utilizing new methods of data collection, analysis, and visualization. It's worth noting that many of these tasks are already undertaken by large technology companies (except for the goal of reducing violent conflicts).

PeaceTech Lab, William Jefferson Clinton Center for Peace and Technology

In contrast, the PeaceTech Lab is a private initiative with the mission of reducing violent conflict using technology, media, and data. Their mission statement emphasizes the power of "peacetech" accessible to all, leveraging low-cost, easy-to-use technology and local partnerships to provide the right tools to activists, peacebuilders, and NGOs in some of the most violent places on earth. Their approach centers on democratizing technology with the hope of reducing violent conflict. Similar to the PeaceTech Lab at the United States Institute of Peace, the focus here is on developing technology tools customized to meet the needs of citizens and organizations rather than involving citizens and organizations in the development of their own tools for their own needs. The emphasis is on developing technology, not on meeting the needs of the population. The message is "we will create the solution to your problems and adapt it to your needs" rather than "we will accompany you in creating a solution to your problems." The solution is not solely focused on peacemaking but also on marketing.

Current Peacetech labs often face several challenges, most notably their top-down perspective. Many Peacetech labs approach peacebuilding and conflict resolution from a technology-driven perspective rather than a human-centered one. This can result in solutions that are not necessarily effective, inclusive, or sustainable, as they may not consider the complexities and nuances of local context, culture, and

power dynamics (Bauwens, 2017). The top-down perspective can also lead to a lack of participation and ownership from local communities and stakeholders, limiting the effectiveness and sustainability of Peacetech solutions. Furthermore, this perspective can reinforce existing power structures and exclude marginalized groups rather than promoting more inclusive and equitable approaches to peacebuilding and conflict resolution (Huebner, 2019).

To address these challenges, Peacetech labs must adopt a more human- centered, participatory, and inclusive approach. This involves engaging with local communities and stakeholders in the design, implementation, and evaluation of Peacetech solutions, ensuring that these solutions are culturally appropriate and relevant to the local context (Chalmers, 2016).

On conflict management and a critical view of current Peacetech Labs:

As mentioned before, a potential shortcoming of the creative process in some of these labs is their top-down approach to conflict rather than adopting a bottom-up perspective. A bottom-up approach focuses on understanding and addressing the needs and concerns of individuals or groups at the grassroots level rather than starting with high-level goals or strategies. This approach is more inclusive as it considers the perspectives and input of those directly affected by the conflict.

In practice, a bottom-up approach involves gathering information and feedback from grassroots individuals or groups and using that input to inform the development of strategies and solutions. This approach differs from a top-down approach, which begins with high-level goals or strategies without necessarily considering the perspectives and needs of those at the grassroots level.

If we examine the mission statements of the aforementioned innovation labs closely, we can observe that their approach to conflict often stems from conflict analysis, technology applicability, and potential business value. While this approach is not inherently wrong or bad, it may not capture the full complexity of peacebuilding. This line of thinking might lead us to believe that conflict can be fully described, including all its

elements and complexities, and easily solved to the satisfaction of all parties involved.

However, the truth is that conflict is far from being an exact science. Coupled with recent advancements in technology, computer science, marketing, and artificial intelligence, this reasoning may lead societies down intriguing but potentially perilous paths.

In light of this, we can ask: How helpful are copious amounts of conflict- related data if a computer cannot capture, sense, or analyze the emotions of the parties involved in real-time? While we can derive the average perception of affected parties according to an observer's "objective" scale, even the most advanced artificial intelligence cannot derive nuanced responses from a cluster of data that has not been interpreted and analyzed by humans.

The driving force behind peace innovation is not innovation itself, as innovation for the sake of innovation is merely repackaging goods for mass consumption. Innovating peace means creating diverse "peaces" or different approaches to addressing conflict positively. In many ways, peace innovation aligns with Jean Paul Lederach's definition of conflict transformation: "Conflict transformation is to envision and respond to the ebb and flow of social conflict as life-giving opportunities for creating constructive change processes that reduce violence, increase justice, in direct interaction and social structures, and respond to real-life problems in human relationships." (Lederach) However, this key element of "responding to real-life problems in human relationships" is surprisingly absent from some of the previously analyzed Innovation Labs. Some of these labs overlook the involvement of the parties in the actual peacebuilding process, including the design of the tools themselves. By neglecting to include their ideas, problems, backgrounds, feelings, and identity, a top-down approach prevails that ultimately benefits only those at the top.

Promoting (or even coercing) pro-social behavior through technology may make our societies less violent, but it does not address the underlying structural issues. Allowing our children to become intellectually dulled by mindlessly scrolling through endless feeds of irrelevant content might create a more peaceful

society (or at least a less reactive one), but does it provide anything of value to our communities?

On engineering and designing for peace:

Conflict can be seen as a complex and interconnected system in which multiple factors and actors interact to create and perpetuate it. This viewpoint aligns with Donella Meadows' work on systems thinking and systems change, emphasizing the importance of understanding and addressing the root causes of conflict to develop lasting solutions. Conflict is not a simple cause-and-effect relationship but a web of interrelated causes and effects. Resolving a conflict requires addressing the various factors that contribute to it rather than focusing on a single issue or problem.

Design thinking, with its emphasis on understanding user needs and perspectives, can be an effective approach to comprehending the multiple factors that contribute to conflict. By engaging with multiple stakeholders and adopting a human-centered and participatory approach, design thinking can help identify the root causes of conflict and develop innovative, collaborative, and sustainable solutions that address the underlying systems and power dynamics.

Empathy plays a vital role in both design thinking and effective conflict resolution. By taking the time to understand the perspectives and emotions of all parties involved, design thinking can foster a more compassionate and understanding approach to conflict resolution (Brown & Wyatt, 2010). The iterative and experimental nature of design thinking can also be applied to conflict resolution. By generating a range of potential solutions, testing them, and refining them based on feedback, design thinking can facilitate an experimental and agile approach to conflict resolution (Eisenberg, 2018). Additionally, design thinking highlights the importance of collaboration and co-creation. By involving all parties in the conflict resolution process, design thinking promotes a more inclusive and collaborative approach (Kelley & Littman, 2005).

In summary, a potential approach to conflict management using design thinking may involve the following elements:

Empathize: Understand the perspectives and emotions of all parties involved in the conflict.

Define the problem: Clearly define the conflict, its root cause, and its impact on all parties.

Ideate: Generate a range of potential solutions through brainstorming and collaboration, fostering creativity and innovation.

Prototype: Create a physical or virtual representation of potential solutions to test their feasibility.

Test: Trial the potential solutions in a controlled environment to assess their effectiveness.

Refine: Based on feedback from testing, refine the solutions and continue iterating until the best solution is found.

Implement: Once a potential solution is identified, implement it and monitor its impact to ensure effectiveness.

Evaluate: Regularly evaluate the conflict resolution process and make any necessary improvements.

It may come as a surprise, but UPEACE students (UPEACERS) already engage in most of these steps in their daily coursework. They empathize through discussions with their peers, define problems by understanding their impact on communities and countries, and ideate ideas and solutions through class discussions and coursework. Furthermore, UPEACE students already develop innovative platforms for peacebuilding and conflict resolution, bringing together different actors and stakeholders to address complex social and political issues. These platforms promote dialogue, cooperation, and understanding between groups, fostering alternative and peaceful conflict solutions. While these platforms may not transform into consumer goods or services, they are crucial for the well-being and impact they have on the communities they serve.

Additionally, UPEACE students have developed new economic models and practices that promote sustainability, equity, and innovative solutions to pressing social and environmental challenges. These models support local communities and

businesses, fostering greater economic resilience and stability in conflict-affected regions.

In essence, UPEACE is already engaged in innovation, or rather, UPEACERS themselves drive this innovation. UPEACERS, after their time at UPEACE, go on to create marvelous social innovation projects using the knowledge they acquired. However, translating these elements into products and services requires employing a set of tools to leverage applied conflict analysis knowledge toward a specific output (e.g., a goal, service, product) with a particular niche. It's essential to remember that conflict cannot exist without its context, so the end output or project should interact with and address the root causes of conflict within that specific population. The goal of this output should not only be promoting peace or peaceful coexistence but also encouraging and teaching conflict literacy while addressing the specific conflict's root causes. Technology can facilitate this learning process, but it should never be the ultimate goal, as the goals must always be human- centered (or even living-being-centered for inclusivity) peace.

The application of technology to peacebuilding and alternative dispute resolution is on the rise. Online collaboration tools offer resources to facilitate long-distance discussions and interactions. The emergence of artificial intelligence and advanced data analysis models provides an opportunity in the field of conflict studies, particularly in data summarization and analysis, to uncover correlations that inform better decision-making and policy development.

On the Paths for Peace at the University for Peace:

Considering the potential steps to take and the role of UPEACE in engineering peace, a valuable approach would involve leveraging design thinking and human-centered design methodologies applied to alternative dispute resolution. By understanding the needs of all parties involved and fostering creative problem-solving, design thinking can help identify underlying issues and develop mutually beneficial and inclusive solutions.

The iterative testing process of design thinking can also be utilized to test and refine potential conflict resolution strategies, leading to more effective and sustainable outcomes.

As an idea, this methodology can be employed alongside other product development approaches to design products and services that align with the United Nations' Sustainable Development Goals and UPEACE's mission. The objective is to use technology as a means to encourage conflict literacy through user interaction. Interaction design, in this context, refers to the design of the interactions between users and products, including software products, apps, websites, and beyond. Interaction designers strive to create meaningful relationships between people and the products or services they use, aiming to facilitate users in achieving their objectives in the best way possible.

It is important to emphasize that users encompass societies, countries, and communities, and the product is peaceful coexistence. Technology serves as the mediator of the interaction but should not be mistaken as the ultimate product itself. Instead, it is a tool to strive towards the product, which is peace or "peaces." This designed interaction between technology and users can foster conflict literacy while addressing other crucial elements of the conflict itself, with active involvement from the parties affected.

Considering UPEACE's role in building a PeaceTech lab, it is quite clear that UPEACE's strength lies in promoting innovation by encouraging conflict and inspiring students to engage in bold discussions and actions. Incorporating foundational courses in design thinking, human-centered design, and problem-solving, coupled with participation in living labs, ensures that students acquire knowledge geared towards actionable solutions. Here, students can implement, test, redefine, and launch their ideas, receiving diverse and relevant feedback from their peers worldwide to further enrich their knowledge and experiences.

It is important to clarify that advocating for creativity through vulnerability and honest dialogue in a safe environment does not imply promoting chaos, disorder, or violence, which are entirely incompatible with effective learning. Rather, UPEACE provides a conducive space to encourage open and respectful discussions

on peace, conflict, and their consequences. Courses such as the UPEACE Foundations Course or the UN Course, which are taught to all students in all master's programs, facilitate rich discussions within highly diverse groups, encompassing diverse knowledge and cultural backgrounds. Students are encouraged to share their stories, insights, experiences, and worldviews while exploring sensitive topics such as race, gender, inequality, and societal issues.

Many UPEACE students come from conflict-affected areas and have firsthand experience as victims of the violence they aim to eradicate. Their lived experiences enable them to address the root causes of conflict in a different, more empathetic, and humane manner.

On Building an Institutional Agenda on Innovation for Peace: Who, How, and What

Carlo Tognato*

Introduction

To successfully launch an initiative on innovation for peace, it is useful for UPEACE to take into consideration which institutions may have successfully played a role in this field or may currently hold great promise to do so, how such players have engaged in this field, and what fronts the field of innovation for peace currently encompasses.

With that in mind, UPEACE may then determine which areas of the field innovation for peace may be best suited in the light of its own strengths, weaknesses, opportunities, and risks, and in particular, what combination of curricular initiatives, interventions on the ground, and outreach may enable UPEACE to develop an institutional agenda with a strategic advantage vis à vis other relevant institutional players in this field.

This paper will provide some relevant background that may support a discussion on such fronts.

Innovation for Peace: Who and How

The launching of a broad institutional initiative on innovation for peace at UPEACE may benefit from taking a preliminary look at different institutional hubs that are already working on it. This may provide UPEACE with useful pointers as to the strategic choices that such institutions may have made to develop an agenda in that field, and by contrast, it might also help UPEACE bring into focus the strategic strengths, weaknesses, opportunities, and risks that it might have, or face, as it will strive to differentiate its own agenda on innovation for peace from existing ones while maintaining some strategic advantage.

Around the world, there are various centers that specialize in innovation for peace. Some are embedded within existing

leading universities. Others are independent. And yet others are embedded within international institutions. In addition, there are other centers with an international reputation on peace issues that do not exclusively specialize in the field of innovation for peace but have a track record of work in it. Here, I will single out the most relevant examples and will zoom into their programs. This may help bring into focus some of the elements that UPEACE might need to consider as it designs, plans for, and implements its own institutional initiative.

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Peace Innovation Lab at Stanford

The Peace Innovation Lab at Stanford University Graduate School of Business was founded in 2008. It started out as a class, then as a project within the Persuasive Technology Lab, and then it spun off into a formal lab. Its agenda unfolds at the intersection between behavioral psychology, technology, innovation, and business with a focus on peace. The Lab develops technologies that "specifically increase both the quantity and quality of positive engagement between people," and in the pursuit of its agenda on PeaceTech, it leverages the good-will of a world-leading academic institution in the fields of business, engineering, and innovation and its embeddedness in the innovation ecosystem of Silicon Valley (Peace Innovation

Research Stanford, n.d.). The Peace Innovation Lab works with corporations, governments, students, and NGOs and, over the years, has engaged in a number of projects on the front of institution- building, intervention, instruction, research, and mobilization.

More concretely, it has used its brand to set up a network of franchises/partnerships around the world and develop local peace innovation City Labs that have been able to tap into the resources of local municipalities and regions (Peace Innovation Projects Stanford, n.d.). Early on, the vision of such a network started out with a more focused scope. For example, Manor Labs was a partnership between the Stanford Peace Innovation Lab and the City of Manor, Texas, and studied "how technology can condition citizens toward more active participation in identifying, prioritizing, and solving local community problems." (Peace Innovation Projects Stanford, n.d.).

The Peace Innovation Lab also deployed its capacity-building power to set up innovation hubs within institutional networks whose mission partially overlaps with the field of peace innovation. For example, it joined forces with Stanford University Center for Deliberative Democracy, Makerere University, and Tulane University to set up a ResilientAfrica Network, which USAID funded, and sought to apply science and technology to improve the resilience of African communities against natural and political stresses(Peace Innovation Projects Stanford, n.d.). The network brought together 20 African universities from 16 countries. On that occasion, the Peace Innovation Lab did not only support the creation of Resilience Innovation Labs across the network but also contributed to online course development for ResilientAfrica.

The Lab's Peace Entrepreneurs in Residence program, in turn, builds ties that link outside entrepreneurs with members of the Stanford community. In particular, the entrepreneurs in residence bring industry resources that may enhance the mission of the Lab and may support the creation of "technology-mediated interventions that reduce negative engagement and/or increase positive engagement across a defined conflict boundary." (Peace Innovation Projects Stanford, n.d.).

Other projects have focused on specific problems and have shown a greater interventive streak. For example, Relief 2.0 sought to address the use of technology in Agile Crisis Response, allowing people to remotely assist in disaster relief and recovery through crowdsourced mapping, victim identification, family reunification, logistics, and mobile medical records collection. Under the Relief 2.0 umbrella, the Lab engaged in empirical research that supported field assistance in Haiti and the coordination of CrisisCamp Chile to respond to an earthquake (Peace Innovation Projects Stanford, n.d.). The Cloud to Street project, in turn, in partnership with Freeman Spogli Institute's Liberation Technologies program, explored how the networked power of Egyptian activists could be projected into offline political processes (Peace Innovation Projects Stanford, n.d.). Finally, in May 2011, the HackforEgypt Unconference and Hackathon brought together programmers and engineers with Egyptian activists at Stanford University to discuss applications that might help their cause (Peace Innovation Projects Stanford, n.d.).

On the instructional front, in Spring 2008, the Lab ran a Peace Innovation Course with the goal "to learn how to invent peace, and then to create resources for others to do the same. Students worked in small teams to run peace innovation trials with Web 2.0 technology." (Peace Innovation Projects Stanford, n.d.). Via its Peace Innovation Institute, the Lab has also developed programs and curriculum for corporations.

On the research front, it has set up a Game Design Thinking Research Group that brings together game design, narrative design, psychology, and neuroscience and applies it to the field of peace (Peace Innovation Projects Stanford, n.d.).

The Lab has also mobilized support for peace initiatives from business, civil society, and academia. Through Pax Exchange and in collaboration with the Innogy Innovation Hub, for example, it has created "a marketplace" that brings together "leading tech companies, city officials and social entrepreneurs to find smarter and cheaper solutions to increase positive engagement" (Peace Innovation Projects Stanford, n.d.). With the EPIC Global Challenge, the Peace Innovation Lab, and the Persuasive Technology Lab at Stanford University, launched

the Earth-wide Peace Innovation Collaboration Challenge to start an open innovation process designed to measurably reduce "wicked problems" (Peace Innovation Projects Stanford, n.d.). Finally, in October 2009, via PeaceDot, it sought to persuade individuals, organizations, and corporations with a website to set up a subdomain featuring their efforts at helping promote peace in the world. Over 50 sites, including Facebook, joined (Peace Innovation Projects Stanford, n.d.).

The Lab has also produced a number of publications, though, from its website, they do not appear to constitute one of its most conspicuous foci.

Peres Center for Peace and Innovation

Unlike the Peace Innovation Lab at Stanford University, the Peres Center for Peace and Innovation (Israeli Innovation Center, n,d.) is not embedded in an academic institution. As a result, it is much more streamlined, strategically focused, and clearly action- oriented. It features four strategic areas, each of which includes various programs that have been consistently sustained over time. Such strategic areas are Sports, Medicine and Health Care, Leadership and Entrepreneurship Cultivation, Business and Innovation.

Sports features two programs. Twinned Peace Sports Schools “twins” Jewish and Arab as well as Israeli and Palestinian communities together through a peace education program. Each year, all participants play in a "World Cup" themed tournament and “together with ambassadors from around the world, local mayors, and Israeli Premier League players, enjoy a full day of sports, FairPlay, and peacebuilding” (Israeli Innovation Center Sports, n.d.). Furthermore, through Playing Fair, Leading Peace - Bringing FairPlay into the classroom! Jewish and Arab, secular and religious, university students around Israel take part in leadership building and training in the Center's Peace Education through Sports methodologies and then gain hands-on experience in the Twinned Peace Sports Schools (Israeli Innovation Center Sports, n.d.).

Medicine and Healthcare encompass two programs. Saving Children treats Palestinian and Syrian children in hospitals throughout Israel, providing them with complex medical

treatment. Since 2003 it has treated 12,500 children (Israeli Innovation Center Medicine and Healthcare, n.d.). Training doctors and medical professionals enables outstanding Palestinian medical professionals to train in Israel for a period of several years under the mentorship of Israeli senior physicians. The program has so far trained 250 doctors and medical personnel, who have treated 1 million Israeli patients during their training (Israeli Innovation Center Medicine and Healthcare, n.d.).

Leadership and Entrepreneurship Cultivation features three programs. Bridges for Peace is an educational program in partnership with the Edmond de Rothschild Foundation and Google Israel that enabled Israeli Druze, Muslim, and Jewish high school students to leverage innovative platforms for the purpose of creating bridges and an infrastructure for coexistence among them. In particular, the program brings together school students, offers training for teachers, and involves university students as mentors (Israeli Innovation Center Leadership and Entrepreneurship Cultivation, n.d.).

G.I. - Education Generating Innovation targets 14- 16-year-old youth and offers sessions of training on "Keys to Innovation" (Israeli Innovation Center Leadership and Entrepreneurship Cultivation, n.d.). YaLa Young Leaders brings together Israelis, Syrians, Algerians, Palestinians, Moroccans, Jordanians, and more for in-depth conversations and joint study. So far, it has brought together one million young people from across the Middle East and North Africa region (Israeli Innovation Center Leadership and Entrepreneurship Cultivation, n.d.).

Business and Innovation features six programs. Promoting Cross-Border Business Partnerships brings people across borders together to “engage in joint research, find innovative solutions to shared challenges, enhance professional development, and gain professional business connections” (Israeli Innovation Center Business and innovation, n.d.). The Starting Up Together program, in partnership with the Edmond de Rothschild Foundation, the start-up accelerator MassChallenge Israel, and Tel Aviv University’s TAU Ventures, provides an accelerator program for entrepreneurs from across the country (Israeli Innovation Center Business

and innovation, n.d.). The Startup-Link program is setting up together with young Palestinian entrepreneurs, an incubator-accelerator in the Palestinian Authority with an eye to supporting Palestinian innovation and building connections between the Israeli and Palestinian entrepreneurial ecosystems (Israeli Innovation Center Business and innovation, n.d.). The Israel eBay StartUp Cup program is a 6-7 month business-building accelerator that helps entrepreneurs to build viable businesses (Israeli Innovation Center Business and innovation, n.d.). The SharakeHTech - Partnership for New ICT Horizon program is a 3-year program offering Palestinian companies capacity- building and "matching making" opportunities with Israeli companies and providing Palestinian students and recent graduates with work experience opportunities in the ICT industry (Israeli Innovation Center Business and innovation, n.d.). Finally, the CityZoom program establishes connections between innovators, local and multi-national companies, and city governments, offers round tables and webinars, and organizes an International Smart City Conference (Israeli Innovation Center Business and innovation, n.d.).

Innovation Cell at the Department of Political and Peacebuilding Affairs, United Nations

In January 2020, the Department of Political and Peacebuilding Affairs at the United Nations launched an Innovation Cell for the purpose of understanding, exploring, piloting, and scaling up new technologies, tools, and practices in conflict prevention, mediation, and peacebuilding.28 The Innovation Cell provides "a forum for colleagues at UNHQ and in the field to engage collaboratively in human-centered design and problem-solving." It provides a "space for new ideas, prototyping, and experimentation, and exploring new ways of informing and measuring our work" (UNDPPA, 2020). It is part of the U.N.'s Innovation Network (UNIN) and "works to galvanize an ecosystem of technology, civil society, and academic partners outside the U.N. system on peace and security use cases, thereby leveraging innovation for the shared goal of peace" (UNDPPA, n.d.).

Its areas of interest include big data and social media analysis, remote sensing and satellite imagery analysis, artificial intelligence and machine learning, natural language processing,

virtual and augmented reality, and behavioral insights (UNDPPA, 2020). Projects have included, for example, mining of Twitter during the elections in Bahrain in November 2018, the detection of potential water conflicts in the Tigris–Euphrates since 2019, digital focus groups in support of ongoing peace processes, developing a language corpus for dialects to detect sentiments and hate speech, improving mediation settings and intergroup dynamics.

The Innovation Cell intends to apply these innovative approaches to tackle the climate crisis, geostrategic tensions and conflict fragmentation, deep and growing global mistrust, the dark side of the digital world, the spread of misinformation and disinformation, and the fall-out of COVID-19. (UNDPPA, 2020).

Like Stanford University's Peace Innovation Lab, the scope of the U.N. Innovation Cell is broad and relatively open-ended. Furthermore, as much as the Peace Innovation Lab can tap into multiple resources for innovation – human talent and institutional – that are available within Stanford University, so would the Innovation Cell appear to do with respect to the entire U.N. system. On the demand side, then, while the Perez Center for Innovation and Peace has a solid chance to embed its initiatives within Israeli institutions, given its close ties with them, the U.N. Innovation Cell may, in principle, hold an even greater promise at piloting its prototypes and later embedding its innovations within the practice of U.N. agencies as it is part of the U.N. system.

Peace Research Institute Olso (PRIO)

The Peace Research Institute Oslo (PRIO) is a research institution that specializes in exploring the conditions for peaceful relations between states, groups, and people. Its focus is more academic, and thus PRIO seeks to exercise an impact on society by producing high-quality research and by publishing it in relevant academic outlets. It does not run interventions, nor does it directly engage in embedding its proposals into institutional practice (PRIO, n.d.).

With regard to the specific field of peace innovation, PRIO has produced various publications. These, in turn, have originated

from research projects – often with a 5-year horizon- or research groups, which may or may not exclusively focus on peace innovation.

Innovation for Peace: What

The field of innovation for peace features a variety of fronts. Here, I will lay them out for the purpose of showing the options that UPEACE faces today as it takes action to assert its role within this field.

Narrative Innovation

Narrative innovation commonly starts with the scoping of a given narrative landscape. Scholars and practitioners have shown that narratives may shape the way social groups relate to one another. They shape their identities, their collective memory, their grievances, and the way they set out to address them. And this is why major philanthropies such as Ford Foundation and the Open Society are betting on a narrative change in an effort to build peace.34 Practitioners in the field of peacebuilding, in turn, are setting up practice groups that specialize in narrative.

They map out the narrative landscape of specific contexts of intervention and seek to understand the influence of narratives on social dynamics in conflict and post-conflict settings. They plan narrative interventions and then implement them at the grassroots level, among civic, political, and institutional influencers, and then at the societal level (IFIT, 2021). And then, to carry out that narrative work, they deploy a variety of methods, including narrative facilitation, narrative survey, gaming and simulation, narrative braiding, public/grassroots theater, small storytelling, and scenario-building.

Then, it engages in narrative prototyping. After that, narrative prototypes are piloted in small and relatively controlled contexts. Subsequently, narrative intervention in real-life settings is scaled up, and the carriers of new narratives generally seek to embed them in a variety of scenarios – religious, aesthetic, the media, scientific, institutional, and legal. To succeed, narrative innovators do not only need to understand how to craft new narratives, but they also need to comprehend how to enact them in ways that make them performatively powerful.

Social innovation

In addition to narrative change, peacebuilding also calls for change in social structures, networks, modes of interaction, institutions, and regulations with an eye to increasing equality, promoting justice, and supporting empowerment and agency. This is why the peacebuilding community has paid attention to the role of social innovation for peace.

Social innovations may focus at the micro-level and may thus impact the quality of life of people. They may target the meso-level and impact organizations, communities, and governance. And then, they may address the macro-level and strive to impact society at large. To that end, they may focus on specific social processes, such as citizen participation, collective intelligence, collaborative work, and citizen activation, and may address specific problems, such as rebuilding trust, countering prejudice and intolerance, remedying poverty or increasing employability.

Like in the case of narrative innovation, social innovation entails a process of assessment, design, prototyping, piloting, and scaling up. Bearing that in mind, universities around the world that feature programs on social innovation for peace couple an instructional component in this area with hands-on exposure to the field in partnership with local social innovators (Social Innovation for Peace, n.d.).

Educational Innovation

Educational innovation for peace is crucial to cultivate new dispositions and competences that may serve peaceful relations and that may solidify identities that are consistent with them. It may, for example, seek to counter prejudice and discrimination and support trust, recognition, and respect. It may focus on youth in schools and young adults in universities, but it may also target specific professional settings where, for example, public security forces or officials from the judicial branch are trained. In addition, it may be deployed outside of classrooms and within a variety of social scenarios that may gather religious, social, or political groups.

Educational innovation taps into a broad spectrum of approaches, including cultural exchanges, intercommunal

workshops, experiential learning exercises, reflective practices, photography, poetry, improvisational theater, dance, music, and sport, and may leverage computer and board games (Manojlovic, 2018). Organizations such as Games for Peace and Games for Change, for example, have helped crystalize a virtual community that creates and shares such games for people in conflict zones (Games for Peace 2017; Games for Change 2017; Manojlovic, 2018, p.45). Finally, they may turn to digital storytelling for the purpose of supporting expression, communication, and mutual recognition across social groups.

Once again, just like in the case of narrative innovation and social innovation, educational innovation also involves an interventional component which pilots innovative ideas and then scales them up.

Product innovation

A broad spectrum of new products may have the potential to positively contribute to peacebuilding. These may include cultural products, services, and consumer products, among others.

As far as cultural products are concerned, fiction and non-fiction literature, cinema, theater, musical performances, and other forms of artistic expression may serve the purpose of processing trauma in post-conflict society or in furthering a more complex understanding of social reality that may, in turn, allow for mutual understanding as well as greater tolerance and empathy and may contribute to counter the legitimation of violence, prejudice, and hatred. Such plays as Dekh Tamasha Chalta Ban by Ajoka Theatre Company in Pakistan, for example, addressed the rise of religious fundamentalism, the persecution of religious minorities, and the role of the audience as silent bystanders. It was first performed in 1992 during violent clashes between religious groups (Naidu-Silverman, 2015, p. 16). The Cave, a 2019 Syrian-Danish documentary film, represented the life of a physician in Ghouta who operated a makeshift hospital - "the Cave" - during the Syrian Civil War. The film premiered at the Toronto International Film Festival (TIFF) in 2019. A Girl from Mogadishu, an Irish-Belgium film, told a fictionalized story based on the testimony of a Somali refugee, Ifrah Ahmed, one of the world's leading activists against gender-based violence. The

film won the 2020 Cinema for Peace Women's Empowerment Award. Capernaum, in turn, a 2018 Lebanese drama film told the story of a 12-year-old living in the slums of Beirut. The actor was himself a young Syrian refugee. The film was first screened at the 2018 Cannes Film Festival, competed for the Palme d'Or, and ultimately won the Jury Prize.

As far as services are concerned, advertising has been used to target behavior and beliefs that support violence and has thus been enlisted in the pursuit of peace. The so-called "Redirect Method" interference campaign, for example, targeted ads at Google users that were searching for violent extremist content and showed them videos expressing alternative, more moderate views. It was originally proposed by Google's spin-off Jigsaw and was implemented between 2015 and 2016 in North America by Moonshot CVE (Boyle, 2019).

On the consumer product end, the nonprofit organization Because International designed and produced The Shoe That Grows, that is, a shoe that grows five sizes and lasts for years. The product addresses the need of millions of children in poor communities that cannot afford shoes and that are vulnerable to soil-transmitted diseases and parasites conducive to illness and even death. The idea of such a product came to the American founder of Because International when after college, he lived and worked for an orphanage in Nairobi (The Shoe that Grows, n.d.)

Technological Innovation

Technological innovation has also been enlisted in the pursuit of peace. Digital peacebuilding has been a burgeoning field and has featured a broad spectrum of practices, including digital citizen journalism and cyber witnessing, digital conflict analysis and ceasefire monitoring, digital election monitoring, digital early warning of violence and dangerous speech, digital public opinion polling, digital coordinating and managing crisis information, digital fact-checking to stop missinformation facilitating intergroup digital dialogue, digital upstanding, digital hackathons, and PeaceTech startups (Schirch, 2020).

Certain pioneering applications have been used to provide high-resolution satellite imagery in 2007 to document the genocide

in Darfur in western Sudan as part of the United States Holocaust Memorial Museum's Crisis in Darfur project and in collaboration with Google Earth. In 2008 the free, open- source software Ushahidi helped witness in 2008 post-election violence in Kenya by gathering reports from the community (Scaturro, 2016).

Gaming has also been extensively used to weave relationships among young people. The organization Peace Games, for example, has brought children from different schools and communities together to create and play games with each other (Manojlovic, 2018).

In the field of humanitarian demining, drones with infrared cameras have been innovatively applied to locate mines in large hazardous areas (World First, 2018).

And finally, to address the needs of children who lost their limbs in conflict zones (and beyond), the organization E-Nabling The Future has brought together a broad spectrum of volunteers - engineers, 3D-printing professionals, physical therapists, and designers – to develop fused and distribute superhero-themed 3D-printed low-cost prosthetic hands for children in need (E-Nable, n.d.)

Entrepreneurial innovation

Entrepreneurial initiatives also provide another site "for intergroup socialization based on this shared interest, which can become a lever for social cohesion and the establishment of sustainable peace" (Entrepreneurship for Sustaining Peace, 2017). Generally, entrepreneurial innovation for peace support business development, incubation, acceleration, and financing.

Jusoor, an entrepreneurship program in Lebanon, or the Business and Peace programs run by the Peres Center for Peace and Innovation and the Center for Jewish-Arab Economic Development, are a typical example in this respect. In Colombia, PeaceStartup has engaged in the business acceleration of ventures that may contribute to peace consolidation. Some of the business projects supported by this organization brought together former guerrilla members, members of the Colombian public security forces, and victims of the internal armed conflict

(Entrepreneurship for Sustaining Peace, 2017). In Africa, in turn, the NGO Spark, in cooperation with the Burundi Business Incubator, has assisted refugees returning to their neighboring countries by providing coaching, leadership training, and financial support for their businesses (Peacebuilding for Sustainable Reintegration, n.d.).

The field of innovation for peace offers a variety of fronts on which UPEACE may choose to develop its own institutional agenda. Some of these areas appear to be more tightly connected to one another. For example, narrative, social, and educational innovation may be seen as a cluster, and so may product innovation, technological innovation, and entrepreneurial innovation. That said, there are obvious connections between these two clusters. Narrative innovation, for example, may feed into product innovation, particularly as far as cultural products are concerned, but it may even support new business ventures or the creative process that may lead to technological innovation. If UPEACE is to select some of the areas of innovation for peace that I mentioned above, it might be worth keeping in mind the externalities that an agenda on one might have on the agenda of others, and thus it may be worth choosing a bundle of areas that maximize those externalities while capitalizing at their best on the strategic strengths of UPEACE.

All areas of innovation for peace entail a stage on the ground of assessment, piloting, implementation, and scaling up. In other words, intervention is an inherent dimension of research and learning in the domain of innovation for peace. If UPEACE is to develop a distinctive program in such a domain, it might thus be helpful to establish in each area of the program one or two initial interventions on the ground, in collaboration with civil society and institutional partners, that may later serve as "labs" for the young innovators for peace that would later come to UPEACE for training. At that point, having various graduate students focusing on each intervention might build up a critical mass of research with a high degree of cross-fertilization and with distinguishable focuses that might enable UPEACE to gain earlier and increased visibility before international audiences of academics and practitioners. The more successful UPEACE is at that, the greater the chances for its graduate

students who enlisted in such interventions would be to produce scientific contributions with a distinctive impact on their field and ultimately on their professional careers.

Such initial interventions would make up part of the strategic "infrastructure" in support of the initiative on innovation for peace at UPEACE. If necessary, by hiring residential or non-residential faculty, UPEACE might consider setting up such an infrastructure of "labs" that would then support training in the field of innovation for peace. This way, it could import existing agendas of intervention that might be running, developing, or incubating elsewhere. It would not need to design them from scratch, and thus, it would be able to cut the time needed to put that infrastructure in place.

The existence of a portfolio of interventions and, thus, of a set of alliances with institutional, corporate, and civil society partners on the ground where the interventions would be deployed might also allow UPEACE to apply for additional funding that might later support experimentation on the part of those graduate students that would be working on those interventions.

As the initiative on innovation for peace consolidates and expands, UPEACE may then consider launching new interventions based on the innovative ideas that its graduate students or prospective students might contribute. To act as an incubator, though, it would be important to first develop a successful track record of interventions in the field of innovation for peace.

Innovation for Peace at the Edge between Academia and Peacebuilding Practice: A Personal Note

In order to provide a more concrete account of what an agenda on innovation for peace might look like at the edge between academia and practice, how it would weave scientific products with other derivatives of practical interventions on the ground, what practical impacts it might strive to pursue, what barriers or ceilings it might stumble into, and thus how a structured institutional initiative on innovation for peace might contribute to circumvent them, I will here refer to my personal engagement in this field.

Up until 2014, my professional practice as an academic did not entail any interventions on the ground nor any public engagement outside the academia (Palgrave-Macmillan, 2012). Something unexpected, though, triggered a chain of events that would forever change my research agenda, transform my academic practice, and ultimately reroute my entire professional trajectory.

In August 2014, Colombia's Inspector General ordered the dismissal of a faculty member in my own department whom he had found to be leading international propaganda and university recruitment for the FARC. A horde of hooded militants reacted to his decision by storming into the sociology building of our campus and vandalizing it. When the director of the sociology department confronted the colleague in question before the rest of its faculty members and urged him to say something about that, as they were acting in his name, he replied that he had not sent them but added that "certain actions might appear irrational to some but effective to others." I thought that I could not let my director's demand for accountability stand alone, and thus, I published a long open letter to that colleague and the rest of the university community, which at the time circulated across university communities in Colombia. There, I argued that invoking the principle of university autonomy against the “interference” of the Inspector General into the life of the university, as my colleague did, and failing to do so in the face of the interference of those hooded militants was troubling. In fact, an asymmetric deployment of that principle would raise doubts about the authenticity of his commitment to that principle.51

In the following days, various colleagues that bumped into me in the university corridors whispered their sympathy with my posture, and one of them even apologetically told me that he would have liked to take a public stance in support of my open letter, but his wife forbade him to speak up. In the following months, I gave various public lectures that openly addressed violent practices on the campus of the most iconic public university in Colombia as well as its local practices of intimidation by insurgent groups and anarchists (León deGreiff, In Person Lecture, National University of Colombia, October 14, 2014). To cast an alternate narrative that might contribute to countering the cultural legitimation of violence in Colombian

public universities and to start a broader public conversation over this issue in the Colombian public sphere, I published on the topic in cultural magazines. I gave interviews to major Colombian media (León, 2015), and I wrote approximately 25 op-eds over a two-year period (Tognato, 2016). The former spokesman of the M19 guerrilla group at the peace process that demobilized that organization in the early 1990s was one of the first who publicly came in support of my intervention in an op-ed that was published in Colombia's leading weekly magazine (Jiménez, 2015). At the time, I also launched an open call for testimonies on violence, intimidation, and fear on my campus, which university officials were initially hesitant to circulate (Tognato, 2015). A year into those interventions, I shifted gears and tried to mobilize broader public conversations across 5 faculties in my own university as well as in other Colombian universities, both private and public, which ended up bringing on stage more than 20 faculty members to address such a taboo topic. On my own campus, hooded militants turned up at some of those public conversations, and on one occasion, they imposed their presence on stage (Tognato, 2019).

After that, I tried to set up a think-tank with the sole mission of intervening in the national and local public spheres and engaging in counter-radicalization. This institution brought together my own, Colombia's leading public university, the leading elite university in Medellin, FLACSO- Mexico, and the co-director of Yale's Center for Cultural Sociology as the chair of the board (Tognato, 2016). Such a governance structure was meant to afford the think-tank the sufficient wiggle room that would enable it to push its counter-radicalization narratives more assertively while eluding the obstacles that certain actors might set in order to drown them at birth. In the end, my chancellor pulled back his support, signaling that he preferred that the think-tank stayed under the exclusive control of our own university. At the time, my university was financing a sprawling number of think tanks that specialized in an extraordinarily wide spectrum of topics. One of them, for example, was established in 2016, and its mission was to study and popularize the thought and figure of Camilo Torres, a former chaplain of the National University of Colombia who, in the 1960s, joined the ELN and became one of its icons.

In 2016 my first agenda of intervention on violence in Colombian public universities ended abruptly when a peremptory tacit red line was crossed. For the first time in the history of our institution, together with 31 other faculty members of the Faculty of Human Sciences, many of whom served as department directors and had served as deputy vice-chancellors of our university, we questioned in an open letter the academic award that our dean had hastily assigned to our colleague whom the Inspector General had called for dismissal two years earlier and who, at that time, was in jail on rebellion charges (Tognato et al., 2016). That initiative sparked a very lively public conversation in the national public sphere and within our university about the colonization/capture of the academic function of Colombian public universities by external political agendas and the latent risk of their transformation into organs of indoctrination (Tognato, 2016). Today, that debate is very much alive in Mexico.61

That intervention completely compromised the possibility for cooperation between the militant revolutionary faction of the university community and the members of the civil-minded segment that had supported the open letter. The former, in fact, came to see itself as inherently antagonistic to the latter (Tognato, 2018). To restore the conditions for exchange between the two parties, a new narrative became urgently necessary that might attempt to sustain such exchange in the face of that profound fracture and the mutual distrust that ensued. That is when I launched a new narrative intervention seeking to plant within the national public sphere the narrative of the "Righteous in the Colombian armed conflict," which extended the Holocaust category of the "Righteous among the Nations" and applied it to the Colombian context.

The idea was to identify exemplary stories of Colombians from all corners of society and across the political spectrum – the "Oskar Schindlers" of the Colombian armed conflict - who faced important personal costs and risks to protect others on the opposite side in the midst of extreme violence. To rebuild mutual trust and cross-group solidarity, in other words, it would be necessary to reimagine it as a possibility first. The exemplary stories of the Righteous in the Colombian armed conflict might show that it was indeed possible. To push that narrative

into the Colombia public sphere, I published various op-eds (Tognato, 2016) and convinced other influential Colombian opinion-makers to join the conversation by contributing their own thought about it in their own op-eds (Wasserman, 2017) I organized an event that brought together the private sector, government officials, public security forces, academics, and the media and sought to enlist such stakeholders in the deployment of the narrative of the righteous across different scenarios of social life in Colombia (los Iustos en el Conflicto Armado Colombiano, 2016). I also organized a National Journalism Prize on "The Righteous in the Colombian Armed Conflict" and raised the funding for the prizes from a private sector donor.66 I gave talks on this topic at the University of Minnesota, Wisconsin at Madison, Pittsburgh, Yale, and FLACSO-Mexico (Soto, 2018) I engaged the Colombian Truth Commission on the use of telling the stories of the Righteous in the Colombian armed conflict. And then, in an effort at making the category stick even more, I experimented with broadening it and applying it in a book about the righteous in international migration (Tognato et al., 2020)

Two years of interventions resulted in the long series of products – articles (Tognato et al., 2021), book chapters, (Tognato, 2021) edited books,71 op-eds, public lectures, and talks,72 - into the organization of a Journalize Prize and of various public events as well as into an exercise of institution-building that in the end did not prosper. Most importantly, that two-year period of interventions laid the foundation for a second stage that would seek to deploy the narrative of the righteous not only in Colombia but also in other Latin American countries and across a number of institutional settings, including schools,73 universities,74 military academies, philanthropic foundations,75 schools of journalism,76 and the training institutions of state officials, particularly from the judicial branch, by partnering up with state agencies, international agencies, and civil society. Also, such a second stage would envisage partnering with film and T.V. producers for the purpose of incubating documentaries or short T.V. series on the topic. And concurrently, this second stage would also feature a second pillar that would open up the conversation over the risk of capture of universities with partners from across Latin America.

When graduate students join an "innovation lab" that engages in narrative design, prototyping, and intervention, they may have a chance to directly participate in the generation of the full scope of academic products that may ensue from such activities. Furthermore, they may have an opportunity to learn or further develop the skills required to carry out those interventions, including those necessary to catalyze public conversations across a variety of media. Finally, they may also get involved in the design of the cultural productions that might potentially branch off from those interventions.

The creation of an infrastructure of interventions that students may need to train in the field of innovation for peace almost regularly takes time to come into place and often involves a consuming process of trial and error. The success of an institutional umbrella that supports training in the field of innovation for peace will be measured against the efficiency gain that it delivers along that process by minimizing the risk that innovators might be forced to desist too early from trying by optimizing the number of trials that might be needed, thereby making sure that each trial is intensively sifted through so as to extract the most insight that it may be capable of yielding, by helping contain the magnitude and consequences of the errors, and when innovations are ripe for deployment and scaling up, by mobilizing all necessary institutional resources, and particularly the institution's social capital, to allow for smoother and more agile deployment and to yield maximum acceleration when scaling-up is in order.

The Strategic Choice Ahead: Conclusion

Innovation has been recognized to play an important role in peacebuilding. Different institutions around the world have contributed to this field on a variety of fronts. The Peace Innovation Lab at Stanford University, the Peres Center for Innovation and Peace, the Innovation Cell at the Department of Political and Peacebuilding Affairs of the United Nations, and the Peace Research Institute Oslo (PRIO) provide different examples of institutions that are contributing to this field in a variety of ways.

The field of innovation for peace features multiple areas: narrative innovation, social innovation, educational innovation, product

innovation, technological innovation, and entrepreneurial innovation. Such areas are connected to one another, but some are more tightly connected among themselves.

As the field of innovation for peace involves a stage of analysis, prototyping, piloting, implementation, and scaling-up, training in this field also demands a direct exposure of students to intervention. Thus, outreach and intervention are bound to constitute an inherent dimension of a curriculum on innovation for peace.

As UPEACE decides to launch an institutional initiative in the field of innovation for peace, it will need to make a strategic decision as to which areas its initiative will initially focus on. To do so, it might need to evaluate its strengths, weaknesses, opportunities, and risks, and, based on them, it may need to identify where its strategic advantage lies with respect to other institutions that are actively engaging in this field. Such assessment, in turn, will be useful to orient the creation of an infrastructure of interventions, or the consolidation at UPEACE of existing ones, that may support UPEACE's standing in this field. It will also help guide the pursuit of downstream partnerships at the receiving end of innovation or upstream at the source of it, and finally, it will contribute to better aim the hiring process of faculty that will be tasked to build and/ or consolidate UPEACE's agenda in this field as well as the admission process of students that might be best suited to realize the promise of that agenda.

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2 See https: /www.peaceinnovation.stanford.edu/peace-projects.

3 Ibid.

4 Ibid.

5 Ibid.

6 Ibid.

7 Ibid.

8 Ibid.

9 Ibid.

10 Ibid.

11 Ibid.

12 Ibid.

13 Ibid.

14 See https: /www.peres-center.org/en.

[15] See https: /www.peres-center.org/en/the-organization/projects/sports/.

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[18] Ibid.

[19] See https: /www.peres-center.org/en/the-organization/projects/leadership-entrepreneurship-cultivation/.

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[23] Ibid.

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[26] Ibid.

[27] Ibid.

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[38] See Manojlovic, "Peacebuilding through Education," p. 48.

[39] Ereshnee Naidu-Silverman, "The Contribution of Art and Culture in Peace and Reconciliation Processes in Asia," Danish Centre for Culture and Development, September 2015, p. 16.

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Workshop on Innovation and Peace at UPEACE: A Way Forward

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Today's technological change is proceeding at a pace unprecedented in human history. In a 2015 Foreign Affairs article, Klaus Schwab labeled it "The Fourth Industrial Revolution" and described it as "a fusion of technologies blurring the lines between the physical, digital, and biological spheres… that is building on the digital revolution that has been occurring since the middle of the last century." He continued to assert that "…the possibilities of billions of people connected by mobile devices, with unprecedented processing power, storage capacity, and access to knowledge, are unlimited. And these possibilities will be multiplied by emerging technology breakthroughs in fields such as artificial intelligence, robotics, the Internet of Things, autonomous vehicles, 3-D printing, nanotechnology, biotechnology, materials science, energy storage, and quantum computing."

It is critical that UPEACE recognize this change and develop teaching and research programs that take it into account. These technologies will impact prospects for creating peace in situations of intense conflict and for sustaining peace in situations with well-established cooperation. Thus, it will be critical for UPEACE to develop new programs that reveal how these fast- changing technologies will impact both conflict and peace and to also strengthen existing programs whose focus will remain important even as these new technologies develop. At the same time, programs focusing on new technologies cannot be ends in themselves. Rather they must be seen as supports for the core of the UPEACE mandate - to "promote among all human beings the spirit of understanding, tolerance, and peaceful coexistence." They can also facilitate humanity in developing a shared sense of destiny necessary for promoting such a spirit.

As UPEACE proceeds to develop such programs, it must not lose sight of its key asset: its existence is an inspiration to individuals worldwide who aspire to advance the above mandate. Further,

the fact that UPEACE is located in Costa Rica – a country whose security is assured by police, not military, and which has an explicit environmentalist agenda – makes its prospects all the more credible. Hence the way forward for UPEACE must be based on its organizational and financial viability – something that was in question as recently as five years ago and now seems much more secure.

Programs essential for this path forward have been described admirably in Carlo Tognato's guiding document for our meeting. Dr. Tognato identifies research, instructional and interventional initiatives that take into account today's technological change. Implicit to his presentation is that UPEACE has the option of developing such programs itself and also partnering with institutions such as those he has mentioned to advance such programs. In fact, the issue of partnering and/or developing pure UPEACE programs is a choice that will be critical as UPEACE pursues its way forward. While UPEACE can develop stand-alone programs, doing them in partnership with institutions that have complementary assets can be beneficial for reasons that include and go beyond the instructional. For example, for nearly 20 years, UPEACE and the School of International Service (SIS) have had a dual masters program on natural resources and sustainable development that synergize SIS's policy-relevant location and programs with UPEACE's strength and location related to environmental issues. With UPEACE's attractive location, it could partner with academic and private sector institutions on 4th Industrial Revolution topics ranging from cybersecurity to ethnographic peace-building narratives. Since UPEACE offers professionally- oriented master's degree programs, basing teaching on best-practice case studies and incorporating private and public sector internships into such programs would be most advantageous. Arranging internship programs related to technological change with UN agencies in Costa Rica or elsewhere would provide an extra boost to advancing the UN mandate. If funding were available, building a state-of-the-art conference center to host peace- promoting scholarly and policy-related events would greatly enhance UPEACE's standing and profile for peace promotion.

Scholarly research sponsored by UPEACE can also help clarify the path forward for the 4th Industrial Revolution. In the current

context of the war in Ukraine, it is important to understand when and where conditions do or do not exist for peace. The potential for war-generated chaos has renewed the debate about whether peace and prosperity entirely require great power agreement on the nature of world order or if the world's many increasingly empowered post-colonial nations have roles in creating peace. Partnering with major research centers to document patterns of trade, investment, migration, disease spread, organized crime, arms production, and international treaty agreements could create knowledge that would clarify the roles of these increasingly empowered countries. For example, research that I am carrying out with Amitav Acharya and Antoni Estevadeordal (2022) using an original dataset of more than 30,000 international treaties signed between 1945 to 2017 suggests that, while great powers continue to have enormous absolute influence, their relative power is shrinking and more state and non-state actors are involved with processes related to ending conflicts and sustaining peace. Thus, despite discussions of the need for an "indispensable nation" or a hegemonic power, the peace-building roles of state and non-state actors of all sizes are growing with today's technological changes.

Initiating new instructional, research, and interventional programs related to 4th Industrial Revolution technological change while sustaining viable existing programs and, if possible, creating a state-of-the-art venue for engaging on peace-related issues would allow UPEACE to advance its UN mandate as the world moves through the third decade of the 21st century.

Doing so in partnership with a wide range of public and private sector institutions would strengthen its ability to advance that mandate.

Amitav Acharya, Antoni Estevadeordal, and Louis Goodman, "Pax Britannica, Pax Americana, and the Multiplex World Order: An Evolutionary Perspective on Global Cooperation," submitted for publication March 2022.

Innovation for Peace in an Academic Community: A Personal Note

I was privileged to serve as Dean of American University's SIS for 25 years. During that time, the School grew from 18 faculty and 400 students to 200 faculty and 4,000 students. The SIS community had great national diversity, with students from more than 150 countries and faculty having been born in or lived in more than 100 nations. Having a peaceful, respectful community at SIS was critical to allow that growth and diversity to move ahead smoothly. During that time, there was much conflict on American campuses about seemingly immutable "frozen" conflicts like that between Israel and Palestine. These frequently reached newspapers and disturbed on-campus relations, including dealings among students with differing views and between the leadership of units concerned with such conflicts (like international affairs schools) and upper administration. Press reports of student conflict roiled relations at campus, including Columbia, Berkeley, Georgetown, and George Washington.

American University escaped such disturbances through the use of two simple mechanisms: providing fora for all parties to voice their views and having interested senior community members present at such fora. Many events were held during those times, some sponsored by pro-Palestine or pro-Israel groups; some sponsored by individual students or faculty. Allowing students to voice their concerns was essential for preventing bottled-up viewpoints from exploding and creating disrespectful incidents on campus. Equally important was having senior community members present at such events. This was accomplished by an informal agreement among myself (a Jewish international affairs school dean), Arab senior faculty members committed to non-violent change, and American University's Chaplain. We would make sure that three of us, or a representative of each, were present at each event related to an intense conflict, especially Israel and Palestine.

Further, we would not sit together but would sit among the students, making sure that they were aware of our presence, both showing approval of the event and expecting respectful behavior. I am certain that this device – allowing voice for concerns and making sure that those expressing themselves

were not isolated – assured that difficult issues were openly discussed and that that discussion was peaceful and mutually respectful.

This is relevant for our discussion as, for UPEACE to "promote among all human beings the spirit of understanding, tolerance, and peaceful coexistence to have such an environment.

Chapter **3**

Digital Peace Innovation

How can innovation strengthen education about, for, and by peace?

Dr. Adriana Salcedo[1]

"All struggles are essentially power struggles.
Who will rule, who will lead, who will define,
refine, confine, design, who will dominate."

Octavia E. Butler

We live in an age of surveillance capitalism (Zuboff, 2020), in which our data is an extremely valuable commodity. Surveillance capitalism harvests our private experiences and then sells access to this data to corporations and governments, in most cases, without our consent. In this context, it is not too venturous to say that the normalization of surveillance technologies goes unnoticed by most of the population, policymakers, and regulators.

We also live in an era in which it is becoming ever more challenging to deal with misinformation, disinformation (Vosoughi et al., 2018), and deep fakes, causing us to experience what Verdeja (2022) refers to as "epistemic insecurity." We have difficulty discerning what is real and what is not. Our ability to distinguish between reality and falsehood has become increasingly challenging. We struggle to find common ground, effectively resolve problems and establish consensus on factual information. This dilemma is particularly evident in our collective failure to address and confront pressing global issues such as climate change, scarcity, inequalities, and violence.

In the present era, information and communication technologies (ICTs) and, more precisely, algorithms have become pivotal in shaping the content that we are exposed to, from our news feeds and social media to our mailboxes. These algorithms work by tailoring our perception of reality based on the 'likes' or 'dislikes,' purchases, and targeted advertisements. As a result, they shape our understanding of the world, producing a single and personalized narrative about what we want to hear and, ultimately, believe, often aligned with our preferences based on

curated information. Unfortunately, this process creates echo chambers, often contributing to the polarization and extremism in individuals as their views become more rigid.

Algorithmic bias (which happens when an algorithm produces results that are systemically prejudiced due to erroneous assumptions in the machine learning process, i.e., the algorithm reproduces the bias of the human being who created it), integrates and often amplifies structural violence, racism, sexism and ableism (Buolamwini & Gebru, 2018). For instance, algorithmic bias contributes to perpetuating employment discrimination embedded in Algorithmic Decision-

1 Paper prepared for the panel session: "Exploring the Role of Innovation in Education & Peacebuilding," organized by the University for Peace, the Peace Innovation Initiative, the Business Council for International Understanding, and the Permanent Missions of Costa Rica and El Salvador to the United Nations, in conjunction with the United Nations High-Level Political Forum on Sustainable Development, held at the UN Headquarters in New York on July 6, 2022.

Making (ADM) systems by profiling janitors and taxi drivers' jobs to minorities rather than white people or secretarial and care jobs to women (Eubanks, 2018; Noble, 2018), thereby creating an attention economy that works against improving incomes for marginalized communities.

In this troubling context, how can we counter these realities from a peacebuilding perspective? What is needed to make technology work for society as a whole? How can we promote not only digital and artificial intelligence (AI) literacy but also innovations for education and peace? In this brief paper, I would like to highlight three points in reference to these questions, with an emphasis on the connection that exists between innovation, peacebuilding, and education:

1. Peace innovation and digital peacebuilding are essential to tackle the aforementioned challenges, namely, the need for technology that is locally rooted and ethically sound and for innovation that includes people and contributes to enhancing their rights rather than deepening their marginalization.

Peace innovation (PI) is defined by various scholars (e.g., Miklian and Hoelscher, 2016, and Marinakis et al., 2021) as the effort to connect technology and innovation with the cumulative knowledge and practice of the field of peace and conflict studies, and to advance and develop mechanisms and technologies that support human security, prevent violence, and positively impact fragile and conflict-affected societies.

Examples of PI initiatives range from the earlier attempts by citizens to monitor elections and political violence via mobile apps to the use of drones to monitor violence on the ground and redirect civilians toward safer escape routes, as well as the use of artificial intelligence (AI) to screen for hate speech and potentially violent acts.

Linking the innovating and peacebuilding communities has not been an easy task and has yielded a mix of results during the last decade, especially when the emphasis has been on technology rather than on peacebuilding.

Peace innovation relies on several assumptions, for instance, that disrupting conflict through technological tools will result in positive outcomes for people, and that the inclusion of technology in the peacebuilding realm will improve the quality of peace. However, several examples in the last decade attest that even though various innovations for peace may have been designed and implemented with the best intentions, they have not necessarily contributed to achieving the ultimate purpose of preventing violence, advancing peace, and improving human lives.

The way in which peace innovation initiatives are carried out matters significantly due to the ethical, cultural, and conflict-sensitive implications for individuals and communities. One of the main challenges faced by peacebuilding innovators lies not only in the creative generation of ideas but also in their operationalization. In the words of Miklian and Hoelscher (2016), “the way in which innovations are developed - and who has access to the fruits of such initiatives - is perhaps even more important than the ideas themselves.”

The concept and practice of peace innovation in educational settings need to be contextualized to be relevant and to respond

to the needs of communities suffering from openly violent conflict, structural violence, and inequalities. In this sense, a conflict-sensitive approach, culturally sensitive engagement, and restorative practices are essential to avoid hindering existing peacebuilding efforts or contributing to exacerbating violence.

In the same vein, when we try to connect innovation with education and peace, the concept of peace education, which is understood as transformative education that seeks to change people's mindsets, attitudes, values, and behaviors (Navarro-Castro & Nario-Glace, 2019), becomes critical, since it allows scholars and practitioners to promote and enhance efforts to achieve relational, behavioral, and moral transformations conducive to peace. Bar-Tal (2002) also mentions the different dimensions involved in educating "about, for, and by peace." Under his framework, teaching human rights, ecology, restorative justice, or dispute resolution is needed to build peace. At the same time, there is a set of values (such as solidarity, respect, empathy, and compassion, among others) and skills (such as conflict resolution, nonviolent communication, or mediation) that are also essential for people to embrace peace. These areas are what Bar-Tal refers to as education about and for peace (2002). Nevertheless, a critical dimension that this author adds is 'education by peace,' meaning the pedagogies and teaching methods used greatly prioritize experiential learning and knowledge that is context- bounded and collaborative in nature. If we connect Bar-Tal's notions about peace education with peace innovation, several opportunities can arise to help advance peace in each one of these aspects by using creative ideas and technologies. For example, collaborative gaming, participatory online platforms, participatory and context-based learning software, and mindfulness in education, among others.

2. Another critical intersection between technology and education lies in the need to include a social justice dimension in the use of technology and education in order to prevent the further marginalization of people and communities. Tech innovation without ethical principles breeds inequity since it responds to a matrix of knowledge and power that is owned by and capitalized by hegemonic groups, namely those who design technological advances based on profit models and infinite

browsing. From a peacebuilding perspective, then, how can we contribute to making algorithms fairer so that they embrace diversity and achieve inclusion, especially when they are produced and owned by corporations? Are coding teams diverse enough to effectively identify and address bias and gaps in their work? How do we overcome the profit motive embedded in surveillance capitalism and promote a solidarity approach that can deliver not only economic profit but also more positive social impacts by diminishing systemic oppression, both internally and externally? One alternative could be the greater provision of open-access software, which could contribute to reducing economic and technical inequalities in accessing technology and in programming for education and other key social areas.

It is important to emphasize that we need technology that is locally rooted and ethically sound, that is more transparent, that makes AI more accessible to the people, and that includes and amplifies unheard voices. Some organizations, such as A+ Alliance, are calling for Affirmative Action for Algorithms to correct real-life biases and barriers that prevent women, gender, minorities, and other groups from achieving their full participation and the exercise of their rights. However, besides that, as Hao (2022) mentioned, we need feedback loops on technological advances, with tech designers and social experts who can measure the impact on society and treat the social and ethical impact of their inventions not as an afterthought but as something central to their creative processes.

In addition, there is a critical need for regulators who are willing to intervene and regulate technologies and for tech experts who are trained and motivated to make technological advances better for everybody. In this sense, peacebuilders and peace educators can be instrumental in connecting people who embrace both types of knowledge (technology and peacebuilding) and combine these different perspectives (with mobility across sectors). This is the perfect niche for peace innovators!

3. Finally, as we prepare for the Transforming Education Summit, it is essential to reflect on how the task of transforming education these days needs to leave behind the (teacher-centered) banking model of education and move towards the transformative model that was briefly referred to above. We need

to move towards a model of education that values the processes of learning more than compulsory testing and a learning process that favors co-creation and experiential and socio- emotional learning, informed by the diverse set of cultures, identities, and experiences represented in a classroom. Thus, the model of education must be relevant to the people's concerns, goals, and needs and must be connected to their realities. Technology has a role to play in enhancing educational spaces and promoting diverse and multicultural spaces.

According to the UN International Telecommunication Unit (20212, roughly 38% of the global population (approximately 2.7 billion people) have never used the internet and remain offline. The majority of this population lives in rural areas in developing countries, mainly in Africa, Asia Pacific, and the Americas, where the urban-rural divide is particularly prominent. Therefore, the most critical challenge to inclusivity in these regions is accessibility. In this complex scenario, despite the connectivity boost caused by the Covid- 19 pandemic over the last two years, the lack of access is especially prevalent in rural parts of developing countries, where residents are four times less likely to go online than in urban areas. However, this divide also runs along gender lines, leaving four out of every five women in the least-developed countries offline (International Telecommunication Unit, 2022).

We must ensure that educational spaces are inclusive, diverse, equitable, and safe for all, and information and communication technologies have a critical role. As mentioned above, the connection between peace education and peace innovation holds enormous potential not only in transmitting peace-related content but also in promoting a set of shared values in humanity (such as empathy, nonviolence, and solidarity) and skills (nonviolent communication, critical thinking, responsible citizenship, and mediation, among others) that can help people unlearn those patterns of hateful interaction in which they were socialized and that can trigger the emergence of new common narratives that foster collective and individual forgiveness and reconciliation on a larger scale.

Further assessment of existing tools, such as mobile apps, social platforms, cooperative games, and digital storytelling, as

well as the ways in which these instruments are being used by different actors (individuals, organizations, and governments), is essential to understand their contributions to hampering or promoting peace.

In summary, there is considerable potential for combining peace innovation and education to reach larger audiences in advancing a peace agenda.

However, these efforts are still incipient for now and warrant substantial further attention from scholars and practitioners, who should moreover advocate strongly for the responsible and ethical use of technologies, especially in conflict-affected societies. In addition, ICTs for peace and quality education should create opportunities for inclusion and spaces for broader participation by diverse actors to help conflict prevention efforts and support the transformation of relationships in communities towards greater reconciliation and restorative practices. Peace innovation in education should contribute to forming engaged citizens who advance dialogue, defend their rights and the planet, and respect each other based on principles of equity, respect, and justice for all.

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Innovation for Peace: Areas of Interest and the Process to develop innovative research

Dr. Mariateresa Garrido

Innovation has become a buzzword; nevertheless, in academia, we are always looking for new ideas or methods, or in other words, we are constantly researching novel topics to add to the academic discussions in our areas of expertise. The main difference is that nowadays, we relate the idea of Innovation to the use of technology.

For this reason, many people are looking for new technologies to disrupt and transform the environment we live in. This group is not limited to scholars anymore. It is open to the private sector, governments, and almost anyone with the means to develop the ideas, methods, and technologies needed to change what is considered wrong. Yet, one should wonder, how should we understand Innovation in the digital age and in the light of the fourth industrial revolution?

In simple words, and for the purposes of this concept note, I understand Innovation as the process in which ideas are developed and implemented using technology, especially communication and information technologies (ICT). But, in this process, different stakeholders participate; thus, there are two key questions. Innovation for what Purpose and by whom? And in my opinion, it is in this conversation that possibilities to develop new theories and concepts arise.

In this concept paper, I will start exploring some of the areas of interest that are related to communication studies, particularly the development of hardware and the use of information. For the second section, I will consider the methods followed by think tanks and other institutions that are participating in the development of new technologies that have the potential to contribute to peacebuilding. The main goal is to identify areas of work for the University for Peace (UPEACE) and to position it as one of the leading institutions in this field.

Areas of Interest

From my perspective, there are two main areas of interest in this discussion. First, the development of eco-friendly technologies and processes to develop them, and second, the utilization of the Internet infrastructure to diminish the number of disconnected populations and improve the management of information.

Hardware

For the first point, one of the most important issues is the technological sustainability of the equipment used. The World Economic Forum (WEF) indicates that "in 2019, over 92 billion tonnes of materials were extracted and processed, contributing to about half of global CO2 emissions." (WEF, 2022). We cannot continue holding on to an exploitation model that is exacerbating climate change, exhausting basic resources without recycling them, and creating conditions that perpetuate inequality around the world.

To overcome this problem, the WEF is proposing the transformation of the economic system from a linear to a circular model. In a few words, this model proposes the transformation of material value chains, starting with those that pollute the most (plastics, electronics, batteries, textiles) because "our capacity for recovery and recycling fails to match current rates of consumption" (Circle Economy, 2022, p. 24).

The circular economy model applies to products and services, which enables its implementation in all sectors. Nevertheless, for the purposes of this paper, I will focus on the development of the hardware needed to guarantee access to the Internet. The hardware includes PC and mobile devices, as well as submarine cables, antennas, and all the equipment required to connect to the Internet.

The Next Generation Internet (NGI), an initiative from the European Commission, considers that the circular process for the Internet infrastructure starts with the extraction of the minerals, and to put it in perspective, they indicate that a smartphone "contain upwards to 62 different elements in a single device" (Stupple- Harris, Elliott, Droemann, & Bego, 2020, p. 14). They proposed a closed model that involves

different sectors that collaborate between them to reintegrate materials into the production chain.

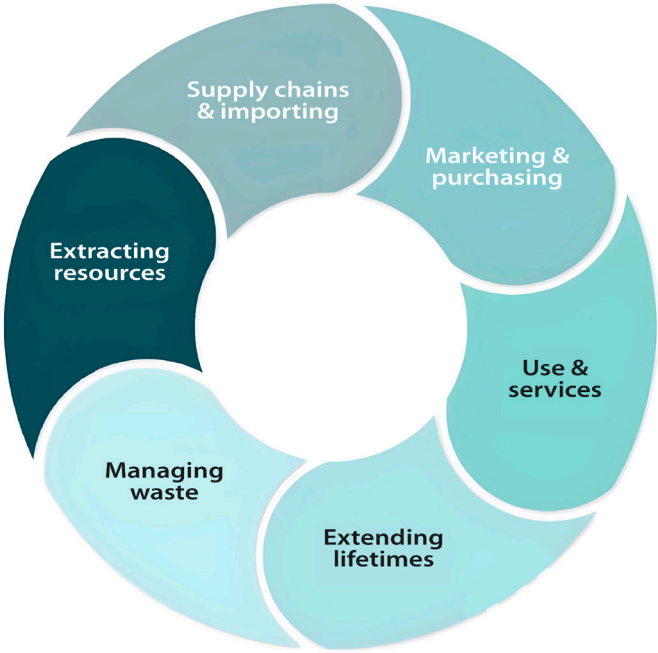


Figure 1 NGI, 2020, p. 14

The issue is that most of the minerals are extracted in countries where social conflicts and inequality are present. In addition, these countries tend to have low Internet penetration rates, which diminishes the opportunities for their populations to participate in the digital society. For instance, the Democratic Republic of Congo has been in conflict since its independence in 1960 (Center for Preventive Action, 2022). It is also one of the biggest reserves of lithium, and it is "set to become one of the world's suppliers of this metal," as well as for cobalt, coltan, and germanium (Devey Malu-Malu, 2021). Nevertheless, it is one of the countries with the lowest level of Internet adoption, with a penetration rate of 17.6% (Kemp, 2022, p. 24).

To overcome the difficulties posed by this reality, we need Innovation for Peace. To make it possible, we require a combination of experts that are willing to transform the production process while considering the human aspect. Some

of the answers can be found in the circular economy, but this model does not consider the social aspects involved in the chain. Therefore, we need the expertise of peacebuilders, international lawyers, and environmental specialists, among others, to bring new ideas to guarantee economic growth while observing human rights, reducing inequality gaps, and diminishing the causes of new conflicts.

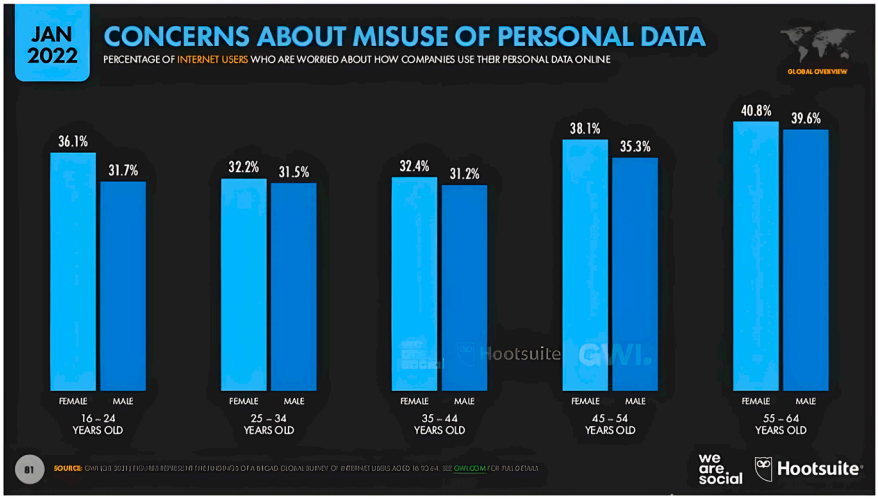
Communication

Even though the Internet penetration rate has been constantly increasing, at least 37,5% of the world population does not have access to it (approx. 2.9 billion people) (Kemp, 2022). In the digital age, this situation increases inequality and poses new challenges for the integration of disconnected populations. Moreover, these populations tend to be located in rural areas and, depending on the country, are indigenous or belong to other vulnerable groups. Thus, Innovation in the ICT sector not only relates to the development of the hardware needed but also to the inclusion of marginalized communities in technological processes to ensure access to the Internet.

For some, Innovation relies on the creation of satellite networks, like the one proposed and implemented by Elon Musk and his company Starlink. For others, the solution is the improvement of the submarine connection (Huston, 2022), while others are looking for strategies to develop connections using 5G Internet (ITU, 2022). The development of the networks and the regulations that will guide stakeholders in the policy-making process should consider peacebuilding approaches; thus, this is another area in which UPEACE can contribute innovative ideas.

Yet, once access to the Internet is guaranteed, the areas of interest that I consider essential are related to digital communication and the usage of information, by information keepers. In this sense, one of the main challenges societies are experiencing is the rapid transformation of people's perceptions toward the management of their personal data. Discrepancies about the use of personal data are common among societies which difficult the implementation of regulations that can satisfy the needs of the people and the companies using the information.

The organization We Are Social, in its 2022 Report, found that younger generations are less concerned about the use of their personal data than older generations, which also creates new challenges in the policy-making process and demonstrates the differences in values and expectations on what should be protected and how.



Moreover, when it comes to specific regions, research demonstrates that in Europe and before Covid, "55% of Europeans believed that governments should not share their citizens' health" (IE. Center for the Governance of Change, 2020, p. 6). Similarly, when it refers to the property of the information the overwhelming majority of Europeans (81%) show concerns about data privacy and think that data should be treated as proprietary—and consequently that citizens should be asked for consent and be remunerated for its use by companies like Google. (IE Center for the Governance of Change, 2020, p. 11).

Innovation in this regard implies the incorporation of intergenerational and multicultural teams to create regulations that can guarantee human rights – especially the protection of the right to privacy and freedom of expression – while ensuring that different needs and expectations are met in the process. Once again, this is an area in which UPEACE could contribute greatly to the discussion.

Similarly, there are two issues related to the use of information in which Innovation is needed. Disruption in the so-called "eco-chambers" or "filter bubbles" and in the communication process through Internet-based platforms.

Filter bubble "refers to the results of the algorithms that dictate what we encounter online" (FS, n.d.). We are receiving information that aligns with our values and beliefs, and even though it can be ok for many, the problem is that the determination of what is important to us is made by artificial intelligence and the use of big data, not by us. In a polarized digital world in which fake news and discriminatory speeches are rapidly spread, algorithms play an essential role in the dissemination of ideas that can counter them.

ICT has proven to be a great medium to exercise the right to freedom of expression, and Innovation has been to improve Internet-based platforms. Yet, it is necessary to rethink how wealth is created, who benefits from this model, and what are the social impacts for users. Some of the ideas could be to diminish the effects of the filter bubbles and increase access to different opinions and ideas or to demand transparency and accountability in the private sector. To improve the system, we must understand how it collects, interprets, and take decisions that influence our communication process, and once again, this is an area in which UPEACE can participate.

Moreover, when we consider the format used, there is another transformation that cannot be overlooked. Information is presented as entertainment which impacts businesses, communication processes, and even learning. Younger generations are the most affected by this situation. They are finding information from social media and from their acquaintances, not from traditional media or scholars. Likewise, their preferred format to obtain information is short videos that provoke emotional reactions (Kemp, 2022).

There are many challenges for a society that is constantly reducing reading time and increasing the consumption of audiovisual materials. The communication or entertainment sectors are the ones that have adapted faster, yet policymakers cannot follow the pace. In consequence, sectors that traditionally depend on the state are unable to adapt. For this reason, I

consider the debate over these issues an important one and a field in which innovative ideas are needed. We cannot envision what the future will completely look like, but we can consider current changes to imagine the world in which we would like to live in.

Innovation Process

Identifying the areas in which we can innovate is not enough to become a center for Innovation for Peace. To become a point of reference, it is essential to develop a methodology that enables the creation of new theories and their implementation. For that reason, I want to explore some of the ideas that are used by three different innovation labs and that can guide the discussion on this topic.

First, Mozilla, the company known for its web browser, developed its labs to "make the Internet great" (Mozilla, 2018). They define it as a digital research laboratory in which all projects are a success, independently of whether they are implemented or not. They indicate that their team "never stop asking questions, rethinking and rebuilding to create a web made for people" (Mozilla, 2018), and on their website, they list three main areas of research: mixed reality, speech and voice, and the Internet of Things.

In each category, they have different projects that are linked to the main goal of the lab, and even though the method is not public, the common point is the analysis of the identified problem and the contribution from different people to finding the solution. For instance, in the Speech and Voice field, they allow any interested person to donate their voice to the project to be analyzed and be part of an open source database that can be used by any interested person. In the case of the Participation Lab, they have a framework that involves the following:

Establishment of clear participation goals.

Establishment of a hypothesis

Establishment of indicators and milestones to measure the hypothesis

Identification of teams or labs within the institution that can contribute to the project

Identification of risks and challenges

Evaluation of the project

Lessons learned from the project (Mozilla Wiki, 2015).

The second example is Purpose, a private company with offices in New York, London, and Nairobi, that offers its services to find solutions to social problems. To do it, they create labs that address the situation presented, and each lab has its own goals and a team to achieve them.

What is interesting is that although all the labs can adapt the methodology to solve the specific problem, teams follow a similar strategy that involves problem mapping, intervention design, testing, and evaluation, as shown in the following graphic (Purpose, 2022).

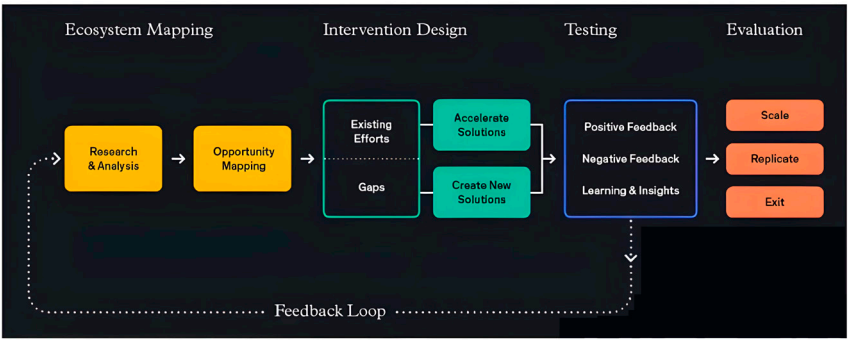


Figure 2 Purpose. Work Flow

Finally, the Rockefeller Foundation funded the project "Social Innovation Lab Guide" to provide interested people with information about a methodology that could be used for problem-solving initiatives. It is noticeable that the guide indicates that social Innovation is "any initiative (product, process, program, project or platform) that challenges and, over time, contribute to changing the defining routines, resource, and authority flows or beliefs of the broader social system in which it is introduced." (Westley & Laban, p. 5).

Given this definition, the proposed methodology sees Innovation as a three- step process in which different stakeholders participate. The first step is initiation, and its goal is to make

sense of the situation, or in other words, to understand what is happening and why (Westley & Laban, p. 18). The second step is to research and prepare. This step involves recruiting participants, fostering relationships, establishing a well-defined question, exploring social dynamics around the problem, and building the model that will be used (Westley & Laban, p. 19). The last step is testing, which includes trials before implementation and the application of the proposed solution (Westley & Laban, pp. 20-21).

The three examples shared in this paper have at least four similarities from which UPEACE can build up its own methodology. First is the idea of having a diverse team that explores the situation and collectively defines the problem. Second is the search for opportunities to bring something new to the conversation, which depending on the problem, can go from technology to social intervention. Third, the specific methodology depends on the team, their abilities, and the problem. And finally, testing or implementing the solution. For the lab to operate as one, the trials and the application of the solution are important because they are what define the efficiency of the team.

Conclusions

UPEACE has the potential to contribute innovative ideas in peacebuilding. There are few organizations searching for and developing new models to improve conflict resolution from a comprehensive perspective; thus, we can become a center for this type of Innovation. I proposed a concept for Innovation that can be used to model the institutional approach that will guide the type of research that will be conducted.

At UPEACE, we can identify areas of expertise and opportunities to create labs that seek to solve some of the most urgent problems or situations that have the potential to increase conflicts around the world. We have the expertise, the diverse environment, and the space to think creatively. With these factors, the university can develop its own methodology and intervene in the situations that the community believes to be important.

Finally, our network involves people from all over the world, which facilitates the implementation of the proposed ideas. This

is an excellent opportunity to create bridges between scholars and practitioners, as well as individuals and communities. Testing our ideas is what will give us the opportunity to actively contribute to peacebuilding and become a point of reference for all.

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The Importance of Innovation for Peace in human rights.

A focus on vulnerable populations

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We live in a new digital era impacted by the COVID-19 pandemic, where technology plays a fundamental role. The transformations in the forms of relationships at various levels of society are crossed by new digital technologies. This new era has a global impact, where governments have had to incorporate the use of technology for their public management.

Innovation is something that is constantly on various agendas. Companies, governments, and international organizations are looking for innovative ideas and processes to carry out the tasks that lead to realizing their objectives. The digital era has implied innovation in many areas. Technology allows this innovation to be done in a more accelerated way. Innovations in Information and Communications Technologies (ICTs) have led to efficiency breakthroughs across sectors, Big Data has transformed how we observe, analyze, and predict how society functions, and the Internet of Things (IoT) is redesigning how we interact with and benefit from technology (Miklian, 2017)

Throughout history, it has been seen that technologies can be used for positive or negative purposes. Digital technologies provide new means of exercising human rights, but all too often, they are also used to violate them. Data protection and privacy, digital identity, surveillance technologies, and online violence and harassment are issues of particular concern (Nations, 2022).

This new technological context calls on science, law, ethics, economics and science, ethics, and economics for a "technological responsibility", and politics a "technological responsibility".

That is to say, a reflective, critical, and conscious attitude of the new problems that technology raises in the various spheres of social life raised by technology (Sevilla, 2020). Academia cannot be left out of this commitment, and the University for Peace can play a fundamental role in the promotion and protection of human rights through new technologies.

How can technology collaborate with the protection of human rights to generate a more peaceful society? Big data can better understand and forecast conflict dynamics. Mobile phones, social media, crowdsourcing, crisis mapping, tweets, and Google's data analytics have all been used to forestall crises and address the root causes of violence (Miklian, 2017). Also, technology can collaborate in defense of the right of access to information; the Internet allows people to access various pages where they can get information and contribute to their freedom of expression since they can enter, for example, blogs where they can express themselves freely. Not surprisingly, the relationship between technology, science, innovation, and human rights is also very present in the 2030 Agenda for Sustainable Development, in the sense that it must be ensured that "no one is left behind."

Likewise, the Internet has allowed the dissemination of social movements that fight for the effective enjoyment of human rights, generating awareness at regional and global levels. The current war between Russia and Ukraine is a clear example of this since people can immediately access information on what is happening and can even join various calls from organizations fighting for the defense of human rights.

Another example that we can observe has been throughout the Covid-19 pandemic. Access to technologies such as computers, smartphones, and the Internet has allowed many children and adolescents to continue their studies virtually. Likewise, through technology, it has been possible to protect the right to health by creating vaccines to mitigate the impact of the pandemic.

While we can be sure that technology and innovation have contributed to the protection of human rights, we cannot deny the misuses that have been made of these tools. For example, we could talk about the harmful effects observed on the environment. Today, the diffusion and accessibility of destructive

technologies and know-how increasingly allow individuals and non-state actors to participate in violent acts. Fears about the impact of autonomous weapons and the ethics, morality, and legality of the development of these weapons are also rising (Banfield, 2018). For this reason, it is of utmost importance to have a sustainable vision of these advances. As technology innovations expand and a greater emphasis is placed on the digital environment, more research and policies need to speak to improving not only digital literacy but the cognitive, motor, sociological, and emotional inequities that may put populations at a disadvantage (Dubois, 2022).

Now, focusing on the advances that have been made, can we say that all people have the same access to these advances? Even as digital technology makes it possible for people in countries with high connectivity to work and learn from home, it is a privilege not enjoyed by all: some people must be physically present for their jobs, while others have lost employment or do not have access to the Internet and technology, in particular the poor and vulnerable people (UN, 2020).

Due to various factors— geographic location, sex, age, ability, and citizenship; for instance— some groups find themselves facing distinct disadvantages.

These conditions may be lifelong, such as one's ethnicity, or they may change throughout the life cycle, such as age. Policymakers must ensure, therefore, that measures are put in place to overcome these obstacles.

When designing social protection systems and programs, policymakers must make it a priority to address the power imbalance that exists between vulnerable people and the general population to ensure that they are included (Rights, n.d.). Among these vulnerable populations, there are disparities in health, education, technology, and employment. Vulnerable populations are often also from low-income households, emphasizing the effects of a crisis (Dubois, 2022). Historically, socially vulnerable populations are faced with a multitude of divides – from digital to racial increasing their susceptibility to a disaster (Patel, 2020).

Socially vulnerable populations face evident digital divides, where access to and ability to use technology may be limited (Scheerder, 2017). For example, people with disabilities facing cognitive, physical, or psychological barriers may find that technology is inaccessible due to limited accommodations (Bennett, 2020).

Although we can see the obstacles and difficulties faced by people from vulnerable groups, several institutions are working with these populations to ensure that innovation reaches the people they focus on. This helps to generate greater equality and a more equitable and peaceful society. Below are some examples of organizations and projects working to achieve this goal.

I will begin by presenting some projects related to women. UN Women has a project regarding innovation for gender equality. UN Women and partners created a women survivor's support group attended by psychologists who have used behavioral insights to identify 'positive deviants' (PD) among survivors, empowering them to speak up and advocate for concrete action at local and national events. Through this work, UN Women has managed to change perceptions about survivors of violence among service providers, decision-makers, media, and the general public by recognizing and involving PDs as key experts in eliminating gender violence. They reach out to women in their communities, share their empowering stories and help women access services locally (UNWOMAN, Innovation for Gender Equality, 2019).

Regarding children, UNICEF's innovation portfolio approach focuses innovation efforts and solutions on the most challenging problems for children and young people. There are nine innovation portfolios, with each portfolio containing innovative solutions (sourced from across UNICEF and beyond) that have the potential to scale and significantly accelerate results for children. Those portfolios are about: climate change, gender equality, humanitarian, learning, maternal and newborn health, mental health and psychosocial wellbeing, water and sanitation, and south (UNICEF).

Also, the UNCHR has a project called Connectivity for Refugees, which creates safe spaces to experiment with connectivity

solutions in the field and works with UNHCR operations to develop local and context-specific, and community-driven approaches to digital challenges (UNHCR, d.n.). These are just a few examples of how to innovate within vulnerable populations.

It is essential that the University for Peace implements a human rights vision in its innovation projects, observing the scope of such projects within vulnerable populations. This will allow further progress toward sustainable development goals, leaving no one behind and achieving more peaceful societies.

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Some ideas on digital peace-building UPEACE Peace Innovation Workshop

Verónica Valarino

In less than 30 years, our society has undergone a huge and fast-paced technological transformation, and all the following technologies have grown global to become a regular feature of everyday life: the Internet, email, online chatting, image editing software, texting, smartphones, blogs, apps, and obviously, social media. Today, it is a fact that a vast majority of people everywhere get their news primarily through social media, according to (Cisco Global, 2021); that means that, globally, 3 trillion minutes (5 million years) of video content crossed the Internet each month in 2021. That is 1 million minutes of video streamed or downloaded every second. During 2020, probably because of the world pandemic of Covid 19 and the confinement that came with it, global internet traffic surged by more than 40% because of increased video streaming, video conferencing, online gaming, and social networking, according to the International Energy Agency (IEA, 2021).

This new revolution in communication technology has greatly increased the amount of mutual animosity among social and political groups and has brought with it the ability of individuals and groups to spread deceits and lies faster and to more people than ever before. We know that the notion of "fake news" is nothing new. The ability to deceive and the desire to detect deception have been part of the human story since our beginnings when our primate ancestors began to socialize. False news stories have been used to paint negative pictures of entire groups of people, and it would be the same if we were in the 1800s, 1938, or 2022. Even legitimate news sources are sometimes fooled by such stories, typically because of their own failure to verify information and confirm sources. Deceit is not only on textual content but very often on visual images like photos and videos, and today, virtually anyone with computer software can alter them with a speed that often outpaces any viewer detection skills and visual literacy.

Mostly, social networks have become increasingly popular for sharing news and, as a result, have also offered fertile ground for the spread of fake news, thus creating a major challenge to detect them and counteract them, almost two decades after Keyes announced that we were living in the "post-truth era" (Keyes, 2004), a time when the lines between truth and lies, fiction and nonfiction, are thoroughly blurred. Political campaigns, professional journalists, celebrities, popular books, TV shows, movies, and individuals all contribute to today's sophistication of fake news tactics.

There is indeed a global crisis of trust, just as it was referred to by the UN Secretary-General in his Common Agenda in 2021: an ever-deeper crisis of trust fomented by a loss of shared truth and understanding (Report of The Secretary-General, 2021), which is aggravated by:

1. The power that media possess to expose negative and positive ideas, which are consumed by the world population and ultimately influence social and political behavior.

2. The impact of propaganda, advertising, and spun information on the public, which uses psychological techniques of manipulation intended to alter the mind frame or subconscious of a viewer, that even though digital content governance and global legislation for internet platforms are currently being discussed, particularly for social media companies, there is still a long road ahead to achieve content moderation and regulation.

3. The reality of unequal access to information because sometimes it can feel like everyone is participating in social media, on Facebook or Instagram, but in fact, billions of people are not part of these conversations because access to digital devices and high-speed Internet is still a real barrier to entry for so many people.

4. The field of peace-building and peace innovation includes a wide range of efforts by diverse actors in government and civil society at the community, national, and international levels. Currently, multiple national and international institutes and organizations are working on peace innovation; some of these efforts are embedded within leading universities, some

independent, some linked to international organizations, and some not exclusively specialized in the field but with a track record on it.

Given its nature and the mandate it received from the United Nations, the University for Peace needs to jump in and actively join the efforts. The mandate given by the UN General Assembly (UNGA) in the creation of the University for Peace in 1980 (A/35/55) is clear in the need to train human resources for peace-building within the postulates of the UN Charter. Forty years later, again, the UNGA Resolution of 2021 requests the University to develop new concepts and approaches to security through education, training, and research to respond effectively to emerging threats to peace. Additionally, the implementation of a peace innovation initiative at UPEACE is at the heart of the 2030 Agenda for Sustainable Development (A/RES/70/1), the SG's RoadMap for Digital Cooperation (A/74/821) and, again, in the SG's Report "Our Common Agenda" for the commemoration of the seventy-fifth anniversary of the United Nations (A 75/1).

Understanding the challenges to embark upon this ambitious effort for peace innovation, UPEACE needs to fill the gaps and attempt to focus on defining its own role and sphere of action with its specific goals. Above all, UPEACE needs to become fully aware of the extent to which technology can contribute to its work and increase its own understanding of how technology can impact conflict dynamics (Schirch, 2020). The priority to fill these gaps needs to quickly address and respond to the increasing concern about the ways misinformation and disinformation are shaping our political and social discourse and to the changing circumstances and disruptions caused by the Covid-19 pandemic at a global level since 2020.

Lisa Schirch from the Toda Peace Institute co-published an article with Alliance for Peace-building in 2020, in which she coined the term digital peace-building to refer to the broader nexus between the field of peace- building and digital technologies (Schirch, 2020, p. 2). She argues that technology can be employed to achieve a wide range of peace-building goals, support strategic communications, and contribute to effectively counteract the phenomenon of pervasive communication and the spread of disinformation. Within the digital technologies for

digital peace-building, Schirch includes "normal" technologies (email, websites, word processing, databases, and Skype or Zoom for communication and basic computation), “specific technology” developed

See comment on Schirch, L. (2020, September) “25 Spheres of Digital Peace-building and Peace Tech”, Policy Brief No. 93. Co-published by Toda Peace Institute and Alliance for Peace-building retrieved 03/31/2022 from https: /toda.org/assets/files/resources/policy-briefs/t-pb-93_lisa-schirch.pdf

to analyze conflict, protect civilians, facilitate dialogue, or other goals related to peace-building) and "new technologies" (such as cyber warfare tactics such as disinformation aimed at undermining democracy or hate speech on social media leading to greater polarization).6

In her brief, Schirch outlines 25 spheres of “Digital Peace-building” (Social Pilot, 2022) and PeaceTech” I will mention a few that stand out for the purpose of this paper:

Digital Fact-Checking to Stop Rumors: Fact-checking initiatives to pre- bunk and debunk false information, like the one I am going to refer to briefly below.

Digital Early Warning of Violence and Dangerous Speech, which can be implemented through remote data collection in mobile phone apps, interactive voice response surveys, WhatsApp surveys, online forms, chatbots, or SMS systems.

Digital Social Marketing of Peace Narratives, which can be developed in social media channels creating new forms of digital content such as digital storytelling videos to advertise peace-building skills, values, processes, hashtags, memes, GIFs, infographics, social media quizzes, and surveys. According to their own reports, Twitter has today 320 million users, Facebook 2.85 billion, LinkedIn 800 million, Instagram 1 billion, and TikTok over a billion users worldwide. Some statistics are impressive: 1 billion Facebook Stories are shared daily, daily active users of Instagram stories are 500 million, 83% of the world’s leaders are on Twitter, people watch 2 billion videos on Twitter daily, LinkedIn has 65 million decision-makers and 10 million C-level executives (Knapp et al., 2020). All social media

channels provide immense possibilities for peace-building initiatives and individuals to communicate with their audience quickly and effectively.

The use of Artificial Intelligence (AI) applications and software to provide digital responses to violent extremism and terrorism. There are excellent examples of how civil society groups are responding to violent extremism: like the group called Moonshot CVE, which is working with technology companies on a redirect method that activates and responds to someone who is searching for information on violent extremism and then redirects them to engaging content that describes the benefits of multiculturalism and diversity.

Digital Peace-building in UPEACE

UPEACE needs to make digital peace-building and PeaceTech (Factchequeado, 2022), as coined by Schirch mentioned above, a priority for its peace innovation initiative.

Fortunately, given the fact that human history is replete with acts of lying, it is not surprising to learn that efforts to detect lies also have a long history, and there is a rising number of efforts to detect disinformation, falsehoods, and to publicize facts in response to undocumented claims and assertions confronting the public (UN News, 2022). I can mention several examples, but let us consider and review the case of an initiative created to counter mis and disinformation within the Hispanic and Latino communities in the United States. Factchequeado.com is an innovative project led by Maldita.es, the first Spanish non-profit fact-checking media created to combat disinformation in Spain, and Chequeado.com, the first fact-checking media organization in Argentina and the Global South. Both organizations are characterized by innovation in approaching their audiences, creating proactive communities, fostering collaborative work, expanding journalists' networks, and developing civic technology (United Nations High Commissioner for Refugees, 2022). In 2021, they united forces to draw on their proven experience to fill a gap and find a solution for Spanish-speaking communities especially vulnerable to mis-disinformation. This is a community of 60 million Hispanics and Latinos living in the US, which by 2030 will represent more than 20% of the country's population. For this initiative, it was fundamental

to produce fact-checked content in Spanish especially aimed at these underserved communities, to limit the impact of mis and disinformation by collaborating alongside fact-checking organizations and local media outlets to facilitate their access to verified information through Spanish-speaking media in the the US for the different platforms they use for news consumption and sharing (Kharpal, 2022).

With the right comprehensive research, resources, and cutting-edge technological support, probably starting by consulting the UN Technology Innovation Labs (UNTIL) (established by the UN Office of Information Technology (OICT)), UPEACE, could conceptualize, design, and develop a fact checker platform as part of its peace innovation initiative. Resembling the methodology of other similar initiatives already active on the Internet and even partnering with them, UPEACE could develop a digital platform that would become the final digital outlet where individuals and international organizations around the world would confirm the veracity of information related to peacekeeping initiatives, and international conflicts and peace processes. Furthermore, a generally positive and trusted image of the United Nations around the world would provide an authoritative stamp for the information and narrative provided by this platform, which would additionally contribute to enhancing the perception of the Organization around the world as an innovation-seeking instance which is stepping up to the current times, trends, and global concerns.

Many factors would contribute to the success of such a project. Initial extensive qualitative research on audience analysis, interactive media studies, as well as online political communications, visual communications, marketing, and other fields that deal with the dynamics of socio and political expression in the digital media realm, but mostly on various social networks. The development of a powerful and reliable digital medium to create open-source content with the support of industry-specific technology experts to deliver a scalable and flexible web & mobile application to put into place such an ambitious project. Additionally, a collaborative approach and alliance with other fact-checking organizations.

A super UPEACE fact-checking platform would become an online digital repository, a database for academics interested in investigating disinformation, who will collaborate and share their corroborated information and give a final universally recognized and trustworthy truth fact certification. This platform could become a first and must-go outlet for users around the world to combat the lack of reliability emanating from mass digital media and social networks.

Let us refer to a current situation as an example. The UN General Assembly, on March 2, 2022, approved with 141 votes in favor of Resolution A/ES-11/L.113, which condemns Russia for its aggressions against Ukraine and demands the withdrawal of Russian troops from the territory of that country. The situation in Ukraine six months into the conflict has surpassed the various existing records of damage to the civilian population or the environment. Russia's invasion of Ukraine has prompted Europe's largest refugee crisis since World War II. Since February 24, 2022, more than 13 million people have been forced to flee their homes, nearly 7.1 million refugees have dispersed across Europe, with Poland taking in the largest share, and another 7.1 million people are internally displaced within Ukraine, according to the United Nations refugee agency, UNHCR (Moscow Times, 2022). Meanwhile, the UN Human Rights office has also documented nearly 5,600 civilians killed in Ukraine during the conflict but believes the actual toll is much higher.

These facts I am referring to are currently displayed on the United Nations High Commissioner for Refugees webpage. If I were a citizen or a news outlet in Russia or in China, I would not have access to this platform, or it would be censured, to corroborate and fact-check whatever misinformation is being read from the atrocities of the war that the Russian government is carrying out against Ukraine. As Russia's war on Ukraine continues, Moscow has looked to tighten control over its domestic Internet, cutting off apps from some US technology giants. But the decision to create a China-style internet, perhaps the most restricted online world globally, is facing real challenges because of Russian citizens' ability to bypass current controls.

Russia has blocked Meta-owned Facebook and Instagram and heavily restricted Twitter (Moscow Times, 2022). According to the independent Moscow Times, Russian authorities have blocked or deleted some 138,000 websites since Moscow launched its invasion of neighboring Ukraine in February, and Russia's communications watchdog Roskomnadzor has censored thousands of websites in a bid to combat "fake news." Many of the blocked websites have criticized the war in Ukraine or referred to it as a "war" or "invasion" rather than the Kremlin's preferred term, "special military operation." Criticizing the war or sharing non-Kremlin-approved information about it are both punishable under new laws passed shortly after the invasion (Moscow Times, 2022).

However, Russians are turning to virtual private networks to bypass restrictions. While Russia's Internet became progressively more controlled; citizens could still access those global services, making them gateways to information other than state-backed media or pro-Kremlin sources (Moscow Times, 2022).

The increasing number of fact-checking organizations being established internationally, including established media outlets, NGOs, charities, and non-media-aligned organizations, shows the commitment to "facts" and their dissemination. A United Nations/UPEACE platform, with its logo and trusting stamp on it, embarking on a major technological and investigative endeavor would represent a huge contribution by providing a source that is accurate, credible, authoritative, and qualified to provide facts and effectively counteract censoring agents & authorities in some countries which block and limit access from their media outlets, politicians, and its citizens.

Understanding a preliminary phase for the UPEACE initiative on peace innovation

This first stage of the UPEACE innovation initiative must start with improving digital literacy among its faculty, leadership, and staff, so once the extent to which technology and online digital tools are thoroughly understood, everyone in UPEACE can then connect real peace-building knowledge and expertise with digital solutions and projects to impact conflict dynamics. That is a learning curve that needs to be overcome first before

UPEACE embarks on a full-scale academic initiative on any peace innovation project.

As was discussed during the workshop for Peace and Innovation held in March 2022, UPEACE needs to focus on structuring three paths of action:

A student-driven and faculty research center, more of a think tank of scholars, that would provide mentored opportunities for interdisciplinary, collaborative research on peace innovation within the defined research areas or "spheres," to use the term suggested before. The research outputs accomplished by students and faculty would then feed projects at UPEACE. Joint high-quality research initiatives are leading to publishing in relevant print and online academic and institutional outlets. But not only an attempt to publish dissertation contents, bibliographical data of a wide variety of documents such as books, book chapters, journal articles, etc. but also the creation of an online digital archive available to users through the UPEACE website, where they conveniently can find references to thousands of documents, making research on the subject simpler and more efficient.

Partner up, support, and advocate technological innovation projects and digital tools, which are being developed by tech companies, startups, and fact-checkers around the globe, so UPEACE would seek to create strategic partnerships with them as well as with other international organizations, NGOs, and academic actors working on peace innovation. UPEACE needs to create a space for training on fact-checking tools and fighting disinformation, an innovation lab to fight disinformation that will develop new formats through experimentation and exploration of new technologies, such as investigative and data journalism tools, images, and video verification techniques, to help our community make decisions based on facts, not prejudice or speculation.

There is a valid idea that some peace challenges are not well suited for solutions within the digital realm. Social cohesion, civic engagement, and violence prevention are successful when human contact and direct human interaction are involved, and the culture of peace and dialogue is the path to sustainable peace. However, peace innovation means structuring new approaches

and thinking differently. Indeed, we need to generate mutual trust and ultimately reach a global culture of peace, and for that, there is a need to achieve effective communication. However, there is an urgent need to recognize and understand the power that media possess to expose negative and positive ideas, which are consumed by the world population and ultimately influence social and political behavior. It is a compelling task to deeply understand the impact of propaganda, advertising, and spun information on the public, which uses psychological techniques of manipulation intended to alter the mind frame or subconscious of a viewer. Hence, developing more in-depth knowledge and innovative tools to improve effective communication and counteract the increasingly pervasive communication phenomena and practice is fundamental to developing any peace-inspired innovation project.

That is the challenge UPEACE needs to deeply and scholarly explore because there is a huge technological and digital landscape that exists out there in the field of digital communications and digital applications, and there is an urgency on how they can be incorporated into the academic initiative and mission in which UPEACE is planning to embark for its peace innovation initiative. While UPEACE advocates truth-telling, it must also recognize that lying and deception will always occur. Getting better at evaluating information and developing projects and ideas about this matter means becoming better capable of dealing with conflict situations and challenging the pervasive communication phenomena and practice.

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Peacebuilding as Innovation:

A reflection on the integration of innovation into the practice and teaching of peace

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Peacebuilding, a term that represents a process, encompasses a vast array of definitions. From a bird's eye view, it appears to describe a process that requires attention to essentially any and all factors acting upon a conflict – all stakeholders, timing, spaces, interpersonal and broader social and political dynamics, economics, environment, etc. It is for this level of coordination, attention, and compassion required to remain dedicated to the work of peace that peacebuilding is also referred to as an art. Jean-Paul Lederach (1997) describes how peacebuilding requires a constant practice of immense creativity and imagination, where social change is understood as a form of art; all these parts of lived realities and the human spirit work together to shape new, better social conditions. In this spirit, I suggest that peacebuilding itself is a process of innovation – of constructing something new. The integration of innovation into the study and teaching of peace allows peacebuilders to stake their claim to a term that is typically siloed to the hard sciences and technology sector while also expanding upon the understanding of innovation as an art, requiring creativity, curiosity, and empathy. In doing so, peacebuilders can better leverage their engagement with these other industries that are usually not connected to the work of peace. This paper outlines a case for framing and studying peacebuilding as a process of innovation and what opportunities are subsequently made available for the work of peace. Organized into three parts, I first describe the features of peacebuilding that make it an innovative process, then I look at how innovation is often understood in relation to technology and science, and finally, I offer some specific ways in which peace as innovation can propel the work of peace forward.

Innovative nature of peacebuilding

To begin, it would be worth providing some context to the term "innovation." Of course, like almost any word (peace included) the term will be defined differently depending on who is using it. Within the modern social sciences, innovation is often used to describe a catalyst for social, political, and economic progress and development (Ufer & Hausstein, 2021). Built into the history and study of technology and scientific discovery, innovation is most frequently associated with modernity and the promise of the next invention. In this way, the danger of such a conception of innovation, at least in the context of international development, is that its implicated owner is the one who has dominated control over resources enough to build some new technological invention – it, therefore, becomes a "key term for the self- definition of Western modernity" (Ufer & Hausstein, 2021, p. 335). However, by this very logic of innovation being a driver of development, innovation can be found in different manifestations everywhere and at any time: innovation is the creation of something new. Anthropologists have long studied innovation as visible in cultural change over time, both as new tools are developed, discovered, and borrowed and as people from different places begin to interact. Examples of this can be seen in the changes in food gathering practices, in media used for communication, and in the ceremonies used to resolve social problems (Graeber & Wengrow, 2021).

Innovation is ever-present, and I would suggest that it can be seen in action in the processes of building peace itself.

What makes peace innovative? To begin, the field of peacebuilding – or conflict resolution – is interdisciplinary. Drawing from political science, anthropology, psychology, history, and philosophy, peacebuilding brings together scholarship from a wide range of academic traditions. Within this interdisciplinary context, the study of peacebuilding can lead in two broad directions: practice and theory. Theories within the study of peace consider what causes conflict between countries or between groups and what methods are used to attempt to resolve conflict. Within the practice, peacebuilding can contain mediation methods, ways to practice facilitated dialogue, restorative justice, as well as negotiation tactics. Ultimately,

an implied intention of mediation, for example, is to come out of the mediation having transformed the conflict conditions. Regardless of the outcome, the transformed conditions are ideally better serving those parties to the conflict, allowing them to move forward. Mediation, in this way, is a process of innovating the social dynamics and conditions currently stuck in conflict.

Innovation can also be seen in the skills in which peacebuilders become trained, such as active listening, reframing, asking open-ended questions, reflecting in the moment on one's own positionality, and acting preemptively by identifying potential conflicts before they arise. Acting in a heated or tense moment from a place of empathy while remaining strategically engaged in progressing social dynamics toward resolution is, in fact, an art form. It is an art of innovation in support of progressive social change. Unfortunately, however, peacebuilding as a field does not capture the allure the way innovation, in its frequent current conception, does.

Innovation in the next new gadget

While innovation can bring ideas and tools to light in ways that can benefit social life, there is a temptation to pursue "development" for development's sake, where the social need becomes the dependent variable to which a technology is applied. [1] In fact, concern with technology-led inquiry is present in much research within the fields of cultural anthropology and international development alike (Kasman et al., 2023). Even within the field of peacebuilding, some projects labeled as "peace tech" can fall into this trap. I include myself among the peacebuilders who, too, have, at times, fallen victim to the promise of the shiny new gadgets proposed to solve this ancient and fundamentally human condition of conflicting with other people (Bateson, 1972; McDermott, 1988; Black & Avruch, 1993; Hirblinger et al., 2022; Straight, 2008).

Alf Hornborg (2014) describes how modern technologies, baked into the tradition of Western scientific production, seem to represent a kind of magic of "human ingenuity" and potentiality. What problems could we solve, how fast could we solve them, and on how large of a scale could this be accomplished if we use technology? A question similar to this one was asked in

the development of the One Laptop Per Child initiative. This initiative, founded in 2005 by well-established entrepreneurs in tech in the United States, the initiative intends to bring a laptop to every child in the world to end the digital divide and provide education to all children. As Geoffrey B. Saxe and Kenton de Kirby's (2018) findings reveal in their ethnography of this tech-driven initiative, the project took a variety of pathways, some more successful and sustainable than others in meeting the objective of the mission. Importantly, the researchers emphasized this was the case due to factors of local, situated context, including individual agency – the personality and motivations of certain educators and community leaders -what kind of social resistance to the laptops or the program overall was present, and geographical, spatial and other environmental factors – such as where and how laptops could be stored or how rainfall affected pathways to school. In short, the inclusion of technology has promise, but leading with technology means putting context and human needs or conditions second.

What could peace as innovation offer?

Peace as innovation puts innovation, and therefore, technology, in its place. A reframing of peacebuilding as innovation could help chart a path for inventors, tech entrepreneurs, scientists, and others that traditionally do not participate in the field of peacebuilding to engage in the work of peace.

Reframing, after all, is a hallmark skill involved in the practice and study of peace. As Hornborg describes the mystifying magic of technology, so too is a magic in the art form that is conflict transformation.

The global interdependency and interconnectedness, as seen through digital technology, create a clear opportunity for such a reframe. William Ogburn (1964) wrote about "cultural lag" and the inevitability of non-material culture lagging behind material culture (ex: cell phones are introduced to a place, and then the people in said place figure out what to do with the phones ((Horst, 2021)). I cautiously bring this up because, in fact, placing things in such a linear order misses the constant co-creation of objects and meaning that better describes how non-material and material "culture" relate to each other. However, what Ogburn's theory does capture is the sense of panic and

urgency in ongoing public discourse when new technologies, like facts, are introduced, and people try to make sense of them and their impact (Latour, 1987; Marx, 2010; Hornborg, 2014; Horst & Miller, 2006; Rosenberg, 1994). In fact, it appears as though this process of cultural lag is increasing the faster computing speed gets – in other words, the technology is still leading.

By letting people's needs and the conflicts they seek to resolve lead the path towards innovation, there may be potential to lessen cultural lag and to ensure new technologies are serving human beings, not the other way around. The study of peace requires attention to context, local and global; it requires identifying patterns in communication and in social dynamics that keep people stuck in conflicts or that help people through conflict. It requires a seeking of opportunities, of moments or places where a change in something could have a longer-term and wide-reaching positive outcome.

These changes, over time, bare innovation and the design of such systems that can preempt conflict and shepherd such processes, a form of innovation in itself.

While peacebuilders understand a systems approach to conflict transformation, and while the field is interdisciplinary in nature, it can still often be a struggle to bring a peace agenda to industries and fields whose work falls heavily outside peacebuilding or sustainability and yet has incredible implications on the environments in which peacebuilders are operating. Given that having all stakeholders in conflict and civil society actors present is requisite to ensuring sustainable success and positive social impact, new technologies have the potential to act as a unique unifying force across professional and divisive lines. Technologies and the new abilities they can afford are not only of interest to all industries, but they are also already impacting the way in which all industries, and therefore all individuals, operate. These technologies, these cultural mediators, represent important points of cross-sector interdependency that, with a peacebuilders lens, could provide unique entry points for sustainable development and transformation and prevention of conflict.

Margaret Mead stated that cultures are each “experiments in what could be done with human nature.” Borrowing this

ethnographic lens, one could see how peacebuilding is, in fact, a process of innovation in and of itself. Because transforming conflicts and ideation across seemingly disconnected or countering viewpoints can catalyze new manifestations of human life and, therefore, new positive changes for people and the planet.

We are collectively in a time of immense systemic shifts. In a moment where institutions are challenged to quickly adapt to conflicts involving security, privacy, freedom of expression, inequity, injustice, and safety of our planet, the reframing of peacebuilding as innovation could assist in developing a new narrative around which more people and more industries can rally, and likewise to shift how people and institutions engage with new technologies. Where people in context are centered and peace, not technology, is in the driver's seat.

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National Policy of Society and Economy Based on Knowledge 2022-2050, and Transformative Innovation

Aim of the (PNSEBC) 2022-2050

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Science, technology, innovation, and telecommunications are tools that help human beings to develop in a better way in their environment, in addition to contributing to the solution of problems and needs of the current society. These tools provide high-added value as the catalysts for increased productivity and development economy of the countries and, therefore, the well-being of the people.

It is fundamental that people can count on the skills, knowledge, and the abilities necessary to guide, in favor of the general well-being, development of societies and economies, whose tools are science, technology, innovation, and telecommunications, to turn them into instruments to solve problems, meet the needs of people and achieve harmonious development, fair and sustainable.

This requires the implementation of improvements in the processes of teaching and learning, innovation in social and productive processes, a strengthening of the construction and management of knowledge, the expansion of productive interactions, and having robust, secure, and resilient telecommunications networks. All this with a view to consolidating sustainable human development in Costa Rica.

In this context, the PNSEBC seeks, based on a participatory construction by actors within civil society, the private sector, and academia, to articulate the country's efforts in a long-term vision, with respect to the scientific and technological progress, as well as its economic, social, and environmental impact.

The PNSEBC is built from four strategic areas that are binding for the development of our country:

Generation of knowledge Human talent Transformative innovation

Digital transformation has two subcategories: governance for digital government and inclusive digitization. In these areas, actions must be articulated to allow all people access to scientific and technological advances of the country through solid innovation processes and take advantage of the use of telecommunications networks to promote the reduction of the digital divide.

This policy is based on the possibilities offered by scientific and technological development to improve productivity through talent capable of implementing innovations and promoting competitiveness.

This is how the necessary actions are oriented so that the scientific and technological development and telecommunications contribute to the country from an integral perspective, and with a vision shared with the society, to the sustainable development of the territory, economic growth, social mobility, and social inclusion.

Guiding principles of the National Policy of Society and Economy Based on Knowledge 2022-2050.

Respect for human dignity:

Respect for Human Rights and compliance with different treaties and agreements of the International Human Rights System signed and ratified by the Costa Rican State; the main current treaties which can be consulted on the official website of the Organization of States American people; are the basis of this Policy.

This Policy must respond to the needs and interests of the population in conditions of equity, transparency, participation, and inclusion, overcoming the paradigms of discrimination in any extension, whether by sex, ethnicity, religion, age, sexual orientation, gender identity, culture identity, disability, nationality, social status, political ideology, or any other

characteristic within the breadth of human diversity, that may be the object of exclusion.

Universality

Public policy must generate the necessary conditions so that progress and the production of knowledge based on science and technology is within reach of all the people, taking into account their various contexts, so that they can benefit and improve their living conditions.

The access to knowledge generated by research and technological development in strict adherence to respect for intellectual property, transparency, and legal provisions, seeking that the results financed by public funds are accessible to all the people (OECD, 2007). This includes the equitable and supportive distribution of the telecommunications infrastructure and digital literacy.

A national policy based on the people as the center of action and joint vision implies the understanding of the inclusion of vulnerable populations to access the use of digital technologies, as well as receiving directly the benefits of scientific and technological development.

Human development.

This Public policy is people-centered, so human development is a central theme. In addition, all public initiatives must be aimed at improving living conditions to transform the world and achieve a suitable transition for the fourth revolution. Human development is understood as the achieved conditions for all people in a context of equity and socioeconomic inclusion.

Collaborative creation.

Considering that the promotion of greater interaction between the public institutions, citizens, the private sector, and academia drives a greater efficiency and transparency for the management of human and economic resources, this Policy promotes collaborative creation in all its stages, from its formulation to the evaluation of its results, through the participation of the largest number of actors working together to achieve a common goal. The collaborative creation will be a

fundamental and substantive condition of the strategic areas of politics in order to promote the creation of collective visions on the sustainable future of the sector and the connection of these visions with trajectories development points.

Ethics.

The Public policy directs its actions to socialize the scientific knowledge generated by research and innovation, developing ethical actions that follow the codes of behavior and promoting creativity and productivity. Informing, justifying, and assuming responsibilities are fundamental tasks so that these established processes follow ethical procedures. The products of science and technology arise from the efforts of people who, in the public or private sphere, respect a voluntarily adopted code of conduct, which guarantees the ideal environment for productivity, creativity, and innovation. These people are willing to inform, justify and take responsibility for their decisions and the effects derived from them.

Digital Media and Social Change in Historical Context: Global Civilizational Influence and Implications for Peace Innovation

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Introduction

The advent of the digital age and the proliferation of digital media have brought about significant social changes with global implications. This essay explores the impact of digital media in historical context, drawing parallels with the influence of literature and other forms of media innovation throughout history. By examining key texts and communications and media innovations throughout history connected to the evolution of civilization, we can understand the transformative power of digital media in shaping society today, and particularly its impact on peace innovation.

Context

One of the texts that inform this analysis is "The Written World: How Literature Shaped History" by Martin Puchner (2017). This book explores the stages of literary history, highlighting influential works and their impact on civilization. Significant works such as the Epic of Gilgamesh, the Hebrew Bible, and the works of Buddha, Confucius, Socrates, and Jesus have left indelible imprints on society, advancing collective processes through the development of tribal, city, and national unity (for example, Confucius and Chinese national identity), and their resulting realization of various stages of collaboration and peace, albeit at later stages of history, also being used as tools for war and oppression.

Another source of insight into this topic is the documentary series "Mankind: The Story of All of Us." This sweeping narrative of human history underscores key influences and milestones. It highlights how the invention of the written word enabled

technological advancements, leading to monumental structures like the Pyramids and Stonehenge. The series also emphasizes global connectedness, such as how Chinese innovations inspired European developments, like the printing press, which revolutionized communication and information dissemination, and later the emergence of Protestantism and, for example, its impact on British and American national identity.

Discussion

In the context of the digital age, digital media has emerged as a driving force behind social change. Unlike traditional media, digital platforms offer, firstly, a *participatory* and networked environment, empowering individuals to become citizen journalists and creators of content. The nature of online platforms allows for the production and consumption of diverse multimedia content. Secondly, the ubiquity *of mobile* devices, including smartphones and the global reach of digital media platforms have also fostered a global participatory civilization. The democratization of knowledge and access, facilitated by digital media, has led to the formation of online communities and the exchange of ideas on a global scale. The digital age has blurred geographical boundaries, enabling anyone, anywhere, to influence discourse and shape societal narratives, and thus thirdly, the *global* dimensions of digital media engagement.

Converging with these three dimensions of participatory, global, and mobile, we can see therefore that the connectedness of these dimensions to peace innovation are an emerging, despite ever persistent digital divides, and state and economic barriers, nonetheless, the emergence of a global public sphere (Habermas). In the perspective of this author, real peace is only possible with the realization of true global democratic engagement, and with, yet, the absence of a truly functioning, proportionately representative, global parliament or congress, the fourth pillar, or estate, of global participatory democracy, namely the global, mobile facilitated digital media space is for the time being one of the supporting structures for emerging peace innovation.

Conclusion

As we reflect on the profound impact of digital media, it becomes evident that we are living in a new era of civilization, characterized by the global digital age. The unprecedented production and consumption of digital content, the connectivity of individuals worldwide, and the democratization of knowledge have reshaped society in profound ways. Digital media has become an integral part of our daily lives, influencing how we communicate, share information, and shape our perspectives.

This analysis prompts us to consider the evolving nature of our engagement with digital media and its consequences. It invites us to contemplate how our reading and viewing habits have changed over time and how these changes impact our daily lives. Understanding the transformative power of digital media is essential as we navigate the complex terrain of the digital age and strive to leverage its potential for positive social change.

In conclusion, the digital media age represents a significant chapter in human civilization, comparable to the impact of great works of literature, and other influential media, throughout history, and yet profoundly magnified in comparison to the changes previously seen in history. It is through understanding and critically examining these influences that we can adapt and harness the power of digital media to shape a more inclusive, informed, and equitable global society, and innovate in the cause for peace.

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Chapter **4**

Additional Peace Innovation Considerations

Peace Innovation: A Focus on Food Security

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State of global food security and its relationships with peace

Data at the global level indicates that we are not progressing towards meeting our global Sustainable Development Goal (SDG) 2, to end hunger, achieve food security and nutrition, and promote sustainable agriculture. Specifically, the United Nations 2021 State of the World's Food Security Report illustrates that: 1) world hunger has returned to levels reported a decade ago, 2) the number of undernourished people has been on the rise since 2014, specifically 690 million people (almost nine percent of the world's population) were undernourished in 2020, and 3) although child undernourishment is declining, adult obesity and anemia in women of reproductive age are on the rise.

Our food security crisis is complex, and there are many interrelated factors at the root of this complexity, including gender, race, and economic inequality. In addition, the world has experienced an increase in the number of conflicts in the past decade (FAO et al., 2018), as well as an increase in the frequency of natural disasters and climate-related impacts (IPCC, 2013).

These climate and conflict-related factors have further exacerbated food insecurity. The Covid-19 pandemic has also exacerbated food insecurity (FAO et al., 2021). Within this context, experts have made a global call to rethink the way we produce food to avert both food security and environmental crises.

There is a direct link between food security and peace. Specifically, conflict is one important factor driving the reversal of our world's long-term progress in hunger-reduction. Conflict can affect the ability to produce, distribute and access food. In

2012, food prices in Syria were six times the pre-war prices; these increases were attributed to decreased ability to produce food (because of bombed factories) as well as increases in food transportation costs (Morello, 2012, cited in Hendrix & Brinkman, 2013). The 2022 war in Ukraine has also greatly affected food security. Specifically, due to the Russian occupation of Ukraine's port cities, wheat, and corn export has been disrupted, and in 2022, these grains did not reach the global market (DW, 2022). Since Russia and Ukraine account for 29% of global wheat exports, such supply chain disruptions lead to a rise in food prices (Hogan, 2022). This is evidenced by the fact that wheat prices in March 2022 reached a 14-year high due to the Ukraine war (Hogan, 2022). The impacts of conflict on supply chains and food prices are then felt in food-importing countries. For example, countries in the Middle East and North Africa consume more than twice the world average of wheat per capita and more than 50% of the wheat imported to this region comes from Ukraine and Russia (Breisinger et al., 2022).

Food insecurity may also motivate increased participation in armed conflict; this has been reported by ex-combatants in Sierra Leone who were more likely to participate in rebellion if offered food (Hendrix & Brinkman, 2013). Understanding the relationship between food security and conflict is important to ending hunger and malnourishment. Over half of the world's chronically food insecure and malnourished live in countries affected by conflict (489 million of the world's 815 million chronically undernourished; FAO et al., 2017). The majority of the world's stunted children are living in countries affected by conflict (FAO et al., 2018). Furthermore, although most countries have achieved gains in reducing hunger and malnutrition over the past 25 years, such progress has not been reached and/or has deteriorated in countries affected by conflict (FAO et al., 2018).

The growing evidence of links between food security and conflict has resulted in a global call for more research on the nexus of agriculture and food production and conflict reduction, as well as how food systems can contribute to peacebuilding (Liebig et al., 2022). In an extensive literature review of research on food systems, conflicts, and peacebuilding, Liebig et al. (2022) highlight how increased attention to food security and resilience may:

1) help to prevent conflicts and 2) contribute to political stability. These authors also importantly note that food systems resilience alone will not be enough to address conflict prevention and that strong governance and institutional support is also required. In this paper, however, I will focus mainly on innovation and areas of intervention in food systems that have been proposed to address and prevent crises and conflict while acknowledging that these solutions and innovations will interact within geopolitical contexts differently.

Peace Innovation and Food Security

Defining Peace Innovation (PI) and Food Security

The terms peace innovation and food security are rarely discussed in concert, and thus, I present the definition I will use for both terms and explain how these terms are linked. First, I have chosen the expanded definition provided by Miklian & Hoelscher (2018, p. 192), who state that Peace Innovation (PI) is:

Innovation that expressly aims to facilitate the prevention of conflict and/or alleviate the harmful consequences of human suffering when conflict occurs and which accepts responsibility for its own intended and unintended outcomes. The 'peace' aspect includes actions and products that seek to address various forms of suffering, social division, and other negative effects that arise from both violent and non-violent forms of conflict.

Regarding the concept of 'innovation,' we include technological and social innovation, aligning with principles of both inclusive innovation – that is, an innovation that delivers benefit to people and places where the need is greatest…'Responsibility.' …raises the questions of 'responsible to whom?' and 'responsible for what?', particularly in the importance of engaging possibilities of foreseeable unintended consequences.

When linking the above definition of PI to food security, it becomes evident that food security innovations and solutions that address peace will be those that address different forms of suffering and social division in food systems. This then requires a discussion of both social and technological innovations. Lastly,

as highlighted above, solutions and innovations proposed to address food security must consider inclusion and responsibility, i.e., food security for who and for what?

Food Security will be defined in this paper using the FAO definition from the 1996 World Food Summit that states "Food security exists when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." From this definition, the FAO identified four main dimensions of food security: 1) availability, 2) access, 3) stability, and 4) utilization (FAO, 2008).

Availability relates to the production side of food or how much food is available. Access means people or households have either physical or economic access to food through means such as harvest or purchase. Stability refers to long-term factors that can affect food security, such as climate conditions, political stability, and the economy. Utilization refers to how the body makes use of the nutrients in food, i.e., if they have quality food that meets nutritional needs. The next section explores solutions and innovations related to peace in the field of food and examines how these innovations link to these four dimensions of food security; I have divided this section into social and technological innovations following the conventions of Miklian & Hoelscher (2018, p. 192). The final section of this paper is a reflection on responsibility in peace innovation since solutions and innovations are not apolitical and do not always consider inclusion or, as Miklian & Hoelscher (2018) state, "foreseeable unintended consequences" (p. 192).

Technological Innovations

Technological innovations are diverse, their advances are occurring rapidly, and these innovations aim to address all four dimensions of food security: availability, access, utilization, and stability. I will provide an overview of some technological innovations; however, for more detail on technological innovation and food production, see the review paper by McClements et al. (2021).

Vertical Farming

Many technological innovations relate to increasing food production (the food availability dimension). Such innovations include vertical farming, farming apt to grow food when space or land to grow is limited. Due to limited land space, vertical farming is becoming popular in urban areas such as Singapore (Kit Mok et al., 2020). In vertical farming, productivity per land area is increased, multiple crops can be stacked and produced in the same unit of land area, and furthermore, crops are shielded from environmental shocks such as pests or abrupt climate changes since growing occurs indoors (Kit Mok et al., 2020). In addition to increasing production, vertical farming may also increase food access for some consumers. The market for many urban vertical farms is urban populations, and this would reduce transport costs and emissions; however, since vertical farms do not have access to natural light, the energy costs of running these farms can increase the cost of the food (Kit Mok et al., 2020).

Food waste reduction technologies

Developing countries often have warm climates in combination with a lack of adequate storage facilities; this combination of factors means increased loss of food that is apt for human consumption. Developing countries produce large quantities of fruits, vegetables, and other perishable crops, which are all subject to rapid deterioration within a few days of harvesting, thus requiring proper handling and storage (FAO, 2019). Technological solutions for this issue include improving on-farm storage facilities to address post-harvest losses. Additionally, drought is the primary cause of agriculture loss, and this has led to technological interventions to reduce food loss during production (Martignago et al., 2020). Drought-resistant seed technology is one example of a solution to this issue. Biotechnology is also being applied to food waste by accessing food processing sidestreams (i.e., making use of waste products in production to create new food sources; McClements et al., 2021).

Biotechnology

Biotechnology refers to a range of tools from traditional breeding to tools of genetic engineering to modify plants or animals for agricultural use (USDA, n.d.). Genetic engineering (GE) is the modification of an organism's genes by introducing new genes, eliminating some genes, and/or rearranging genes (USDA, n.d.). Food security has historically depended upon biotechnology to produce new hybrid seeds (via cross-breeding of seeds through artificial mating) and via the cross-breeding of animals to select desirable traits. More recently, GE technologies have been developed to change the nutritional profiles of food and to decrease food waste (by editing genes that cause spoilage of food; McClements et al., 2021). These technologies address nutrition (the food utilization dimension of food security as well as the availability and access dimensions).

Other GE techniques include the creation of 1) herbicide-tolerant seeds, seeds tolerant to the chemical glyphosate (Jacobson et al., 2013), and 2) plants that are engineered to contain toxins of the bacterium (Bt) so they are resistant to insect pests (Tawfik Abbas, 2018). These technologies address the food availability dimension of food security and focus on increasing production and minimizing on-farm losses. At the same time, genetically modified herbicide-tolerant crops are highly controversial because they require the continued use of pesticides, including the carcinogenic pesticide glyphosate (IARC, 2016) such as the glyphosate-tolerant, Roundup Ready varieties of soy, maize, canola, beets, cotton, and alfalfa (e.g., Monsanto, 2019; Nuseed, 2018).

These glyphosate-tolerant crops are used with broad-spectrum herbicides, meaning chemicals that kill all plants in an area, and thus, this can lead to the elimination of other food sources for animals, including birds (Heard et al., 2003).

Agroecology

The United Nations is promoting the use of agroecology (ecological agriculture), a technique that requires little external input in food production and that is designed for peaceful human-nature interactions. In their recent report, the FAO of the UN describes how agroecology is a food security solution that addresses all 17 SDGs (FAO, 2018). Some of the benefits

of scaling up agroecology include 1) increasing recognition that industrial agriculture has reached its limit, 2) agroecology supports climate resilience,

3) job creation for rural youth, and 4) meeting growing consumer demands for healthy diets (FAO, 2018).

Agroecology is farming that mimics natural ecosystems, promotes on-farm diversity, and that does not use synthetic, chemical inputs (e.g., fertilizers, pesticides). Thus, agroecology is classified as a low-cost technology for food security. Some of the ecological dimensions of agroecology include companion planting, biological pest control, the use of natural versus synthetic chemical inputs (e.g., green manures, compost, nitrogen-fixing plants, nutrient recycling), the promotion of genetic conservation and biodiversity (e.g., polycultures, agroforestry, seed saving, crop-wild relatives), the preservation of soil health (e.g., compost, nitrogen-fixing plants, cover crops/mulching, crop rotations), and nutrient cycling (energy, nutrients, water; tree planting, cover crops, nitrogen-fixing plants, livestock-crop mixtures, rainwater capture; Kremen et al., 2012; Third World Network & SOCLA, 2015). Agroecology addresses all dimensions of food security: availability, access, utilization, and stability, and has a strong focus on the latter two dimensions. Specifically, agroecological food production promotes the production of food without harmful and toxic chemical inputs to ensure the long-term health of humans and natural communities into the future.

Social Innovations Community Agriculture

Community agriculture can be defined as farming that provides food for local communities. Hanson, MCann & Damitz (n.d.) define community agriculture as “often run by organizations who are growing produce sustainably with the goal to improve health and access to food in their communities, especially among underrepresented populations." Community agriculture can bring new life to communities and can motivate people to work together after conflict (FAO et al., 2017). When people garden together, they can recreate a sense of community, connect members of different generations, and experience a sense of accomplishment; additionally, harvesting food locally can help cut household food expenses (Krasny et al., 2014).

In post-conflict Sierra Leone in the Greater Freetown Area, urban agriculture became an important source of food and employment for internally displaced people, including youth (Kanu et al., 2009). Millican, Perkins, & Adam-Bradford et al. (2018) illustrate that because refugees can stay in camps for tens of years, community gardens can be important for food security as well as mental health and trauma recovery.

Social Dimensions of Agroecology

Altieri (1987) highlights that this definition requires a societal system that supports agroecology in areas beyond agricultural fields. Some of the key social principles of the agroecological farming model include 1) a decrease in farmer dependence on external inputs (including price volatility of these inputs), 2) creating autonomy from unfavorable economic markets, and 3) farmer-to-farmer knowledge and seed exchanges that build social networks and preserve cultural knowledge (Altieri & Toledo, 2011; Martínez-Torres & Rosset, 2014; Sylvester & García Segura, 2016; Sylvester & Little, 2020). For the latter reasons, the FAO of the UN has highlighted the potential of agroecology to address all of the UN SDGs (FAO, 2018).

Social Dimensions of food waste

There are many global initiatives that aim to reduce the social taboo of eating safe food that may not be aesthetically pleasing, or that may not be labeled as apt for consumption. For instance, food surplus supermarkets sell food that can no longer be sold at other supermarkets due to it being past its best-before date or due to mislabeling or damaged packaging. Wefood is Denmark's first food surplus supermarket that sells products that are still edible and safe based on Danish food legislation but can not be sold in other markets (DanChurchAid, 2021).

Another area for innovation regarding food waste is the promotion of imperfect produce. In general, food distributors have a preference for produce that have appealing aesthetics in terms of food color, size, and shape. Therefore, food that is imperfect often goes to waste. In Portugal, the cooperative named Fruta Feia (meaning ugly fruit) was created to combat food insecurity and market inefficiency by introducing imperfect or 'ugly' fruits and vegetables into markets.

Responsibility in Innovation: Food Security for Who and for What?

Solutions and innovations are not apolitical, nor do they by nature consider inclusion or "foreseeable unintended consequences" (Miklian & Hoelscher, 2018, p. 192). The latter is an important point to consider when analyzing innovations for food security that can contribute to conflict prevention and/or conflict resolution. Historically, conventional food production has overlooked inclusion. The industrial agricultural model, also referred to as modern agriculture, is based on a reductionist approach to ecosystems; its goal is to grow one or few species in a given land area to maximize yields and decrease costs of production by exploiting economies of scale (i.e., Horrigan, Lawrence, Walker, 2002; Kremen et al., 2012). Industrial agriculture relies on synthetical chemical inputs for farming (e.g., pesticides and synthetic fertilizers) and to maximize short-term farm productivity. The justification for the latter is that the world's population is growing, and if we do not focus on increased production, we will not meet SDG 2 to end hunger and achieve food security (Tudge, 2017).

There are, however, critics of the view that increasing efficiency and production will solve the world's food insecurity crisis. Specifically, the United Nations 2021 State of the World's Food Security Report illustrates that: 1) world hunger has returned to levels reported a decade ago, and 2) the number of undernourished people has been on the rise since 2014. Furthermore, the technologies used for industrial farming are not always accessible to smallholder farmers (Perfecto et al., 2009), the chemicals used have been responsible for causing cancer and other health problems (IARC, 2016), the corporate control of agriculture has led to concerns over access to seeds for populations to produce their own food (Jacobsen et al., 2013; Ohlgart, 2002), and the global agri-industrial food systems of production and trade have resulted in price volatility during systems shocks (such as we saw during Covid-19 or the 2022 war on Ukraine; FAO et al., 2021; Hogan, 2022). This suite of factors has raised the concern that increasing food availability via industrial food production and increasing food access via global food trade is not working to help the world's most food insecure. Thus, when examining technological and social

innovations to promote food security - the type of innovation matters. Production of GE seeds that are tolerant to high levels of toxic glyphosate herbicide to ensure high levels of production (of corn or soy, for example) does not guarantee the health of workers or the long-term health of ecosystems; furthermore, the corporate control of such seeds creates dependence on corporations and does not guarantee that populations in situations of undernutrition and crises can access inexpensive food sources to address immediate community needs (Jacobsen et al., 2013).

The High-Level Panel of Experts on Food Security and Nutrition (HLPE, 2022) has called for a radical transformation of food systems that prioritizes elements beyond increased production, such as regenerative agriculture and decent livelihoods and equity for food systems workers, especially smallholder producers and marginalized people. The FAO (2018) has suggested that

agroecology is a way to radically transform food systems to ensure innovation regarding food production and trade is achieved within a system that foregrounds the needs of the most vulnerable and that supports a collective realization of all SDGs. The global implementation of agroecology faces some key challenges, however, including 1) a lack of political and economic support, 2) a need for a greater focus on local/regional markets, 3) a lack of policies that enable the scaling up of agroecology (FAO, 2018). Despite these important challenges, there are many opportunities associated with scaling-up agroecology, including 1) increasing recognition that industrial agriculture has reached its limit, 2) job creation for rural youth (FAO, 2018), and 3) a growing recognition that dominant systems of production and trade play a role in conflict (Liebig et al., 2022; Hendrix & Brinkman, 2013; Bush, 2010).

Conclusions

The clear links between food security and conflict have resulted in a global call for more research on the nexus of agriculture and food production and conflict reduction (Liebig et al., 2022). In this paper, I have first expanded upon the nexus of food security and peace innovation. Second, I have outlined numerous innovations in the field of food security. These innovations are

divided into social and technological and have been proposed to alleviate human suffering and conflict associated with hunger and food insecurity. Lastly, I have addressed responsibility in innovation, a topic highlighted by Miklian & Hoelscher (2018, p. 192), who state that peace innovation must consider inclusion and "foreseeable unintended consequences."

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Peace Innovation and Organized Crime: preliminary considerations

Maurício Vieira

The field of Peace and Conflict Studies was established more than 50 years ago. Since then, its research agenda has experienced innovation with the influence of academic and institutional momentums, creating a broad scope of analysis. There are, at least, five momentums over these decades: first, the advance of the concept of violence as a precursor for analyzing peace (Galtung, 1969; Boulding, 1978); second, the comprehension of global threats posited by the world polarization over the so-called Cold War (Pureza and Cravo, 2009; UNESCO, 1992; Hettne, 1991); third, the concepts of peacemaking, peace-keeping and peace-building established by the United Nations Agenda for Peace (UN Doc. A/47/277-S/24111), followed by the concept of human security (UNDP, 1994) and the constructivist approach for security studies (Buzan and Hansen, 2009); fourth, the institutional agenda established by the United Nations through the Millennium Development Goals in 2000 (UN Doc. A/RES/55/2) and its successor framework, the Sustainable Development Goals since 2015 (UN Doc. A/RES/70/1); and fifth, the contribution by an approach centered on Information and Communication Technologies (ICT), even its ability "to circumvent political problems" (Miklian and Hoelscher, 2018: 192; Hofstetter, 2021) are sometimes "more complicated and difficult than its ability to solve technical ones" (Miklian and Hoelscher, 2018: 192; Hofstetter, 2021).

These momentums reflect how new concepts, agendas, and technology can contribute to innovate peace studies, even though they also can threaten the advancement of this area of research. Nevertheless, the notion of innovation within a peace framework refers to a holistic and associative approach to peace (Galtung, 1976) and does not necessarily depend on technology to advance its agenda. As Miklian and Hoelscher (2018, p. 192) define, peace innovation "aims to facilitate the prevention of conflict and/or alleviate the harmful consequences of human suffering when conflict occurs, and which accepts responsibility for its

own intended and unintended outcomes". To this definition, they argue that "'social problems' in conflict settings are typically the product of political decisions specifically targeted to harm, not the result of inefficiencies in service delivery by a government that is trying to do the right thing" (Miklian & Hoelscher, 2018, p. 192). In the scope of this chapter, innovation is a process that combines conceptual, methodological, and technological approaches into pragmatic and strategic actions that aim to "empower affected communities" (Hofstetter, 2021, p. 5) in the face of the consequences of armed violence and political instability. Such definitions contribute to a common understanding of peace innovation as a synonym for peace-building processes. As Hofstetter (2021, p. 5) complements, peace innovation makes "peace- building processes more inclusive but also giving citizens the possibility to self-organize and develop alternative infrastructures of peace-building," being a transformative potential process in different levels of analysis.

Peace-building as Transformative Innovation

The transformative potential process mentioned by Hofstetter (2021) calls our attention to the scenarios for peace innovation still underexplored, derived from the "growing attention to the malicious use of technology by conflict parties" (Hofstetter, 2021, p. 5) which include the weaponization of social media, the use of surveillance technologies, and cyberattacks (Hofstetter, 2021, p. 5). The author explains that there is a need to focus on questions of how "altered conflict parameters might spoil peace-building efforts and how peacebuilders could incorporate these new threats into their conflict management frameworks" (Hofstetter, 2021, p. 5). These two questions go straight to what Miklian and Hoelscher (2018) pointed out about a peace innovation approach's intended and unintended outcomes. In their contribution, peace innovation is not only about technological solutions, rather a combination of factors and challenges that "can help address some of today's most intractable global peace and conflict problems" (Miklian & Hoelscher, 2016).

Following Miklian and Hoelscher's contribution (2016, 2018), solutions embedded in a peace innovation approach should focus on five principles: first, building a scholar-entrepreneur-policy

triad; second, disrupting conflict with informed purpose; third, promoting ethical innovation; fourth, delivering specific positive impacts; and fifth, globalizing the peace innovation playing field. In summary, they advocate for a principled approach that could consider "why certain innovations might work and/or should be supported, and why others that promise to 'disrupt' conflict dynamics might just make things worse" (Miklian & Hoelscher, 2016). In essence, the authors are in search of an equilibrium on this issue, in which peace innovation can be a source for beneficiaries and users of new technologies but also for business in conflict regions, and such mutual gain must focus on the assessment, analysis, and articulation of human security needs embedded in an ethical value among actors, tools, and aims (Miklian & Hoelscher, 2016).

This transformative innovation attached to peace-building is a result of the development of peace-building as both a concept and a policy. Peace-building is, inherently, an academic term. It first appeared in 1976 when Johan Galtung elaborated his argument designating peace-building as the “associative approach” among the three ones he established for peace – peacekeeping2 and peacemaking3. In his analysis, peace within peace-building has a structure different from the other two approaches to peace (Galtung, 1976, p. 297), in which those "structures must be found [to] remove causes of wars and [to] offer alternatives to war in situations where wars might occur" (Galtung, 1976, p. 298). In that regard, Galtung explained that at the same time, peace has a structure; it is an infrastructure embedded in a multilevel (Galtung, 1976, p. 303) analysis in which to fight against violence4, peace “must be built within nations as well as between nations” (Galtung, 1976, p. 303). When the term moves from the academic field into a pragmatic interpretation and applicability, peace-building not only acquires a connotation of being associated with countries facing transitional phases from intra-state war to peace but, most importantly, it becomes incorporated into a multilevel approach, reflecting Galtung's initial conceptualization.

That momentum occurred in 1992 when Boutros Boutros-Ghali institutionalized peace-building in the United Nations with his known An Agenda for Peace: Preventive Diplomacy, peacemaking, and peace-keeping. In that document, peace-

building was classified as a post-conflict approach, being defined as an "action to identify and support structures which will tend to strengthen and solidify peace in order to avoid a relapse into conflict" (UN Doc. A/47/277-S/24111, para. 21), which "may take the form of concrete cooperative projects which link two or more countries in a mutually beneficial undertaking that can not only contribute to economic and social development but also enhance the confidence that is so fundamental to peace" (UN Doc. A/47/277-S/24111, para. 56). Once incorporated into the UN scope, the conceptualization of peace-building was constantly improved aiming to adequate the institution's role in the face of the challenges of peace, as it became evident through other UN documents subsequent to An Agenda for Peace. As Cavalcante (2019, pg. 1) points out, "Since the release of the document, the concept of peace-building has informed international initiatives in dozens of armed conflicts and post-conflict situations". On this issue, I argue that the conceptualization of peace-building is analyzed through three main axes: on the one hand, by the UN itself, reframing what peace-building entails for its role; on the other hand, by peace scholars, who analyze what peace-building is or should be in face of how the UN applies the concept through its interventionist approach.

1. Following Galtung, peace-keeping is the dissociative approach, in which "the antagonists are kept away from each other under mutual threats of considerable punishment if they transgress, particularly if they transgress into each other's territory." (Galtung, 1976, p. 286)

2. Peacemaking, in its turn, is the conflict resolution approach, which "should not only be seen as a way of avoiding war but also as a way for mankind to progress, to transcend incompatibilities or contradictions that stifle progress and channel attention and all kinds of resources away from more important pursuits." (Galtung, 1976: 290)

4 For a perspective on violence and peace, see Galtung (1969).

Between these two axes, another one focuses on a bottom-up approach that explains that there is another model of understanding and promoting peace through the prioritization of local initiatives (Mac Ginty et al., 2013; Richmond, 2013). These axes are, in essence, evidence of how the notion of peace-

building has evolved, being a source for its own innovation process.

Different institutional documents express that peace-building within the UN is not dissociated from a post-conflict character 5. Peace-building refers to a post-conflict phase in which its implementation can be complex (UN Doc. A/50/60-S/1995/1, para. 48) since it "requires more than purely diplomatic and military action, and that an integrated peace-building effort is needed to address the various factors that have caused or are threatening a conflict" (UN Doc. A/52/871- S/1998/318, para. 63). In addition, the associative approach Galtung (1976) mentioned is explained by the fact that peace-building "may involve the creation or strengthening of national institutions, monitoring elections, promoting human rights, providing for reintegration and rehabilitation programs, and creating conditions for resumed development" (UN Doc. A/52/871-S/1998/318, para. 63); as well as working "with both Governments and non-governmental parties and complementing what may be ongoing United Nations development activities" (UN Doc. A/55/305–S/2000/809, para. 6) on the countries in question.

In addition, as the conceptualization of peace-building was adapted into an institutional framework, the academic debate over the term problematized how the UN and other international organizations applied the concept pragmatically while enhancing peace-building analysis. My starting point on linking within the UN perspective on peace-building and scholars who contributed to a better comprehension of the term came from the contribution provided by Barnett et al. (2007), who analyzed in-depth how 24 governmental and intergovernmental bodies define and apply peace-building. What they found was that "there are differences among actors regarding [peace-building] conceptualization and operationalization" (Barnett et al., 2007, p. 36). In a more detailed analysis, Barnett et al. (2007, p. 36) explained that, on the one hand, "some programs focus on the production of stability and security in the early days of a peace agreement's implementation"; while, on the other hand, "others [programs] focus on building vibrant civil societies and furthering development, democracy, justice, and the rule of law" (Barnett et al., 2007, p. 36).

Within the UN, Barnett et al. (2007, p. 42) point out that its "specialized agencies have adopted other concepts, a pattern that probably owes to how peace- building fits into their broader core mandates". In this sense, the conceptualization of peace-building – on both institutional and academic levels – is one of permanent change and, as no one has the monopoly on the definition of peace (Galtung, 1969), the definition of its derivatives, such as peace-building, reflects different perspectives over the same term. In this regard, peace-building "is an umbrella term that describes a wide range of interventions that country offices [and international organizations] undertake to reduce the risk that a conflict-prone will lapse or relapse into violent [and armed] conflict" (Campbell, 2018, p. 8). Although it "is the most extensive and transformative type of peace-keeping intervention undertaken by the international community" (Barma, 2017, p. 12), peace-building is also "about building effective, accountable State institutions" (McCandless et al., 2015, pp. 3-4) undertaken by individuals and organizations, as well as institutions, to reduce the effects of violent conflict (Neufeldt, 2014, p. 427) "through the establishment of (...) non-violent resolution of tensions and disputes" (Chetail and Jütersonke, 2014, p. 1). In this same line of thought, Pugh argues that peace-building "has come to mean revising the structures that led to conflict, and inevitably that means diminution of sovereignty" (Pugh, 2013, p. 21). In his analysis, peace-building is therefore "part of the security agenda insofar as the pathologies of conflict- prone and underdeveloped States have been constructed as international threats" (Newman, 2013, p. 320).

Ryan (2013, p. 28) argues that attaching 'post-conflict' to 'peace-building' is problematic for two main reasons: first, "no society is 'post-conflict,' since conflict is ubiquitous (…) and post-violence would be a better term, though a violence- free society is also hard to imagine". And, second, "by seeming to restrict the idea of peace-building to the final stage in the cycle of violent conflict, it promotes a limited view of what peace-building could be" (Ryan, 2013, p. 28).

This perspective led "to the rehabilitation of [those] regions and countries ravaged by armed conflicts in order to prevent the resumption of hostilities and to establish lasting peace" (David, 2002, p. 18), but also centered on a reconstruction and

reconciliation paradigm (Jeong, 2002, p. 7). In the scope of this chapter, such perspective enables comprehending peace-building as "a policy response to the non-violent management of conflict" (Holt, 2011, p. 18) that also "seeks to unify the social and economic spheres" (Murithi, 2009, p. 3). From this point of view, being a policy response reiterates Galtung's (1976) contribution to enhancing peace- building as an associative approach since peace-building is seen "as an expansive, inclusive and collaborative process which takes place simultaneously at (…) the macro, meso and micro levels" (Murithi, 2009, p. 7).

Each of these levels reflect the scenario peace-building is taking place from both a country and institutional perspectives. Even though peace-building reflects an innovative process through its own conceptualization and aims to build a solid structure for peace, to what extent could such innovation be oriented towards addressing pervasive threats, such as organized crime?

Addressing Organized Crime Through Peace Innovation

Organized crime is the most pervasive global threat. It is disseminated through different and interrelated illicit practices in all countries, and consequently, it threatens State stability, fragilizes institutions, and corrupts governmental structures. Focusing on organized crime within a peace innovation approach is essential due to the collapse of social dynamics it affects gradually: more than three-quarters of the world's population live in countries with high levels of criminality, State actors are the most dominant agents in facilitating illicit economies, and many countries in conflict and fragile affected context experience acute vulnerability to organized crime (Global Initiative, 2021). Based on this scenario, organized crime is the most urgent challenge for innovative approaches to peace.

Although the "impact of organized crime on peace, security, and stability has received increasing attention in the [UN] Security Council" since 2010 (Hansen, 2014), and some authors have analyzed the nexus between organized crime and peace-keeping (Hansen, 2014; Locke, 2012; Wennmann, 2014; Boutellis & Tiélès, 2019; van der Lijn, 2018), few works of literature are dedicated to analyzing the nexus between organized crime and peace- building (Ferreira et al., 2020; Cockayne, 2011), while the literature on peace innovation with a focus on organized

crime is even more incipient. Aligned with Hansen (2014), Boutellis and Tiélès (2019, p. 173) mention that organized crime "is present in almost three-quarters of the countries where the Security Council has authorized the deployment of UN peace operations — ranging from small political missions without uniformed components to large multidimensional peace-keeping operations". This fact is corroborated by other institutional frameworks, such as the 2004 Report of the High-level Panel on Threats, Challenges and Change that "recognized transnational organized crime as one of the six clusters of threats with which the world must be concerned now and in the decades ahead because it facilitates many of the most serious threats to international peace and security" (Boutellis & Tiélès, 2019, p. 172).

Recognizing transnational organized crime as the most serious threat to international peace and security is, at some point, a collective call aiming to identify how innovative forms of promoting peace can address this threat. From my perspective, peace innovation on this matter can be achievable if the impact of organized crime on peace-building is identified and mapped out. To support my argument, I bring the contribution of Cockayne (2011), who analyzed the interrelation between organized crime, State fragility, and peace-building. Based on his perspective, organized crime impacts peace-building through, on the one hand, the infiltration in Fragile States, which weakens domestic governance and makes such States more vulnerable to violent competition between domestic or transnational rivals (Cockayne, 2011); on the other hand, by the transnational character of the organized crime dynamic, which functions as a spill-over effect due to unpredictable displacement to neighboring countries and continents (Cockayne, 2011). In this regard, the impact of organized crime mentioned by Cockayne (2011) reveals a multidimensional and complex scenario in which different levels of impact intersect, enhance each other, and make organized crime more challenging to address.

Such complexity results from impediments and limitations derived from strategic policies to combat and counter organized crime. Based on Locke's (2012) contribution, "many efforts to combat transnational organized crime to date have focused on legal and security measures and systems for international

cooperation" (2012). And he continues, arguing that "a more nuanced understanding of the overlap between fragility, conflict, and transnational organized crime requires a better understanding of political, economic, and social dynamics within affected States" (Locke, 2012). Although Cockayne (2012) and Locke (2012) evidence challenges within a State-centric approach, the need to focus on innovative forms of promoting peace does not rely only on the State and its capability. Since organized crime is pervasive, its impact on local communities reflects a different dynamic when compared to its impact on the functioning of the State; hence this scenario requires a variety of innovative approaches to peace based on which level it is impacting.

To better understand how innovative approaches to peace can be implemented in these two scenarios – State-centric approach and community level, respectively – I mention two examples. First, the peace innovation approach can be exemplified through the 2022-2025 Strategic Vision for Latin America and the Caribbean, launched by the United Nations Office on Drugs and Crime (UNODC) in Bogota, Colombia, in early 2022.

Based on the document, the UNODC (2022, p. 30) recognized that "digital technologies and big data analyses [must] be leveraged to address challenges in crime prevention and criminal justice broadly" in order to "facilitate inclusive, transparent and real-time interaction among experts, beneficiaries, stakeholders and implementing partners in diverse geographic locations" (UNODC, 2022, p. 30). Such recognition from UNODC put into place what Miklian and Hoelscher (2016, 2018) have discussed about the scholar-entrepreneur-policy triad, emphasizing the need for a collaborative endeavor. In this regard, UNODC announced that the agency would focus on the "implementation of business intelligence for specific use cases, such as law enforcement profiling and forecasting, and anomaly detection in financial transactions to fight money laundering and other economic crimes" (UNODC, 2022, p. 30). As Hofstetter points out, "with conflict increasingly shifting to virtual spaces, peacebuilders need to expand their efforts and reach out to conflict stakeholders and peace constituencies online and mitigate the new threats these altered conflict dynamics impose on the non-digital world" (2021, p. 6). The example

provided by the contribution from the UNODC is aligned to the use of technology for achieving better results on the counter of organized crime. Nevertheless, peace innovation does not depend on technology only.

As mentioned in this chapter, peace innovation emerges as a non- and technological response to facilitate prevention and alleviate harmful consequences of human suffering (Miklian & Hoelscher, 2018, p. 192). In the context of the impact of organized crime at the community level, this perspective resonates more with the concept of resilience applied to organized crime. Resilience "is the ability to withstand and disrupt organized criminal activities as a whole, rather than individual markets, through political, economic, legal, and social measures" (Global Initiative, 2021).

Resilience is promoted by Global Initiative (2022) through a funding system to a varied of resilient actors, such as "community groups, anti-crime activists, academics, media houses, labor unions (…) [who] are active in multiple ways in places where the State has been compromised or replaced by criminal governance". Based on the perspective of Global Initiative, "resilience refers to countries' measures taken by both the State and non-State actors," which includes the participation of civil society, being a community-level approach in the design of peace through reconciliation and reconstruction processes.

Although the literature on peace innovation within an organized crime approach is incipient, authors' contribution to the field of urban safety and security through peace innovation, (Miklian and Hoelscher, 2018) is an asset to comprehend the multidimensionality and transversality of causes and dynamics organized crime posits to daily life. Under the urban safety and security domain, Miklian and Hoelscher (2018) argue that technological and social innovations combined can assist in reshaping fragile cities through system-wide urban innovations across sectors, such as construction, planning, housing, transportation, health, and education, which may address drivers of violence by improving service delivery, prevention, and mitigation of urban violence through innovations in public security policy. Such perspective enables a comprehension that

peace innovation to address organized crime is still a fertile terrain for developing and improving this research agenda.

Conclusion

Peace innovation is not a conceptualization that depends exclusively on the contribution of technology. Even though there is a perception that innovation leads to the role of technology in facilitating peaceful dynamics, innovation, in the scope of this chapter, reflects more a process of changing the current social reality rather than an aspect that depends on the advancement of technology. Beyond this, this chapter argued that the literature on peace innovation focusing on organized crime is still incipient and that precursors in this area are embedded in an analysis of innovation on peace-building through an approach to urban safety and security.

Nevertheless, this limited scenario enables an opportunity to improve this research agenda through the combination of two aspects: on the one hand, how international organizations consider applying technology to facilitate the implementation of strategies in the fight against organized crime and, on the other hand, how civil society organizations are strengthened through international funding to build resilience in the face of the organized crime's impact they suffer at the community level. In the field of organized crime, peace innovation is a paradigm that mutually reinforces the use of technology but also new ways of prioritizing local voices in their contribution to peace.

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Annex

Minutes of Meeting:
UPEACE Innovation and Peace Initiative

Agenda:

1. Introduction to Innovation at UPEACE
2. Consensus on Innovation Principles
3. Next Steps for the Innovation and Peace Studies Program
4. Required Support for UPEACE Innovation Initiatives
5. Areas of relevant interest of the topic.

2. Consensus on Innovation Principles

- Innovation as a Vehicle: Innovation is not just about technology, but a key element in transforming societal issues. It can be both positive and negative and should be understood as a vehicle rather than the end goal.
- Trust and Transparency: Trust is fundamental for innovation, particularly in peace-related initiatives.
- Diversity and Transdisciplinarity: Innovation thrives with diversity—across disciplines, generations, and stakeholders.
- UPEACE's Role: UPEACE, with its unique mandate, is well-positioned to develop a comprehensive innovation and peace agenda.

3. Next Steps for the Innovation and Peace Studies Program

The meeting outlined a two-fold approach for the future of innovation and peace studies at UPEACE:

1. Research Component:

- Establishment of a research program to support graduate and doctoral students in the field of peace innovation.

- A new transversal line of research, "Innovation and Peace," will be integrated into Master's and Doctoral programs.
- Development of short-term fellowship programs, with a focus on specific peace innovation topics.

2. Exchange and Outreach Component:

- Design of a digital archive and publication program focused on innovation and peace.
- Creation of a Master's degree in Peace and Innovation.
- Development of a Peace Innovation Lab at UPEACE to collaborate with external partners on projects developed by students and fellows.

4. Required Support for UPEACE Innovation Initiatives

- The meeting discussed the need for key partnerships, particularly in technology, to further UPEACE's innovation agenda.
- The institution will seek partnerships with tech companies and specialists aligned with its peace mandate.
- Proper facilities will be required to support ongoing research and the practical application of innovation within peace studies.

Next Steps

- Drafting of detailed program curricula for the Innovation and Peace Studies initiative.
- Identification and outreach to potential tech and research partners.
- Exploration of funding opportunities to support the establishment of the Innovation Lab and new research initiatives.

5. Areas of work and research:

- Innovation, peace and technology

- Innovation, peace and governance
- Innovation, peace and negotiations
- Innovation, peace and health
- Innovation, peace and sustainable development
- Innovation, peace and climate change
- Innovation, peace and alternative narratives
- Innovation, peace and gender
- Innovation, peace and poverty and inequality
- Innovation, peace and media
- Innovation, peace and business
- Innovation, peace and human rights

April, 2022.

CONCEPT NOTE

Workshop on Innovation and Peace at UPEACE: A Way Forward

Location: UPEACE HQ, San José, Costa Rica
Dates: 31 March - 1 April 2022

Introduction

The University for Peace (UPEACE) was given the ambitious mandate, by the United Nations General Assembly (UNGA), to "promote among all human beings the spirit of understanding, tolerance, and peaceful coexistence." Today, the existence and prevalence of these values require innovative approaches, which are at the center of contemporary debates at the international and local levels, in government, IOs and NGOs, academia, and the private sector.

The 2030 *Agenda for Sustainable Development*, organized into 17 Sustainable Development Goals (SDGs), is a global programme that demands innovation, inventiveness, and changes in diverse areas. The *Agenda* has different links and the 17 SDGs are organised into individual boxes. The coordination to achieve them shows deficits. Scientific advances happen quickly. Technological advancement and empirical research in the development field allow us to evaluate the global impact on specific societal sectors and obtain a better understanding of progress regarding the SDGs. However, the absence of an interpretative framework makes it impossible to see the interrelationships and evaluate the global impact beyond a specific sector. Innovations are varied and wide-reaching, with social media representing one of the largest modern-day influencers. Other innovations in the health sector have resulted in quick actions in the midst of the pandemic. The same is true of space exploration. In the field of weapons, advances in digitalization affect life and death with the use of robotic and automated weaponry. In this field, innovation is common but these initiatives are less known.

However, there is no progress or innovation in the field of peace and peacebuilding. Progress is evident in and for war, but not for peace. There is no creativity being applied to conflict resolution situations or to finding new forms of alternative dispute resolution. To date, artificial intelligence has been applied for "control," with only a few instances of it being used for prevention. How can we generate innovation to develop mutual trust, which leads us to think about the DNA of cooperation and tolerance as the foundations for peace? How do we generate innovation for the development of digital / virtual diplomacy beyond Zoom? What kind of innovation is required? Multilateralism requires innovation in addition to political will. The culture of peace and dialogue is the path to sustainable peace. Innovation, inventions, and applications have strong social and cultural impacts (as in the case of social networks); they "shape" cultural forms. What will happen with the "metaverse," with reality and fiction, which are produced simultaneously? How will this new shape affect decisions regarding tolerance, inclusion, cohesion, identity, and perceptions of peace and conflict?

These are areas that have not yet been opened up to innovation in the pursuit of a sustainable peace, adequate prevention, mutual trust, democracy, post-truth, and an understanding of how conflicts are perceived and resolved.

We need innovation for peace.

Existing Innovation Initiatives

The United Nations created Technology Innovation Labs to "move humanity forward, faster by focusing on the use of innovative technology to solve some of humanity's most pressing needs."

The European Commission established the position of European Commissioner on Innovation, Research, Culture, Education, and Youth. While the creation of this position affirmed the importance of science and innovation on the global stage, peace studies as such do not appear in the commissioner's mandate. On the contrary, there appear to be no significant advancements in or investments in the field of peace studies.

At the national level, different governments are focusing on different approaches to innovation. For example, the government of the United States of America launched the BRAIN Initiative (Brain Research through Advancing Innovative Neurotechnologies) as a collaborative, public-private research initiative announced by the Obama administration on 2 April 2013, with the goal of supporting the development and application of innovative technologies that can create a dynamic understanding of brain function. However, the most popular national innovations are focusing on the business and military sectors, with examples like NFT technologies and advances in drone capabilities.

The University for Peace is working to fulfil the mandate it was given by the international community by opening up to current issues of global importance and the modern technologies that will allow it to reach new stakeholders and work on emerging issues such as innovation and the traditional debates on interreligious dialogue. A new Commission for Peace, with the support of Ms. Barbara Winston and entrepreneurs from around the globe, is supporting some of these new paths.

As part of these novel approaches, UPEACE will hold a workshop to debate trends, the newest developments, and gaps regarding peace and violence. These discussions will guide the way for the work of the UPEACE Peace Innovation Initiative.

Workshop Structure

UPEACE will invite an external speaker to steer and mediate the debate around innovation and peace. The speaker, Dr. Carlo Tognato, is a scholar and expert in social innovation with years of field experience on civil reconstruction, civil degradation, violent extremism, and narrative intervention. Following the presentation of the guiding document, invited specialists will join UPEACE faculty and staff to discuss innovation for peace.

List of Special Guests:

1. ***Mario Carazo,***
   President of the Council of the University for Peace
2. ***Fernando Blasco,***
   Vice President of the Council of the University for Peace (online)
3. ***Hal Klepak,***
   Member of the Council of the University for Peace
4. ***Gabriela Ramos,***
   Representative of the UNESCO DG to the Council of the University for Peace (TBC – online)
5. ***Federico Torres Carballo,***
   Vice Minister, Ministry of Science, Innovation, Technology and Telecommunications of Costa Rica
6. ***Louis W. Goodman,*** Emeritus Dean, American University
7. ***Gordon Winston,***
   Commission for Peace
8. ***Melissa Wild,***
   Representative, Commission for Peace
9. ***Omar Hernandez,***
   Representative, United Nations Academic Impact (UNAI)
10. ***Eduardo Núñez,***
    National Democratic Institute
11. ***Ramu Damodaran,***
    University for Peace Deputy Representative in New York (online)
12. ***María Verónica Valarino de Abreu,***
    Curator and Digital Content Creator (online)

UPEACE Faculty and Staff:

1. ***Francisco Rojas Aravena,***
   Rector, University for Peace
2. ***Juan Carlos Sainz-Borgo,***
   Dean, University for Peace
3. ***Adriana Salcedo,***
   Head, Department of Peace and Conflict Studies,
   University for Peace
4. ***Olivia Sylvester,***
   Head, Department of Environment and Development,
   University for Peace
5. ***Mihir Kanade,***
   Head, Department of International Law,
   University for Peace
6. ***Mauricio Vieira,*** Head, Chair on Countering and
   Prevention of Illicit Trade and Transnational Organized
   Crime, University for Peace
7. ***Patricia Casanova,***
   Professor, University for Peace
8. ***Juan Jose Vasquez,***
   Legal Advisor, University for Peace

Workshop on Innovation and Peace at UPEACE: A Way Forward

Location: UPEACE HQ, San José, Costa Rica
Dates: 31 March - 1 April 2022

Programme

Wednesday 30 March 2022

Participants' arrival

Thursday 31 March 2022

8:00 AM	Hotel pick-up
8:30 AM	Registration and coffee at UPEACE
9:00 AM	Opening ceremony UPEACE Rector Francisco Rojas UPEACE Dean Juan Carlos Sainz- Borgo
9:15 AM	Introduction of participants and initial remarks
10:30 AM	Presentation of guiding document, Dr. Carlo Tognato
11:00 AM	Coffee break
11:30 AM	Roundtable discussion
12:30 PM	Lunch
2:00 PM	Round table discussion
5:00 PM	Return to hotel
7:00 PM	Dinner at L'Ile de France

Friday 1 April 2022

8:30 AM	Hotel pick-up
9:00 AM	Preliminary roundtable conclusions UPEACE Rapporteur
10:30 AM	Coffee break
11:00 AM	Further discussion
12:00 PM	Closing remarks
1:00 PM	Lunch

Participants at the Workshop on Innovation and Peace at UPEACE:
A Way Forward. 1 April 2022.

Left to rigth: UPEACE Intern, Prof. Juan Jose Vasquez, M.A. Gabriela Montero. Prof. Mauricio Vieira, M.B.A. Sylvia Leon, Prof. Omar Hernandez, Prof. Hal Klepak, Prof. Patricia Casanova, Gordon Winston, M.A. Melissa Wild, Prof. Juan Carlos Sainz-Borgo, M.A. Florencia Caripis, Dean Lou Goodman, Prof. Carlo Tognato, Rector Francisco Rojas, M.Sc. Karen Acosta.

University for Peace

The University for Peace is an international organization, created by the General Assembly of the United Nations through Resolution 35/55 of 1980 and established its headquarters in the city of San Jose, Costa Rica, by Headquarters Agreement, ratified by Law 6754 of May 4, 1982. The University for Peace is a permanent observer of the UN General Assembly, the UN Human Rights Council and has a permanent presence in the cities of New York (US), Geneva (Switzerland), Addis Ababa (Ethiopia), Belgrado (Serbia), Beijing (China), Bucaramanga (Colombia), Tegucigalpa (Honduras), The Hague (The Netherlands), Mogadishu (Somalia), Rome (Italy).

Innovation for Peace to take advantage of the opportunities offered by new and emerging technologies and prevent the risks of global threats (nuclear, climate, hunger, human mobility, organized crime, among others).

International cooperation expands opportunities for cooperation for peace.

For innovation for peace that is inclusive, broad-based and for the benefit of humanity.

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