

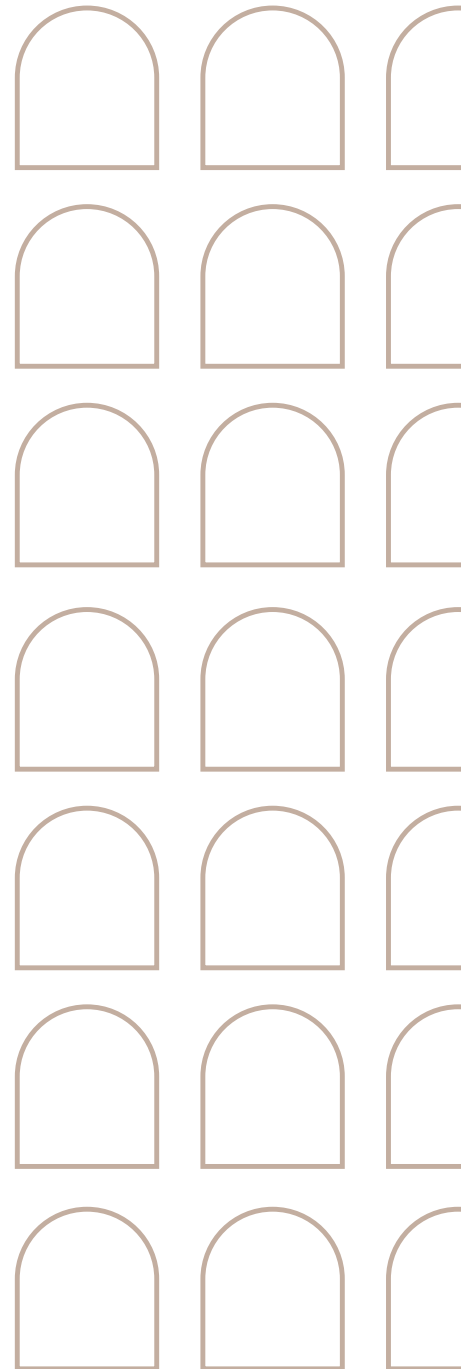
STG Policy Papers

# POLICY BRIEF

## GLOBAL PEACETECH: NAVIGATING THE LANDSCAPE, INNOVATING GOVERNANCE

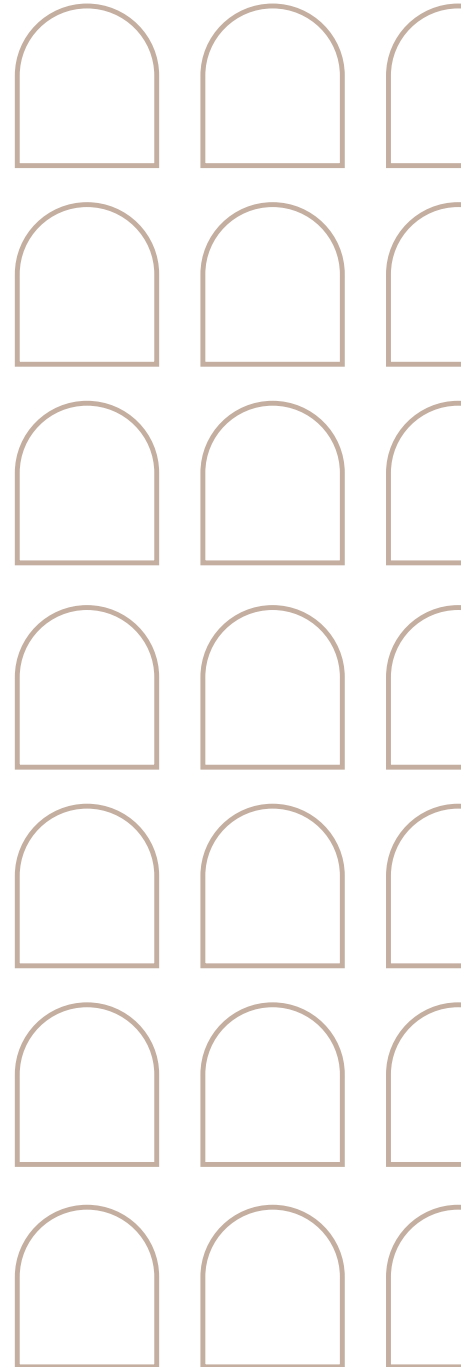
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## EXECUTIVE SUMMARY

The twinned opportunities and dangers of emerging technologies are increasingly shaping the public political debate. A wide range of transnational actors are calling for a sustainable, human-centred approach to the design and governance of digital technologies such as artificial intelligence, blockchain, big data, and internet of things. In this regard, a new field of social enquiry is emerging at the intersection of peacebuilding, global affairs, and digital governance, referred to as Global PeaceTech. This is not just an academic discipline, but an ecosystem consisting of start-ups, private companies, and NGOs, working together to put technologies at the service of short- and long-term peace goals. Some of these actors were convened at EUI School of Transnational Governance in Florence for the first Global PeaceTech Conference, to discuss definitions, case studies, and policy recommendations in the area of technology for peace. As an outcome of that discussion, the paper provides a compass to navigate the Global PeaceTech landscape and advances concrete propositions to innovate governance at different levels, from local governments to global public and private actors, and multilateral organisations.



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## 1. INTRODUCTION

In 2006, Time magazine's classic person of the year cover featured an image of a computer with a big "You" written on the screen. "It's about the many wresting power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes", [explained Lev Grossman](#), Time's lead technology writer, at the time. In 2010, Time's person of the year was Mark Zuckerberg, founder and CEO of Facebook - now Meta-, who was described as "the connector". 11 years later, one of Time's most powerful covers showed Zuckerberg's face with an illustration of a phone app deletion icon, inviting the user to delete Facebook.

These three Time magazine covers are quite indicative of the different phases that public opinion has gone through in the last two decades in relation to the power of emerging technologies: after a first wave of widespread excitement about the democratising power of social media platforms, today what tends to prevail when discussing the impact of digital technologies is a rather negative stance; fearful at worst, and cautious at best.

Although in recent years there has been a growing number of articles, research projects and legislation aimed at studying and regulating the potential negative consequences of digital technologies on society, there is an important area of research that has received less attention: the uses of technology to advance peace worldwide. As the use of technologies with harmful effects expands, so do the countless projects and initiatives that aim to harness the opportunities offered by emerging technologies - Artificial Intelligence (AI), Big Data, robotics, quantum computing, 3D printing, and virtual reality, among others - to foster short and long-term peace around the world. Examples of such initiatives range from early warning and response systems that analyse huge databases to foresee the chances of a violent conflict breaking out in a given region of the world, to the use of digital platforms to assist in peace negotiation processes, to the development of algorithms

that identify potential cases of corruption within public tenders.

In this policy brief, we aim to introduce Global PeaceTech (GPT) as a new concept, a flourishing field of research and development, and as an overall objective. GPT can be understood as a concept, with various definitions and characteristics, which just like the particular social contexts within which new technologies arise, is subject to constant change and evolution. GPT is also a growing field of research, one that so far has not received much interest, and thus, funding, and should be further supported and enhanced. Finally, GPT means an ambition, a guiding principle that should inform all future technological developments. In the following pages, we introduce the reader to the field of GPT and explain why we believe it is increasingly relevant, providing examples of concrete initiatives. We conclude by outlining policy recommendations on how to foster the field of GPT and the uses of technology to advance peace worldwide.

## 2. WHAT IS GLOBAL PEACETECH AND WHY IS IT RELEVANT FOR POLICY MAKERS?

The idea of 'PeaceTech' has been around for several years among peace practitioners, pioneered by organisations such as PeaceTech Lab and Build-Up. The term referred to the employment of digital tools for peacebuilding and mediation. Today that area is increasingly labelled as 'digital peacebuilding' where the concept of 'PeaceTech' has expanded to include new technological applications, use cases, and actors. Peace-oriented technologies are becoming an industry, not only as an academic discipline, but consisting of NGOs, start-ups, and companies.

The concept of 'Global PeaceTech' builds on the concept of 'PeaceTech' by bringing together the world of 'technology for good' and the field of international studies, broadly defined as the study of patterns of global change. This aims to fill a gap at the intersection of peace studies and global governance, with the goal of promoting policy innovation at the

## Table 1: Examples of PeaceTech applications

Use of cell phones and social media to increase communication and achieve “inter-group bridging”

Use of web platforms to crowdseed information on existing conflicts and to fight disinformation

Data aggregation/visualization to report human rights abuses

Deployment of AI in cyberwarfare, to launch/prevent cyberattacks on civilian and military targets

AI-powered conversational bots to enable peacebuilding in war zones

AI-assisted consultations for peace processes

Machine learning to detect and police violence in the online environment

Network analysis for intelligence and conflict resolution

Use of web-based platforms to increase political accountability and monitor/report corruption

Use of big data and machine learning for predictive peacekeeping, predictive policing and prevention/anticipation of violence or social unrest

Use of big data and facial recognition for Network Analysis of terrorist groups and identification of potential terrorists

Use of content moderation to prioritize conciliatory messages over hate speech and enable sentiment analysis (e.g., “peace bots”)

Early Warning Systems against violence and abuses

Satellite imagery for smart border control and human rights protection

Blockchain technology and smart contracts for humanitarian aid

Telepresence and digital communication for empathy and trust building across borders

Open-data access for peacebuilders

Digital Education and computer gaming for peace

Use of drones for de-mining

Matching algorithms for asylum seekers management

transnational level.

‘Global PeaceTech’ is defined by [Nicolaidis and Giovanardi \(2022\)](#) as “a field of analysis applied to all processes connecting local and global practices aimed at achieving social and political peace through the responsible use of frontier technologies”. It differs from the concept of ‘technology for peace’ (PeaceTech) in that it focuses not only on use cases but also on how

the use and governance of these technologies can influence transnational political processes that shape global peace patterns. This includes questions about the type of governance and actors involved in the technology ecosystem, the analysis of tech-use and tech-users, and the different models of tech-regulation. The use of technologies for peace entails legal, political, economic, and ethical dilemmas that transcend national borders and require new

models of transnational governance. Global PeaceTech aims at investigating these models, contributing to policy innovation at all levels of governance, from the local to the national, transnational, and global levels.

Research exists on the dilemmas and regulatory possibilities related to specific technological applications, i.e., in the field of cybersecurity, digital platforms, and AI. However, these technologies and dilemmas are rarely studied together in their interaction and combined impact on global affairs, whereas an approach that treats these challenges separately is often

favoured. One of the core features of the Global PeaceTech research agenda is to go beyond this 'silo mentality' to investigate how frontier technologies can be managed and regulated collectively to promote responsible, human rights-friendly and peace-enhancing use. This matches a vision that puts the human being at the centre by promoting values of inclusion, non-discrimination, respect for human rights, welfare and socio-economic inclusion, citizen participation and good governance across all technological sectors and applications, which in turn can create the conditions for short- and long-term peace in our societies.

**Table 2: Examples of Global PeaceTech research questions**

What kind of global governance – across international institutions - can best serve the needs of PeaceTech actors?

Do different organisations have unique roles to play in digital and frontier technology innovation in development and where should we focus our collaborative efforts?

What should be the main principles to manage the relationship between tech corporations and governments/the UN agencies?

How can the global governance of Tech support efforts at sustaining post-conflict peace as stated in the UN's SDGs?

What is the role played by private enterprises and bottom-up market dynamics in shaping regional and global governance?

Through what mechanisms and pathways do these actors' preferences percolate upwards to change the prevailing rules of the game?

Qui bono – whose interests and values are best served by these emerging patterns of influence and how are these translated into new rules of the game?

How can digital and frontier technologies be used to facilitate poverty reduction, while ensuring that the benefits are accessible to all?

How can the international community work together to safely deploy digital and frontier technologies in humanitarian contexts and what are the best use cases for this purpose?

As emerging technologies enable a revolution in how we collect and use data for humanitarian development, what are the repressive risks in aggregating information from the ground into coherent patterns? Who is responsible for acting on such information? What data and data interpretation is most relevant for early warning systems for conflict prevention?

Technological progress may help to reach and track any person in need. It may offer them digital identities, mobile numbers, and bank accounts. But does this mean that people are empowered? Is this a solution to poverty and what are the risks?

Global PeaceTech analysis is placed at the intersection of International Relations, Digital Governance, and Peace Studies. It is also at the intersection of different levels of analysis (individual, local, transnational, global). It involves various actors, from non-state to state actors, individual citizens, activists, corporate employees, tech companies, governments, and international organisations. Finally, it also looks at a space where the political and economic spheres meet. Ultimately, Global PeaceTech is interested in the point where these different levels and spheres connect and are redefined by technological disruption.

The reasons why this new research agenda should attract the attention of various public and private stakeholders in the field of technology and peacebuilding are manifold. First, Global PeaceTech contributes to governance innovation via the assessment of regulatory models of technology for peaceful purposes. Second, by assessing the challenges and opportunities of different PeaceTech initiatives, it can steer public and private investments towards sustainable and viable PeaceTech solutions. Third, it will accelerate new ideas on applications of technology for peace by investing in new research projects that apply technology and social sciences to solve common problems and develop solutions for peace.

Ultimately, the Global PeaceTech research agenda will contribute to the UN Sustainable Development Goals by moving in the direction of promoting a collectively thoughtful use of new technologies, given the possible unintended harms or risks to human beings and society at large, and to vulnerable communities such as refugees, by focusing on power struggles and conflicting interests, and by adding to the many initiatives that seek to define principled guidelines for digital ecosystems.

### 3. CASE STUDIES

For an overview of the PeaceTech case study landscape, several resources are available - [The PeaceTech Topic Map](#) from the Global PeaceTech Hub offers an examination of the evolution of the concept in recent years, whereas the

[Global PeaceTech Map](#) is a collaborative tool listing more than 170 Global PeaceTech initiatives to date. Three of these initiatives are presented below.

#### **eyeWitness**

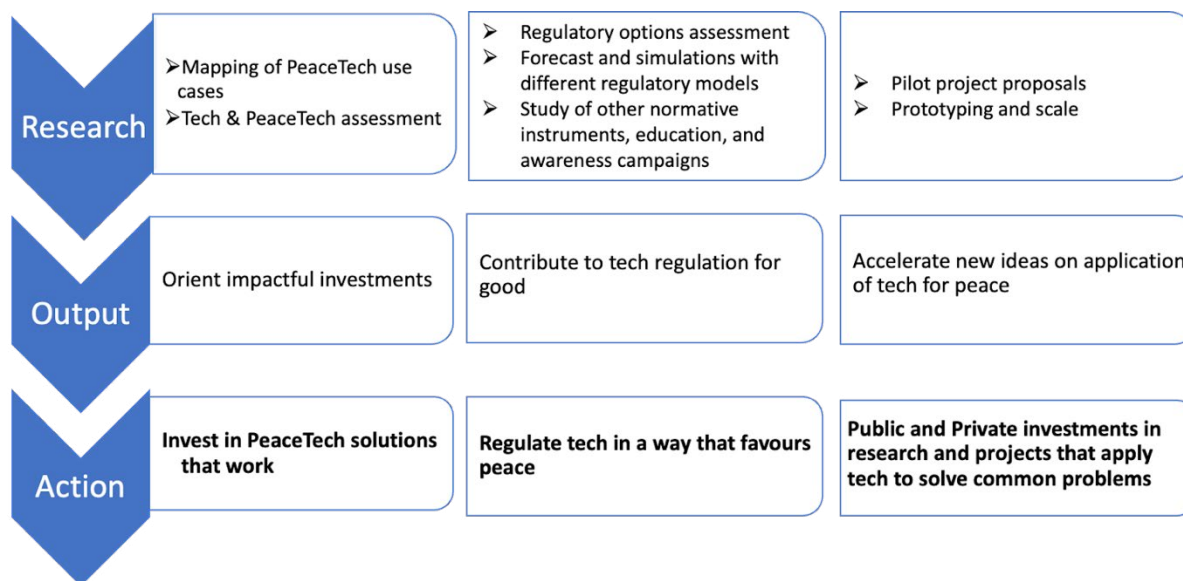
[EyeWitness to Atrocities](#) is an organisation registered in the UK and initiated by the International Bar Association with the aim to bridge the gap between documenters of human rights violations, and the allowances of justice mechanisms to use this information. To this end, it has developed an app that allows human rights organisations and journalists documenting atrocities in conflict zones, to capture photos and videos that are more easily verifiable and can be used to investigate and prosecute individuals who commit atrocity crimes. All information received by the organisation through the app is reviewed by lawyers who tag, catalogue and process the evidence to meet the requirements of the investigators. Since it was publicly launched in 2015, the app has been used by organisations and journalists in more than 20 countries. It has submitted 22 dossiers to investigative and accountability mechanisms, including the International Criminal Court, the UN, European war crimes units, domestic courts and police forces. Since the invasion of Ukraine, the app has allowed Ukrainian individuals and civil society organisations to document Russia's atrocity crimes and international legal violations.

#### **Games for Peace**

[Games for Peace](#) is an Israeli non-profit organisation that seeks to leverage video games to foster dialogue and trust between young people in conflict zones. Currently, it has two projects: Play2Talk and the eSports Training Program. The Play2Talk school program uses the game Minecraft to bring Jewish and Arab children together. Once a week, children from Jewish and Arab schools connect from their school computers to the Play2Talk Minecraft world, where they are mixed and divided into two teams that have to overcome a series of challenges that require a high level of communication and collaboration. Halfway through the program, the children meet face-to-face and



**Table 3: The expected impact of the Global PeaceTech research agenda**



discover the real people behind the Minecraft avatars. In turn, the eSports Training Program is aimed at teenagers between 14 and 18 years old, and offers Jewish and Arab youth weekly eSports video game training focusing on social interaction, cooperation and mutual help.

### AI & Peacemaking

The United Nations Department of Political and Peacebuilding Affairs (UN DPPA) Innovation Cell is currently exploring, as part of its [“Futuring Peace”](#) project, the use of AI for mediators and actors to hold real-time 1-on-1 consultations with a large group of individuals in local dialects and languages. In 2020, for example, the Office of the Special Envoy of the Secretary General for Yemen conducted the first-ever AI-assisted, large-scale virtual consultation with Yemeni citizens on the opportunities and challenges of the ongoing peace process. During the live, interactive online dialogue in Yemeni Arabic dialect, over 500 participants expressed their thoughts on the prospect of a nationwide ceasefire, the future of the peace process, and key humanitarian and economic measures needed to alleviate humanitarian suffering within the country.

## 4. POLICY RECOMMENDATIONS

To fulfil the potential of Global PeaceTech as a transformative instrument in the global governance of technology for peace, there is an increasing need for education and transnational

cooperation in this area, as well as more investment that would enable the implementation of PeaceTech projects globally. This section includes some of the recommendations emerged during the Global PeaceTech Conference 2022 and presents concrete steps that can contribute to the development of Global PeaceTech from different spheres and with a multi-stakeholder perspective.

### Peace “by design”

Various ethical frameworks and guidelines are emerging on how to incorporate human rights and peace principles in the responsible development of technology, increasingly available for a wide range of technologies, including artificial intelligence, cloud computing, and the use of private and public data. To advance the cause of PeaceTech, we must ensure that these frameworks are adopted as widely as possible and that there is effective control over their implementation.

Recommendations:

- Promote responsible technology development through regulation, adoption of guidelines and education, including ‘Peace-Tech’ training of workers in the technology community.
- Embed principles of peace in standardisation processes involving different parties that include firms, users, interest groups, standards organisations and governments.

- Promote 'auditing for peace' initiatives, conducted by independent bodies and aimed at assessing the positive or negative impact of companies on peace and social cohesion.
- Explore differential technological development strategies that advance PeaceTech to balance, slow down or prevent the emergence of harmful or risky technologies.

### Investing in PeaceTech

Today, PeaceTech projects and applications do not receive adequate public and private attention and funding. Investment in PeaceTech can take place at different levels, from seed and growth capital investments in companies and start-ups that have developed effective PeaceTech solutions, to funding of multi-year research programmes studying technology use, technology users, technology regulation, governance and ethical frameworks for peace, to NGOs using various PeaceTech tools to support dialogue and peacebuilding efforts on the ground.

Recommendations:

- Advance public and private investments in universities, think tanks, NGOs, start-ups, companies that place the study, analysis, regulation or responsible use of technologies at the centre of their research, practice, mission or innovative activity to have a positive and measurable impact on peace.
- Establish public and private PeaceTech funds to accelerate technological applications for peace and the study and implementation of ethical and governance frameworks around their use.
- Establish reliable measures of peace to assess the positive or negative impact of the funded initiatives on peace and social cohesion.
- Raise awareness of Global PeaceTech principles among the financial community, complementing existing principles of environmental, social and governance sustainability in investment impact assessment.

### Keep in mind a simple approach

Simple technological tools that are already in use, also known as low-techs, are open and accessible to everyone and ensure immediate and broad application. These play a particu-

larly important role among societies that are facing or have experienced recent conflicts, and in countries that do not count with the economic means or the know-how to develop high tech solutions. Social media platforms like WhatsApp, TikTok and Instagram often provide a valuable space for local, regional and transnational communities to meet and engage in common causes.

Recommendation:

- Encourage an increasing and responsible use of existing and easy to use technological tools, such as messaging, online video and social media platforms, among others, to enhance the voice and participation of citizens in peacebuilding efforts; devise campaigns to fight polarisation, online violence and transform conflict through the diffusion of alternative narratives; assist mediation and negotiation processes; and promote media literacy.

### PeaceTech from the bottom-up

When it comes to fostering peace, top-down initiatives must always be combined with bottom-up approaches that involve local actors and take into account the particularities of each context. PeaceTech initiatives implemented at a local level tend to be more effective and have a stronger impact, through increased stakeholders ownership.

Recommendation:

- Encourage and prioritise initiatives and projects that involve local actors and aim to promote the use of technology for peace in their own communities, as well as the development of city networks that bring together local governments, entrepreneurs and companies for knowledge exchange and sharing of best practices.

### Raising awareness about Global PeaceTech

Education is a significant factor in increasing the effectiveness and the outreach of Global PeaceTech initiatives and policies. In order for them to achieve the desired echo, it is important to raise the awareness about the existence of the concept of Global PeaceTech and to familiarise the general public with its practical implications and their impact. To reduce the risks



of misuse of the technological tools used for peacebuilding, educational campaigns can help in promoting both safe and ethical use of technology.

Recommendations:

- Strengthening the basic knowledge needed for a safe online environment and raising awareness about digital safety, digital literacy, and the role of ethics in technology through increased creation and dissemination of informative online campaigns.
- Implementing educational programmes for peace practitioners, mediators and diplomats on the use of technology for peace, to encourage building bridges between the fields of peacebuilding and technology.

### **Global PeaceTech Cooperation Platform**

When engaging in a new field such as Global PeaceTech, collaboration, multidisciplinary knowledge exchange, and the optimization of efforts are crucial for its development. Recent efforts such as the [Global PeaceTech Conference](#) and the conference '[Designing Tech for Social Cohesion](#)' represent valuable efforts to bring together PeaceTech stakeholders from different parts of the world. Yet, for these platforms for policy dialogue to be sustainable over time, they need to become more inclusive and diverse, both in terms of actors and geography.

Recommendations:

- Advancing inclusive Global PeaceTech platforms for peacebuilders, non-governmental organisations, academia, governments, companies, investors, and other stakeholders, to come together, share and exchange information, ideas, lessons learnt and best practices, as well as to plan and implement joint activities.
- Institutionalised cooperation that brings together multilateral actors involved in the governance of technology for peace could also be explored, in order to create consensus on topics such as the regulation of technology to advance peace and the development of safer digital ecosystems.

The School of Transnational Governance (STG) delivers teaching and high-level training in the methods, knowledge, skills and practice of governance beyond the State. Based within the European University Institute (EUI) in Florence, the School brings the worlds of academia and policy-making together in an effort to navigate a context, both inside and outside Europe, where policy-making increasingly transcends national borders.

The School offers Executive Training Seminars for experienced professionals and a Policy Leaders Fellowship for early- and mid-career innovators. The School also hosts expert Policy Dialogues and distinguished lectures from transnational leaders (to include the STG's Leaders Beyond the State series which recorded the experiences of former European Institution presidents, and the Giorgio La Pira Lecture series which focuses on building bridges between Africa and Europe). In September 2020, the School launched its Master-of-Arts in Transnational Governance (MTnG), which will educate and train a new breed of policy leader able to navigate the unprecedented issues our world will face during the next decade and beyond.

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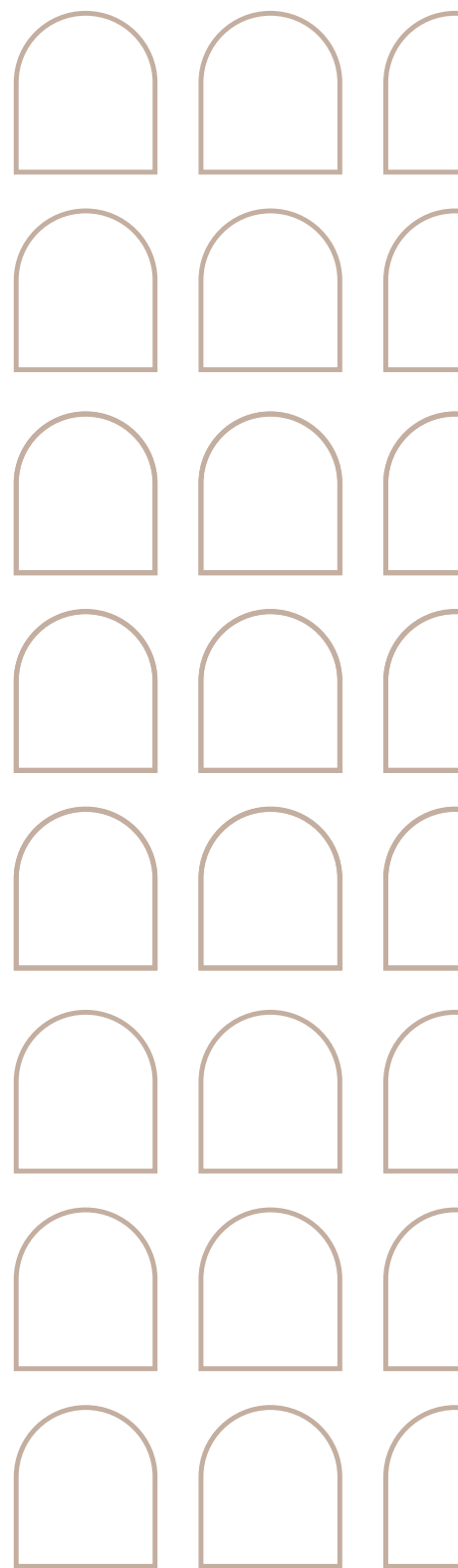
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