Innovative Peacekeeping: The Potential of Digital Technologies in CSDP Operations

July 2020

2145248L
18114288
64740687

Alexandru Lazar

Presented in partial fulfilment of the requirements for the Degree of
International Master in Security, Intelligence and Strategic Studies

Word Count: 21,090
Supervisor: Dr Eamonn Butler
Date of Submission: 30 July 2020

University of Glasgow

CHARLES UNIVERSITY

We cannot solve our problems with the same thinking we used when we created them.

Albert Einstein, 1955

As we work to bring more technology to humanity, we also need to bring more humanity to technology.

Brad Smith, 2019

Abbreviations List

ASIFU	All Sources Intelligence Fusion Unit
CAR	Central African Republic
CARD	Coordinated Annual Review on Defence
COP	Common Operational Picture
CSDP	Common Security and Defence Policy
DFS	Department of Field Support
DPKO	Department of Peacekeeping Operations
DRC	Democratic Republic of Congo
EDF	European Defence Fund
EEAS	European External Action Service
ESS	European Security Strategy
ESDP	European Security and Defence Policy
EU	European Union
EU-CIVCAP	European Civilian Capabilities Project
EUGS	European Union Global Strategy
EWS	Early Warning System
GDPR	General Data Protection and Regulation Policy
HR/VP	High Representative/Vice President of European Commission
ICT	Information and Communication Technology
ITU	International Telecommunication Union
JMAC	Joint Mission Analysis Centre
NGO	Non-Governmental Organisation
PESCO	Permanent Structured Cooperation Framework
SATCEN	European Union Satellite Centre
SITCEN	Joint Intelligence Situational Centre
SME	Small and Medium-sized Enterprises
UAV	Unmanned Aerial Vehicle
UN	United Nations
UNICEF	United Nations Children's Fund
OCHA	Office for the Coordination of Humanitarian Affairs
OECD	Organisation for Economic Cooperation and Development

Abstract

In the past two decades, digital technologies have changed how international organisations respond to conflicts. With contemporary armed struggles gaining new dimensions and becoming more complex, a challenge remains to comprehend the potential of both militarised and unconventional digital capabilities, and to determine which of them are the best devices and systems for peacekeeping operations. Nevertheless, the potential of such innovative digital technologies in EU's CSDP operations remains unclear. Along those lines, this study aims to firstly assess the practicality and functionality of these innovative capabilities, in terms of their impact on the actors, intelligence gathering and analysis process, and the opportunity for advocacy that such technologies offer to local communities. Secondly, it identifies and deconstructs the narratives and initiatives dealing with digital technologies in EU external action, in order to understand the growing emphasis placed on these tools and the direction in which the Union is going with regard to these innovative capabilities. Thirdly, in its quest to answer the research question, this study examines the potential benefits and shortcomings posed by both existing and more novel digital capabilities to CSDP operations. This dissertation proposes and defines the overarching notion of 'innovative peacekeeping', which bridges the lacunas of the academic literature by providing a comprehensive conceptual contribution that synthetises the various understandings found in the scholarship. While taking a reconciliatory stance, two main qualitative research methods – discourse and document analysis – were applied throughout the analysis of this study in a systematic and rigorous manner. This dissertation concludes that digital technologies represent an arsenal of high-value niche capabilities that can be beneficial to CSDP operations by strengthening them to take a more pragmatic, holistic and inclusive approach in order to achieve sustainable peace, in accordance with the objectives and commitments presented in the EU Global Strategy.

Keywords: European Union, external action, CSDP operations, digital technologies, social media, innovation, peacekeeping.

Table of Contents

Acknowledgements

I would like to express my gratitude to Dr Eamonn Butler. Writing this dissertation would have not been possible without his supervision. Not only did Dr Butler guide me in making the best choices throughout the research and writing process, but he also constructively challenged me to do my best. His feedback provided the encouragements that helped me move forward with my research, while improving my knowledge about the whole dissertation process.

I want to thank Mr Gilles Lagarde for his time generously spent on proofreading my dissertation, for his guidance, patience and affection, on which I can count in all my endeavours. His support helped me remain grounded in the dissertation process, regardless of all the other things going on around me. I am equally grateful to the rest of my family for supporting me and giving me the space necessary to complete this study.

I am also grateful to Mr Steven Roth for providing me with some constructive feedback. Last but not least, I also wish to thank my friends Ms Laura Neacsu and Ms Angelica Petrov, who were always a phone call away and provided reassurance that we all are on the right track with our research, despite the ongoing global pandemic and uncertainties the whole world is experiencing at the moment of writing and completing this dissertation.

Chapter 1. Introduction

Since 2003, the European Union (EU) has undertaken more than thirty missions and operations, through its Common Security and Defence Policy (CSDP), in the eastern and southern Neighbourhood (Tardy, 2019). CSDP operations are the most visible activity of the EU in terms of external action and have been the most tangible example of EU's maturity as a global security actor (Tardy, 2015). According to Article 42.1 of the Lisbon Treaty (2007), the CSDP provides the Union with an 'operational capacity drawing on civilian and military assets', which can be used on 'missions outside the Union for peacekeeping, conflict prevention and to strengthen international security in accordance with the principles set in the United Nations (UN) Charter'.

In EU parlance, CSDP military activities are called 'operations', whereas civilian activities are called 'missions' (Tardy, 2019). While acknowledging the importance of civilian CSDP missions, the current study will focus primarily on military CSDP operations. These military operations can be broadly defined as third-party interventions that do not take sides, or identify and defeat an enemy (Tardy, 2019). CSDP operations encompass a wide range of tasks, including humanitarian aid, conflict prevention, military advice and assistance, post-conflict stabilisation and, most importantly, peacekeeping tasks (EEAS, 2020). From its origins, peacekeeping has always consisted in a series of 'ad hoc responses' to particular issues during different historical periods (Bellamy, Williams & Griffin, 2010). Peacekeeping was famously described by former UN Secretary-General Dag Hammarskjöld as Chapter VI½ of the UN Charter. This notion is grounded on three basic principles, namely consent, impartiality and the limited use of force, and generally implies the deployment of international military personnel to help maintain peace and security (Fortna & Howard, 2008).

However, continuing conflicts, fuelled by both greed and grievances, have gained new dimensions, while peacekeeping operations have become increasingly robust (Paris, 2004). In parallel, the boundaries between what is supposed to be conflict management, peacekeeping or peacebuilding have become increasingly blurred, leading practitioners and scholars alike to agree that these processes are anything but sequential (Hansen, 2020). Tardy (2019) underlines that, even though some CSDP military peacekeeping activities might

fall short of being openly coercive operations, others have acquired more robust mandates and compelling capabilities. Due to the changing dynamics of conflict and to the highly volatile security environments in which peacekeepers are deployed, some mandates provide for the possibility of resorting to force against spoilers, in a way that had 'never been contemplated' in previous CSDP military operations (Tardy, 2019: 236). Nonetheless, the main objective of contemporary CSDP peacekeeping operations is to improve the security and the well-being of people affected by protracted conflicts (Peter, 2019; Tardy, 2019).

Thus, the complex nature of contemporary conflicts demands more from EU and its CSDP personnel. Old models are no longer working fast enough to reduce or bring conflicts to an end, and to fully protect civilians (Glasius & Kaldor, 2006). Even if a conflict is stopped, the risk of it recurring looms for as long as the causes that fuelled it, such as exclusion from development, injustice, poverty or inequality, remain unaddressed (Soriano & Gossen, 2017). Besides the changing dynamics of conflicts and interventions, peacekeepers are faced with the challenging task of reconciling the requirements of their mandate with issues like the protection of civilians, local ownership, gender inclusivity, climate change, global pandemics or long-term institution-building (Peter, 2019).

In addition to the realities of the field, Portmess and Romaya (2015) point out that peacekeeping is increasingly influenced by the ongoing digital technological revolution. Digital technologies have affected the way war is conducted and peace is won (Peter, 2019). In this context, if there is any chance of effectively tackling the damaging effects of conflicts happening around the world, combining all the efforts to introduce innovative capabilities is paramount (Dorn, 2016; Peter, 2019). Digital technologies can change how some peacekeepers respond to conflicts by gaining greater efficiencies, such as situational awareness or operational intelligence, which in turn help address the causes fuelling the conflict (Dorn, 2016). In this case, Dorn (2016) envisions that digital technologies should support and sustain the peacekeepers, help them maintain peace, include local communities in peacekeeping activities and sustain the flow of timely information, while being both 'participatory and emancipatory' (Karlsrud, 2014; Dorn, 2016; Mac Ginty, 2017: 698).

As computing power continues to rise and the cost of hardware to steadily decline, the digital divide is closing at an increasing speed, thus

providing an opportunity to peacekeepers to take advantage of these advancements for their own endeavours (Karslrud, 2014; World Bank, 2016; Karlsrud, 2017). According to the Organisation for Economic Cooperation and Development (OECD), the term 'digital divide' refers to the gap between individuals, households and geographic areas at different socio-economic levels, with regards to both their opportunities to access information and communication technologies (ICTs) and their use of the Internet for a wide variety of activities (OECD, 2002). There are more than 4 billion people connected to the internet world-wide who have access to mobile phones, with almost 45% of them located in developing states (World Bank, 2016, ITU, 2018). In this context, both scholars and practitioners have emphasised the need for more digital technologies in the context of peacekeeping operations (Dorn, 2016; De Zan, Tessari & Venturi, 2016; Smith & Juncos, 2018).

The 2016 EU Global Strategy (EUGS) acknowledges that European CSDP personnel are tasked to strengthen the resilience of states, at the east and south of the Union's borders, and to promote the protection of human rights in a less safe and more uncertain security environment. However, while the world is going through periods of existential crisis, the EU Global Strategy (2016) recognizes that these times offer an extraordinary opportunity in terms of technological progress. The Strategy further stresses that the development of more 'innovative forms of engagement' is paramount in pursuing the Union's goal to foster international peace (EU, 2016: 45). The document highlights that the development of 'innovative information and communication technologies systems would guarantee the availability and integrity of data, while further developing platforms for cooperation, and reinforce the potential of CSDP operations' (EU, 2016: 22). In this context, digital technologies seem to represent a first effective step to better adapt the challenging tasks encountered by CSDP peacekeepers to the volatile environments in which they are deployed.

Experience has shown that such innovative tools were beneficial to UN peacekeeping endeavours in various instances (Dorn, 2016; Karlsrud, 2017). Nevertheless, as uncovered by Smith and Juncos (2018), the Union does not make much use of its digital technological capabilities when compared to the UN. More precisely, even though the EU has achieved significant improvements for certain technologies (mostly with aerial and satellite systems), awareness of the potential of these tools is still limited in both research

and practice, as well as for more unconventional digital technologies such as mobile (smart)phones, tablets, social media platforms and other related software (De Zan, Tessari & Venturi, 2016).

Digital technologies can be generally defined as Internet-aided devices, systems and resources, such as mobile phones, their related software, social media platforms or even satellite and aerial systems, which generate, store and provide data (Dunning, 2020). In order to identify and assess the potential of such innovative capabilities, this study distinguishes between unconventional digital technologies and the more militarised digital systems that are broadly employed in CSDP operations. In the context of CSDP operations, unconventional digital technologies can be regarded as the devices, resources and systems that are not based on or conforming to what is generally practised or believed (Smith & Juncos, 2018). Militarised technologies can be seen as more conventional tools and systems that are susceptible of being employed in peace operations (Dorn, 2016). Along these lines, the main research question that arises is: how can digital technologies, whether they are militarised systems or unconventional devices, benefit EU's CSDP operations?

1.1 Research Aim

In the past two decades, digital technologies have revolutionised the way people connect, communicate and store their information. For example, mobile phones have proliferated so fast that subscriptions now exceed the number of people on Earth (Karlsrud, 2017). These devices have at the same time become smarter over the recent years by integrating email, Internet services, cameras, positioning systems, as well as a number of other hardware and software features (Dorn, 2016). A contemporary challenge remains to understand the potential of both militarised and unconventional digital capabilities, and to find the best technological devices and systems for peacekeeping operations among them (Dorn, 2016; Hansen, 2020).

As peacekeepers seem to be often underequipped, poorly informed and sometimes rightly worried about their own lives, digital technologies provide new and promising means for more guided action in volatile conflict environments (Dorn, 2016). Missiroli et al. (2014) state that it is important for the European Union to address this challenge, as well as to assess the potential of its current technological capabilities, in order to be able to lead in the

development of the next generation of defence and security technologies. Few articles and research projects have engaged, even in broad terms, in analysing the potential of such digital technologies in CSDP operations. Among those few studies and projects, several scholars have briefly explored, under the auspices of the EU Horizon 2020 Research and Innovation Programme, the existing militarised and unconventional digital technologies employed in CSDP operations (De Zan, Tessari & Venturi, 2016; Berglund & Bruckert, 2017; Smith & Juncos, 2018).

In this context, this study assesses the potential of the aforementioned digital technologies in order to identify their benefits to EU CSDP peacekeeping operations, with three main objectives. Firstly, it intends to assess the practicality and functionality of such innovative capabilities within peacekeeping operations, in terms of their impact on the actors, intelligence gathering and analysis process, and the opportunity for advocacy and inclusion that such technologies offer to vulnerable civilians. By practicality, this study understands the ability of digital technologies to adapt to the demands of the conflict environment, while by functionality it regards the range of tasks that can be performed by these innovative capabilities. Secondly, it aims to identify and deconstruct EU official narratives and initiatives discussing digital technologies in EU external action endeavours. Thirdly, this research will examine the benefits and shortcomings brought to EU's CSDP operations by both militarised and unconventional digital technologies. A last objective is to propose and define the overarching notion of 'innovative peacekeeping'. By doing so, not only will this study contribute to bridge the lacunas in the literature on digital technologies in peacekeeping operations, but it will also provide a comprehensive conceptual contribution synthesizing the various understandings present in the academic scholarship.

1.2 Research Rationale

From a scholarly perspective, this research is relevant because it falls within the field of peacekeeping research that focuses on the assessment of the potential of novel digital technologies, which has expanded significantly in the past decade. However, deeper analysis of the available literature in this field has highlighted that a lot of attention has been paid to UN's digital technological capabilities in peacekeeping operations, whereas the same innovative

capabilities have remained understudied in the context of CSDP operations. This discrepancy suggests that analysing the potential of digital technologies within EU peacekeeping cannot be performed without considering their parallel development at the UN level.

From a practical perspective, the interest in the topic of this study stems from the observation that, in recent years, the whole world has faced increasingly complex uncertainties and insecurities. In this context, given the fact that the mandates of CSDP operations now go beyond conventional tasks, peacekeepers are not only positioned between two or more belligerent groups, but they are also tasked to protect civilians, provide security, prevent any further escalation of the conflicts, provide training and build nations from the ashes of war in certain cases (Tardy, 2019).

Innovative digital peacekeeping capabilities can emerge as a response to these new complexities and threats faced by CSDP personnel. As the worldwide technological revolution proceeds, it seems that European officials and practitioners are increasingly interested in these new tools. However, both militarised and unconventional digital technologies are still underutilised within CSDP operations. Consequently, the current research aims to assess how these innovations can benefit and empower CSDP personnel for their interventions in volatile conflict environments and support the Union in its goal to achieve more sustainable peace within its Neighbourhood.

In order to answer the main research question and achieve the aforementioned objectives, this paper places the research within a broader set of studies examined in Chapter 2, which critically summarises the main arguments and debates currently found in the academic literature. Chapter 3 presents some key concepts and explores the theory of social constructivism, which represents the theoretical framework of the current study. The same chapter will then introduce and discuss the overarching notion of 'innovative peacekeeping'. Chapter 4 details the research's design and methodology, by explaining the inductive reasoning followed, the reconciliatory stance adopted and the justification for using document and discourse analysis as main research methods. Chapter 5 includes the analysis of the current study, which is based on the assessment of primary and secondary sources through the use of the aforementioned qualitative research methods. The findings of this dissertation and some prospects are discussed in Chapter 6. As a conclusion, and after

providing a definitive answer to the research question, Chapter 7 summarises the major findings identified through the current study, while setting forth their limitations and making some suggestions for future research.

Chapter 2. Literature Review

A notable amount of academic literature has been written on the use of digital technologies within peacekeeping operations. While the majority of this literature focuses on the use of digital technologies in UN peacekeeping operations, there are fewer studies examining the potential of these innovative capabilities in CSDP operations. The purpose of this chapter is, therefore, to identify the gaps within the literature and to frame the present research within the existing body of academic knowledge. In this context, the following section will broadly consider the literature dealing with the changing dynamics of conflicts and peacekeeping operations, in order to identify a rationale behind the emergence of digital technologies. The next section will then delve into the scholarship exploring the use of digital technologies within UN peacekeeping operations. Finally, the last section of this chapter will review the limited literature dealing with the current state of innovative capabilities in EU CSDP peacekeeping operations, while outlining the gaps identified within the scholarship.

2.1 Changing Conflict Dynamics and Peacekeeping Operations

Most scholars exploring the use of digital technologies in peacekeeping operations have identified that both conflicts and peacekeeping interventions have changed dramatically since the turn of the century (Dorn, 2011; Karlsrud, 2014; Peter, 2019; Smith & Juncos, 2018). Peacekeeping can be regarded as an offspring of the Cold War, born out of UN's 'frustration at its inability to enforce peace, as envisaged in its Charter', and of its 'desire to do more to affect the course of international armed conflicts than simply mediating and conciliating from a distance' (Findlay, 1996: 1). After going through three major phases of development, from its first (traditional) to its second (multidimensional) and then to its third (complex) generation, the practice is now experiencing another period of transition towards a new generation that is still unclear and contested (Woodhouse & Ramsbotham, 2006; Karlsrud, 2014).

Kaldor (2013: 1) highlights that 21st century conflicts do not 'fit' the 20th century 'mould' anymore. The scholar highlights that contemporary conflicts are characterised by violence between varying combinations of state and malicious non-state actors, in which fighting happens in the name of identity

rather than for ideological or geopolitical gains (Kaldor, 2013). Moreover, Kaldor (2013) states that, where violence is mainly targeted against civilians, an increasing number of malicious non-state actors have gradually employed various digital technologies, such as online crowdfunding and other social media platforms, to acquire financial support and new recruits, or to spread disinformation. Responses to contemporary intrastate conflicts have become increasingly robust, with a focus shifting from state to human security, which demands more innovative digital capabilities and approaches in peacekeeping operations (Paris, 2004).

Whilst it can be argued that the task of peacekeeping belonged exclusively to the UN at the beginning of the 1990s, it soon became an area of growing interest for other global institutions, such as the EU (Pagani, 1998; Tardy, 2019). Both UN's and EU's peacekeeping operations face highly complex and politically driven challenges of massive scope and scale (Keohane, 2011; Karlsrud, 2014; Dorn, 2016; Tardy, 2019). In this case, Peter (2019) points out that both conflicts and peacekeeping interventions are affected by four key transformations impacting global order, namely the rise of regional organisations as providers for peace, the emergence of a plethora of extremist groups and malicious non-state actors, the increasing demand for greater emphasis on human security, and the ongoing technological revolution.

Peacekeepers are no longer merely positioned between two opposing armies but rather deployed across entire countries (Dorn, 2016). Operations often lack the tools that would enable personnel to assess a difficult situation, or intervene remotely, without risking their own lives (Willmot et al., 2015). Their mandates include the protection of civilian populations, the prevention of a spill-over of the conflict in neighbouring countries, the monitoring of potential spoilers, and the assistance in creating the political and physical space necessary for belligerents to broker their differences without having to resort to violence (Peter, 2019). Besides the constantly changing realities of the field and the ambitious requirements of their mandates, Ojanen (2006) has identified that peacekeepers are too often underequipped and poorly informed. As more difficult tasks have emerged in modern peacekeeping operations, the integration of significant digital technological capabilities to enable greater efficiency has become paramount (Dorn, 2016; Karlsrud, 2017; Peter, 2019).

As a result, some scholars have started to discuss the benefits of digital technologies and to conceptualise such innovative capabilities within the context of UN peacekeeping operations (Karlsrud, 2014; Dorn, 2016; Robinson et al., 2018). The almost exclusive focus of these studies on UN's peacekeeping digital assets indicates that few scholars have actually analysed the benefits of such capabilities in the context of EU CSDP operations. However, given this important disparity, an analysis of the benefits of innovative capabilities in CSDP operations cannot be adequately conducted without first considering the scholarship dealing with technological developments occurring at the UN level.

2.2 Digital Technologies in UN Peacekeeping

The last decade has seen spectacular technological advancements as information and communication technologies (ICTs) underwent a dramatic shift to mobile and digital platforms (Dorn, 2016; Karlsrud, 2017). These digital technological developments have led to both more powerful and precise weapons, while enabling the monitoring and collection of more accurate information from the field (Dorn, 2016). International organisations have thus had to contend with emerging digital technologies, which have changed the nature of conflict and shaped the global geopolitical landscape in which peacekeeping operations unfold nowadays (Hansen, 2020). In the light of these changes**,** several scholars have begun to discuss the benefits of digital technologies within the context of UN peacekeeping operations (Dorn, 2011; Karlsrud, 2014; Dorn, 2016; Karlsrud, 2017; Duursma & Karlsrud, 2018; Hansen, 2020).

Dorn (2011), one of the most prominent scholars studying this subject, argues that militaries around the world have developed an acute awareness of the progress generated by the technological evolution of satellite and aerial systems over the past two decades, in particular thanks to the significant impact of these innovative capabilities in terms of intelligence, speed and precision (Dorn, 2011). The terms 'revolution in military affairs' and 'network-enabled operations' have become common in contemporary operations, especially in the Western world. According to Dorn (2011), such capabilities convey the reality that new technologies, combined with new strategies, have substantially changed military operations in general. However, one of the most difficult tasks,

in modern peacekeeping operations, is the identification of the necessary technological resources to monitor and observe the situation on the field.

Dorn (2011) states that prior technological deficiencies in monitoring and the lack of situational awareness have already led to tragic events in UN peacekeeping operations (Dorn, 2011; Duursma & Karlsrud, 2018). For instance, in Rwanda in 1994, Force Commander Roméo Dallaire complained of 'being deaf and blind in the field' due to the lack of any technological support or operational intelligence (Dallaire, 2008: 90). Similarly, on average, one peacekeeper was dying every month while serving in the Democratic Republic of Congo (DRC), where the UN has failed to monitor large shipments of illegal armaments being imported into the war-torn country (Dorn, 2011). Concurring with Dorn (2011), Karlsrud (2014) acknowledges that the UN was lagging behind the realities and requirements of the field at the beginning of the past decade.

Karlsrud (2014) explores the use of digital technologies in the areas of conflict prevention, development and humanitarian action, and points out several initiatives deployed in these domains over the past decades. For instance, the Ushahidi crisis-mapping platform was used to geotag reports of security incidents in Mali (Karlsrud, 2014). Ushahidi is a web-based reporting system that utilises crowdsourced data to formulate visual map information of a crisis in real time (Ushahidi, 2018). Data can be provided via text messages, email, Twitter and other social media platforms. Another example is the ActivityInfo website established by UNICEF, OCHA and bedatadriven, which assists humanitarian organisations to collect, manage, map and analyse indicators allowing a real time monitoring of the humanitarian situation (Karlsrud, 2014).

Both Dorn (2016) and Karlsrud (2017) highlight that, in order to acquire information from a wide range of sources, UN peacekeeping operations have drawn upon the advancements made in the conflict prevention, and in the development and humanitarian fields, by using either more militarised or unconventional digital technologies. Dorn (2016: 1) underscores that 'UN's power to protect depends on its power to connect'. In this instance, with new digital technologies at their disposal, UN peacekeepers can reach out to local communities in new ways. In such 'participatory peacekeeping', information can be crowdsourced by enabling the local population to send their

observations, alerts and insights. Crowdsourcing can be defined as the use of digital technologies, including social media, to solicit contributions or share real-time information from a wide variety of actors (OECD, 2002). Hansen (2020) points out that, while such digital capabilities offer opportunities to harness innovation, enhance effectiveness and drive sustainable change, they also carry significant risks. In this respect, digital technologies can pose a threat to the peace operation itself through malicious cyber incidents and can further destabilise the security environment.

Hansen (2020) shares more observations on how the work of peacekeeping operations is evolving in the light of an ever-increasing digitalisation. The author is one of the few scholars providing an insightful analytical framework through what she calls the 'four As', namely the actors involved in and around peacekeeping operations, the analysis needed for successful operations, the opportunity for peace advocacy offered by digital technologies, and the issue of attribution in the event of a cyber incident compromising peace operations. The scholar concludes her article by stating that, while digital technologies are being gradually explored for the good of peace by both EU and UN peacekeeping operations, the development of a more tech-aware organisational culture is paramount for future operations (Hansen, 2020).

Nevertheless, Hansen (2020), Dorn (2016) and Karlsrud (2017) generally agree that smartphones, tablets and other less militarised handheld devices provided to peacekeepers are a good start and can be convenient tools allowing real-time information gathering and fostering more participation in the peace process. In turn, this 'participatory peacekeeping' enables what Dorn (2016) refers to as 'proactive peacekeeping', or what Duursma and Karlsrud (2018) call 'predictive peacekeeping', namely an intervention based on reliable operational intelligence that identifies threats early and plans responses accordingly. For example, the SAGE system developed by the UN Department for Peacekeeping Operations (DPKO) allows military, police and civilians in peacekeeping operations to log incidents, events and activities related to the peace process in a centralized database (Duursma & Karlsrud, 2018). The majority of these scholars agree that innovative capabilities in UN peacekeeping operations create more situational awareness, protect peacekeepers deployed in volatile conflict environments and enable the local population to directly

participate in the peace process (Dorn, 2016; Karlsrud, 2017; Duursma and Karlsrud, 2018).

Yet, rather than providing an overarching conceptualisation of such innovative instruments, Dorn (2016) and Karlsrud (2017) have forged their own terminology and understandings of digital technologies in contemporary peacekeeping operations. Dorn (2016) talks about 'smart', 'participatory' or 'precision peacekeeping', whereas Karlsrud (2017) names it either 'digital' or 'performance' peacekeeping. In a later paper, Duursma, alongside Karlsrud (2018), introduces the idea of 'predictive peacekeeping', when others talk about 'cyber peacekeeping' as an emerging practice in itself (Robinson et al., 2018). This plethora of understandings is problematic because, while they prove the interest of studying digital technologies in the field of peacekeeping, their intrinsically different understandings can often lead to more confusion. Therefore, in order to address this conceptual issue identified in the literature, this study will later propose the overarching conceptualisation of 'innovative peacekeeping', for both clarity purposes and future research endeavours.

Despite their respective different terminologies, both Dorn (2016) and Karlsrud (2017) stress the fact that innovation does not only concern new digital technologies, but also people and processes. Both scholars underscore the importance of cooperation between international and regional partners (Dorn, 2016; Karlsrud, 2017). In this instance, the UN has acknowledged the EU as an ideal partner for cooperation in peacekeeping (Tardy, 2011). Given their shared norms and values, their convergent objectives and EU's stated interest in promoting effective multilateralism, the EU and UN are indeed often labelled as 'natural partners' in the literature (Dorn, 2016; Hosli, Selleslaghs & deMortel, 2017; Tardy, 2019). Both organisations have shown a certain ability to adapt to the new reality of peacekeeping operations, which inherently involves multilateral cooperation and requires a higher degree of synergy, especially in volatile environments (Pietz & Tardy, 2014; Cîrlig, 2015; Hosli, Selleslaghs & deMortel, 2017).

In this context, the UN regularly calls for various European contributions to its operations, ranging from providing funding and/or troops to assisting with particular 'strategic enablers' and 'high-value niche capabilities', such as new technologies and specialised personnel (Tardy, 2019: 243). EU's contribution to international security has substantially increased and improved

during the past decade, thanks to CSDP's pragmatic institutional development and to the Horizon 2020 Research and Innovation Programme (European Commission, 2020b). The Horizon 2020 Programme, recently renamed Horizon Europe, focuses its research endeavours on the security and defence industry.

The European Union Civilian Capabilities (EU-CIVCAP) is a noteworthy project initiated through the Horizon 2020 Framework. This project gathered renowned scholars to provide a comprehensive, comparative and multi-disciplinary analysis of EU's capabilities, both in conflict prevention and peace operations, in order to identify existing shortcoming in CSDP missions and operations (Juncos et al., 2018). While the scholars involved in the project acknowledged significant institutional advancements and the presence of some technological capabilities, they also noted that the EU has not yet fully comprehended the added value that newer digital technologies can bring to its CSDP operations, which will be further examined in the following section (De Zan, Tessari & Venturi, 2016; Smith & Juncos, 2018).

2.3 Technological Advancements and Innovation in CSDP Operations

Negative experiences encountered by the EU in the 1990s, during its involvement in the Balkans conflict, forced the Union to reconsider and change its political and military focus by framing its own autonomous external action policy (Cîrlig, 2015; Tardy, 2019). Through the European Security and Defence Policy (ESDP), EU council ministers have developed the Union's operational capacity in peacekeeping interventions, thus affirming its right for independent action if required (Pagani, 1998; Ojanen, 2006). Now known as the CSDP, further to the Lisbon Treaty, this policy has essentially provided the EU with a framework to manage crises occurring outside of its borders (Keohane, 2011). Part of the literature sees the rise of the EU, as an international peacekeeper, in terms of an opportunity to fulfil a range of roles and to meet specific expectations, which the UN cannot manage alone (Cîrlig, 2015; Tardy 2019). The EU has in this way become a reliable partner able to share a part of UN's peacekeeping burden that is close to the Union's borders (Hosli, Selleslaghs & deMortel, 2017).

However, another part of the literature has perceived the Union's aspiration to become a fully-fledged peacekeeping actor with cautious optimism and mixed feelings (Tardy, 2019). It was feared that the development of CSDP

could further impede the Union from directly engaging in UN peacekeeping operations (Keohane, 2011). European states have nevertheless continued to contribute to UN peacekeeping efforts, for example in Mali where the EU supported the ongoing peacekeeping operations with capabilities ranging from signals intelligence to aerial assets (Dorn, 2016). According to Ojanen (2006), while both organisations can easily point fingers at each other's weaknesses, it would be more beneficial to consider what they could do for each other.

The EU differs from other regional organisations because it is increasingly resembling the UN in terms of objectives and its modus operandi (Ojanen, 2006). More than 30 CSDP missions and operations have progressively shaped a certain 'EU identity' to respond to conflicts and crises, which is 'distinct' from other organisations' approaches in various manners (Tardy. 2019: 231). Even though, in EU parlance, terms such as 'crisis management' or 'peacebuilding' are preferred over the word of 'peacekeeping', crisis management in itself encompasses a wide array of activities (Tardy, 2015). Being an ill-defined concept, crisis management generally refers to responding to a crisis after its acute phase has come to a halt, and it is generally similar to the definition of peacekeeping proposed by the UN. This definition states that peacekeeping represents the action undertaken to preserve peace, however fragile, where fighting has been halted and to assist in implementing agreements achieved by peacemakers (UN, 2008; Robinson et al., 2018). In this context, and according to Stewart (2006: 87), EU's military CSDP operations 'cover peacekeeping, peace enforcement and preventive deployment', among other tasks.

EU's distinctive approach to peacekeeping has emerged with the provisions of the Lisbon Treaty stipulating that the CSDP focuses on the treatment of the root causes of instability and insecurity, outside the Union's borders, which might have an impact on European citizens' livelihoods (Carrasco et al., 2016). According to Tardy (2019), the security culture fostered through the CSDP is reflected in a mix of civilian and military responses, with a focus on rather short-term and consensual activities. These activities are almost always in support of the existing state authorities (Tardy, 2019: 237).

Skolimowska (2019) also highlights that the Union's external action is guided by the same principles having inspired its own creation, development and enlargement, among which are the rule of law, the universality and

indivisibility of human rights, the principles of equality and solidarity, and the respect for the principles outlined in the UN Charter. As illustrated in Figure 1 below, the EU currently has six military operations, namely EUFOR ALTHEA in Bosnia and Herzegovina, EUNAVFOR ATALANTA in the Horn of Africa, EUTM in Somalia, EUTM in Mali, EUTM in Central African Republic (CAR), and the recently mandated EUNAVFOR MED IRINI in the Mediterranean Sea (Libya), as well as 11 ongoing civilian missions (EEAS, 2020). The primary objective of these operations remains the projection of security outside the Union's borders for the protection of its member states' citizens (EU, 2016).

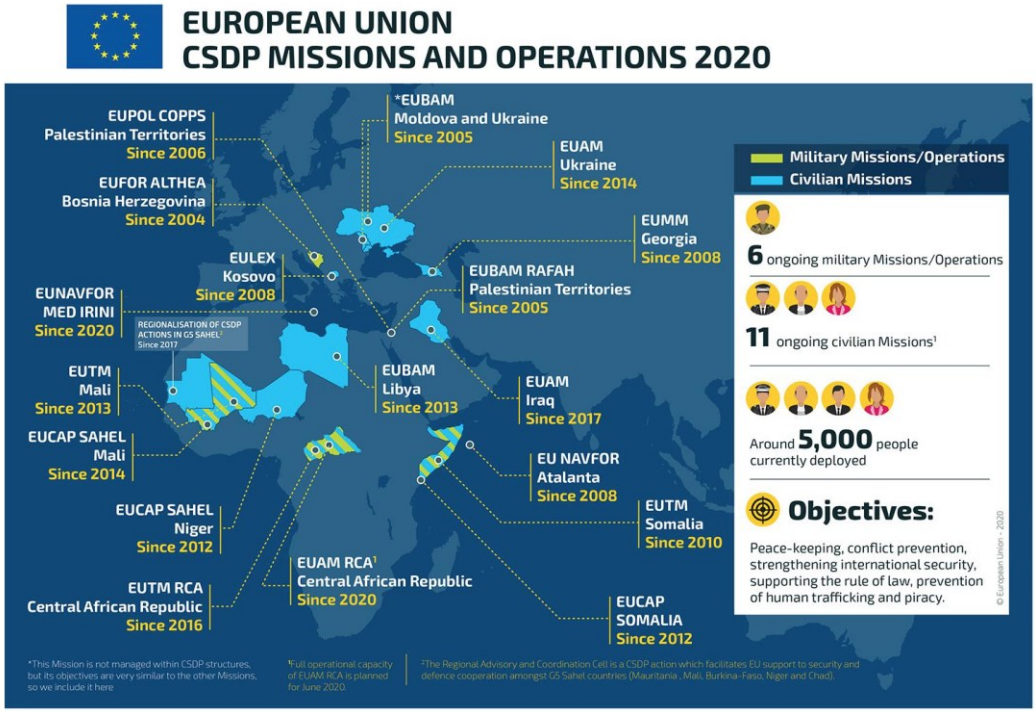


Figure 1. Ongoing EU CSDP missions and operations as of May 2020. Source: EEAS, 2020.

The responsibility for guidance on the CSDP lies with the High Representative of Foreign Affairs and Security Policy and Vice-President of the European Commission (HR/VP), supported by the European External Action Service (EEAS) (Tardy, 2015; Carrasco et al., 2016). The Lisbon Treaty represents a milestone in European external action, as it has provided the Union with the HR/VP post and with the necessary assets to apply a comprehensive approach to its external action (Carrasco et al., 2016). Article 42(1) of the Lisbon Treaty formally endorses the so-called 'Petersberg tasks' that include peacekeeping and humanitarian duties, military advice, training and assistance, as well as conflict prevention (Carrasco et al., 2016). In doing so, the Lisbon

Treaty has given the EU a legal personality and the institutional tools necessary to strengthen its role in peacekeeping (Blakouvous, 2015; Hosli, Selleslaghs & deMortel, 2017). However, due to changing conflict dynamics, contemporary CSDP operations now encompass a wide array of interventions, some with more robust mandates and with stronger coercive capabilities offering the possibility of using force against 'spoilers' (Tardy, 2019: 236).

Several scholars have pointed out the limited development of technological capabilities, which consist mainly of militarised Unmanned Aerial Vehicles (UAVs) and satellite systems (De Zan, Tessari & Venturi, 2016; Berglund & Bruckert, 2017; Barbieri, Berglund & Arnaud, 2018; Smith & Juncos, 2018). The work of these scholars shows that the EU mainly relies on earth observation technologies/geospatial data, and on analytical tools such as the Global Conflict Risk Index (GCRI), as a source of information to develop the Union's response to conflicts in its eastern and southern Neighbourhood (Juncos et al., 2018). The same authors also note that the EU has not yet fully comprehended the potential of unconventional digital technologies and the valuable support that such innovative capabilities can bring to its CSDP operations (De Zan, Tessari & Venturi, 2016; Juncos et al., 2018; Smith & Juncos, 2018).

In their paper, De Zan, Tessari and Venturi (2016) argue that several EU member states have significant technological capabilities, consisting of UAVs and satellite systems, which support the early warning system (EWS) established by the EEAS. However, 'less complex' and more practical digital technologies, such as mobile/smartphones, tablets, their related software and social media, are not yet fully employed within EU external action. The awareness of the potential of such modern digital technologies, and particularly of social media, on CSDP operations is still limited (De Zan, Tessari and Venturi, 2016: 5). The authors assert that the use of innovative capabilities could help the EU to strengthen its CSDP operations in order to swiftly assess crises, provide solid responses and gain better situational awareness, among other benefits. Nevertheless, these scholars point out that two key problems persist when it comes to fully exploiting the potential of digital technologies in conflict prevention and peace operations. The first concerns the willingness of member states to share data and the second relates to the ability to efficiently analyse big amounts of data (De Zan, Tessari and Venturi, 2016).

Kahl and Larrauri (2013) claim that the best benefit of new technologies for the EU is the opportunity to re-engineer information gathering, to digitalise collected data and to produce better analyses by comparing data that was previously held in silos. Unlike the UN, the EU does not seem to have developed a strategy or specific policies for the use of digital technologies in conflict prevention and peace operations (De Zan, Tessari and Venturi, 2016; Smith & Juncos, 2018). De Zan, Tessari and Venturi (2016) also underline that the EU must make its member states more aware of the possibilities provided by modern digital technologies in CSDP operations. Not only would these technologies be in line with EU's integrated approach, as they can contribute to monitor all stages of conflict and gather information at all levels, but they would also improve the understanding of member states regarding such innovative digital capabilities and their willingness to invest in them (De Zan, Tessari and Venturi, 2016).

Smith and Juncos (2018) state that, from a peacekeeping standpoint, there may be further potential for the use of smartphones, social media analytics, crowdsourcing software and their synergies with other more militarised technologies, including GEOINT mapping services. Yet, as already argued by De Zan, Tessari and Venturi (2016), Smith and Juncos (2018) stress that, at the moment, the EU makes little use of such innovative capabilities in the realm of CSDP operations. Berglund and Bruckert (2017) demonstrate in their paper that there does not appear to be a systematic and direct use of any digital technologies for early warning or conflict analysis. These two scholars highlight the lack of a unified information exchange system within the EU, with every EU service having its own independent and classified system. This absence of an organised information sharing system is problematic for accurate early warning and proper situational awareness in CSDP operations.

While acknowledging the lack of academic research on the subject, De Zan, Tessari and Venturi (2016), Berglund and Bruckert (2017), as well as Smith and Juncos (2018), state that the use of digital technologies in peacekeeping operations is actually not something new for practitioners. All these scholars seem to agree on the cost-effectiveness and potential of these innovative capabilities for early warning systems, increased situational awareness, personnel safety and the participation of local populations in the peacekeeping efforts. However, the same scholars stress the fact that more

research is needed on the potential benefits of these innovative capabilities in CSDP operations but also on their possible impact in areas such as data and privacy protection (Berglung & Bruckert, 2017; Smith & Juncos, 2018).

Their papers provide an overview of these capabilities in EU external action in terms of personnel, processes and specific technologies, but they do not present a direct assessment of the potential benefits digital technologies can bring to CSDP operations. This important gap in the literature is the major focus of this dissertation. Much like the researchers involved in the study of digital technologies in UN peacekeeping missions, with each of them using their own distinct terminology, it seems that the aforementioned authors have not attempted to provide a global understanding of this idea. The current study will therefore propose the overarching concept of 'innovative peacekeeping' in the following chapter.

Chapter 3. Theoretical Framework

As noted in the previous chapter, the majority of the existing studies have introduced different conceptualisations of digital capabilities in UN peacekeeping operations, while few others have critically engaged with the potential of digital technologies in CSDP operations. In this context, the main purpose of this inductive qualitative study is to bridge this gap in the literature by identifying and assessing how digital capabilities can benefit CSDP operations. However, to achieve this objective, some key concepts must be first outlined and examined in the following section. This chapter will then present and justify the use of a constructivist approach to analyse the potential benefits of digital capabilities in EU CSDP operations. By doing so, this chapter lays the groundwork for the Research Design and Methodology presented in Chapter 4 and, more importantly, provides a framework for the Analysis developed in Chapter 5. Ultimately, this theoretical framework will help to present and interpret this study's findings and will allow for broader generalisations.

3.1 Key Concepts

In many respects, the EU constitutes the product of an unprecedented process of integration between formerly sovereign nation-states (De Waele & Kuipers, 2013). Over time, this political construct evolved into a hybrid of supranational and international forms of governance, which transcends classical Westphalian norms (De Waele & Kuipers, 2013; Misik, 2019; Skolimowska, 2019). The classical Westphalian approach states that the general function of peace interventions is to assist in the settlement of disputes between states (Bellamy, Williams & Griffin, 2010). In this instance, neither the ideological persuasion nor the relationship between the state and society should concern the peacekeepers, for as long as the states subscribe to the Westphalian norms of sovereignty.

However, as the interconnectedness between states and the number of intrastate conflicts have both considerably increased over the past decades, along with other insecurities and uncertainties, the emergence of the concept of human security in the 1990s has paved the way for the rise of the post-Westphalian approach to peacekeeping. According to the 1994 UN Human

Development Report, human security is relevant to people everywhere, both in rich and in poor nations. The challenges and threats to their security may differ, but they are all real nonetheless and growing at an alarming speed (UN, 1994). Human security can be regarded as an approach to help identify and address widespread and cross-cutting challenges compromising the survival, livelihood and dignity of people around the globe (UN, 1994). It calls for more people-centred, comprehensive, context-specific and prevention-oriented responses that can strengthen the protection and empowerment of all people (UN, 1994).

Scholars have understood the post-Westphalian approach in two ways. Some have comprehended it in the same sense as the democratic peace theory, which claims that peaceful relations between states require liberal democratic regimes and societies within the states (Bellamy, Williams & Griffin, 2010). The other proponents of this approach have broadly argued that states have the responsibility to protect their own population from war atrocities and human rights abuses (Falk, 2002; Arthur, 2010). As a result, the post-Westphalian approach does not consider peacekeeping operations as merely maintaining order between states, but rather as assuming the more ambitious task of promoting, and sometimes of enforcing, peace and security within the state for the sake of human security. Arthur (2010) adds that, given the multitude of non-state actors and their impact on the security environment in which peacekeeping operations unfold, the human security focus of the post-Westphalian principle has a better potential than the liberal democratic theory approach to justify the employment of innovative capabilities. Therefore, scholars tend to agree that, in practice, peacekeeping started to follow the post-Westphalian approach (Falk, 2002; Arthur, 2010; Bellamy, Williams & Griffin, 2010).

As a result, political scientists and IR scholars highlight the rapid emergence of the concept of *humanitarian global governance*, which encompasses the broad concerns of how to save and protect lives, reduce suffering and enhance welfare across the world (Keohane & Nye, 2000; Barnett, 2013). The anthropologist Didier Fassin (2007: 151) defines humanitarian governance as the administration of human collectives in the name of a higher moral principle that sees the preservation of life and the alleviation of suffering as 'the highest value of action'. Barnett (2013) adds that the emerging international humanitarian order is an impressive achievement, since its activities are undertaken by a wide array of actors, ranging from states,

international or regional organisations to individuals, all empowered by digital technologies.

In addition, Barnett (2013) points out that the diversification of the humanitarian global governance sector may be even greater than realised with the advent of digital technologies. As a matter of fact, hand-held devices and social media seem to be strong platforms for humanitarian governance efforts, as they enable and encourage diversity and participation of local populations. For example, large corporations such as Vodafone or Google have philanthropic wings involved in humanitarian endeavours, while new social technology groups, like Ushahidi and Crisismappers, are rapidly changing the planning and efficiency of peace interventions (Barnett, 2013: 387).

Even though these actors are not necessarily big players on the global security stage, they are providing most of the resources necessary for the work of other organisations by supplying the technology for new types of peace interventions (Barnett, 2013). For example, Barnett (2013) states that groups such as Ushahidi and Crisismappers are distributing, via computer links and mobile phones, cartographic technology based on geographic information systems allowing to map communities experiencing natural and man-made disasters. In this instance, the primary users of these efforts are no longer beneficiaries, but rather contributors to the peace efforts. In that respect, Barnett (2013) asserts that the use of digital technologies, and even of social media, is empowering local communities.

Given the changes occurring into the dynamics of conflict and the rapid spread of modern digital technologies, the previous chapter showed that many scholars have begun to conceptualise how 'smart' or 'digital' peacekeeping is an adequate response to the contemporary volatile environment in which many peacekeepers are deployed (Dorn, 2016; Karlsrud, 2017; Smith & Juncos, 2018). All these conceptualisations share the same idea of 'innovation'. By 'innovation', this study understands the introduction of recently developed capabilities into a field where such instruments were not previously employed (Merriam-Webster Dictionary, 2020). Thus, this study's conceptual contribution consists in proposing the overarching notion of 'innovative peacekeeping', which attempts to synthesise the various understandings identified in the academic literature.

Consequently, innovative peacekeeping can be broadly defined as the specific *high-value niche capabilities*, which can provide an advantage to peacekeepers in the field. By further expanding this definition, and in the context of this study, niche capabilities can consist of digital technologies that have in turn an impact on other tools and assets, such as operational intelligence practices, personnel safety and the inclusion of local populations. Innovative peacekeeping is not a revolutionary concept, but rather an evolutionary one, which requires combining the vision and objectives of a wide array of scholars and practitioners involved in UN and EU CSDP peacekeeping operations, within the emerging humanitarian global order. Digital technologies in CSDP operations will therefore be analysed at both the institutional and practical levels in order to observe and analyse their benefits. In this context, this study will successively approach digital technologies as a discursive tool and then as a governance instrument, through a constructivist approach presented in the following section.

3.2 A Constructivist Approach to Digital Technologies

A more vibrant and ambitious body of literature emerged at the beginning of the new millennium with a renewed interest in applying IR theories to the topic of EU external action, including CSDP operations (Manners, 2002; Scheippers & Sicurellyi, 2007; Harpaz & Shamis, 2010; De Waele & Kuipers, 2013; Fiott, 2013; Misik, 2019; Skolimowska, 2019). This renewed interest has consequently led many scholars to employ some of the emerging post-Cold War IR theories in their analyses. The research on the post-Cold War transformation of security was marked by the rise of the constructivist approach (Agius, 2016). According to Meyer and Strickmann (2010), the constructivist approach has made a substantial contribution to the understanding of the EU as a global security actor, as well as to clarifying the legitimacy and coherence of its external action endeavours materialised through the CSDP (Checkel, 2005; Meyer, 2011; Kurowska, 2012; Fiott, 2013; Yamchuk, 2014; Haesebrouck, 2015; Agius, 2016; Palm & Crum, 2019).

Constructivism highlights the importance of ideas, identity and interaction in the international system, while explaining how the world is constructed through the action of actors themselves (Kratochwil, 2001). Since Nicolas Onuf has coined the concept in 1989, constructivism has risen rapidly,

reshaping debates in IR and challenging the dominance of rationalist theories such as neorealism and neoliberalism (Onuf, 1989; Fierke & Jørgensen, 2001). Constructivism claims that the world is social and not only material, whereas, for neorealists, the key to understanding state behaviour has been the anarchic nature of the international system and the distribution of material resources. For neoliberalism, also referred to as institutionalism, state interests are mainly defined in material terms, even though cooperation and international organisations are at the centre of this school of thought (Agius, 2016). Neorealists and neoliberalists tend to see all states as similar, rational and unitary actors pursuing their fixed interests in the international arena.

According to Agius (2016), constructivism has three basic ontological positions. Firstly, normative or ideational structures are important and matter as much, if not more, than material structures. Shared knowledge and practices produce norms, which are the 'collective expectations about a proper behaviour for a given identity' (Katzenstein, 1996: 5; Agius, 2016). Secondly, identities matter as they give actors interests, and those interests tell something about how actors behave and the goals they pursue in the international system. As such, the identities, interests and conduct of political agents are socially constructed by collective meaning, interpretations and assumptions about the world (Adler, 1997: 324). In fact, neorealists tend to criticise state actors when they engage in activities that cannot be directly linked to national interests, although they usually fail to assess where those interests come from (Barnett, 2013). Thirdly, agents and structures are mutually constituted. This particular attention to how actors are shaping the world around them, and to how the world itself shapes actors, means that even international relations and peace interventions are inherently social (Agius, 2016). These three ontological principles of constructivism justify the use of this theoretical approach in the current study.

For some time now, constructivism has sought to avoid the traps of the extremes of empiricism and idealism, of individualism and holism, or of relativism and a single truth. However, Rieker (2004) asserts that there is no single constructivist theory on IR in general, or on EU security and defence in particular. The scholar argues that constructivism can be better regarded as a meta-theory including various approaches (Rieker, 2004: 4). In agreement with Rieker (2004), Agius (2016) stresses the fact that constructivism is not a uniform approach but rather encompasses a number of different standpoints of

thinking about identity, norms and social relations, namely the conventional and critical stances. What separates these two stances tends to revolve around questions of methodology and how identity is interrogated (Agius, 2016). For example, conventional constructivists such as Wendt (1999) accept that the state is the most important actor in the international system, and that the identity of a state is fixed. In parallel, many critical constructivists argue that identity has to be investigated more rigorously in order to uncover its meaning and construction. Inspired by Foucault, Derrida and Lyotard, critical constructivism queries the power of discourse, language, reality and meaning, thus adopting a more cautious approach to truth claims, knowledge and power relations (Fierke and Jørgensen, 2001: 5).

In this context, if digital technologies may bring new opportunities, it is worth understanding the old questions of epistemology and positionality, as well as their different implications (Mac Ginty, 2017). It is essential to comprehend why and how digital technologies can be employed, as well as how the status and position of the users of such tools shape their practicality and functionality. Consequently, in order to analyse and comprehend the potential benefits of digital technologies in CSDP operations, the current study will employ the more critical constructivist stance.

As previously mentioned, the potential of digital technologies in CSDP operations will be first analysed at the institutional level, as a discursive tool. In this instance, discourse is about constructing meaning, within the complex relations and processes at the core of social life, by referring to both structure (what is said where and how) and agency (what is said to whom and why) (Schmidt, 2008; Fairclough, 2010). Therefore, analysing how official actors involved in CSDP operations address digital technologies through their official narratives and initiatives is important to better comprehend the utility of these novel capabilities at the practical level, as governance instruments.

Furthermore, another justification for using a constructivist approach is to show how identity and interests are not fixed in time and space, but are likely to change, which has important implications when studying the potential of digital technologies in EU's CSDP operations (Agius, 2016). In their study, Palm and Crum (2019) employ a constructivist approach to show how EU's external action identity has changed over the years. These scholars assert that the EU has acquired a 'liberal power' identity in addition to its interventionist

'normative power' character, as evidenced in in the overall pragmatic approach to external action outlined in the 2016 EU Global Strategy. On the one hand, the normative power character justifies EU's CSDP goals by the principle of human security, while constantly strengthening the Union's credibility and legitimacy as a global actor (Glasius & Kaldor, 2006). On the other hand, the liberal power identity is justified in terms of specific EU interests and by the fact that it bases its operations on the avoidance of losses (Haine, 2009; Destradi, 2017).

Consequently, due to the significant transformation of sovereignty and to the constantly changing security environment in which its CSDP operations unfold, this study views the Union as a unique normative political entity and as a post-Westphalian peacekeeping actor (Halhalli, 2015). This means that the EU is a different type of international actor when compared to other entities because it can lead by example, while being flexible enough in the pursuit of its interests and objectives (Scheippers & Sicurellyi, 2007; Harpaz & Shamis, 2010; deWaele & Kuipers, 2013; Misik, 2019).

Chapter 4. Research Design and Methodology

This chapter presents the design and the methodology of an inductive qualitative research carried out as part of a five-month exploratory study on how digital technologies can benefit EU's CSDP operations. To that end, the first section of this chapter will set forth the research design of the current study. The following sections will then introduce and justify the main qualitative research methods employed, namely discourse and document analysis. Since these research methods require a careful selection of official primary and secondary sources, the criteria used for selecting these materials will be detailed. Finally, the last section will critically reflect on the limitations and benefits of the current research design.

4.1 Research Design

Research design, as defined by Creswell (1994), represents a type of inquiry that provides a specific direction to a research project, underpinned by a reasoning process, a philosophical stance and a methodology. In order to identify how digital technologies can benefit CSDP operations, the current study is based on inductive reasoning and employs qualitative research methods. Qualitative research can be defined as a rigorous approach by which it is up to the researcher to analyse discourses and documents, while looking for common themes and focusing on the meaning they create (Creswell, 2005). It involves spending an extensive amount of time on the process of data analysis, with no particular requirements for firm guidelines or specific procedures. It is often said that qualitative research employs inductive reasoning, since it moves from specific observations about certain occurrences to broader generalisations or conceptualisations.

More precisely, inductive reasoning can be understood as a systematic procedure for the analysis of qualitative data, in which this analysis is guided by specific objectives. In other words, inductive reasoning can be defined as a method whereby the evidence provided is perceived to offer a verification of the truth of the conclusion (Copi et al., 2007). By employing an inductive approach, this study aims to collect enough information from relevant sources, which will then be used to detect patterns or regularities that will be analysed to develop the findings allowing to formulate an answer to the research question.

In the context of this study, discourse and document analysis can be considered as suitable research methods, as they are qualitative tools that either predict or infer, supporting the inductive approach (Vickers, 2006). In parallel, the analytical methods employed in qualitative research are also driven by the philosophical assumptions underlying the study. After careful consideration, this study does not fit into either a positivist or a relativist perspective. Positivism is a philosophical system recognising that social phenomena ought to be studied only by using the methods of the natural sciences (Giddens, 1974). By contrast, relativism asserts the view that truth and falsity, right and wrong, standards of reasoning and procedures of justification are all products of different conventions or frameworks of assessment, and that their authority is confined to the context spawning them (Baghramian, 2004).

Thus, this research aims to strike a balance between the two aforementioned standpoints by placing the current study in a reconciliatory stance. This particular philosophical position results from the author's personal conviction that, although facts and information can be known and established, they remain dependent on and subject to human interpretation. For example, although it is well known that digital technologies are concrete objects, these tools can be employed in various ways. As they have lately become increasingly used in UN peacekeeping operations, many scholars and practitioners in the field have tried to adapt and to interpret the practicality and functionality of these digital technologies in UN peacekeeping through different conceptualisations.

Consequently, as already documented in the Literature Review chapter, there is a lack of a common understanding as to what digital capabilities actually mean in the context of peacekeeping operations, since many scholars give different names to the same notion (Dorn, 2016; Karlsrud, 2017; Duursman & Karlsrud, 2018). Yet, the absence of a common understanding has led this study to introduce the overarching concept of 'innovative peacekeeping' in the previous chapter, which is itself subject to the author's own perception and interpretation of the existing approaches emerging from the literature. Moreover, the lack of a subsequent academic assessment of the potential benefits of such innovative tools in CSDP operations justifies the topic of this study and the two qualitative research methods, namely discourse and document analysis, which will be presented in the following sections.

4.2 Discourse Analysis

Discourse analysis is a qualitative research method exploring the ways in which discourses give meaning and legitimacy to social practices (Halperin & Heath, 2012: 309). Discourse can be either spoken or written, and includes various forms of communication (Lamont, 2015). Lamont (2015: 91) claims that language plays a 'performative role' in constituting the objects under study. As a result, discourse analysis has been chosen as the first research method, because it clearly demonstrates that a given phenomenon is dependent on how it is interpreted or framed by official actors through the use of language.

Thus, this research method is useful not only to analyse official perceptions on digital technologies, but also to determine the link between how the need for innovative capabilities in peacekeeping is constructed on the one hand, and the broader relations of power and authority shaping its potential benefits on the other hand (Halperin and Heath, 2012). Along those lines, one of the main objectives of the current study is to understand the increasing emphasis being placed on digital technologies, by identifying and examining the narratives and various initiatives of EU officials addressing the potential of digital technologies. This study employs discourse analysis as a mean to achieve this goal, because it provides a great deal of information allowing to formulate an answer to the research question, while being well suited to the inductive nature and the critical constructivist approach of this study.

Discourse analysis generally relies on few representative texts. The most canonical statements must hence be collected, and it is important that these texts be authoritative and come from official sources entitled to speak on behalf of the Union or of its partners in the field of peacekeeping (Lamont, 2015). In this regard, the most prominent statements about the use and the potential of digital technologies in peacekeeping operations can first be found in the 2015 Final Report of the Expert Panel on Technology and Innovation in UN peacekeeping and also in the EU Statements made in 2019 by Guillaume Dabouis, the Head of the Political Section at the Delegation for the EU to the United Nations (UN, 2015; EEAS, 2019a; EEAS, 2019b).

Moreover, several other canonical statements have been identified in the 2016 EU Global Strategy elaborated by the former HR/VP Federica Mogherini and her Global Tech Panel initiative, as well as in some interviews of the current

HR/VP, Josep Borrell, after his recent visit to the EU Satellite Centre (SatCen). Thus, employing discourse analysis will enable this study to examine existing narratives on digital capabilities in EU external action endeavours. This will in turn allow to critically analyse the potential of these capabilities in EU's CSDP operations.

4.3 Document Analysis

Since this study is a qualitative research based on inductive reasoning, the use of document analysis, as a second research method relying on relevant primary and secondary sources, is essential to identify regularities and to deconstruct the practicality and functionality of digital technologies in CSDP operations. Document analysis is a systematic qualitative research method to evaluate documents available in both printed and electronic formats (Bowen, 2009). Like other methods used in qualitative research, document analysis requires that information about a phenomenon be examined and interpreted in order to elicit meaning, gain an understanding and develop further knowledge (Rapley, 2007; Corbin & Strauss, 2008). This research method involves skimming, reading and examining relevant materials, and combines elements of other research methods, such as thematic and content analysis (Bowen, 2009). Nevertheless, as argued by Silverman (2000), document analysis is not as time consuming as content analysis and, unlike thematic analysis, it does not obscure the interpretive process. It entails an immersive document review, in which pertinent information or passages are identified.

The increasing availability of documents and their ease of access create methodological challenges. Atkinson and Coffey (1997: 47), in agreement with Scott (1990), refer to documents as 'social artefacts' that are produced, shared and used in socially organised ways. However, as pointed out by Scheuler (2014: 164), a rigid classification of primary and secondary materials can distort information and lead the researcher to misinterpret it, as it is difficult to label a source without first knowing how it can be used as evidence. The nature of a source does not derive from the source itself, but rather from the purpose it serves in the investigation (Scheuler, 2014). In that respect, since this study employs an inductive approach, it adopts a more nuanced understanding of primary and secondary sources by taking into account their object and context.

Using primary sources allows to better understand the practices of other scholars and the contextual framework of secondary sources. Lombard (2010) defines primary sources as the documentation for history as it is being made. Primary sources consist of reports, speeches and interviews, as well as other official documents, such as policies and reports (Prytech & Harrod, 1990). In the context of this research, secondary sources are either books or journal articles, in which some of the primary sources considered in this study have been referenced (Prytech and Harrod, 1990).

The first criterion for the selection of primary sources is that they represent official contemporary records or documents published by the EU or its partners, such as the UN. The second criterion taken into account is the extent to which the authors of these documents engage with the use of digital technologies in UN and EU CSDP peacekeeping operations. This study considers that official primary sources will allow the current study to not only identify how this phenomenon has emerged and developed, but also to provide information about how the EU understands innovative digital capabilities and how the notion seems to be evolving in the Union's discourse.

Furthermore, the most important secondary sources employed in this study are books and journal articles focusing on CSDP operations, written by renowned scholars within the fields of UN peacekeeping or EU security and foreign policy. The first criterion used to select these secondary sources is the extent to which these materials engage with digital technologies in either UN or EU CSDP operations. The second criterion takes into consideration how these sources assess those capabilities within peace operations. Last but not least, the third criterion considers whether the source's bibliography refers to official primary sources that are more or less similar to those used within this study.

To that end, a 'Summaries and Commentaries Form' (SCF), which is presented in Appendix A, has been designed in order to systematically organise and record the main information provided by primary sources, together with the arguments of the most relevant secondary sources. Since document analysis involves the reading and examination of a large number of sources, this form has been used to facilitate an in-depth critical engagement with the material and, consequently, to ensure the implementation the three aforementioned selection criteria while keeping track of the documents analysed. The SCF also focuses on the authors' background and involvement in the field or in any organization.

The template aims to identify the three key arguments or findings of the source under scrutiny. Thus, using such a screening template for both primary and secondary sources enables the author of this study to engage more systematically with the materials examined, while helping to identify the information that provides the evidence to answer the research question of this dissertation.

4.4 Benefits and Limitations of the Current Research Design

The objective of this dissertation is to make a contribution to the research field of EU CSDP operations in the light of the digital technological revolution. As discussed in the previous sections, a specific research design and a qualitative methodology are employed in this study in order to provide an answer to the research question. Therefore, the benefits and shortcomings of the current research design and methodology lie in both the reasoning and the methods employed, which nonetheless should not significantly affect the study but rather leave space for future research.

The main benefit of the current research design comes from the flexibility provided by inductive reasoning and qualitative methods to answer the research question. This flexibility has allowed an in-depth engagement with the available literature. Nevertheless, the same reasoning and research methods might be criticized for their lack of quantitative data and for being rather descriptive. However, in order to draw significant inferences regarding the benefits of innovative peacekeeping capabilities in CSDP operations, the current study does not require quantifiable data, and its descriptiveness represents an important building block to answer the research question. Another limitation of this study is that it might fall short in criticizing existing knowledge. Nevertheless, the purpose of this research is not to blindly criticise existing knowledge, but rather to highlight both the benefits and drawbacks of digital technologies in CSDP operations through a systematic search of primary and secondary information.

The critical constructivist stance is employed as an analytical lens to observe how existing knowledge was created and how it can be further expanded. One limitation of employing this approach can be resumed to its own epistemological position, procedures and its particular understanding of qualitative research methods, particularly discourse analysis. At the same time,

discourse analysis does not provide absolute answers to specific issues, and it is nothing more than a deconstructive reading and interpretation of texts. As such, the reliability and validity of the analysis cannot be ascertained in the same way as in quantitative approaches (Duzgit & Rumelili, 2018). In this regard, it is important to identify the meanings that appear as common reference points in most of the primary and secondary sources used through the SCF template. However, meaning itself is always subject to interpretation and no method, other than discourse analysis, can allow this research to identify deeply held attitudes and perceptions regarding the potential of the digital technologies used in CSDP operations.

Like discourse analysis, document analysis offers great opportunities to develop novel interpretations of significant events (Burnham et al., 2008). However, as it is the case with other qualitative methods, document analysis encounters some limitations in terms of the authenticity, credibility, representativeness and meaning of the documents analysed. The authenticity of a document concerns it genuineness and whether it is actually what it 'purports' to be (Scott, 1990). The issue is that many documents available online are undated, and the precise author of the material may also be difficult to identify in certain cases. In parallel, credibility is equally important, as it is critical to understand the background of the authors and the purpose of their documents. The main challenge posed by document analysis concerns issues of representativeness and meaning. Scott (1990) claims that researchers should be certain that the documents consulted are representative. In order to avoid the aforementioned limitations, the author of this study is in a position to better understand the conditions under which the text was produced and to make sense of the author's situation and intentions in creating meaning through the devised selection criteria mentioned in the previous section, by employing the SCF template.

Nevertheless, since reality is itself experienced in so many different ways, determining any definitive sense or meaning is an aspiration impossible to achieve. However, taking a reconciliatory stance and carefully using a wide range of representative documentary material are among the most reliable research methods available for students of IR to have the opportunity to contribute to the production of new knowledge. Whereas documents do not speak for themselves, but only acquire a significant meaning when they are

contextualised, discourse analysis aims to enable the researcher to consider the issue at stake from a higher ground in order to gain a more comprehensive view of it. Both qualitative research methods may require a certain amount of time. These methods have nonetheless been used for the main reason that, in comparison to other quantitative or qualitative research methods obstructing the interpretative process, they require an in-depth engagement with material allowing to discover regularities and make well-informed inferences.

Chapter 5. Analysis

The aim of this chapter is to identify and critically assess the benefits of digital technologies in CSDP operations, while taking a reconciliatory approach in the quest of answering the research question of this study. To that end, the following section first assesses the practicality and functionality of digital technologies in the field, by examining their impact on the actors, the information and analysis needed for successful operations, as well as the opportunity for advocacy that digital technologies can offer to local populations. It then identifies and reviews the narratives and various initiatives of EU officials addressing the potential of innovative capabilities in contemporary CSDP operations. Finally, the last section analyses the potential benefits and downsides of militarised and unconventional digital technologies for CSDP operations. Both discourse and document analysis are used throughout the three sections of this chapter to provide deeper explanatory insights and to make properly informed inferences. The findings of this analysis will be presented in the next chapter, alongside some prospects concerning the future of innovative digital capabilities in CSDP operations.

5.1 The Practicality and Functionality of Digital Technologies

We cannot solve our problems with the same thinking we used when we created them.
Albert Einstein, 1955

The scale and complexity of contemporary conflicts and peace operations have revealed a gap between the tasks given to personnel in the field, on the one hand, and the resources they have at their disposal to accomplish their mandates on the other hand (Fidler, 2015; Tardy, 2019). The spread of global communications has contributed to a growing awareness of political strife and crises around the world. Paris (2004) argues that the spatial reach and the density of transnational interconnectedness has further influenced the design of contemporary peacekeeping operations. Consequently, the EU is in a position whereby, in order to protect its legitimacy and credibility as a global security actor, it must assume greater responsibility for the protection of vulnerable populations. In turn, this justifies the shift towards digital technologies and a

more humanitarian governance approach (Bellamy, Williams & Griffin, 2010; Barnett, 2013; EU, 2016).

Contemporary EU CSDP or UN peacekeeping operations are based on a multilateral system by which state-to-state mechanisms are implemented to respond to conflict (Hansen, 2020). Peacekeeping operations are deployed with the consent of the host government and implicitly tend to strengthen state authority, while focusing on promoting human rights, democratic oversight and a society governed by the rule of law. Yet, in this context, agency lies with a multiplicity of actors, ranging from international and regional organisation to neighbouring states, state and non-state groups, as well as civil society at large, which are all together shaping the conflict dynamics (Hansen, 2020). As some non-state actors have gained the ability to further instigate conflict by using technology, others support peacekeeping efforts through digital means (Millar, 2015). In this regard, while volatile conflict environments influence the way actors design or adapt a peacekeeping operation, these different stakeholders can in turn have an additional impact on the conflict environment through their responses and capabilities.

Unfortunately, peacekeepers struggle to identify with whom to engage and they strain to combine non-state initiatives with their task of supporting the state, thus often being accused of not acting impartially (Hansen, 2020). For example, in the DRC, the UN's decision to undertake joint operations with the national Armed Forces (FARDAC) - the state organisation responsible for defending the country against the non-state group M23 - created deep fissures, both within the mission and the members of the humanitarian community operating in the east of the country (Rhoads, 2016). This decision has impacted NGOs operating in the DRC, who considered their access to and acceptance by local communities to be considerably diminished because 'they were tarred with the same brush and were seen as taking sides' (Rhoads, 2016: 205).

In order to remedy this situation, UN peacekeepers have later on handed out mobile phones to the local population in eastern DRC, as part of an effort to create community alert networks (CANs) that can notify the UN Stabilisation Mission in the DRC (MONUSCO) when an issue was emerging (Karlsrud, 2017). The same network was also used to run simple population perception surveys enabling the operation to capture, understand and integrate local perspectives into daily decision-making, thus improving the ability to protect

vulnerable civilians. A similar initiative was developed by Columbia University, in connection with the 'Voix des Kivus' programme in the DRC (Van der Wind & Humphreys, 2012). This programme involved the distribution of prepaid cell phones, solar chargers and code sheets to community representatives in 18 villages located in eastern Congo. Van der Wind and Humphreys (2012) stress the fact that the analysis of the data provided by the text messages, generated thanks to these devices, showed that many of them included sensitive information on various types of abuse perpetrated by different actors. This information has helped to guide the peacekeepers to navigate the complex conflict landscape prevailing in the eastern DRC, to maintain their impartiality and to establish a connection with the local population (Van der Wind & Humphreys, 2012; Karlsrud, 2017).

According to the 2015 Expert Panel on Technology and Innovation in UN peacekeeping, led by Assistant Secretary-General Jane Holl Lute, establishing and maintaining situational awareness, while protecting peacekeepers' lives, is 'neither aspirational nor a luxury', and, consequently, 'no advantages should be withheld from those working for the cause of peace' (UN, 2015: 3). This statement stresses that the information and analytical capabilies required for a successful peacekeeping operation is three-fold. Firstly, it necessitates some tools to gather coherent and real-time operational intelligence of the conflict area in order to build a common operational picture. Secondly, it needs information for early warning of imminent threats. And, lastly, the involvement of local populations in the peacekeeping process provides more information and analysis to identify the risks and opportunities looming over the horizon (Hansen, 2020).

In this context, Gill and Phythian (2006) underline that intelligence is more than the mere collection of information. Intelligence covers a series of linked activities that provide an 'advance warning' or bestow a 'security advantage' (Gill & Phythian, 2006: 2). Eriksson (1997) highlights that intelligence was regarded as an illegitimate element within the UN system. However, the same scholar claims that this attitude was somewhat 'contradictory', since even 'traditional peacekeeping operations consisted in surveillance through observations and reporting' (Eriksson, 1997: 1). For almost 70 years, a number of member states have considered any effort for gathering and analysing information to constitute a serious violation of a host

state's sovereignty (Hansen, 2020). But, as the environments into which peacekeeping operations are deployed have become increasingly unstable over the recent years, peacekeepers have found themselves with one hand tied behind their back due to this capability gap (Hansen, 2020).

The harmonisation of intelligence analytical tools was enhanced with the release of the 2017 Peacekeeping Intelligence Policy, which represents a significant progress towards bridging the existing gap between the tasks assigned and the resources available to peacekeepers (DPKO & DFS, 2017). The 2017 Policy defines UN peacekeeping intelligence as the 'non-clandestine acquisition and processing of information by a mission with a directed intelligence cycle', aiming to meet the requirements for efficient decision-making and to assure the safety and effective implementation of the mandate (DPKO & DFS, 2017: 1). For example, in Mali, the UN enacted an unprecedented increase in intelligence capacities through the All Sources Intelligence Fusion Unit (ASIFU) (Rietjens & de Waard, 2017: 532). ASIFU has enabled peacekeepers to draw information from a wide array of sources, ranging from the troops and civilians on the ground to satellite images that provide updates of the situation in conflict affected areas at a low cost (Karlsrud, 2017). Additionally, in order to centralise and strengthen the quality, coordination and relevance of the digital data gathered in ASIFU, several initiatives were developed by implementing available technologies. For example, the Ushahidi crisis-mapping platform was used by ASIFU to geotag reports of security incidents and other information (Kalrsrud, 2017). Initially created in the aftermath of the Kenyan presidential election in 2007, the software offers products that enable local observers to submit reports by using their mobile phones, email or social media, while simultaneously creating a temporal and geospatial archive of events (Berglund & Bruckert, 2017; Ushahidi, 2018).

In comparison, the term 'intelligence' has been less contentious in the EU. The 2003 ESS simply considered intelligence as part of the EU's comprehensive approach to conflict management (EU, 2003). In CSDP operations, the EU relies on a lead nation to provide specific intelligence capacities, processes or structures rather than on a CSDP operation to build its own. In contrast with the UN, which has developed stronger intelligence structures at the operational level with its joint mission analysis centres

(JMACs), the EU has established a joint intelligence Situation Centre (SITCEN) only at the strategic level (Norheim-Martinsen and Ravndal, 2011). As a result, while the EU has yet to develop integrated intelligence capabilities at the operational level, this asymmetrical situation in terms of intelligence practices further stresses the importance of cooperation between the EU and the UN.

Today, there are various technical solutions enabling the collection of information from a wide variety of sources, ranging from human intelligence to data captured through digital devices, social media, satellite systems or UAVs. When UAVs were introduced for the first time in the DRC in 2013, this signalled a change towards a more systematic approach and harmonisation of digital and intelligence capabilities across missions (Hansen, 2020). UAVs have tactical uses, such as collecting information that may signal emerging situations and potential violence. These aerial systems are now widely deployed in the UN peacekeeping missions in the Central African Republic (CAR) and in Mali. In parallel, EU member states have also contributed to peacekeeping efforts in Mali with UAVs, signals intelligence and aerial assets equipped with sophisticated sensors and weapon systems (Dorn, 2016). Besides this contribution, the EU has used satellite systems and UAVs in its CSDP missions and operations in Ukraine, Georgia and Libya. It thus appears that the Union relies to some extent on militarised digital technologies, such as satellite and aerial systems, for its CSDP operations (De Zan, Tessari & Venturi, 2016; Gaskell, 2016; Smith & Juncos, 2018).

However, the scope of action for the UN and the EU is delimited in each conflict area by the statutes of the forces and of the mission agreements, which all together stipulate the respective rights and obligations of the multilateral organisations and of the host government, while granting privileges and immunities to international staff (Hansen, 2020). Nevertheless, even if these agreements permit the collection of information in support of the peacekeeping operations' mandate, they do not regulate data handling, sharing, storage or potential privacy infringements. It is then not surprising that some countries hosting UN peace operations, such as Lebanon and South Sudan, did not allow the use of UAVs in their airspace. Therefore, it is essential to establish an operational framework ensuring a consistent and principles-based approach, which involves the efficient use of available resources as well as a robust regime

of oversight, accountability and continuous improvement (Gaskell et al., 2015; Smith & Juncos, 2018).

The proliferation of new technology, in places where peace operations unfold, allows the Union and the UN to explore new options to create peace and stability. As peacekeeping operations aim to foster sustainable political solutions and to promote reconciliation and dialogue, technology opens up the opportunity for advocacy through mass targeted communication, especially in an environment where access to news sources is limited but where mobile phone penetration is growing (Hansen, 2020). As a consequence, hand-held devices and social media can provide valuable access to information and improve interaction with local communities. For example, social media platforms, such as Facebook or Twitter particularly, have been used to mobilise populations for a cause, thus enhancing their ability to share plans, thoughts and opinions, while offering opportunities for inclusiveness to marginalised individuals (Fuchs, 2017). These platforms can at the same time render dialogue initiatives and consultative processes more inclusive (Fuchs, 2017; Hansen, 2020).

As an illustration of the potential reach of digital technologies, a recent study conducted by the World Bank (2016) has showed that 7 out of 10 individuals, on average, own a mobile phone in the developing world. To put these figures in a different perspective, out of a population of approximatively 20 million people in Mali, more than 15 million own a mobile, out of which around 12 million have access to the internet (World Bank, 2016; Internet World Stats, 2017). In comparison, things are different in the DRC where, out of a population of more than 80 million people, only 54% own a mobile phone, of which 86% use the internet (Internet World Stats, 2017). The Centre for Humanitarian Dialogue's (HD) report points out that the 'ease and speed with which one can communicate via ICT [platforms] has increased the capacity of mediation teams and the rate at which they can work' (Lenny et al., 2018: 22). One mediator interviewed for the HD report stated that, with applications such as 'Skype and WhatsApp, you can do a face-to-face [meeting] without [travelling] 10,000 miles'. As a consequence, personnel working on multiple conflicts, or with multiple parties within a conflict, can maintain simultaneous communication with all sides involved, thanks to apps providing messaging platforms and video calling (Lenny et al., 2018).

Another example of how these digital technologies can be used for advocacy purposes is illustrated by a recent project carried out by the Centre for Communication & Civic Engagement of the University of Washington (2009). The project suggests that social media carried 'a cascade of information about freedom and democracy across North Africa and the Middle East and helped raise expectations for the success of political uprisings' (University of Washington, 2009). Therefore, the importance of social media, as a space and as a tool for social change, has made strategic communications an increasingly central task for peace operations (Fuchs, 2017; Hansen, 2020). When it comes to peacekeeping, the main goal is to convey the purpose of the mission, and digital tools can be used effectively to visualise progress and to help decision-making. Several UN aids, developed in partnership with the Centre for Humanitarian Dialogue, such as a Digital Technologies and Mediation Toolkit 1.0 and an action plan against hate speech or staff social media guidelines, which can also be employed by CSDP personnel, have been introduced to better understand for what purpose and how digital technologies can be used effectively in peacekeeping operations (UN & CHD, 2019).

Therefore, it can be inferred that digital technologies are able to provide specific advantages to CSDP operations, by protecting personnel, strengthening operational intelligence capabilities and involving local populations in the peace process. Firstly, the practicality and functionality of digital technologies stems from their accessibility, cost-effectiveness and adaptability to the conflict environment. As such, by enhancing their situational awareness and security, innovative capabilities can help the various actors involved in peacekeeping operations to navigate the volatile security environments of peace operations. Secondly, these innovative capabilities are functional because they improve the processes of intelligence gathering by enabling a wider and more systematic capture and processing of large amounts of data. Thirdly, new devices and social media platforms foster more participation, because they expand the conversation to new partners in local communities, and even to challengers. Overall, this shows that digital technologies can be employed by international organisation as a governance instrument for sustainable change, because their use takes into consideration the complexity and the multi-layered nature of contemporary conflicts. Yet, while digital technologies seem promising to strengthen peace interventions, the following section will identify and examine

the narratives and initiatives of EU officials that are shaping the potential of these digital capabilities in the context of EU external action.

5.2 European Narratives and Initiatives on Digital Technologies

As we work to bring more technology to humanity, we also need to bring more humanity to technology.

Brad Smith, 2019

In the Foreword of the 2016 EU Global Strategy (EUGS), former HR/VP Federica Mogherini acknowledges the fact that 'the wider European region has become more unstable and more insecure' with conflicts becoming 'more complex and challenging' (EU, 2016: 3). The fundamental goals of EU's external action, as outlined in the EUGS, are to preserve lives and livelihoods of vulnerable populations, increase the resilience of states at the east and south of European borders, address the root causes of conflicts and to implement activities aimed at establishing a sustainable peace environment (De Zan, Tessari & Venturi, 2016; EU, 2016). The paramount necessity to meet the goals outlined in the Union's Global Strategy, and to face the rapidly changing conflict dynamics, led to a significant uptake of the notions of 'technology', 'digital' and 'innovation' within the discourses and policies of various EU officials involved in the Union's external action. For example, within the EUGS itself, the term 'technology' is mentioned 24 times, whereas 'digital' and 'innovation' are mentioned 11 times and 3 times respectively (EU, 2016). This uptake is important because there were only two references to technology in the 2003 European Security Strategy (EU, 2003).

In this context, the Global Strategy states that the Union will apply more 'innovative forms of engagement' to pursue its goals and to strengthen its partnerships (EU, 2016: 18). The Union can thus benefit from digital technologies to enhance its synergy with UN peacekeeping efforts (EU, 2016). More specifically, and although the Strategy does not provide a proper definition of what these 'innovative forms of engagement' mean, it underscores that the Union needs to 'develop capabilities in trusted digital services and cyber technologies' (EU, 2016: 45). The EUGS stresses that 'fostering innovative information and communication technology systems' would 'guarantee the

availability and integrity of data' in order to create a 'more credible and stronger Union' (EU, 2016: 22).

In this respect, the Strategy clearly affirms that the EU will pursue greater information sharing, as well as a joint reporting, analysis and planning between member states and CSDP operations, while 'ensuring the participation of small to medium sized enterprises (SMEs) in the defence sector' (EU, 2016: 46). This endeavour would 'improve innovation and investment in the military technologies of tomorrow' and create a 'safe European digital space' for all policy areas (EU, 2016: 46). Yet, it requires the 'reinforcement of cyber elements in CSDP operations' and further developing 'platforms for cooperation with international partners' (EU, 2016: 22). Even though the Strategy does not spell out what the 'cyber elements in CSDP operations' or the 'military technologies of tomorrow' entail, it recognizes that 'a sustainable, innovative and competitive European defence industry is essential' for Europe's strategic autonomy and for a credible CSDP (EU, 2016: 46). In other words, the Union does not only have the opportunity to strengthen its CSDP operations by adopting digital technologies, but it can also become more independent in developing its own innovative assets.

In the conclusion of a recent report on the integration of the use of digital solutions and technologies, the Council of the European Union (2016: 2) calls for digitalisation to be properly handled 'across all policy areas, including EU's development and foreign policies, while addressing cyber security challenges and assuring the promotion and protection of human rights, including privacy and data protection'. The Council 'insists on the importance of using digital technologies as an enabler for sustainable development and inclusive growth in post-conflict societies' (Council of the European Union, 2016: 7). To that end, the Council encourages the European Commission to develop these innovative capabilities, and the HR/VP to further raise awareness of the potential of these tools at the headquarters and national levels.

Following the statements and provisions contained in the EUGS and the calls of the Council of the European Union, former HR/VP Federica Mogherini launched the Global Tech Panel initiative (EEAS, 2018a). The Panel brought together leaders from the UN, the tech industry, representatives of SMEs, academics and the civil society, with the objective of starting a conversation about new types of cooperation between the Union and the tech world. This

conversation was not only about tackling the threats of the digital age, but also about unleashing the potential of such innovative capabilities to cope with emerging global insecurities (EEAS, 2018b). A thread of tweets from officials and practitioners involved in the Panel, which is available in Appendix B, reveals that a range of issues were considered in its meetings, namely the weaponization of digital technologies, harnessing connectivity for development and addressing the challenges posed by the digital divide. Mogherini underlines the fact that, even though the Global Tech Panel has a wider scope and focus - be it about responding to climate change, global inequality or protracted conflicts around the Union's borders - a positive change requires a 'new' and 'more collaborative approach towards progress' in achieving EU's external action goals (EEAS, 2019b).

In this instance, Mogherini stated that 'foreign policy is no longer a matter for diplomats and policy owners' only (EEAS, 2018b). The former HR/VP added that 'the Union can take advantage of the opportunities posed by technology' in its CSDP endeavours (EEAS, 2018b). The second Global Tech Panel meeting, held in August 2019, brought together leaders from the tech industry and EU defence ministers to expand the initial conversation, and to discuss the impact of new technologies and artificial intelligence on EU defence (Gotev, 2019). This second Panel seems to embody a statement found within the Global Strategy, claiming that the EU will 'promote' a 'reformed global governance, one that can meet the challenges of the 21st century', by engaging in a 'practical and principled way' with European and international partners to 'share global responsibilities' (EU, 2016: 4).

The EUGS further asserts that 'technological progress' can enable European citizens to thrive and to allow vulnerable populations to 'escape poverty and live longer and freer lives' (EU, 2016: 13). As such, both the EUGS and the Global Tech Panel initiative seem to demonstrate a turn towards a new humanitarian governance order (Barnett, 2013). This reformed governance order appears to be inspired by the principles of the post-Westphalian perspective and to offer a more humanitarian approach to the Union's external action through the use of novel technologies. It is therefore important to note that, besides their role as a governance instrument, digital technologies can also be seen as a discursive tool aimed at bringing stakeholders together to create common understandings and pathways for more sustainable peace.

Building on these narratives and initiatives on technology and innovation, Guillaume Dabouis asserts that the EU will pursue 'better integration of modern technology and peacekeeping intelligence capabilities into peace operations' together with the UN (EEAS, 2019a). Dabouis, who is the Head of Political Section of the Delegation of the EU to the UN, recognises in a recent speech that such innovative capabilities, ranging from hand-held devices and social media to UAVs and satellite systems, can 'contribute to the implementation of the mission's mandate, to the protection of civilians and to the security of the personnel deployed on the ground' (EEAS, 2019b).

Satellite systems are considered as a key digital technology by the EU, due to their engineering features and their dual-use nature (Barbieri, Berglund & Arnaud, 2018). After his recent visit to the European Satellite Centre (SatCen), the current HR/VP Josep Borrell pointed out that this technology has provided timely data for 'external action, crisis management and humanitarian missions, to combat illegal trafficking and terrorism, and to monitor migration' (SatCen, 2020). Borrell has specifically stressed the fact that, for the planning of the CSDP operation in Libya, there is this 'powerful tool observing what is happening there and guiding the operation [EUNAVFOR MED IRINI] on the ground' (SatCen, 2020).

Therefore, these various narratives and initiatives addressing technology and innovation point to some of the potential benefits of digital technologies. Even though Federica Mogherini did not identify any concrete opportunity brought directly to CSDP operations, it can be inferred that such innovative digital capabilities can assemble experts from a wide range of domains. This shows that European external action ideas and interests are not fixed, but rather dynamic and evolving, to meet contemporary security challenges and achieve the institution's objectives by empowering the Union to foster more lasting change in conflict areas. At the same time, it can be further deduced that, while digital technologies are 'concrete' objects, their use in CSDP operations is highly intersubjective, being dependant on the understanding created by experts and EU officials. As a consequence, due to their multiple potential uses and conceptual malleability, digital technologies can lead the EU policy-making circles to consider bringing external agents together to develop guidelines on how to use these high-value niche capabilities in CSDP operations.

However, most of the aforementioned narratives and initiatives at the EU level seem to have two facets. Firstly, they target internal processes and efficiency gains by embracing digital solutions. Secondly, they also tend to view technologies as predominantly improving the current work in the areas of development and humanitarian action, while focusing less on CSDP operations (Hansen, 2020). When it comes to CSDP operations, several scholars have explored the use of digital technologies in conflict prevention and peacebuilding, within the EU Civilian Capabilities (EU-CIVCAP) project, under the Horizon 2020 Research and Innovation Framework. Along those lines, while the EU-CIVCAP project acknowledges the importance of satellite and aerial systems in contemporary operations, it argues that it is 'crucial' for the EU to seek a better understanding and use of other less conventional digital tools, such as hand-held devices and ICTs, in its CSDP operations (Juncos et al., 2018: 6). The following section will thus further analyse the benefits and shortcoming of existing and novel digital technologies in CSDP operations.

5.3 Benefits and Shortcomings of Digital Technologies in EU CSDP Operations

Since the Union conceived what is known today as the CSDP at the Cologne Summit in 1999, 34 missions and operations have performed the spectrum of tasks listed in Article 43 of the Treaty on EU, including 'peace-keeping tasks' (European Parliament, 2020b). The CSDP has put visible numbers on the ground and takes considerable risks for peace, representing the most visible outcome of the battle of ideas about the identity of the EU as an international security actor (Keohane, 2011). At the time of writing this dissertation, more than 5000 personnel are currently deployed in 17 ongoing CSDP operations, six of which are military and engaged in peacekeeping duties. However, the frontiers between the tasks CSDP personnel have to complete - be it conflict prevention, peacekeeping or peacebuilding tasks - have become blurred by the realities of the conflict environments in which they operate. In parallel, current and future operations need to anticipate and deal with new threats not previously encountered (Berglund & Bruckert, 2017; Smith & Juncos, 2018).

A recent policy brief, conducted by the Policy Department for External Relations of the European Parliament (2020a), has identified several issues

hampering the performance of CSDP operations. Among them, the capabilities gap in the European early warning system (EWS), the lack of proper resources for contemporary CSDP operations, the inadequate protection of personnel and the information barriers between the field and headquarters stand out (European Parliament, 2020a). The brief also acknowledges some existing innovative capabilities and a number of significant initiatives launched by former HR/VP Federica Mogherini to 'reinvigorate CSDP' in terms of political ambition, innovative capabilities, and governing structures' (European Parliament, 2020a: 6). The aforementioned Global Tech Panel is an example of such a significant initiative. Other examples are the institutional tools created after the 2016 EUGS, such as the European Defence Fund (EDF) and the Permanent Structured Cooperation (PESCO) framework, which aim to deepen defence cooperation between member states. Through PESCO, member states have made more binding commitments to invest, plan, develop and jointly operate a complete and coherent spectrum of innovative capabilities, for both national and multinational operations, to further improve the Union's capacity as an international security actor (PESCO, 2020).

In terms of existing technological capabilities, both UAVs and satellites were employed in partnership with the UN and for the Union's own CSDP operations. For instance, UAVs were first used in the EUFOR operation in Chad in 2008 for 'routes clearance and for ensuring visibility of the area of the operation' (De Zan, Tessari & Venturi, 2016: 36). In parallel, satellite imagery was employed in the EUNAVFOR Somalia operation in order 'to control infrastructures and activities at pirate bases for preventing eventual attacks' (De Zan, Tessari & Venturi, 2016: 37). However, Berglund and Bruckert (2017) stress the fact that the European EWS requires the use of a wider range of technological capabilities. The European Commission recommends that the EU 'use new and existing technological tools for EWS purposes, including those of member states, to identify emerging conflict and crisis risk', as well as 'possible mitigating actions' (European Commission, 2016).

As an example, UAVs and satellite systems allow to anticipate and mitigate violence or potential spoilers to the peace process, thus representing a valuable contribution to the Union's EWS by ensuring timely responses (De Zan, Tessari & Venturi, 2016). Having such innovative capabilities to predict

or follow the development of conflicts when prevention fails is 'in line with the EU's goal to apply an integrated approach to conflict' (De Zan, Tessari & Venturi, 2016: 32). This integrated approach is defined as being multi-dimensional (all the available policies, instruments and capabilities), multi-phased (readiness to intervene at all stages of the conflict), multi-level (action at the local, national, regional and international levels) and multilateral (working with partners) (EU, 2016; Tardy, 2019).

Military satellite systems provide geospatial information used to elaborate imagery and geographical intelligence products (Berglund & Bruckert, 2017; Barbieri, Berglund & Arnaud, 2018). Smith and Juncos (2018: 9) highlight that the EU has a 'very unique own resource in the form of dedicated satellite/geospatial capabilities, which can provide crucial real-time information'. For example, the Copernicus Sentinel Satellites support EU external action, through the EU SatCen. This tool reinforces the Union's EWS capacity by having access to better and regularly updated geospatial information for CSDP operations (Berglund & Bruckert, 2017). SatCen has proven in recent years that satellite imagery is of fundamental importance for the assistance of CSDP operations. For example, it made contributions to EUFOR Chad/CAR in 2009 by providing imagery about internally displaced persons and by examining natural resources through Copernicus (De Zan, Tessari & Venturi, 2016). Moreover, SatCen has also collaborated with the UN for the Supervision Mission in Syria, thereby providing a concrete example of how the EU has implemented its endeavours and commitments with the UN.

Aerial systems offer imagery with higher resolution in comparison to satellites, since they operate closer to Earth and can monitor a location over a long-time span (Berglund & Bruckert, 2017). In parallel, they are multisensorial and transmit data in real-time by streaming. Several instances, in which European states have contributed to UN peacekeeping operations with UAV technology, have convinced the Union to further explore the use of these systems in its own CSDP operations, as it has been noted in the ongoing operations in Mali and Libya (De Zan, Tessari & Venturi, 2016; Smith & Juncos, 2018). As such, these more militarised and conventional digital technological capabilities allow the Union to strengthen its EWS and the situational awareness of personnel on the ground, mainly because both satellite systems and UAVs can monitor local movement trends, and also identify

potential spoilers and populations at risk (De Zan, Tessari & Venturi, 2016; Berglund & Bruckert, 2017).

However, the awareness remains largely insufficient regarding the potential benefits that unconventional digital technologies, such as hand-held devices, their related software and social medial platforms can bring to CSDP operations (Juncos et al., 2018). Smith and Juncos (2018) point out that, out of 292 projects funded by the EU Instrument on Contributing to Stability and Peace, only 12 have an ICT component. Most of these digital technologies are neither too expensive nor too sophisticated to be within the reach of CSDP peacekeepers. On the contrary, they are more accessible and practical than satellite systems or UAVs (Smith and Juncos, 2018). Lenny et al. (2018) make a strong point by highlight that unconventional digital technologies can provide new channels, through which rapidly evolving conflict trends can be monitored, and whereby peacekeepers can interact with the conflicting parties and empower local communities.

With '95% of the global population living in an area covered by mobile networks', and 7 out of 10 households owning a mobile phone in developing countries, the sources of information and the means of acquiring it are multiplying (World Bank, 2016; Berglund & Bruckert, 2017: 28). In this context, it is worth noting that mobile phones are often the first long-distance communication device available in certain areas (Pierskalla & Hollenbach, 2013). For example, mobile phones and online applications are 'essential tools' in Kenya's EWS (De Zan, Tessari & Venturi, 2016: 33). Information is collected through local leadership networks, but also from civil society organisations located in different zones. The population can text conflict alerts (with location, phone number and the issue) or use the Amani 108 Online Reporter (using email and social media, such as Twitter and Facebook) (De Zan, Tessari & Venturi, 2016). When data is received, analysts validate the new information by making phone calls to the units on the ground.

Concurring with Lenny et al. (2018), Kelly (2019) argues that digital technologies have the potential to keep and build peace in various ways. For instance, such innovative capabilities can further track and analyse the local population's perceptions of the conflict and of the CSDP operation, by identifying and mapping hate speech or rumours, while having the tools required to counter them. Keohane (2011: 211) stresses the fact that EU CSDP

operations have ‘to connect with local leaders and public opinion in the field’, in ways that provide a consistent engagement and message to the local population. The narrative associated with each operation is a critical dimension of its political profile and of its perception in the eyes of local interlocutors, spoilers and peacekeeping partners (Keohane, 2011).

In this way, mobile phones and social media can be used to alter a dominant discourse and to disseminate alternative narratives (Berglund & Bruckert, 2017). This process could be applied to CSDP operations in order to create an alternative discourse enabling to de-escalate tensions and to set up a safe space for dialogue (Kahl & Larrauri, 2013). Consequently, this would likely make CSDP operations more visible, by empowering local population to participate in the peace process, while transforming the operation in a learning enterprise that uses these innovative capabilities to achieve lasting peace (Gaskell, 2016). As a consequence, CSDP operations are now on the edge of a digitally driven transformation that can improve mandates, save lives and protect vulnerable populations.

Moreover, CSDP operations are mandated to support the development of good governance and equitable public administration, while saving lives and helping local populations to become more resilient. CSDP operations provide administrative and humanitarian services and, at the same time, contribute to the political economy in the countries where they operate (Martin-Shields & Bodonac, 2017). A recent study from the International Telecommunication Union (ITU) shows that empowering local businesses with digital tools in post-conflict states, can enhance economic gains by almost 1% per month in certain cases (ITU, 2018). In this context, the Union can use its relative political-economic strength to negotiate with either external or local ICT providers to supply CSDP personnel with the required digital tools to meet their operational needs, while laying the groundwork for a more equitable and wider access to these technologies when the host country recovers (Martin-Shields & Bodonac, 2017). This could ultimately prove to be emancipatory for local communities, at it would empower them to access better and more accurate information for their day-to-day economic activities and, overall, to improve their livelihoods (Mac Ginty, 2017).

Unfortunately, there are several shortcomings and unintended consequences of digital technologies, which are worth being mentioned in order

to provide a more nuanced response to this study's research question. Despite its narratives and initiatives, the EU has neither a policy on the use of digital technologies for CSDP purposes, nor a unified system to exchange information between its services (Berglund & Bruckert, 2017). Given the lack of interconnectivity, at both a physical and technological level, cooperation between different EU actors and services can be hampered.

In parallel, there are no oversight, accountability or information security mechanisms when employing digital technologies in CSDP operations. Even if social media platforms such as Facebook or Twitter are willing to share their data, legal or ethical concerns arise about which data might be shared, with whom and for what purposes (Mancini, 2013). The same can be said about data generated by more complex digital technologies, such as UAVs and satellites. In this instance, even if the systems are owned by a member state of the EU, it is unclear whether the collected data should be considered as belonging to it when operating beyond European borders (De Zan, Tessari & Venturi, 2016). However, in this case, the EU can adapt its already existing General Data Protection Regulation (GDPR), which provides individuals with enforceable rights to access or erase any data about them online, to release more specific guidelines addressing the issues around data privacy and transparency in CSDP operations (European Commission, 2020a).

Even if these innovative digital capabilities allow for better situational awareness, it remains to be seen whether this will prompt better responses (Berglund & Bruckert, 2017). Likewise, the cyber security of data storage and transmission is set to become a crucial issue, as the number of devices connected to the Internet in developing states hosting CSDP operations will continue to exponentially grow in the coming years. Malicious actors will not refrain from resorting to sophisticated hacking techniques to breach systems containing valuable information. Ultimately, it is up to the Union and to its member states to take the necessary steps to properly employ digital technologies, and thus benefit from their strategic and operational advantages. While Germany does not seem to excel in terms of digital technologies applied to CSDP operations, France and Italy show great potential in Earth observation technologies and aerial systems, though with a limited use of other digital technologies for national security (De Zan, Tessari & Venturi, 2016; Berglund & Bruckert, 2017).

Therefore, it can be inferred that digital technologies can benefit EU CSDP operations, both by making these interventions more visible and by achieving the Union's goals set forth in the 2016 EUGS. The various shortcomings identified in the previous paragraphs demonstrate that the Union has still to reflect on how new digital capabilities could be added to the existing technological tools employed for CSDP operations in a sustainable, safe and transparent manner. To be really meaningful, the discussion on the role of digital technologies in CSDP operations should not become only driven by the mere existence of such technologies, but it should rather consider which innovative digital capabilities, ranging from hand-held devices, online social media platforms to satellite and aerial systems or other software, are required to enable EU personnel to cope with the challenges they face in CSDP operations. At this point, there is still space for further development and improvement, as the added value of these high-value niche capabilities is just starting to be acknowledged at the EU level. Using digital technologies at their full potential, while simultaneously organizing adequate legal frameworks and oversight mechanisms, could nevertheless be a game-changer for CSDP operations.

Chapter 6. Findings and Prospects

The main purpose of this inductive qualitative study was to identify and assess the potential benefits of both militarised and unconventional digital technologies in EU's CSDP operations. In order to achieve this goal, and thus answer the research question, this study has pursued three main aims, namely assessing the practicality and functionality of such innovative capabilities, deconstructing existing narratives and initiatives on digital capabilities at the EU level, and examining the benefits and shortcomings posed by digital technological capabilities to CSDP operations. The main findings of this study, together with its conceptual contribution, are presented and discussed in the following section. The future prospects on the potential implications of digital technologies in CSDP operations are outlined the last section of this chapter.

6.1 Findings

Through the analysis carried out in the previous chapter, this study has firstly identified that unconventional digital technologies, such as hand-held devices, their related software and online platforms, are easily accessible, cost-efficient and adaptable to the context in which CSDP operations unfold nowadays. Personnel do not need extensive training on how to use these tools, and such innovative capabilities can be deployed at a fraction of the cost of more militarised UAVs or satellite systems. In turn, militarised digital capabilities can strengthen the situational awareness and streamline the operational intelligence capabilities of CSDP personnel to cope with the volatile security environment in which they operate. Yet, while certain unconventional digital devices or software can be equally used for surveillance purposes, others can be employed to maintain a communication channel open with the local population, in order to receive information or to report incidents in a simple and accessible manner for the less digitally literate people.

Secondly, former HR/VP Federica Mogherini took a considerable step forward by opening EU's foreign, security and defence arena to new actors, by starting a conversation between the Union and the tech industry. The involvement of these external agents in EU's external action highlights that EU's interests in this field are not immutably set, but rather dynamic and ready to meet contemporary security challenges in order to achieve the objectives set

in the EUGS. In parallel, this proves that, even though digital technologies are concrete objects, their use in CSDP operations is constructed by the common understanding shared by EU officials, which can in turn be influenced by these new external actors. In this regard, the study has found that, due to their novelty and versatile nature, digital technologies can be used as a *discursive tool*, which assembles experts from a wide range of domains and builds bridges between various fields to develop common policies aimed at strengthening CSDP operations that can ultimately insure a more lasting peace.

Thirdly, digital technologies can increase the visibility of CSDP operations and transform them into learning environments to foster reconstruction and growth in states recovering from conflicts. The narrative associated with each CSDP operation determines its perception by both local communities and international partners. In this respect, mobile phones and social media can be used to amplify the narrative associated with the operation or counter other discourses that can damage the peace process. Not only can this help de-escalate possible tensions or spoilers, but it can also combat disruptive information flow, identify hate speech or rumours, and establish a safe space of trust and dialogue with CSDP personnel. In turn, this has some noteworthy implications for the role of the Union as a global security actor. By locally providing such an innovative method of engagement and communication, the EU proves once again its normative power. Other international partners will either follow the Union's example or understand the need to acquire their own capabilities to build positive narratives. At the same time, developing such innovative capabilities can further strengthen EU's commitment to its peacekeeping partnership with the UN.

Finally, digital technologies can strengthen CSDP operations to achieve the Union's external action goals outlined in the 2016 EUGS. Even if the Global Strategy seems at first sight to promote the concept of resilience to fulfil these objectives, an in-depth reading shows that the Strategy is actually about fostering innovation to create sustainable change. CSDP operations are mandated to support the development of equitable governance and public administration, while saving lives and helping local populations to become more resilient. The Union can rely on its political and economic strengths to negotiate with either external or local ICT providers in order to lay the groundwork for a wider access to digital technologies, which can ultimately empower local

population to improve their livelihoods in terms of governance, education and economic gains. In this case, besides being participatory for local populations, these tools can also prove to be emancipatory, which indicates that such innovative capabilities can be used as a *governance instrument* promoting safer and more resilient livelihoods. Therefore, when considering these findings all together, the most appropriate answer to this study's research question (How can digital technologies benefit EU's CSDP operations?) is that digital technologies can strengthen CSDP operations with high-value niche capabilities to become an innovative learning environment that takes a more holistic, pragmatic and inclusive approach to the conflicts in the European Neighbourhood.

In its attempt to make a conceptual contribution to the growing body of academic literature, this study proposes the overarching notion of 'innovative peacekeeping' that aims to synthesise the different understandings of digital technologies in peace operations. Building upon the various academic conceptualisations and all the knowledge assembled through this study, innovative peacekeeping can be broadly defined as the specific high-value niche capabilities that can bestow an operational advantage to peacekeepers. This conceptual proposal is not revolutionary but rather evolutionary, because it ultimately intends to reconcile the vision and objectives of a wide array of scholars and practitioners when it concerns the potential of digital technologies in peacekeeping operations. Achieving a unified conceptualisation is a first step that would allow the Union to interact with other regional or international organisations and host governments, to access more experts, to mobilise more resources, and to properly plan its CSDP mandates and peacekeeping operations**.**

6.2 Prospects

As showed by the aforementioned findings, digital technologies can bring various benefits to CSDP operations. However, the future development and implementation of such innovative peacekeeping capabilities rest on the political will of the European member states to invest in them. France, Italy and Germany currently seem to be the major contributors to geospatial and aerial systems used for CSDP operations. However, even though France seems committed to the development of Earth observation tools, investment in other

digital technologies, such as hand-held devices, software or ICTs, seems to favour purely national defence purposes, with 'no other use in conflict prevention and peacebuilding' (De Zan, Tessari & Venturi, 2016: 45). As for Italy and Germany, it appears that both EU member states have capabilities and investment interests similar to those of France, but with little use of less militarised digital technologies (De Zan, Tessari & Venturi, 2016).

Nevertheless, it is worth mentioning that experts in all countries believe that more accessible digital technologies can encourage a wider involvement in the peace process, while gaining more accurate information in states where the government often controls communication and information channels (De Zan, Tessari & Venturi, 2016; Berglund & Bruckert, 2017). Hence, it remains to be seen whether digital technologies will be appealing enough to EU member states in the long run, and to what extent these technologies will respond to adversities and drawbacks, be it in terms of malicious cyber incidents or privacy issues.

The most encouraging prospect of digital technologies is that the majority of practitioners can use these tools to facilitate cooperation and coordination between their missions to achieve peace, security and sustainable change. Less militarised digital technologies in CSDP operations can be regarded as a new way of thinking, generating opportunities to respond more creatively to hybrid threats and to develop bottom-up solutions, while building upon and contributing to existing militarised capabilities. These tools are flexible enough to adapt to each CSDP operation in order to establish institutional bridges between a wide range of actors, and to enable new practices and forms of engagements making the EU a strong and innovative global security partner. Digital technologies are nevertheless, for the time being, under-theorised and under-analysed in a CSDP context, both at the institutional and scholarly levels. As insecurities will likely continue to rise and interconnectivity to deepen in the future, practitioners and scholars alike should therefore be encouraged to address these tools from different angles.

Yet, the novel coronavirus (COVID-19) pandemic has caught the Union off-guard, despite its objective set forth in the EUGS to prevent, detect and respond accordingly to a potential global pandemic. Based on current trends, research on the implications of COVID-19 on CSDP operations and international security suggests that the pandemic will disproportionately affect both CSDP personnel and vulnerable populations in conflict environments, thus

increasing existing safety concerns, inequalities, food insecurities and resource scarcity (Mustasilta, 2020). Novaky (2020: 3) claims that, for the foreseeable future, EU governments will be first and foremost focused on dealing with COVID-19's 'massive socio-economic consequences', namely business closure and rising unemployment. Consequently, EU's security and defence policy will likely be impacted by the necessity to reallocate investments and to cut expenses (Lilkov, 2020; Novaky, 2020).

In this COVID-19 context, the recently deployed EUNAVFOR MED IRINI operation has developed its own innovative online training platforms to enhance the knowledge and understanding of its personnel about the ongoing pandemic. The online platform was created and developed with the main intent to mitigate the limitations imposed by the COVID-19 pandemic, in particular with respect to the training activities delivered to the Libyan Coast Guard and Navy (LCG&N). This digital tool allows Operation IRINI to fulfil one of its tasks, which is to give LCG&N personnel a number of online training courses. In parallel, the recently created EEAS Task Force provides a centralised information sharing platform for national military assistance and mutual support between member states' armed forces on the ground (EEAS, 2020). In addition, an online COVID-19 platform seems to connect the 27 national points of contact in the member states' Ministries of Defence for a more coordinated response (EEAS, 2020).

Unfortunately, COVID-19 can jeopardize the dynamic steps forward achieved through initiatives such as PESCO, EDF and the Coordinated Annual Review on Defence (CARD), as most of the corresponding resources are at risk of being reallocated, in the coming months, to address the immediate socio-economic damages caused by the pandemic (Novaky, 2020). Despite these budgetary issues, the EU should not step back from its external action endeavours but rather conduct an honest review of existing CSDP capabilities and adjust them accordingly. In this context, hand-held devices, their related software and social media should not be merely seen as some of the tools that can be useful against the pandemic, but rather as a way for the Union to rethink its approach to implement its external action and its international security goals in general. CSDP operations have the opportunity to commence a substantial digital transformation that can contribute to improve mandates, to protect personnel, and to empower vulnerable populations with both informational and

economic means, allowing them to achieve more resilience and sustainable livelihoods.

Therefore, European policymakers should identify the proper technological solutions necessary to design a coordinated digital response to support all its CSDP operations, which could serve as a template strengthening the Union's role as a global security actor (Lilkov, 2020). If this global pandemic has taught the whole of humanity anything, it is that digital technologies can be a valuable resource in times of international crisis. Thus, taking into account the post-pandemic 'new normal' in which CSDP operations will unfold, it is reasonable to think that digital technologies can substantially contribute to maintain the same high operational standards in an even more insecure and uncertain environment. If more humanity is applied to these innovative digital capabilities, more practical solutions to problems deemed difficult to solve a few decades ago will arise.

Chapter 7. Conclusion

Based on all the findings discussed in the previous chapter, the most adequate answer to this paper's research question is arguably that digital technologies can benefit CSDP operations by enabling them to take a more pragmatic, holistic and inclusive approach in order to achieve sustainable peace within the European Neighbourhood. This approach goes beyond simple crisis management and is in line with the objectives and commitments made in the 2016 EUGS. Technology will not replace the need for human expertise, but it can strengthen the capacity of CSDP personnel to do their jobs more effectively, while empowering local populations to participate in the peace process and improve their livelihoods. In parallel, the analysis has confirmed that political will, at the level of European member states, is an essential condition for the Union to benefit from digital capabilities in its CSDP operations.

The biggest advantage of digital technologies, and paradoxically their most important drawback, is their multi-fold purpose. Mobile phones, their related software and online platforms, as well as satellite systems can be used for both communication and training purposes, as well as for more militarised tasks, such as monitoring and early warning against potential spoilers. Yet, their versatility might make them ideal targets of malicious cyber incidents. At the same time, digital technologies must not be seen as a euphemism for the introduction of intrusive technologies into operation areas for narrow political purposes. A clear legal and political framework, including oversight and privacy protection mechanisms, still needs to be developed to ensure that a CSDP operation does not use digital technologies to gather non-clandestine information, and that it does not violate any human rights or state sovereignty.

This dissertation was not written on a blank slate. Assessing the potential benefits of digital technologies in CSDP operations, both conceptually and practically, is the result of an investigation that explored scholarly insights and European actors' narratives, while also taking into account the various uses of digital technologies by other international organisations. The analytical strength of this dissertation results from its reconciliatory stance allowing a greater flexibility, while maintaining proper analytical methods that clearly differentiate what is known from what is constructed. This approach is further reinforced through the inductive reasoning of this study, which makes it

possible to infer the potential of such innovative capabilities in CSDP operations. The best advantage of inductive reasoning is that it enables working with probabilities. While not all probabilities come true, inductive reasoning allows to identify a concrete starting point (use of digital technologies in UN peacekeeping) and then to draw observations and perceptions based on patterns identified in the available material (how these digital technologies can also benefit CSDP operations). In this regard, building upon existing narratives, knowledge and practice of scholars and EU/UN officials, this dissertation has, through its constructivist approach and reconciliatory stance, examined digital technologies as both a discursive tool and a governance practice in order to provide a more nuanced analysis. Moreover, this paper makes its own conceptual contribution by developing the overarching theorisation of innovative peacekeeping, which aims to bridge the lacunas in the academic scholarship, as it synthesises divergent views on the meaning of digital technologies in peace operations.

Nevertheless, it is essential to address the limitations of this study's findings. Although this dissertation has been carefully prepared, some concerns remain regarding the inferences made. While CSDP operations rely mostly on conventional satellite and aerial militarised systems, hand-held devices and their related software, as well as social media platforms, have not yet been fully used by CSDP personnel. In this context, this study had to make inferences about the benefits of such less militarised tools that are based on their wider use by other international organisations, such as the UN. Therefore, some of the findings of this study could be criticised for being too subjective, because they are based, through the use of primary and secondary sources, on inferring the benefits of digital technologies to CSDP operations by relying on the academic studies and experiences of scholars and EU/UN practitioners. However, the UN and the EU are labelled as 'natural partners' aiming to act in a multilateral manner, with each organisation learning from each other's successes and failures in the use of digital technologies.

Furthermore, concerns may arise regarding the methodology and materials used in conducting this dissertation. The differentiation between the use of primary and secondary sources might get blurred, as discourse and document analysis overlap in the analysis process. At the same time, it is worth mentioning that some documents have restricted access to their full official

version, and that only some extracts can be found. Regardless, this dissertation has striven to identify the most significant sources through the SCF template and to produce a clear analysis in which the reader can indirectly deduce the research method and the type of source used.

In the end, despite these various limitations, this dissertation will hopefully stimulate future research on the intricacies of digital technologies and on their potential to EU's endeavours in international peace and security. For instance, future research could critically analyse the implications of digital technologies for the role of EU as a global security actor. A study focusing on the Global Tech Panel, and on the contribution of small to medium-sized enterprises providing digital technologies to the Union's security and defence sectors, can be equally beneficial. Future research can also investigate the cyber security implications of digital technologies used for EU's peacekeeping operations. It would also be interesting to produce a more in-depth study comparing the respective limitations of digital technologies used in both EU and UN peace operations, while assessing whether these limitations can lead to the failure of such innovative capabilities.

To finally conclude, digital technologies can benefit CSDP operations to act in a more holistic and inclusive manner, while empowering the Union to become a normative learning environment that develops and applies these innovative tools on a continuous basis. There is still plenty of room for further developments and even for improvement, as the added value of digital technologies is just starting to be acknowledged by the Union. Digital technologies can nonetheless enable the Union to be better prepared for the future that will always be riddled with challenges and uncertainties, and for which a more complete understanding and deployment of digital technologies can prove to be a major game changer for CSDP operations.

Bibliography

Adler, E. (1997), 'Seizing the Middle Ground: Constructivism in World Politics', *European Journal of International Relations,* 3(3), pp. 319–63. Available at: https://www.academia.edu/19495313/Seizing_the_Middle_Ground_Constructivism_in_World_Politics. Accessed on: 16.03.2020.

Agius, C. (2016), "Social Constructivism" in Collins, A. (ed.), *Contemporary Security Studies,* 4th edition, Oxford: Oxford University Press.

Akatyev, N. & James, J. I. (2015), "Cyber Peacekeeping" in James, J. I. (ed.) *Digital Forensics and Cyber Crime: 7th International Conference,* Seoul: Springer.

Arthur, P. (2010), 'ECOWAS and Regional Peacekeeping Integration in West Africa: Lessons for the Future', *Africa Today*, 57(2), pp. 2-24. Available at: https://www.jstor.org/stable/10.2979/africatoday.57.2.2?seq=1. Accessed on: 01.03.2020.

Atkinson, P. A. & Coffey, A. (1997), "Analysing documentary realities" in D. Silverman (ed.), *Qualitative research: Theory, method and practice*, London: Sage.

Baghramian, M. (2004), *Relativism*, London, New York: Rutledge.

Barbieri, C., Berglund, J. & Arnaud, Y. (2018), 'Report on dual-use technology', Instituto Affari Internazionali, *EU-CIVCAP Project*. Available at: https://eu-civcap.net/2018/02/07/dual-use-technologies-for-conflict-prevention-and-peacebuilding/. Accessed on: 21.03.2020.

Barnett, M. N. (2013), 'Humanitarian governance', *Annual Review of Political Science,* 16*,* pp. 379-398. Available at: http://www.annualreviews.org/doi/abs/10.1146/annurev-polisci-012512-083711. Accessed on: 15.03.2020.

Bellamy, A.J., Williams, P. and Griffin S. (2010), *Understanding Peacekeeping*, Cambridge: Polity Press.

Berglund, J. & Bruckert, D. (2017), 'Report on Technological Shortcomings in Early Warning and Conflict Analysis', European Union Satellite Centre, EU-CIVCAP Project. Available at: https://eucivcap.files.wordpress.com/2017/03/eu-civcap_deliverable_3-1.pdf. Accessed on: 20.03.2020.

Bernstein, R. (1983), *Beyond Objectivism and Relativism: Science, Hermeneutics and Praxis*. Philadelphia: University of Pennsylvania Press.

Biscop, S. (2006), 'Courage and Capabilities for a 'More Active' EU', *First European Strategic Forum*. Available at: http://www.egmontinstitute.be/content/uploads/2014/01/Biscop_Report-Warsaw.pdf?type=pdf. Accessed on: 10.03.2020.

Blavoukos, S. (2015) "Capturing the EU International Performance: An Analytical Framework" in Blavoukos, S., Bourantonis, D. & Portela, C. (eds.) *The EU and the Non-Proliferation of Nuclear Weapons*, London: Palgrave Macmillan.

Boin, A. & Ekengren, M. (2009), 'Preparing for the World Risk Society: Towards a New Security Paradigm for the European Union', *Journal of Contingencies and Crisis Management,* 17(4), pp. 285-294. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1468-5973.2009.00583.x/full. Accessed on: 17.03.2020.

Bowen, G. A. (2009), 'Document Analysis as a Qualitative Research Method', *Qualitative Research Journal*, 9(2), pp. 27-40. Available at: https://www.researchgate.net/publication/240807798. Accessed on: 27.03.2020.

Burnham, P., Gilland, K., Grant, W. & Layton-Henry, Z. (2008), *Research Methods in Politics*, New York: Palgrave Macmillan.

Carrasco, C. M., Muguruza, C. C. & Sanchez, R. A. (2016), Case study: Common Security and Defence Policy, *FRAME*. Available from: http://www.fp7-frame.eu/wp-content/uploads/2016/11/Deliverable-10.3.pdf. Accessed on: 12.03.2020.

Checkel, J. T. (2005), 'International Institutions and International Socialization in Europe: Introduction and Framework', *International Organization*, 59(4), pp. 801–26. Available at: https://www.jstor.org/stable/3877829. Accessed on: 10.03.2020.

Cîrlig, C. C. (2015), EU-UN cooperation in peacekeeping and crisis management, European Parliement Briefing. Available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2015/572783/EPRS_BRI(2015)572783_EN.pdf. Accessed on: 25.02.2020.

Convergne, E. & Snyder, M. R. (2015), 'Making Maps to Make Peace: Geospatial Technology as a Tool for UN Peacekeeping', *International Peacekeeping*, 22(5), pp. 565-586. Available at: https://doi.org/10.1080/13533312.2015.1094193. Accessed on: 20.03.2020.

Copi, I. M., Cohen, C. & Flage, D. E. (2007), *Essentials of Logic,* New Jersey: Pearson Prentice Hall.

Corbin, J. & Strauss, A. (2008), *Basics of qualitative research: Techniques and procedures for developing grounded theory*, 3rd edition, CA: Sage.

Council of the European Union (2007), Joint Statement on EU-UN Cooperation in Crisis Management. Available at: https://www.europarl.europa.eu/meetdocs/2004_2009/documents/dv/170/170707/170707eu-unstat_en.pdf. Accessed on: 10.03.2020.

Council of the European Union (2016), Mainstreaming digital solutions and technologies in EU development policy. Council Conclusions, 14682/16. Available at: https://www.consilium.europa.eu/en/press/press-releases/2016/11/28/conclusions-digital-solutions-and-technologies-in-eu-development-policy/. Accessed on: 09.03.2020.

Crawford, K. (2013), 'Think Again: Big Data', Foreign Policy. Available at www.foreignpolicy.com/articles/2013/05/09/think_again_big_data?wp_login_redirect=0. Accessed on: 02.03.2020.

Creswell, J. W. (1994), *Research Design: Qualitative and Quantitative Approaches*, London: Sage.

Creswell, J. W. (2005), *Educational research: Planning, conducting, and evaluating quantitative and qualitative research,* 2nd edition, Upper Saddle River: Pearson Education.

Dallaire, R. (2008), *Shake Hands with the Devil: The Failure of Humanity in Rwanda*, New York: Random House.

De Coning, C, Karlsrud, J & Troost, P. (2015), 'Towards More People-Centric Peace Operations: From 'Extension of State Authority' to 'Strengthening Inclusive State-Society Relations'. *Stability: International Journal of Security and Development*, 4(1), pp. 1–13. Available at: https://doi.org/10.5334/sta.gl. Accessed on: 01.02.2020

De Coning, C. & Peter, M. (2019), *United Nations Peace Operations in a Changing Global Order*, Cham: Palgrave Macmillan.

De Coning, C., Aoi, C. & Karlsrud, J. (2017), *UN Peacekeeping Doctrine in a New Era,* London: Routledge.

De Waele, H. & Kuipers, J. J. (2013), "The Emerging International Identity of the European Union – Some Preliminary Observations" in De Waele, H. & Kuipers, J. J. (eds.), *The European Union's Emerging International Identity,* Studies in EU External Relations, Brill.

De Zan, T. Tessari, P. & Venturi, B. (2016), 'Procedures, Personnel and Technologies for Conflict Prevention and Peacebuilding: An Assessment of EU Member States' Capabilities', Instituto Affari Internazionali, EU-CIVCAP Project. Available at: https://eucivcap.files.wordpress.com/2017/02/procedures_personnel_technologies_conflict_prevention_peacebuilding-assessment_eu_member_states_capabilities.pdf. Accessed on: 20.03.2020.

Der Lijn, J., Briscoe, I., Drent, M., Homan, K., van der Putten, F. P. & Zandee, D. (2014), 'Peacekeeping operations in a changing world', Netherlands Institute of International Relations. Available at: https://www.clingendael.org/sites/default/files/pdfs/Peacekeeping%20operations%20in%20a%20changing%20world.pdf. Accessed on: 12.03.2020.

Destradi, S., (2017), 'Reluctance in international politics: a conceptualization', *European Journal of International Relatio*ns, 23(2), pp. 315–340. Available at: https://journals.sagepub.com/doi/full/10.1177/1354066116653665. Accessed on: 12.03.2020.

Diehl, P. (2002), 'The Political Implications of Using New Technologies in Peace Operations', *International Peacekeeping*, 9(3), pp. 1–24. Available at: https://www.tandfonline.com/doi/abs/10.1080/714002737. Accessed on: 27.02.2020.

DigitalEurope (2015), A Stronger Digital Europe – our call to action. Available at: https://www.digitaleurope.org/policies/strongerdigitaleurope/. Accessed on: 01.03.2020.

Dorn, A. W. (2011), *Keeping Watch: Monitoring, technology and innovation in UN peace operations,* New York: United Nations University Press.

Dorn, A. W. (2016), 'Smart Peacekeeping: Towards Tech-Enabled UN Operations', *International Peace Institute*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2893246. Accessed on: 02.03.2020.

Dunning, D. (2020), What is Digital Technology?, Techwalla. Available at: https://www.techwalla.com/articles/what-is-digital-technology. Accessed on: 06.03.2020.

Duursman, A. and Karlsrud, J. (2018), 'Predictive Peacekeeping: Strengthening Predictive Analysis in UN Peace Operations', *Stability - International Journal of Security and Development,* 8(1), pp. 1-13. Available at: https://www.stabilityjournal.org/articles/10.5334/sta.663/. Accessed on: 02.04.2020.

Düzgit, S. A. & Rumelili, B. (2018), 'Discourse Analysis: Strengths and Shortcomings', *All Azimuth 0*. Available at: http://www.allazimuth.com/wp-content/uploads/2018/12/Aydin_DuzgitRumelili_DiscourseAnalysis_2018.pdf. Accessed on: 27.03.2020.

Einstein, A. (1955), The Russel-Einstein Maifesto. Available at: https://pugwash.org/1955/07/09/statement-manifesto/. Accessed on: 15.05.2020.

Epstein, C. (2011), 'Who Speaks? Discourse, the Subject, and the Study of Identity in International Relations', *European Journal of International Relations,* 17(2), pp. 327-350. Available at: https://journals.sagepub.com/doi/10.1177/1354066109350055. Accessed on: 23.03.2020.

Eriksson, P. (1997), 'Intelligence in peacekeeping operations', *International Journal of Intelligence and Counterintelligence*, 10(1), pp. 1-18. Available at: https://doi.org/10.1080/08850609708435331. Accessed on: 15.04.2020.

European Commission (2016), *European Defence Action Plan: Towards a European Defence Fund*. Available at: http://europa.eu/rapid/press-release_IP-16-4088_en.htm. Accessed on: 11.03.2020.

European Commission (2019), Key Digital Technologies. Available at: https://ec.europa.eu/digital-single-market/en/news/key-digital-technologies-brochure. Accessed on: 11.03.2020.

European Commission (2020a), EU data protection rules. Available at: https://ec.europa.eu/info/law/law-topic/data-protection/eu-data-protection-rules_en. Accessed on 12.03.2020.

European Commission (2020b), Horizon 2020. Available at: https://ec.europa.eu/programmes/horizon2020/en. Accessed on: 12.03.2020.

European Commussion (2020c), Digital economy. Available at: https://ec.europa.eu/jrc/en/research-topic/digital-economy. Accessed on: 15.02.2020.

European External Action Service (2018a) About the Global Tech Panel. Available at: https://eeas.europa.eu/headquarters/headquarters-homepage/50886/about-global-tech-panel_en. Accessed on: 27.03.2020.

European External Action Service (2018b), Global Tech Panel meets in Brussels today for the first time. Available at: https://eeas.europa.eu/headquarters/headquarters-homepage/45997/global-tech-panel-meets-brussels-today-first-time_en. Accessed on: 27.03.2020.

European External Action Service (2018c), Towards a stronger EU on security and defence. Available at: https://eeas.europa.eu/headquarters/headquarters-homepage_en/35285/Towards%20a%20stronger%20EU%20on%20security%20and% 20defence. Accessed on: 28.02.2020.

European External Action Service (2019a), EU Statement – United Nations Special Committee on Peacekeeping Operations: General Debate. Available at: https://eeas.europa.eu/delegations/un-new-york/57954/node/57954_ko. Accessed on: 17.02.2020.

European External Action Service (2019b), EU Statement – United Nations 4th Committee: Comprehensive review of the whole question of peacekeeping operations in all their aspects. Available at: https://eeas.europa.eu/delegations/un-new-york_hy/69903/EU%20Statement%20–%20United%20Nations%204th%20Committee:%20Comprehensive%20review%20of%20the%20whole%20question%20of%20peacekeeping%20operations%20in%20all%20their%20aspects. Accessed on: 17.02.2020.

European External Action Service (2019d), Global Tech Panel: Members' Biographies. Available at: https://eeas.europa.eu/sites/eeas/files/global-tech-panel-members-biographies.pdf. Accessed on: 27.03.2020.

European External Action Service (2020), Military and civilian missions and operations. Available at: https://eeas.europa.eu/headquarters/headquarters-homepage/430/military-and-civilian-missions-and-operations_en. Accessed on: 17.02.2020.

European Parliament (2020a), 10 Years of CSDP: Four in-depth analyses requested by the sub-committee on security and defence of the European Parliament, Policy Department for External Relations. Available at: https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/603485/EXPO_IDA(2020)603485_EN.pdf. Accessed on: 21.03.2020.

European Parliament (2020b), CSDP Missions and Operations, Policy Department for External Relations. Available at: https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/603481/EXPO_IDA(2020)603481_EN.pdf. Accessed on: 02.03.2020.

European Parliament (2020c), Common Security and Defence Policy. Available at: https://www.europarl.europa.eu/ftu/pdf/en/FTU_5.1.2.pdf. Accessed on: 02.03.2020.

European Union (2003), European Security Strategy. Available at: https://www.consilium.europa.eu/media/30823/qc7809568enc.pdf. Accessed on: 03.03.2020.

European Union (2007), Treaty of Lisbon. Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2007:306:FULL:EN:PDF. Accessed on: 02.03.2020.

European Union (2016), Shared Vision, Common Action: A Global Strategy for the European Union's Foreign and Security Policy - EUGS. Available at: https://eeas.europa.eu/top_stories/pdf/eugs_review_web.pdf. Accessed on: 25.02.2020.

European Union (2019), The European Union's Global Strategy: Three Years On, Looking Forward. Available at: https://eeas.europa.eu/sites/eeas/files/eu_global_strategy_2019.pdf. Accessed on: 25.03.2020.

European Union Satellite Centre (2020), High Representative Josep Borrell visits SatCen. Available at: https://www.satcen.europa.eu/page/high-representative-josep-borrell-visits-satcen. Accessed on: 21.03.2020.

Fairclough, N. (2010), *Critical discourse analysis: The critical study of language,* 2nd edition, Abingdon: Routledge.

Falk, R. (2002), 'Revisiting Westphalia, Discovering Post-Westphalia', *Journal of Ethics*, 6(4), pp. 311-352. Available at: https://www.jstor.org/stable/25115737?seq=1. Accessed on: 02.03.2020.

Fassin D. (2007), "Humanitarianism: a nongovernmental government" in Feher, M. (ed.) *Nongovernmental Politics*, New York: Zone Books

Fidler, D. (2015), 'Can UN Peacekeeping Enter the Digital Age?' *Council on Foreign Relations*. Available at: http://blogs.cfr.org/cyber/2015/07/02/can-un-peacekeeping-enter-the-digital-age/. Accessed on: 02.03.2020.

Fierke, K. M. & Jørgensen, K. E. (2011), *Constructing International Relations: The Next Generation*, New York: M. E. Sharpe.

Fierke, K. M. & Wiener, A. (2001), 'Constructing Institutional Interests: EU and NATO Enlargement', in Christiansen, T., Jørgensen, K. E. & Wiener, A. (eds) *The Social Construction of Europe,* London: Sage.

Findlay, T. (1996), The New Peacekeepers and The New Peacekeeping, Australian National University. Available at: https://openresearch-repository.anu.edu.au/bitstream/1885/41679/4/96-2.pdf. Accessed on: 17.02.2020.

Fiott, D. (2012) 'The Importance of Critical Defence Infrastructure', *European Geostrategy Long Post*, 3. Available at: https://www.researchgate.net/publication/264314233_The_importance_of_critical_defence_infrastructure. Accessed on: 04.03.2020.

Fiott, D. (2013), 'The Common Security and Defence Policy and IR Theory', *e-ir*. Available at: https://www.e-ir.info/2013/08/20/the-common-security-and-defence-policy-and-ir-theory/. Accessed on: 12.03.2020.

Fiott, D. (2020), 'The CSDP in 2020: The EU's legacy and ambition in security and defence', *European Union Institute for Security Studies*. Available at: https://www.iss.europa.eu/content/csdp-2020. Accessed on: 01.04.2020.

Fiott, D., Missiroli, A. & Tardy, T., (2017), 'Permanent Structured Cooperation: What's in a name?', *European Union Institute for Security Studies*, Chaillot Papers. Available at: https://www.iss.europa.eu/content/permanent-structured-cooperation-what's-name. Accessed on: 12.04.2020.

Fortna, V. P. & Howard, L. M. (2008), 'Pitfalls and Prospects in the Peacekeeping Literature', *The Annual Review of Political Science*, 11, pp. 283-301. Available at: https://pdfs.semanticscholar.org/95a7/cddb56e5d461ffff8e190237556dd01e0e6d.pdf. Accessed on: 27.02.2020.

Foucault, M. (1980), *Power/knowledge: Selected interviews and other writings, 1972- 1977*, New York: Pantheon Books.

Fuchs, C. (2017), Social Media: A critical introduction, London: Sage.

Gaskell, J. (2016), 'ICTs & EU Civilian Peacebuilding: Reflecting on Good Practices, Opportunities and Challenges', *Whole of Society Conflict Prevention and Peacebuilding Project*. Available at: https://www.woscap.eu/documents/131298403/131299900/D4.10_Best+Practices+Report+ICTs__PU.pdf/D4.10_Best%20Practices%20Report%20ICTs__PU/index.pdf. Accessed on: 17.03.2020.

Gaskell, J. R., Larrauri, H. P., Rieken, J., Ali, A. & Rigterink, A. (2015), Uses of Information and Communication Technologies (ICTs) for EU Conflict Prevention and Peacebuilding, Whole of Society Conflict Prevention and Peacebuilding Project. Available at: https://gppac.net/files/2019-08/WOSCAP%20Report%20on%20ICTs%20and%20EU%20Peacebuilding.pdf. Accessed on: 03.02.2020.

Gaub, F. (2019), 'Global Trends to 2030: Challenges and Choices for Europe', *European Strategy and Policy Analysis System*. Available at: https://www.iss.europa.eu/content/global-trends-2030-–-challenges-and-choices-europe. Accessed on: 03.03.2020.

Gavas, M., Hackenesch, C., Koch, S., Mackie, J. & Maxwell, S. (2016), 'The European Union's Global Strategy: putting sustainable development at the heart of EU external action', *European Think Tanks Group*, pp. 1-4. Available at: https://www.die-gdi.de/en/others-publications/article/the-european-unions-global-strategy-putting-sustainable-development-at-the-heart-of-eu-external-action/. Accessed on: 05.04.2020.

Giddens, A. (1974), *Positivism and Sociology*, London: Heinemann.

Gill, P. & Phytian, M. (2006), *Intelligence in an Insecure World*, Cambridge: Polity Press.

Glasius, M. & Kaldor, M. (2006), "A human security vision for Europe and beyond" in Glasius, M. & Kaldor, M. (eds), *A human security Doctrine for Europe. Project, principles, practicalities*. London: Routledge.

Global Information Society Watch (2020), About. Available at: https://www.giswatch.org/about. Accessed on: 14.03.2020.

Gotev, G. (2019), Defence ministers discussed artificial intelligence, killer robots, climate threat, Euractiv. Available at: https://www.euractiv.com/section/global-europe/news/defence-ministers-discussed-artificial-intelligence-killer-robots-and-climate-threat/. Accessed on: 28.03.2020.

Govinda, C. (2020), The UN has called for a global coronavirus ceasefire: But is it possible to quarantine conflict?, Washington Post. Available at: https://www.washingtonpost.com/politics/2020/04/13/un-has-appealed-global-coronavirus-ceasefire/. Accessed on: 18.05.2020.

Guttieri, K. R. (2013), 'Governance, Innovation, and Information and Communications Technology for Civil- Military Interactions', *Stability: International Journal of Security and Development*, 3. Available at: https://www.stabilityjournal.org/articles/10.5334/sta.dc/. Accessed on: 28.02.2020

Haesebrouck, T. (2015), 'Explaining the Patter of CSDP-Operations: Towards a Theoretical Synthesis', *Romanian Journal of European Affairs*, 15(2), pp. 5-21. Available at: https://www.researchgate.net/publication/282196765_Explaining_the_Pattern_of_CSDP-Operations_Towards_a_Theoretical_Synthesis. Accessed on: 23.02.2020.

Haine, J. Y. (2009), 'The European crisis of liberal internationalism', *International Journal*, 64(2), pp. 453–479. Available at: https://www.researchgate.net/publication/275006713_The_European_Crisis_of_Liberal_Internationalism. Accessed on: 23.02.2020.

Halhalli, B. (2015), "The EU as a Post-Westphalian Entity in World Politics" in Kaplanova, P. & Pinteric, U. (eds), *Selected topics in change managements*, Prague: Faculty of Organization Studies Novo Mesto.

Halperin, S. & Heath, O. (2012), *Political Research: Methods and Practical Skills,* Oxford: Oxford University Press.

Hansen, A. S. (2020), 'Digital technologies in peace operations', *about:intel*. Available at: https://aboutintel.eu/technologies-peace-operations/. Accessed on: 15.03.2020.

Harpaz, G. & Shamis, A. (2010) 'Normative Power Europe and the State of Israel: An Illegitimate EUtopia?', *Journal of Common Market Studies*, 48(3), pp. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-5965.2010.02065.x. Accessed on: 24.02.2020.

Hosli, M., Selleslaghs, J. & van de Mortel, B. (2017), "The European Union in the United Nations: Coordination of Peacekeeping Missions" in Blavoukos, S. & Bourantonis, D. (eds.), *The EU in UN Politics: Actors, Processes and Performance*, Basingstoke: Palgrave MacMillan.

Howe, J. (2008), *Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business*, New York: CrownBusiness.

Hummel, W. & Pietz, T. (2015), 'Partnering for Peace: Lessons and Next Steps for EU-UN Cooperation on Peace Operations', *Centre for International Peace Operations*. Available at: https://www.zif-berlin.org/fileadmin/uploads/analyse/dokumente/veroeffentlichungen/ZIF_Policy_Briefing_Hummel_Pietz_EU-UN-Partnerships_ENG_Feb2015.pdf. Accessed on: 11.03.2020.

International Telecommunication Union (2012), Measuring the Information Society. Available at: https://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2012/MIS2012_without_Annex_4.pdf. Accessed on: 02.03.2020.

International Telecommunication Union (2017), ICT Fact and Figures. Available at: https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf. Accessed on: 02.03.2020.

International Telecommunication Union (2018), The economic contribution of broadband, digitalisation and ICT regulation. Available at: https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/FINAL_1d_18-00513_Broadband-and-Digital-Transformation-E.pdf. Accessed on: 03.03.2020.

International Telecommunication Union (2019), Measuring digital development: Facts and figures. Available at: https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019.pdf. Accessed on: 27.02.2020.

Internet World Stats (2017), Usage and Population Statistics. Available at: https://www.internetworldstats.com. Accessed on: 03.03.2020.

Juncos, A. E. & Blockmans, S. (2018), 'The EU's role in conflict prevention and peacebuilding: four key challenges', *Global Affairs*, 4(2-3), pp. 131-140. Available at: https://doi.org/10.1080/23340460.2018.1502619. Accessed on: 26.02.2020.

Juncos, A. E., Algar-Faria, G., Barbieri, C., De Zan, T., Dijkstra, H., Habhida, N., Pirozzi, N., Smith, M. E., Venturi, B., Vogel, T. & Zartsdahl, H. (2018), Executive Summary of Final Report including Guidance for Policymakers, EU-CIVCAP Project. Available at: https://forskning.ruc.dk/en/publications/eu-civcap-policy-recommendations-executive-summary-of-the-final-r. Accessed on: 21.03.2020.

Kahl, A., McConnell, C. & Tsuma, W. (2012), 'Crowdsourcing as a Tool in Conflict Prevention', *Conflict Trends*, 1. Available at: https://www.accord.org.za/publication/conflict-trends-2012-1/. Accessed on: 04.03.2020.

Kahl, A. & Larrauri, P. H. (2013), 'Technology for Peacebuilding', Stability: International Journal of Security and Development, 2(3), pp. 1-15. Available at: https://www.stabilityjournal.org/articles/10.5334/sta.cv/. Accessed on: 03.03.2020.

Kaldor, M. (2005), 'Old Wars, Cold Wars, New Wars, and the War on Terror', London School of Economics. Available at: https://www.scribd.com/document/75362914/Old-Wars-Cold-Wars-New-Wars-and-the-War-on-Terror. Accessed on: 26.02.2020.

Kaldor, M. (2013), 'In defence of new wars', *Stability: International Journal of Security and Development*, 2(1). Available at: https://www.stabilityjournal.org/articles/10.5334/sta.at/. Accessed on: 26.02.2020.

Kaldor, M., Martin, M. & Selchow, S. (2007), 'Human Security: A New Strategic Narrative for the EU', *International Affairs*, 83(2), pp. 273–88. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-2346.2007.00618.x. Accessed on: 01.03.2020.

Karlsrud, J. (2014), "Peacekeeping 4.0: Harnessing the Potential of Big Data, Social Media, and Cyber Technologies" in Kremer, J. F. & Müller, B. (eds.), *Cyberspace and International Relations: Theory, Prospects and Challenges*, Berlin: Springer.

Karlsrud, J. (2017), "New Technologies and UN Peacekeeping Operations" in De Coning, C., Aoi, C. and Karlsrud, J. (eds.), *UN Peacekeeping Doctrine in a New Era,* London: Routledge.

Katzenstein, P. J. (1996), *The Culture of National Security. Norms and Identity in World Politics*, New York: Columbia University Press.

Kelly, L. (2019), Uses of digital technologies in managing and preventing conflict, University of Manchester. Available at: https://assets.publishing.service.gov.uk/media/5d0cecb640f0b62006e1f4ef/600_ICTs_in_conflict.pdf. Accessed on: 21.03.2020.

Keohane, D. (2011), 'Lessons from EU Peace Operations', *International Peacekeeping*, 15, pp. 200-217. Available at: https://brill.com/view/journals/joup/15/1-2/article-p200_10.xml. Accessed on 27.02.2020.

Keohane, R. & Nye Jr. (2000), "Introduction" in Nye Jr. (ed.), *Governance in Globalizing World*, Washington: Brookings Inst.

Kratochwil, F. (2008), 'Constructivism: What It Is (not) and How It Matters' in Della Porta, D. and Keating, M. (eds.), *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*, Cambridge: Cambridge University Press.

Kratochwil, F. & Ruggie, J. (1986), 'International Organization: State of the Art on the Art of the State', *International Organization*, 40, pp. 753–775. Available at: https://www.cambridge.org/core/journals/international-organization/article/international-organization-a-state-of-the-art-on-an-art-of-the-state/92762CC250BA93A521DD0FDD8EB93EB4. Accessed on: 16.03.2020.

Kratochwill, F. (1989), *Rules, Norms, and Decision: On the Conditions of Practical and Legal Reasoning in International Relations and Domestic Affairs*, London: Cambridge University Press.

Kubalkova, V. (2001), *Foreign Policy in a Constructed World*, New York: M. E. Sharpe.

Kurowska, X. (2012), "Introduction: The Role of Theory in Research on Common Security and Defence Policy" in Kurowska, X. & Breuer, F. (eds.), *Explaning the EU's Common Security and Defence Policy: Theory in Action*, Basingstoke: Palgrame Macmillan.

Kurowska, X. & Breuer, F. (2012), *Explaning the EU's Common Security and Defence Policy: Theory in Action*, Basingstoke: Palgrame Macmillan.

Kurowska, X. & Pawlak, P (2012), *The Politics of European Security Policies: Actors, Dynamics and Contentious Outcomes*, London: Routledge.

Lamont, C. (2015), *Research Methods in International Relations,* London: Sage.

Lenny, J., Greenberg, R., Lowney, V. & Banim, G. (2018), 'Peacemaking and new technologies: Dilemmas & options for mediators', Centre for Humanitarian Dialogue. Available at: https://www.hdcentre.org/wp-content/uploads/2018/12/MPS-8-Peacemaking-and-New-Technologies.pdf. Accessed on: 07.03.2020.

Lilkov, D. (2020), 'Covid-19 and Technology in EU: Think Bigger than Apps', Wilfred Martens Centre for European Studies, In Brief. Available at: https://martenscentre.eu/sites/default/files/publication-files/covid-19_and_technology_in_the_eu_think_bigger_than_apps.pdf. Accessed on: 22.05.2020.

Lombard, E. (2010), 'Primary and Secondary Sources', *The Journal of Academic Librarianship,* 36(3), pp. 250-253. Available at: https://www.researchgate.net/publication/256939724_Primary_and_Secondary_Sources. Accessed on: 12.04.2020.

Mac Ginty, R. (2017), 'Peacekeeping and Data', *International Peacekeeping*, 24(5), pp. 695-705. Available at: https://doi.org/10.1080/13533312.2017.1383561. Accessed on: 25.02.2020.

Malan, M. (1998), 'Peacekeeping in the New Millennium: Towards 'Fourth Generation' Peace Operations?', *African Security Review*, 7(3), pp. 13-20. Available at: https://doi.org/10.1080/10246029.1998.9627861. Accessed on: 12.04.2020.

Mancini, F. (2013), 'New Technology and the Prevention of Violence and Conflict', International Peace Institute. Available at: https://www.ipinst.org/2013/04/new-technology-and-the-prevention-of-violence-and-conflict. Accessed on: 08.03.2020.

Manners, I. (2002) 'Normative Power Europe: a Contradiction in Terms?', *Journal of Common Market Studies* 40(2), pp. 235–258. Available at: https://onlinelibrary.wiley.com/doi/10.1111/1468-5965.00353. Accessed on: 09.03.2020.

Martin-Shields, C. & Stones, E. (2014), 'Smart Phones and Social Bonds: Communication Technology and Inter-Ethnic Cooperation', Journal of Peacebuilding & Development, 9(3), pp. 50-64, Available at: http://dx.doi.org/10.1080/15423166.2014.983030. Accessed on: 11.03.2020.

Martin-Shields, C. P. & Bodanac, N. (2017), 'Peacekeeping's Digital Economy: The role of communication technologies in post-conflict economic growth', *International Peacekeeping*, 25(3), pp. 420-445. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2970923. Accessed on: 04.03.2020.

Mattelaer, A. T. (2010), 'The CSDP mission planning process of the European Union: innovations and shortfalls. European Integration online Papers, 14(9), pp. 1-18. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1661752. Accessed on: 26.02.2020

Merriam-Webster Dictionary (2020), Innovation. Available at: https://www.merriam-webster.com/thesaurus/innovation. Accessed on: 14.03.2020.

Meyer, C. (2011), 'The Purpose and Pitfalls of Constructivist Forecasting: Insights from Strategic Culture Research for the European Union's Evolution as a Military Power', *International Studies Quarterly*, 55, pp. 669-690. Available at: https://www.researchgate.net/publication/230268816_The_Purpose_and_Pitfalls_of_Constructivist_Forecasting_Insights_from_Strategic_Culture_Research_for_the_European_Union%27s_Evolution_as_a_Military_Power1. Accessed on: 27.03.2020

Meyer, C. & Strickmann, E. (2010), 'Solidifying Constructivism: How material and Ideational Factors Interact in European Defence', *Journal for Common Market Studies*, 49(1), pp. 61-81. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-5965.2011.02129.x. Accessed on: 28.03.2020.

Millar, D. T. (2015), 'Defense 2045: Assessing the Future Security Environment and Implications for Defense Policymakers', Centre for Strategic and International Studies. Available at: https://espas.secure.europarl.europa.eu/orbis/sites/default/files/generated/document/en/151106_Miller_Defense2045_Web.pdf . Accessed on: 07.04.2020.

Misik, M. (2019), "The EU's Democratization: Normative Power Europe Meets External EU Perception Literature" in Neumann M. (ed.), *Democracy Promotion and the Normative Europe Framework*, Cham: Springer.

Mustasilta, K. (2020), From Bad to Worse? The impact(s) or Covid-19 on conflict dynamics, European Union Institute for Security Studies. Available at: https://www.iss.europa.eu/content/bad-worse-impacts-covid-19-conflict-dynamics. Accessed on: 19.05.2020.

Neumann, I. B. (2008), "Discourse Analysis" in Klotz, A. and Prakash, D. (eds.), *Qualitative Methods in International Relations: A Pluralist Guide,* Basingstoke: Palgrave Macmillan.

Norheim-Martinsen, P.M. (2013), *The EU and military force. Governance and strategy.* Cambridge: Cambridge University Press.

Nováky, N. (2018), *European Union military operations. A collective action perspective*, London: Routledge.

Novaky, N. (2020), The EU's Security and Defence Policy: The Impact of Coronavirus, Wilfred Martens Centre for European Studies, In Focus. Available at: https://martenscentre.eu/publications/eus-security-and-defence-policy-impact-coronavirus. Accessed on: 21.05.2020

Novosseloff, Alexandra (2012), United Nations – European Union Cooperation in the Field Peacekeeping: Challenges and Prospects, Global Governance Institute. Available at: http://www.globalgovernance.eu/images/ggi_analysis_eu_un_cooperation_novosseloff_2012.pdf. Accessed on: 19.03.2020.

Nye Jr., J. S. (2011), *The Future of Power,* New York: Public Affairs.

Ojanen, H. (2006), The EU and UN: A shared future, The Finish Institute for International Affairs, FIIA Report. Available at: https://www.files.ethz.ch/isn/16812/FIIA_Report_13.pdf. Accessed on: 12.03.2020.

Onuf, N. G. (1989), World of Our Making, London: Routledge.

Organisation for Economic Cooperation and Development (2002), Understanding the Digital Divide. Available at: https://www.oecd.org/sti/1888451.pdf. Accessed on: 02.03.2020.

Pagani, F. (1998), 'A new gear in the CFSP machinery: Integration of the Petersberg tasks in the Treaty on European Union', *European Journal of International Law*, 9(4), pp. 737–749. Available at: http://www.ejil.org/pdfs/9/4/695.pdf. Accessed on: 21.02.2020.

Palm, T. & Crum, B. (2019), 'Military operations and the EU's identity as an international security actor', *European Security*, 28(4), pp. 513-534. Available at: https://doi.org/10.1080/09662839.2019.1667769. Accessed on: 09.03.2020

Paris, R. (2004), *At War's End: Building Peace after Civil Conflict*, New York: Cambridge University Press.

Permanent Structured Cooperation Framework (2020), About PESCO. Available at: https://pesco.europa.eu. Accessed on: 05.03.2020.

Peter, M. (2019), "Peacekeeping: Resilience of an Idea" in De Coning, C. and Peter, M. (eds.), *United Nations Peace Operations in a Changing Global Order*, SpringerLink. Available at: https://link.springer.com/chapter/10.1007%2F978-3-319-99106-1_2. Accessed on: 10.03.2020.

Pierskalla, J. & Hollenbach, F. M. (2013), 'Technology and Collective Action: The Effect of Cell Phone Coverage on Political Violence in Africa', *American Political Science Review,* 107, pp. 207–224. Available at: http://pscourses.ucsd.edu/ps200b/Pierskalla%20&%20Hollenbach%20Technology%20and%20Collective%20Action%20--%20Effect%20of%20Cell%20Phone%20Coverage%20on%20Political%20VIolence%20in%20South%20Africa.pdf. Accessed on: 24.02.2020.

Pietz, T. & Tardy, T. (2014), 'The EU and the UN: together for peace', *European Union Institute for Security Studies*, Issue Alert, 53. Available at: https://www.iss.europa.eu/sites/default/files/EUISSFiles/Alert_53_EU_UN.pdf. Accessed on: 07.03.2020.

Pirozzi, N., Venturi, B. & Marrone, A. (2018), 'EU Member States' capabilities in conflict prevention and peacebuilding: peronnel and technology', *Global Affairs*, 4(2-3), pp. 141-155. Available at: https://doi.org/10.1080/23340460.2018.1538706. Accessed on: 10.03.2020.

Portmenss, L. & Romaya, B. (2015), 'Digital Peacekeepers, Drone Surveillance and Information Fusion: A Philosophical Analysis of New Peacekeeping', *Theoria*, 62(145), pp. 5-22. Available at: https://cupola.gettysburg.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1049&context=philfac. Accessed on: 15.03.2020.

Prytherch, R. J. & Harrod, L. M. (1990), *Harrod's Librarians' Glossary of Terms Used in Librarianship, Documentation and the Book Crafts, and Reference Book*, 7th edition, Aldershot: Gower.

Puig, H. (2012). Conflict sensitive crowdsourcing. Let them talk. Available at: http://letthemtalkdotorg.wordpress.com/2012/07/05/conflict-sensitive-crowdsourcing/. Accessed on: 02.03.2020.

Ramjoué, M. (2011), 'Improving United Nations Intelligence: Lessons from the Field', GCSP Policy Paper n°19. Available at: https://www.files.ethz.ch/isn/132139/GCSP%20Policy%20Paper%2019.pdf. Accessed on: 05.04.2020.

Ramsbotham, O., Woodhouse, T. & Miall, H. (2005), *Contemporary Conflict Resolution*, 2nd ed, Cambridge: Polity Press.

Rapley, T. (2007), *Doing conversation, discourse and document analysis*. London: Sage.

Rhoads, E. P. (2016), *Taking Sides in Peacekeeping: Impartiality and the Future of the United Nations*, Oxford: Oxford University Press.

Rieker, P. (2004), 'EU Security Policy: Contrasting Rationalism and Social Constructivism', *Norsk Utenrikspolitisk Institutt* (NUPI), 659. Available at: https://www.nupi.no/en/Publications/CRIStin-Pub/EU-Security-Policy-Contrasting-Rationalism-and-Social-Constructivism. Accessed on: 25.03.2020.

Rieker, P. & Blockmans, S. (2019), 'Plugging the capability-expectations gap: towards effective, comprehensive and conflict-sensitive EU crisis response?', *European Security*, 28(1), pp. 1-21. Available at: https://doi.org/10.1080/09662839.2018.1562444. Accessed on: 21.02.2020.

Rietjens, S. and de Waard, E. (2017), 'UN Peacekeeping Intelligence: The ASIFU Experiment', *International Journal of Intelligence and Counterintelligence*, 30(3), pp. 532-556. Available at: https://doi.org/10.1080/08850607.2017.1297108. Accessed on: 09.03.2020.

Rietjens, S. and Dorn, A. W. (2017), "The Evolution of Peacekeeping Intelligence: The UN's Laboratory in Mali" in Baudet, F., Braat, E., van Woensel, J. & Wever, A. (eds.), Perspectives on Military intelligence from the First World War to Mali, Springer.

Robinson, M., Jones, K., Janicke, H. and Maglaras, L. (2018), 'An Introduction to Cyber Peacekeeping', *Journal of Network and Computer Applications*, 114, pp. 1-21. Available at:https://www.researchgate.net/publication/324704165_An_Introduction_to_Cyber_Peacekeeping. Accessed on: 18.03.2020.

Scheipers, S. and Sicurellyi, D. (2007) 'Normative Power Europe: A Credible Utopia?', *Journal of Common Market Studies*, 45(2). Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-5965.2007.00717.x. Accessed on: 25.02.2020.

Scheuler, S. (2014), 'Primary and Secondary Sources in History: A Primer for Undergraduates, Challenges for Librarians', *The Reference Librarian*, 55(2), pp. 163-167. Available at: https://doi.org/10.1080/02763877.2014.881274. Accessed on: 20.04.2020.

Schmidt, V. A. (2008), 'Discursive institutionalism: The explanatory power of ideas and discourse', *Annual Review of Political Science,* 11, pp. 303-326. Available at: https://www.researchgate.net/publication/228283584_Discursive_Institutionalism_The_Explanatory_Power_of_Ideas_and_Discourse . Accessed on: 18.04.2020.

Scott, J. (1990), *A Matter of Record, Documentary Sources in Social Research*, Cambridge: Polity Press.

Silverman, D. (2000), "Analyzing talk and text" in Denzin, N. K. & Lincoln, Y. S. (eds.), *Handbook of qualitative research*, 2nd edition, Thousand Oaks: Sage.

Skolimowska, A. (2019), "In Search of Academic Tools to Evaluate the European Union's Identity on the Global Stage" in Skolimowska, A. (ed.), *Perceptions of the European Union's Identity in International Relations*, London: Routledge.

Smith, B. & Browne, C. A. (2019), *Tools and Weapons: The Promise and Peril of the Digital Age*, New York: Penguin Press.

Smith, M. E. (2004), *Europe's Foreign and Security Policy: The Institutionalization of Cooperation,* Cambridge: Cambridge University Press.

Smith, M. E. (2017), *Europe's Common Security and Defence Policy. Capacity-Building, Experiential Learning, and Institutional Change*, Cambridge: Cambridge University Press.

Smith, M. E. & Juncos, A. E. (2018), 'Report on future priorities for Horizon Europe security research', University of Aberdeen, EU-CIVCAP Project. Available at: https://eucivcap.files.wordpress.com/2019/01/eu-civcap_deliverable_7-3_web.pdf. Accessed on: 20.03.2020.

Soriano, C. and Gossen, R. (2017), The changing nature of UN peace operations, Open Canada. Available at: https://www.opencanada.org/features/changing-nature-un-peace-operations/. Accessed on: 07.03.2020.

Statista (2019), Number of smartphone users worldwide from 2014 to 2020 (in billions). Available at: https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/. Accessed on: 04.03.2020.

Stauffacher D., Drake, W., Currion, P. & Steinberger, J. (2005), Information and Communication Technology for Peace: The Role of ICT in Preventing, Responding to and Recovering from Conflict, United Nations ICT Task Force. Available at: https://ict4peace.org/wp-content/uploads/2010/01/Stauffacher.pdf. Accessed on: 06.03.2020.

Stauffacher, D., Weeks, B., Gasser, U., Maclay, C. & Best, M. (2011), Peacebuilding in the Information Age: Sifting hype from reality, ICT for Peace Foundation. Available at: https://ict4peace.org/wp-content/uploads/2011/01/Peacebuilding-in-the-Information-Age-Sifting-Hype-from-Reality.pdf. Accessed on: 06.03.2020.

Steele, R. D. (2006), 'Peacekeeping Intelligence and Information Peacekeeping', *International Journal of Intelligence and Counterintelligence*, 19(3), pp. 519-537. Available at: https://doi.org/10.1080/08850600600656475. Accessed on: 23.03.2020.

Stewart, E. J. (2006), *The European Union and conflict prevention*, Berlin: Lit.

Tardy, T. (2015), 'CSDP in action – What contribution to international security?', *European Institute for Security Studies*, Chaillot Papers. Available at: https://www.iss.europa.eu/content/csdp-action-—-what-contribution-international-security. Accessed on: 03.03.2020.

Tardy, T. (2017), 'The EU: from comprehensive vision to integrated action', *European Institute for Security Studies*, Brief-Issue 5. Available at: https://www.iss.europa.eu/content/eu-comprehensive-vision-integrated-action. Accessed on: 03.03.2020.

Tardy, T. (2019), "The European Union and UN Peace Operatoons: What Global-Regional Peace and Security Partnership?" in De Coning, C. & Peter, M. (eds.), *United Nations Peace Operations in a Changing Global Order*, Cham: Palgrave Macmillan.

Tocci, N. (2017), *Framing the EU Global Strategy: A Stronger Europe in a Fragile World,* Cham: Springer International Publishing AG-Palgrave Macmillan.

Troitiño, D. R., Kerikmäe, T., de la Guardia, R. M. & Pérez Sánchez, G. A. (2020), *The EU in the 21st Century: Challenges and Opportunities for the European Integration Process*, Cham: Springer.

United Nations Conference on Trade and Development (2019), Digital Economy Report. Value Creation and Capture: Implications for Developing Countries. Available at: https://unctad.org/en/PublicationsLibrary/der2019_en.pdf. Accessed on: 17.03.2020.

United Nations (1945), Charter of the United Nations. Available at: https://www.un.org/en/sections/un-charter/un-charter-full-text/. Accessed on: 24.02.2020.

United Nations (1994), Human Development Report 1994: New Dimensions of Human Security. Available at: http://hdr.undp.org/en/content/human-development-report-1994. Accessed on: 11.03.2020.

United Nations (2000), Report of the panel on United Nations peace operations [Brahimi Report]. Available at: https://www.un.org/en/events/pastevents/pdfs/Brahimi_Report_Exec_Summary.pdf. Accessed on: 17.03.2020.

United Nations (2008), United Nations Peacekeeping Operations. Principles and Guidelines, New York. Available at: https://peacekeeping.un.org/sites/default/files/capstone_eng_0.pdf. Accessed on: 27.02.2020.

United Nations (2015), Performance Peacekeeping: Final Report of the Expert Panel on Technology and Innovation in UN Peacekeeping. Available at: http://www.performancepeacekeeping.org/offline/download.pdf. Accessed on 25.02.2020.

United Nations (2017), Transforming our World: The 2030 Agenda for Sustainable Development. Available at: https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf. Accessed on: 24.02.2020.

United Nations (2020), The Impact of Digital Technologies. Available at: https://www.un.org/sites/un2.un.org/files/un75_new_technologies.pdf. Accessed on: 26.02.2020.

United Nations & Centre for Humanitarian Dialogue (2019), Digital Technologies and Mediation in Armed Conflict. Available at: https://peacemaker.un.org/sites/peacemaker.un.org/files/DigitalToolkitReport.pdf. Accessed on: 24.03.2020.

United Nations Department for Peacekeeping Operations and Department for Field Support (2009), A New Partnership Agenda: Charting a New Horizon for UN Peacekeeping. Available at: https://peacekeeping.un.org/sites/default/files/newhorizon_0.pdf. Accessed on: 20.03.2020.

United Nations Department of Peacekeeping Operations and Department of Field Support (2017), Policy: Peacekeeping Intelligence. Available at: http://dag.un.org/handle/11176/400647. Accessed on: 17.02.2020.

United Nations International Telecommunication Unit (2014), Key ICT Indicators for Developed and Developing Countries and the World. Available at: www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx. Accessed on: 04.03.2020.

University of Washington (2009), The Project on Information Technology and Political Islam, Centre for Communication and Civic Engagement. Available at: http://ccce.com.washington.edu/projects/digital-media-politics/the-project-on-information-technology-and-political-islam/. Accessed on: 02.05.2020.

Ushahidi (2018), About Ushahidi. Available at: https://www.ushahidi.com/about. Accessed on: 05.03.2020.

Van der Wind, P. & Humphreys, M. (2012), Crowdseeding Conflict Data: An Application of an SMS-based Data System to Estimate the Conflict Effects of Development Aid, Columbia University. Available at: http://www.columbia.edu/~mh2245/papers1/20140213_VDK.pdf. Accessed on: 14.03.2020.

Ventury, B. and Helly, D. (2016), 'A New Strategic Approach to Global Development, Resilience and Sustainability', *Instituto Affari Internazionali Working Papers,* 16, pp. 1-24. Available at: http://ecdpm.org/publications/new-eu-strategic-approach-global-development-resilience-sustainability/. Accessed on: 12.09.2017.

Vickers, J. (2006), 'The Problem of Induction', *Stanford Encyclopaedia of Philosophy*. Available at: https://plato.stanford.edu/entries/induction-problem/. Accessed on: 27.04.2020.

Wagner, B. (2011), 'I Have Understood You: The Co-evolution of Expression and Control on the Internet, Television and Mobile Phones During the Jasmine Revolution in Tunisia', *International Journal of Communication*, 5. Available at: https://ijoc.org/index.php/ijoc/article/download/1174/606. Accessed on: 21.03.2020.

Wagner, B. (2012), After the Arab Spring: New Paths for Human Rights and the Internet in European Foreign Policy. Available at: https://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO-DROI_NT(2012)457102. Accessed on: 04.03.2020.

Wendt, A. (1992), Anarchy is what States Make of it: The Social Construction of Power Politics, *International Organization*, Vol. 46, No. 2., pp. 391-425. Available at: https://www.jstor.org/stable/2706858. Accessed on: 22.03.2020.

Wendt, A. (1999), *Social Theory of International Politics*, Cambridge: Cambridge University Press.

Willmot, H., Sheeran, S. & Sharland, L. (2015), 'Safety and Security Challenges in UN Peace Operations', *International Peace Institute*. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/IPI-E-pub-Safety-and-Security-in-Peace-Ops.pdf. Accessed on: 15.03.2020.

Woodhouse, T. & Ramsbotham, O. (2005), 'Cosmopolitan peacekeeping and the globalization of security', *International Peacekeeping*, 12(2), pp. 139-156, Available at: https://doi.org/10.1080/01439680500066400. Accessed on: 02.03.2020.

World Bank (2016), World Development Report. Digital Dividends. Available at: http://documents1.worldbank.org/curated/en/961621467994698644/pdf/102724-WDR-WDR2016Overview-ENGLISH-WebResBox-394840B-OUO-9.pdf. Accessed on: 02.03.2020.

Yamchuk, A. (2014), 'The EU-UN cooperation for maintaining international peace and security', *Eastern Journal of European Studies*, 5(1), pp. 113-129. Available at: http://ejes.uaic.ro/articles/EJES2014_0501_YAM.pdf. Accessed on: 09.03.2020.

Appendices

Appendix A. Summaries and Commentaries Form Templates

Template 1 – Primary Source

1. **Author(s)**: Federica Mogherini, Natalie Tocci, European External Action Service staff
2. **Title of publication**: Shared Vision, Common Action: A Stronger Europe. A Global Strategy for the European Union's Foreign and Security Policy
3. **Date of publication**: 2016
4. **Issuing institution:** European Union
5. **Main themes**: external action, foreign and security policy, defence, European Neighbourhood, integrated approach, CSDP operations, innovation, technology, resilience, sustainable change
6. **Keywords**: technology (24 times), digital (11 times), innovation (3 times)
7. **Matches selection criteria**: Yes
8. **Main points of the primary source**:
    i. The EUGS bases EU's external action around five main objectives, namely the security of the Union, state and societal resilience at the east and south of European borders, an integrated approach to conflicts, cooperative regional orders and the achievement a sustainable global governance to match the needs and challenges of the 21st century. In the area of security and defence, the EUGS identifies three main strategic priorities: pragmatic responses to external conflicts and crises, capacity-building of partner countries and, ultimately, the protection of the Union and its citizens.
    ii. Initially, the EUGS seemed to place a considerable emphasis on the emerging concept of resilience. Yet, the Global Strategy appears to increasingly focus on identifying innovative tools to achieve more sustainable change. The Strategy stresses the need for 'innovative means of engagement', but without giving a definition of the type of innovation it refers to. A strong accent is

placed on the opportunities that technology can bring to the Union, its citizens and its external action endeavours.

iii. The Global Strategy stresses the need for stronger partnerships to assume greater responsibility in achieving a reformed governance order. It acknowledges the Union's partnerships with NATO and the UN, especially in the area of peace operation in the latter case. This endeavour stresses the need for the reinforcement of cyber elements in CSDP operations, while further developing platforms for cooperation with international partners. Ultimately, the EUGS acknowledges the fact that a sustainable, innovative and competitive European defence industry is essential' for Europe's strategic autonomy and for a credible CSDP. [p. 46].

9. **Policy impact:** To achieve the vision and goals set forth in the EUGS, the Foreign Affairs Council drew up an Implementation Plan in November 2016 that has set a new level of ambition. The European Commission has also launched the European Defence Action Plan, almost simultaneously with the EUGS. This support plan for the EUGS is based on three pillars, namely setting up the EDF to invest in research and development of defence equipment and technologies, fostering investments in tech SMEs and start-ups that supply the defence sector and strengthening a single market for defence. Besides this plan, the EUGS has initiated other policies and initiatives, such as CARD or the Global Tech Panel.

10. **Links to dissertation**: The Global Strategy represents a central primary source used in the Analysis of the current dissertation, as it offers insights into the narratives and perceptions of how EU officials regard innovation and technology.

Template 2 – Secondary Source #1

1. **Author(s):** Tommaso De Zan, Paola Tessari and Bernardo Venturi
2. **Title of article:** Procedures, Personnel and Technologies for Conflict Prevention and Peacebuilding: An Assessment of EU Member States' Capabilities
3. **Date of publication:** November 2016
4. **Publication:** EU-CIVCAP
5. **Institutional affiliation:** Instituto Affari Internazionali (IAI)**,** European Union.
6. **Previous academic work/interests:** The authors seem to have published other articles on the use of digital technologies in EU external action, advocating for the uptake of such capabilities in CSDP operations.
7. **Matches selection criteria:** Yes
8. **Main arguments/findings of the article:**
    i. Despite the little attention it has received in the academic literature, the use of technology in conflict prevention and peace operations is not a new topic for practitioners. The authors mention a few initiatives and highlight that there seems to be a consensus among experts about the fact that technologies improve the capacity to predict, describe and diagnose conflict. [p. 31]
    ii. Yet, the EU does not seem to employ such tools, or at least to have devised a strategy or specific policy for their implementation in its external action endeavours. These tools can constitute a valuable contribution to European early warning systems. [p. 33]
    iii. The authors then explore the potential of smartphones, PCs and social media, as well as Unmanned Aerial Vehicles and satellite systems for EU CSDP purposes. [p. 33 – p. 38] At the same time, the authors analyse the capabilities of several European Member States in the last part of the article. [p. 40]

9. **In-depth analysis of the secondary source**:

   The authors have a broad focus on the potential of digital technologies, ranging from the militarised aerial and satellite systems to more novel digital technologies consisting of phones, tablets, PCs and social media.

   All authors acknowledge the potential of these technologies, yet they underscore that there are no clear regulations or frameworks in place for the use of aerial and satellite systems.
   The authors use primary sources from the European Commission and Parliament, which were also used in the current study.

   While highlighting the untapped potential of these new digital tools, the authors fall short on identifying the actual benefits of such capabilities to EU's CSDP operations due to their broad approach.

10. **Links to dissertation**:

    This article identifies the current state of using digital technologies in EU's CSDP operations and provides some background for the current research. The article will be mentioned in the Literature Review, but it will provide some insightful information for the Analysis chapter as well.

Template 2 - Secondary Source #2

1. **Author(s):** Michael E. Smith and Ana Juncos
2. **Title of article:** Report on future priorities for Horizon Europe security research
3. **Date of publication:** November 2018
4. **Publication:** EU-CIVCAP
5. **Institutional affiliation:** University of Aberdeen, European Union
6. **Previous academic work/interests:** Both authors have published books and articles on EU's external action endeavours, recently focusing on the Global Strategy and CSDP.
7. **Matches selection criteria:** Yes.
8. **Main arguments/findings of the article:**
    i. The EU has a unique 'own resource' in the form of dedicated satellite/GEOINT capabilities, which can provide crucial real-time information about border control, monitoring, treaty verification, non-proliferation and conflict prevention/management. [p. 9]
    ii. There may be even more potential, from an early warning standpoint, for the use of digital technologies in conflict situations. These technologies include smartphones, PCs, Big Data, social media analytics, crowdsourcing software, which can work in synergy with other existing technologies (such as GEOINT-supported location/mapping systems). While these assets can be useful [for CSDP operations] in host countries for situational awareness/surveillance/change detection, previous work done under the EU-CIVCAP project has shown that the EU does not make much use, if any, of phones, their related software or social media analytics in the realm of conflict prevention and peacebuilding, such as the UN does in its operations. EU also lacks a policy on the use of such capabilities in a CSDP context. [p. 10]
    iii. The EU could pursue further research in this area to develop new concepts/doctrines and capabilities for CSDP operations,

possibly by taking into account the findings of other international partners. [p. 11]

9. **In-depth analysis of secondary source**:

The authors focus on the potential of digital technologies within EU's conflict prevention and peacebuilding endeavours (in other words, CSDP operations – although the authors do not make a clear and direct reference to them).

While acknowledging the use of satellite and other aerial systems, the article underlines the lack of engagement on EU's side with unconventional digital technologies, such as mobile phones, related software and social media platforms.

The authors highlight the potential of these capabilities but do fall short of assessing them.

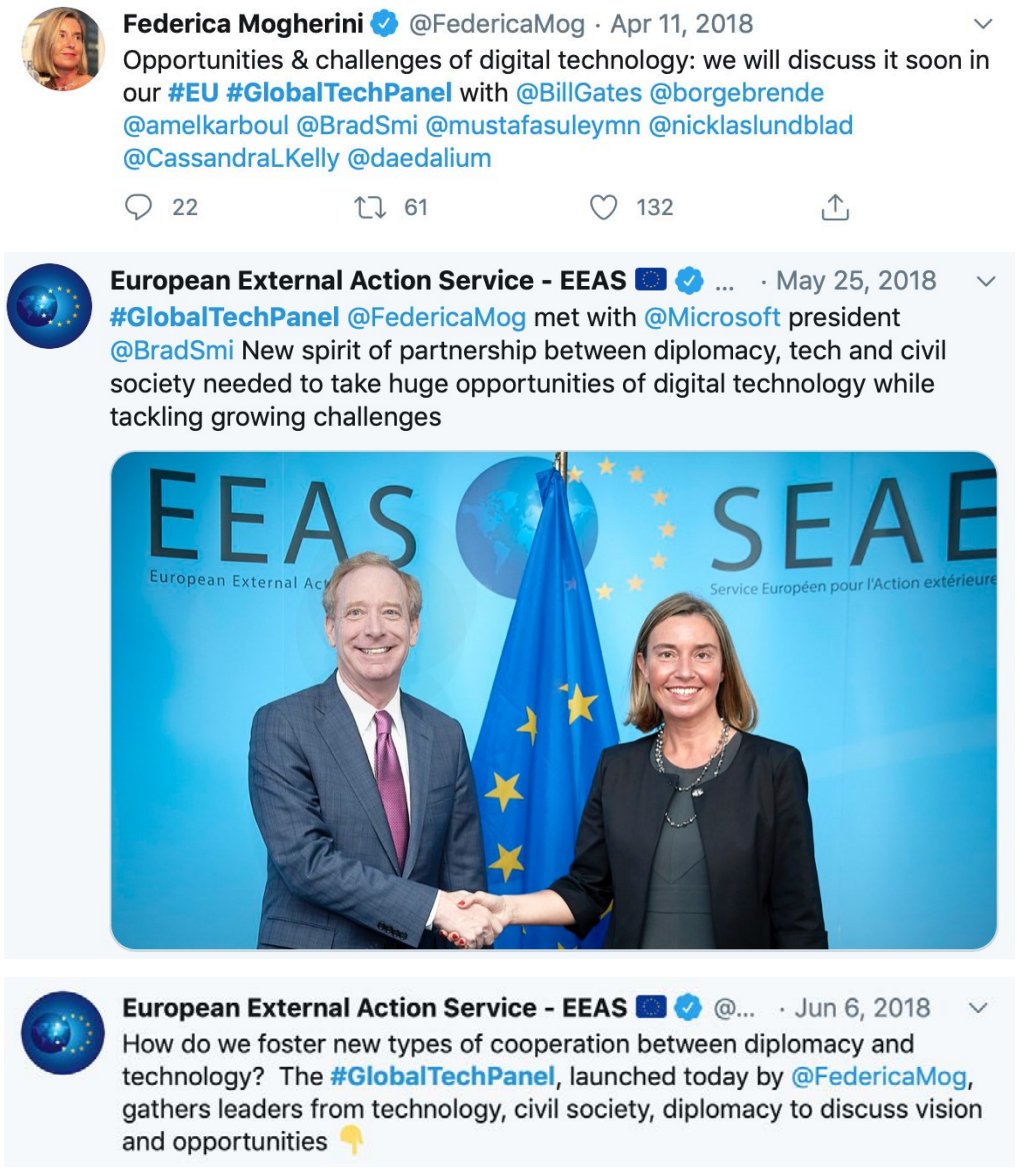
The authors use primary sources from the Council of the European Union and the European Commission. However, the authors fall short on identifying and presenting the actual benefits of such capabilities to EU's external action endeavours.

10. **Links to dissertation**:

This article identifies the current use of digital technologies in EU's CSDP operations and provides some background for the current research. The article fits into both the Literature Review and Analysis chapters.

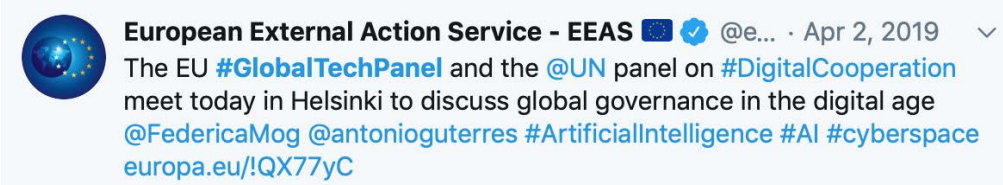
Appendix B. Thread of Tweets on Global Tech Panel Initiative

These tweets are a reliable and important source of information, as they reveal the range of issues considered, during the first meetings of the Global Tech Panel, by the tech experts and EU officials involved in the initiative.

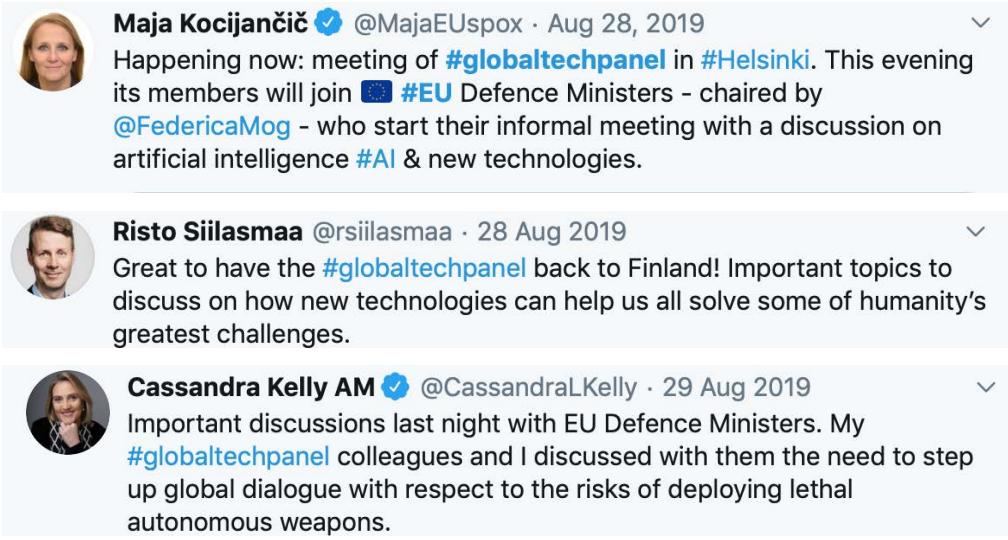


Mogherini acknowledges the 'opportunities and challenges' brough by digital technologies to all aspects of life and international politics. Her initiative, i.e. the Global Tech Panel, appears to have gather many tech experts, including prominent leaders from the field, such as Bill Gates (former Microsoft Chief Executive Officer) and Brad Smith (current Microsoft President), as well as other other influential professionals, such as Cassandra Kelly (Pottinger), Mustafa Suleyman (Google) and Børge Brende (World Economic Forum). It

can be deduced that the EU and Microsoft seem to have developed strong institutional ties, which can be used in EU's external action endeavours to provide some of the necessary digital technologies.



At the same time, the Global Tech Panel seems to stregnthen the Union's intitutional ties with the UN by addressing the topic of digital technologies and global governance.



As it can then be deduced, with topics ranging from cyber security to global governance, autonomous weapons or to the use of artificial intelligence for defence purposes, this initiative shows great promise for the future and has considerable implications for EU's role as a global security actor. An actor that works in a transparent, multilateral way to achieve a new governance order, focused on human potential and sustainable change, while becoming a learning organisation employing digital tools in its CSDP operations.