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Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests

Report of the United Nations High Commissioner for Human Rights *

Summary

In the present report, the United Nations High Commissioner for Human Rights focuses on new technologies, including information and communications technology, and their impact on the promotion and protection of human rights in the context of assemblies, including peaceful protests. Given the importance of the enjoyment of the right of peaceful assembly for democracies, it is concluded in the report that every effort should be made to ensure full enjoyment of this right. Certain new technologies can be enablers for the exercise of the right of peaceful assembly. At the same time, the use of some such technologies to surveil or crack down on protesters can lead to human rights violations, including infringement of the right to peaceful assembly. Regulatory frameworks that are in line with human rights norms and standards are needed to avoid unlawful limitations by Governments on the right of peaceful assembly and related rights.

^{*} The present report was submitted after the deadline in order to reflect the most recent developments.





I. Introduction

1. In its resolution 38/11, the Human Rights Council requested the United Nations High Commissioner for Human Rights to prepare a thematic report on new technologies, including information and communications technology (ICT), and their impact on the promotion and protection of human rights in the context of assemblies, including peaceful protests. The present report is submitted in line with that request.

2. The Office of the United Nations High Commissioner for Human Rights (OHCHR) sought contributions from States and relevant partners, such as United Nations agencies, regional organizations, national human rights institutions, civil society organizations and relevant special procedure mandate holders.¹

3. The present report contains an examination of new technologies, including ICT, and their impact on the promotion and protection of human rights in the context of assemblies, including peaceful protests. In the report, it is recalled that the right of peaceful assembly is protected under international human rights law. It is also noted that the effective use of new technologies can enable the exercise of human rights in the context of assemblies. The report also includes an examination of the human rights challenges posed by State interference with the availability and use of new technologies in the context of assemblies; the use of new technologies to track protesters; and the use of new less-lethal weapons and ammunition technology in the context of assemblies. Finally, the report contains some conclusions and recommendations.

II. Exercise of human rights in the context of assemblies, including peaceful protests

4. The right to peaceful assembly plays an important role in mobilizing the population, permitting the formulation and expression of grievances and aspirations, facilitating the celebration of events and, importantly, influencing public policies.² The year 2019 was momentous, with protests taking place in many countries in all regions. That discontent has continued in 2020. The factors causing people to protest were, and continue to be, complex and varied. Structural and institutional racial discrimination, worsening socioeconomic conditions, corruption, inequality and the denial of other human rights were some of the common root causes. Many of these concerns lie at the core of the 2030 Agenda for Sustainable Development and may have been exacerbated by the coronavirus disease (COVID-19) crisis. Most protests began peacefully. Nevertheless, in some countries, security personnel at times met protests with the excessive use of force, including lethal force. Some protesters have resorted to violence, resulting in the escalation of tensions and violent confrontations with the security forces. New technologies have played a role in many of these protests, either as an enabler for their organization and coordination or as a tool to restrict or infringe upon protesters' human rights.

5. The right of peaceful assembly includes the right to hold meetings, sit-ins, strikes, rallies, events or protests, both offline and online.³ It serves as a vehicle for the exercise of many other rights guaranteed under international law, with which it is linked intrinsically and that form the basis for participating in peaceful protests,⁴ in particular the rights to freedom of expression and to take part in the conduct of public affairs. These rights are provided for in the Universal Declaration of Human Rights (art. 20 (1)), the International Covenant on Civil and Political Rights (art. 21) and the Convention on the Rights of the Child (art. 15). Other relevant instruments include the Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms (the Declaration on Human Rights Defenders),

¹ Submissions are available at www.ohchr.org/EN/Issues/RuleOfLaw/Pages/CallforInput.aspx.

² A/HRC/20/27, para. 24.

³ Human Rights Council resolutions 21/16 and 24/5.

⁴ A/HRC/20/27, para. 12.

which also sets out applicable normative standards and principles⁵ and, at the regional level, various guidelines on the application of the right of peaceful assembly.⁶

6. The right of peaceful assembly is not absolute, however, as it can be limited under strict conditions.⁷ When limiting the right, States should always be guided by the principle that the restrictions must not impair the essence of the right.⁸ Furthermore, restrictions may be imposed only if they are prescribed by law and proportionate in the circumstances. States must show that the restrictions were necessary in the interests of national security or public safety, public order, the protection of public health or morals, or the protection of the rights and freedoms of others. Finally, States must also protect participants against possible abuses by non-State actors, such as interference or violence by other members of the public or counter-demonstrators.

III. New technologies as enablers for the exercise of human rights in the context of peaceful protests

7. New technologies, in particular ICT, have a positive, transformative potential. These technologies enable people to exercise the right of peaceful assembly and related rights through their use: in mobilizing for and organizing peaceful protests; in forming networks and coalitions; and in becoming better informed about assemblies and the reasons behind them, thus driving social change. New technologies may also be useful in increasing transparency and accountability for violations and abuses that may occur during protests.

8. Individuals use ICT to organize assemblies, as it provides a relatively easy and accessible means of communicating quickly and efficiently, spreading messages to a large audience at a low financial cost.⁹ In some instances, social media networks are used to facilitate the coordination of assemblies.¹⁰ The speed with which information travels via new technologies supports the arrangement of spontaneous demonstrations. Messaging and social networking platforms that use encryption technology to prevent monitoring enhance the security of civil society groups' digital communication, while also providing tools specifically geared to network organizing at the grass-roots level.¹¹ To protect the safety of communications, some messaging platforms have adopted the use of end-to-end encryption. Other examples are smartphone applications that have been developed to help move the protests to key geographic areas in order to maximize their impact, and the creation of automated chatbots by civil society to provide legal aid to protesters facing arrest.¹²

9. States also use ICT to facilitate the management of assemblies. For example, the guidelines on demonstrations developed by the municipality of Amsterdam advise local authorities to consult social media before a demonstration to help estimate the number of potential participants and to use social media to communicate with demonstrators. Other authorities use social media to coordinate efforts and exchange information with organizers, in particular during large-scale assemblies.¹³

⁵ General Assembly resolution 53/144, annex; see, in particular, arts. 6 and 12.

⁶ See African Commission on Human and Peoples' Rights, *Guidelines on Freedom of Association and Assembly in Africa* (2017), and Organization for Security and Cooperation in Europe (OSCE), *Guidelines on Freedom of Peaceful Assembly*, 2nd ed. (Warsaw, OSCE, 2010).

⁷ CCPR/C/120/D/2142/2012; CCPR/C/117/D/2082/2011; and CCPR/C/117/D/2089/2011.

 $^{^{8}\,}$ Human Rights Committee, general comment No. 27 (1999) on freedom of movement.

⁹ Contributions of Mauritius, the Ukrainian Parliament Commissioner for Human Rights, the National Human Rights Commission of Mexico, the Special Rapporteur for freedom of expression of the Inter-American Commission on Human Rights, the Amman Center for Human Rights Studies, the Human Rights House Foundation and the Digital Rights Foundation.

¹⁰ Contributions of Guyana, Italy and the South African Human Rights Commission.

¹¹ A/HRC/41/41, para. 26.

¹² Contribution of the European Center for Not-for-Profit Law.

¹³ Contributions of Romania and the Office for Democratic Institutions and Human Rights (ODIHR) of OSCE.

10. ICT is useful for sharing information, thus creating a dynamic constituency and enabling people to be more informed and empowered. It can enable traditionally marginalized groups to access information more readily and to better enjoy their right of peaceful assembly. Such groups include civil rights and racial equality activists; environmental and land rights defenders; women human rights defenders; lesbian, gay, bisexual, transgender and intersex activists; people living in remote areas; and indigenous peoples. Live streaming and other forms of information-sharing online open up space for people who are not able to participate in physical demonstrations – for example, diaspora communities and people with disabilities.¹⁴

11. Technology can also increase transparency and accountability for violations and abuses that may occur during protests. ICT enables the live streaming of assemblies through social media and the documentation of human rights violations through the use of smartphone cameras and other recording devices.¹⁵ This is particularly important when the media is unwilling or unable to cover certain protests.¹⁶

12. The use of body cameras by security officials can also help to ensure transparency and accountability for violence or human rights violations. Provided they are used properly, continuously and in a legal and legitimate manner, they can offer a useful record of an event.¹⁷ United Nations special rapporteurs have observed that the appropriate use of body cameras by law enforcement personnel in the context of assemblies could assist the work of internal investigations or civilian oversight mechanisms. They considered that such cameras have the potential to promote accountability, where adequate safeguards are in place.¹⁸ In some instances, the presence of cameras can also discourage law enforcement officials from resorting to violence.¹⁹ The special procedure mandate holders warned that a delicate balancing of potential intrusions into privacy should be considered (see paras. 16–23 below).

13. Assemblies have taken place by way of physical gatherings for many years, but are now increasingly also happening online.²⁰ People can use online spaces to participate in a virtually connected civil society, using those spaces to connect with others, exchange strategies and organize.²¹ The #MeToo movement is a recent example of this phenomenon.²² The Special Rapporteur on the rights to freedom of peaceful assembly and of association has reiterated the obligation for States to ensure that online assemblies are facilitated in accordance with international human rights standards.²³ He has also observed that the rights of freedom of peaceful assembly exercised online and offline.²⁴ Moreover, there are also responsibilities for the social media companies that control online spaces, particularly with regard to encryption, content moderation, and algorithmic amplification, as will be discussed below.

14. Given the ways in which Internet-based technologies can serve as enablers for the exercise of human rights in the context of assemblies, it is crucial that States close the digital divide²⁵ and secure Internet access for their population.²⁶ The Human Rights Council²⁷ and

¹⁴ Contributions of the Association for Progressive Communications and WITNESS.

¹⁵ Contributions of Defensoría del Pueblo de la Nación Argentina, the National Human Rights Commission of Mexico, ODIHR, WITNESS and the Human Rights House Foundation.

¹⁶ Contribution of the Digital Rights Foundation.

¹⁷ Contributions of Armenia, North Macedonia and Romania.

¹⁸ A/HRC/31/66, para. 92.

¹⁹ Contribution of the Association for Progressive Communications.

²⁰ Contributions of Ecuador, the Special Rapporteur for freedom of expression of the Inter-American Commission on Human Rights, and Amnesty International. See also www.vukacoalition.org.

²¹ A/HRC/41/41, para. 23.

²² Contribution of the Special Rapporteur on the rights to freedom of peaceful assembly and of association.

²³ A/HRC/29/25/Add.1, para. 34.

²⁴ A/HRC/41/41, para. 28.

²⁵ The term "digital divide" refers to the gap between individuals, households, businesses and geographic areas at different socioeconomic levels with regard to their opportunities to access ICTs and to their use of the Internet for a wide variety of activities (A/HRC/35/9, para. 3).

²⁶ A/HRC/27/33, para. 22.

²⁷ Human Rights Council resolution 38/7.

the General Assembly²⁸ have recognized the role of the Internet as a driving force in accelerating progress towards development. Sustainable Development Goal 9 of the 2030 Agenda for Sustainable Development includes a commitment to significantly increase access to information and communications technology and to strive to provide universal and affordable access to the Internet in least developed countries by 2020 (target 9.c).

15. Despite its positive, transformative potential, the use of ICT has also enabled dangerous and hateful speech against certain racial²⁹ and religious groups, as well as genderbased discrimination, attacks and violence, including violence against women and girls.³⁰ This often reflects and may exacerbate harmful racial and gender-based stereotypes, discrimination and violence offline. Online violence against certain racial and religious minorities and women and girls has risen sharply over the past few years, and can result in women limiting their participation on online platforms.³¹ This is particularly true in cases where assemblies are organized by civil rights and racial equality activists and women and girls has led many to self-censor or limit their online interactions, restricting them from exercising their rights, including their right to freedom of peaceful assembly.³² The racial and gender-specificities and scope for ICT to be used to intimidate, threaten and harm women and girls, including offline, requires careful and deeper reflection as well as tailor-made responsive action.

IV. Disabling the channels to organize: interferences with the availability and use of new technologies in the context of assemblies

16. The Human Rights Council has repeatedly expressed concern about measures to prevent or disrupt access to, or dissemination of, information online in violation of international human rights law. The Council has unequivocally condemned such measures, and it has called upon all States to refrain from adopting them and to bring them to an end.³³

17. Interference with access to and the availability and use of new technologies in the context of peaceful protests poses multiple human rights challenges. Such interference includes the filtering of content related to protests, the blocking of websites or certain platforms used to mobilize protesters, the closure of accounts belonging to activists or organizers, or the shutdown of the Internet and communications networks.

18. Internet shutdowns, also called "network shutdowns", "kill switches" or "blackouts", are a particularly pernicious way of interfering with ICT and thus also with assemblies. Shutdowns constitute measures to intentionally prevent or disrupt access to or dissemination of information online in violation of human rights law.³⁴ Such measures are becoming increasingly common. In recent years, the Human Rights Committee has expressed concern about the shutdown of Internet access for months at a time in some countries.³⁵ Civil society organizations have documented an increase of over 30 per cent in 2019, with 213 documented cases of shutdowns in 33 countries.³⁶ Compared with previous years, in 2019, shutdowns also lasted longer, had a more targeted geographical scope³⁷ and were increasingly acknowledged by governments.

²⁸ General Assembly resolution 73/179.

²⁹ A/HRC/26/49, para. 18.

³⁰ A/HRC/32/42, para. 70.

³¹ A/HRC/35/9, para. 35, and A/HRC/38/47, para. 25.

³² Contribution of Amnesty International.

³³ Human Rights Council resolutions 32/13, 38/7 and 38/11.

³⁴ A/HRC/35/22, para. 8.

³⁵ CCPR/C/CMR/CO/5, para. 41. See also CCPR/C/KAZ/CO/2 and CCPR/C/IRN/CO/3.

³⁶ www.accessnow.org/cms/assets/uploads/2020/02/KeepItOn-2019-report-1.pdf.

³⁷ The exception are shutdowns in Africa, which for the most part affected entire countries. See www.accessnow.org/cms/assets/uploads/2020/02/KeepItOn-2019-report-1.pdf.

19. At least 65 Internet shutdowns took place during protests in 2019, jeopardizing the right of peaceful assembly both online and offline.³⁸ The interference with access to and the availability and use of the Internet thwarts the capacity of individuals to organize themselves and assemble. Shutdowns have a chilling effect on the right of peaceful assembly as they undermine the publicizing of assemblies and restrict possibilities to mobilize large groups effectively and quickly. Shutdowns also have a negative impact on the right to freedom of expression and access to information³⁹ and are of particular concern in contexts where the traditional media is controlled by the government and where the Internet may be the only space for the free expression of various views.⁴⁰

20. In addition to impairing access to information, freedom of expression and the right to peaceful assembly, the negative economic impact of Internet shutdowns has been estimated to be significant.⁴¹ Shutdowns also have severe effects on the ability to realize economic and social rights, given the number of essential activities and services they affect, including access to emergency services, health information, mobile banking, transportation and educational materials. As highlighted by the High Commissioner, shutting down, restricting or blocking the Internet, or placing restrictions on secure and confidential communications, may well exacerbate, rather than curtail, tensions.⁴² In some countries, links have been drawn between Internet shutdowns and increased levels of violence and unrest, the commission of human rights violations, and an increased sense of fear within communities.⁴³ All these factors tend to highlight that the negative effects of shutdowns may outweigh any purported benefits for the country concerned.⁴⁴

21. The High Commissioner has emphasized that blunt measures such as blanket Internet shutdowns, sometimes for prolonged periods, contravene international law,⁴⁵ affecting States' obligations to respect, in addition to freedom of expression and the right to peaceful assembly, a wide range of rights, including freedom of association and of movement and the rights to health and education. These views have been shared by experts from international and regional human rights mechanisms.⁴⁶ In its general comment No. 34 (2011) on the freedoms of opinion and expression, the Human Rights Committee stated that any restrictions on the operation of websites, blogs or any other Internet-based, electronic or other such information dissemination system, including systems to support such communication, were only permissible if they were compatible with article 19, paragraph 3, of the International Covenant on Civil and Political Rights. It stated that generic bans on the operation of certain sites and systems were not compatible with paragraph 3. It also noted that it was inconsistent with paragraph 3 to prohibit a site or an information dissemination system from publishing material solely on the basis that it might be critical of the government or the political social system espoused by the government.47

22. The Special Rapporteur on the right to privacy noted that Internet shutdowns had become a disturbing trend in the context of elections, often carried out under the pretext of posing a risk to national security or preventing the spread of hate speech, disinformation or public disorder.⁴⁸ Similarly, the Special Rapporteur on the rights to freedom of peaceful assembly and of association recalled that shutdowns and the blocking of entire websites

³⁸ Ibid.

³⁹ Contribution of Italy.

⁴⁰ Contribution of Comisión para los Derechos Humanos del Estado Zulia.

⁴¹ www.brookings.edu/research/internet-shutdowns-cost-countries-2-4-billion-last-year/; and www.top10vpn.com/cost-of-internet-shutdowns/.

⁴² https://news.un.org/en/story/2016/12/548052-silencing-opposition-not-solution-un-rights-chief-saysinternet-blackout-looms.

⁴³ Contribution of Access Now; A/HRC/41/41, para. 51.

⁴⁴ A/HRC/41/41, para. 53.

⁴⁵ www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=24945&LangID=E.

⁴⁶ See communications AL CMR 2/2017, dated 3 February 2017 (in French); AL CMR 1/2018, dated 25 April 2018 (in French); and UA ETH 5/2016, dated 7 October 2016. Available at spcommreports.ohchr.org.

⁴⁷ Human Rights Committee, general comment No. 34 (2011), para. 43.

⁴⁸ Contribution of the Special Rapporteur on the right to privacy. See also https://cipesa.org/?wpfb_dl=294.

constituted an extreme and disproportionate measure that could not be justified in any circumstance. The Special Rapporteur on the right to freedom of opinion and expression, and his peers from regional organizations, also stated that shutting down entire parts of communications systems can never be justified under human rights law.⁴⁹ He asked States and other actors to refrain from imposing Internet or telecommunications network disruptions and shutdowns.⁵⁰ Likewise, the Special Rapporteur on freedom of expression of the Organization of American States noted that cuts in Internet service and blanket Internet shutdowns were likely to contravene freedom of expression, unduly restricting the right to receive and impart information and to assemble online.⁵¹

23. While it is primarily the duty of States to avoid resorting to shutdowns, private companies also have a responsibility in this regard. Requests from States to switch off communications are implemented by providers that operate networks or facilitate network traffic. These providers could play a role in challenging Internet shutdown requests from governments and keep their customers informed of developments.⁵² It is also critical that private companies ensure the greatest possible transparency in their actions when they implicate the freedom of peaceful assembly and other fundamental rights,⁵³ including through reporting government requests for shutdowns and the implementation of any disruption orders.

V. New technologies and the surveilling of protesters

24. Safe and confidential communications play a key role in the planning and holding of peaceful protests.⁵⁴ Technology-enabled surveillance poses significant risks to the enjoyment of human rights in peaceful assemblies and is an important contributor to the shrinking of civic space in many countries. New technologies have significantly expanded the abilities of State authorities to surveil protests, protest organizers and participants. These technologies are used to monitor the planning and organization of protests – for example, through the hacking of the digital tools used by those seeking to assemble. They are also used to conduct surveillance during protests – for example, through the use of biometrics-based facial recognition technology and the interception of communications. In response to this trend, the Human Rights Council has underlined the importance of privacy online for the realization of the rights of peaceful assembly and association. It has also emphasized that technical solutions to secure and to protect the confidentiality of digital communications, including measures for encryption and anonymity, can be important to ensure the enjoyment of these rights.⁵⁵ In his report on the right to privacy in the digital age, the High Commissioner outlined key safeguards that States should implement for surveillance measures.⁵⁶ National legal frameworks, based on the principles of necessity and proportionality, are needed to regulate the use of surveillance tools.57

25. Similarly, the Special Rapporteur on the right to freedom of opinion and expression has called for strict limitations on restrictions to encryption and anonymity in order to ensure compliance with the principles of legality, necessity, proportionality and legitimacy.⁵⁸ Such restrictions are often used by law enforcement and intelligence agencies as quick reactions to terrorism, while failing to meet imperatives of necessity and proportionality, and

⁴⁹ www.osce.org/fom/154846.

⁵⁰ www.osce.org/representative-on-freedom-of-media/425282.

⁵¹ Contribution of the Special Rapporteur on the freedom of expression of the Organization of American States.

⁵² Contribution of Al Sur.

⁵³ A/HRC/32/38, para. 89.

⁵⁴ Contribution of Privacy International; A/HRC/31/66, para. 75.

⁵⁵ Human Rights Council resolutions 34/7 and 38/7.

⁵⁶ A/HRC/39/29.

⁵⁷ Contribution of Al Sur.

⁵⁸ A/HRC/29/32, para. 56.

consequently undermining trust in the rule of law. ⁵⁹ Other experts have recalled the importance of judicial control and proportionality when anonymity is lifted.⁶⁰

26. The Special Rapporteur on the rights to freedom of peaceful assembly and of association has called for the prohibition of indiscriminate and untargeted surveillance of those exercising their right of peaceful assembly, in both physical and digital spaces. He underscored that surveillance of protesters should only be conducted on a targeted basis, and only when there is reasonable suspicion that they are engaging in or planning to engage in serious criminal offences, based on principles of necessity and proportionality and with judicial supervision.⁶¹ The General Assembly has also recognized that States should refrain from employing unlawful or arbitrary surveillance techniques, which could include forms of hacking.⁶²

27. Despite these warnings, States continue to unduly resort to intrusive online surveillance and the hacking of the ICT tools used by those planning or organizing protests as well as protesters themselves. Surveillance software is used to infiltrate protesters smartphones, often after they are duped into downloading certain applications. These applications give unimpeded access to protesters' phones and their contacts, chat messages, phone conversations, and photos and videos shared on social media and communication platforms.⁶³ Another cause for concern is the hacking of the social media accounts of protesters and organizers. Some State authorities use hacked devices to create false accounts to impersonate protest organizers and spread false information, or endanger followers, including through doxing (i.e., maliciously publishing personal information to encourage physical harm to protesters and organizers).

28. The monitoring of and interference with protesters' use of mobile phones is another practice with considerable negative impacts on assemblies. Authorities use a variety of devices impersonating mobile phone traffic base stations to intercept mobile phone traffic and track the location of mobile phone users. These devices typically capture the International Mobile Subscriber Identity and the International Mobile Station Equipment Identifier of mobile phones, which are unique to each mobile phone and SIM card. International Mobile Subscriber Identity catchers can be widespread, easy to transport, and can, in some cases, cover entire cities. Once connected to such a catcher, mobile phones reveal information that can identify their users. These catchers are often used to block or intercept data transmitted and received by mobile phones, including the content of calls, text messages and websites visited. In this way, such devices are used for the surveillance of individuals assembling or associating with others.⁶⁴ This type of identity catcher can potentially capture the call activity of thousands of people. Awareness of this risk often has a disturbing effect on individuals, dissuading them from exercising their right to peaceful assembly in order to avoid having their communications recorded and monitored.

29. Online surveillance technologies and interference in communications often lead to harassment and intimidation. ⁶⁵ For instance, International Mobile Subscriber Identity catchers may be used to send messages to mobile phones in order to intimidate potential participants. These technologies have a chilling effect on demonstrations, as people fear subsequent reprisals for planning or participating in protests.⁶⁶ In some countries, individuals who post information about protests or use social media to raise politically sensitive issues, face prosecution. As a result, protesters feel compelled to self-censor, keep a low social media

⁵⁹ Ibid., paras. 36 and 59, and A/HRC/40/52/Add.1. See also

www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=24637&LangID=E.
Contribution of the Special Rapporteur on freedom of expression of the Organization of American States.

⁶¹ A/HRC/41/41, para. 57.

⁶² General Assembly resolution 73/179.

⁶³ Contribution of Access Now.

⁶⁴ Contribution of the International Network of Civil Liberties Organizations (INCLO).

⁶⁵ Ibid.

⁶⁶ Contribution of Defensoría del Pueblo de la Nación Argentina.

profile, communicate only via secure messaging apps, delete protest-related conversations and only use prepaid SIM cards.⁶⁷

30. Another development that is particularly problematic is the practice of routinely making audiovisual recordings of assembly participants, often in combination with the deployment of facial recognition technology. Such automated technology relies on the comparison of the digital representation of a face captured in a digital image – known as a "template" – with other templates in a database. From the comparison, a higher or lower probability is deduced that the person is indeed the person to be authenticated or identified. The probability threshold to consider two or more templates a match is determined by the users of the system. When footage obtained from closed circuit television video cameras deployed in public spaces is compared in near real-time with images in databases, this is referred to as live facial recognition technology.

31. The use of facial recognition technology brings about significant risks for the enjoyment of human rights, including the right of peaceful assembly. Despite remarkable accuracy gains in recent years, this technology is still prone to errors. For example, an image may be falsely considered a match (known as a "false positive"), with significant consequences to a person's rights, including in cases where a person is wrongly flagged as a suspect of a crime and may be detained and prosecuted. When facial recognition technology is used on a large number of people, even low rates of error may result in the inaccurate flagging of hundreds of individuals.

32. Moreover, facial recognition technology may perpetuate and amplify discrimination, including against Afrodescendants and other minorities, women or persons with disabilities,⁶⁸ because it can be used to profile individuals on the basis of their ethnicity, race, national origin, gender and other characteristics. This technology may also lead to unintended discrimination in light of the fact that its accuracy depends on factors such as skin colour or gender, and experience has shown lower accuracy rates for the recognition of dark-skinned persons and women.⁶⁹

33. The use of facial recognition technology to identify persons in the context of assemblies has considerable adverse effects on the rights to privacy, freedom of expression and peaceful assembly, if effective safeguards are not in place. A person's image constitutes one of the key attributes of her or his personality as it reveals unique characteristics distinguishing her or him from other persons.⁷⁰ Recording, analysing and retaining someone's facial images without her or his consent constitute interferences with a person's right to privacy. By deploying facial recognition technology at assemblies, these interferences occur on a mass and indiscriminate scale, as this requires the collection and processing of facial images of all persons captured by the camera equipped with or connected to a facial recognition technology system.

34. Assemblies traditionally have allowed participants a certain level of protection against being singled out or identified.⁷¹ This protection was already considerably weakened by many States that routinely made audiovisual recordings of assembly participants.⁷² The rise of facial recognition technology has led to a paradigm shift in comparison with practices of audiovisual recordings, as it dramatically increases the capacity to identify all or many participants in an assembly in an automated fashion. This is particularly problematic if live facial recognition technology is deployed, permitting real-time identification as well as

⁶⁷ Contributions of Access Now and Amnesty International.

⁶⁸ Contributions of Amnesty International and the Digital Rights Foundation.

⁶⁹ See Joy Buolamwini and Timnit Gebru, "Gender shades: intersectional accuracy disparities in commercial gender classification", *Proceedings of Machine Learning Research*, vol. 81 (2018), pp. 1–15; and Inioluwa Deborah Raji and Joy Buolamwini, "Actionable auditing: investigating the impact of publicly naming biased performance results of commercial AI products", Conference on Artificial Intelligence, Ethics and Society (2019).

⁷⁰ European Court of Human Rights, *Reklos and Davourlis v. Greece* (application No. 1234/05), judgment of 15 April 2009, para. 40.

⁷¹ OSCE/ODIHR, Guidelines on Freedom of Peaceful Assembly, 3rd ed. (2019), para. 71.

⁷² Ibid., para. 172.

targeted surveillance and tracking of participants. Faulty live identification may also lead to undue interventions in peaceful assemblies by security forces. The negative effects of the use of facial recognition technology on the right of peaceful assembly can be far-reaching, as United Nations human rights experts have pointed out.⁷³ Many people feel discouraged from demonstrating in public places and freely expressing their views when they fear that they could be identified and suffer negative consequences.⁷⁴

35. Audiovisual recording and facial recognition techniques should only be used when such measures meet the three-part test of legality, necessity and proportionality. The possibility that recourse to facial recognition technology during peaceful protests could ever meet the test of necessity and proportionality, given its intrusiveness and serious chilling effects, has been questioned.⁷⁵ Authorities should generally refrain from recording assembly participants. As required by the need to show proportionality, exceptions should only be considered when there are concrete indications that serious criminal offences are actually taking place or that there is cause to suspect imminent and serious criminal behaviour, such as violence or the use of firearms. Existing recordings should only be used for the identification of assembly participants who are suspects of serious crimes.⁷⁶

36. While the use of facial recognition technology in the context of peaceful assemblies is discouraged, governments that still deploy this technology should ensure that they do so on a clear legal basis, including a robust, human rights-compliant regulatory framework. In addition, the authorities that continue to use audiovisual recording and facial recognition techniques should put in place a regulatory framework that contains provisions effectively protecting personal data, including with regards to facial images and the data derived from them. Measures should provide for the immediate deletion of all data, except for the specific segments that may be necessary for the conduct of criminal investigations and the prosecution of violent crimes. All persons concerned should have the right to access and to request the rectification and expungement of such information that is stored without a legitimate purpose and a legal basis, except when this would frustrate criminal investigations or prosecutions for which these data are needed.⁷⁷

37. Furthermore, any use of audiovisual recording and facial recognition technology must be subject to robust and well-resourced oversight mechanisms. While part of the oversight can be carried out by independent and impartial data protection authorities, States should consider additional measures, including the involvement of an independent body, preferably of a judicial nature, in charge of authorizing the use of facial recognition technology measures in an assembly context. In any case, any use of recording and facial recognition technology should be open to judicial challenge. In all circumstances, the authorities should be transparent about the use of recording and facial recognition technology and always notify members of the public when they are, or may be, recorded and/or when their images may be processed in a facial recognition system.⁷⁸

38. A welcome approach is that of a number of cities, which have already adopted bans and moratoriums on government use of facial recognition technology.⁷⁹ Despite serious concerns about the adverse human rights impact of facial recognition technology, however, police forces in several countries continue to use these technologies as regular policing tools in the context of peaceful assemblies, often with weak regulatory frameworks and oversight, or with none at all. This is a worrying trend, which may result in public spaces being systematically kept under surveillance by cameras and facial recognition technology. States should consistently conduct human rights due diligence not only before deploying facial

⁷³ A/HRC/31/66, para. 76, and CCPR/C/CHN-MAC/CO/1, para. 16.

 ⁷⁴ European Union Agency for Fundamental Rights, "Facial recognition technology: fundamental rights considerations in the context of law enforcement" (Vienna, 2020), p. 20; contributions of the Netherlands Institute for Human Rights and the Association for Monitoring Equal Rights. See also A/HRC/31/66, para. 76; and OSCE/ODIHR, *Guidelines on Freedom of Peaceful Assembly*, para. 172.

⁷⁵ FRA study, p. 34.

⁷⁶ OSCE/ODIHR, Guidelines on Freedom of Peaceful Assembly, para. 172.

⁷⁷ A/HRC/39/29, paras. 27–33.

⁷⁸ A/HRC/31/66, para. 78.

⁷⁹ https://nymag.com/intelligencer/2020/01/why-we-should-ban-facial-recognition-technology.html.

recognition technology devices but also throughout the entire life cycle of these tools.⁸⁰ Further in-depth studies about the accuracy and risks entailed by the use of facial recognition technology are needed to increase the understanding of its potential impact.

39. The use of surveillance technologies has grown rapidly over recent years with the support of the private sector. All business enterprises, including those that develop new technologies that are used to monitor the activities of civil society actors, have a responsibility to respect human rights, in line with the Guiding Principles on Business and Human Rights.⁸¹ They should have in place a policy commitment to meet that responsibility and carry out due diligence processes to identify, prevent, mitigate and account for how they address their impacts on human rights. In addition, they are expected to establish and maintain processes to address the adverse human rights impact they cause or to which they contribute. In particular, through their role in the development and provision of facial recognition technology, companies may contribute to human rights violations stemming from its use by State authorities. Corporate secrecy often prevents sufficient public scrutiny of facial recognition technology as a commercial product. As a result, companies are not fully accountable for the claims they make about the accuracy of facial recognition products or the implications for individuals' rights. The lack of transparency and oversight also contributes to a lack of available remedies.82

40. Surveillance technologies are traded around the globe, making them easily accessible for a broad range of uses, including to carry out and facilitate unlawful and arbitrary surveillance. Adequate export control regimes for the sale of surveillance technology can be a powerful tool for limiting such abuses. States should refrain from granting export licences if there are indications that the surveillance tools at issue could be used in the importing country to violate or abuse human rights. Against the background of widespread abuse of surveillance technologies around the world, the Special Rapporteur on the right to freedom of opinion and expression has called for States to impose a moratorium on granting export licences for surveillance technologies until the use of those technologies can be technically restricted to lawful purposes that are consistent with human rights standards, or until it can be ensured that those technologies will only be exported to countries in which their use is subject to authorization – granted in accordance with due process and the standards of legality, necessity and legitimacy – by an independent and impartial judicial body.⁸³ The High Commissioner supports this call.

VI. Other new technologies and assemblies: less-lethal weapons and ammunition technology

41. Less-lethal weapons and ammunition play a critical role in law enforcement, both in situations where some degree of force is necessary but where the use of firearms would be unlawful, and also as an alternative to lethal force.⁸⁴Appropriate less-lethal weapons should therefore be made available to law enforcement officials.⁸⁵ Although such weapons entail a lower risk of causing death or serious injury than firearms, however, less-lethal weapons may nonetheless kill or inflict serious injury if not used by trained law enforcement officials according to their specifications and international law principles on the use of force.⁸⁶

42. Batons, pepper spray and tear gas have already been used in law enforcement for many decades. Advances in technology have led to the development and use of a number of new

⁸⁰ A/HRC/43/29, paras. 51 and 60.

⁸¹ A/HRC/17/31, annex.

⁸² AI Now, written testimony to the House of Representatives of the United States of America, dated 15 January 2020.

⁸³ A/HRC/41/35, para. 49.

⁸⁴ See United Nations Human Rights Guidance on Less-Lethal Weapons in Law Enforcement, advance edited version (2020). Available at www.ohchr.org/Documents/HRBodies/CCPR/ LLW_Guidance.pdf.

⁸⁵ Human Rights Council resolution 25/38.

⁸⁶ See United Nations Human Rights Guidance on Less-Lethal Weapons in Law Enforcement.

types of less-lethal weapons and ammunition, which are used to crack down on protesters, including: conducted-energy weapons, such as Taser guns; advanced kinetic impact projectiles, such as attenuating energy projectiles; drones and autonomous systems that employ tear gas and other less-lethal ammunition; pepper balls and pepper-ball launchers; dazzling weapons; acoustic weapons; and malodorants. In 2020, OHCHR issued an advanced edited version of the forthcoming publication *United Nations Human Rights Guidance on Less-Lethal Weapons in Law Enforcement*. The Guidance was elaborated in collaboration with the Geneva Academy of International Humanitarian Law and Human Rights and the Centre for Human Rights at the University of Pretoria, South Africa.

43. Under international law, the use of less-lethal weapons and ammunition is subject to strict compliance with the principles of necessity and proportionality.⁸⁷ Although they are regarded as less lethal, they still present serious risks of harm,⁸⁸ and calls have been made for certain less-lethal weapons and ammunition to be prohibited in the management of assemblies.⁸⁹ One State indicated that its police forces did not have recourse to new lesslethal weapons and sub-munition technology in assemblies.⁹⁰ Inputs for the present report noted the trauma caused to people and communities by inappropriate use that in some cases has led to injury or death, and the resulting effect of dissuading people from exercising their right of peaceful assembly.⁹¹ The Human Rights Committee has been critical about use of force violations by law enforcement officials in the context of protests in various countries.92 The Committee of the Rights of the Child expressed concern about physical violence against children, including the disproportionate use of tear gas and pepper spray during forced evictions for urban infrastructure projects,⁹³ and about the use on children of high-frequency ultrasound devices, as well as flash ball devices and Taser guns.⁹⁴ The Committee recommended that the concerned State reconsider or ban the use of high-frequency ultrasound and flash ball devices and other harmful devices.95

44. Similar concerns have also been expressed by special rapporteurs⁹⁶ and in the context of the universal periodic review.⁹⁷ The Special Rapporteur on extrajudicial, summary or arbitrary executions has previously observed that advances in technology come with a heightened responsibility for States and others who use them and a need to ensure monitoring and accountability.⁹⁸ Under international human rights law and principles on the use of force, States must ensure that law enforcement officials are held accountable for any decision to use force, ⁹⁹ following effective, transparent, prompt, independent and impartial investigations.¹⁰⁰ Where an investigation into the use of force by law enforcement officials reveals evidence that a death or injury may have been caused unlawfully, the State should ensure that perpetrators are prosecuted through a judicial process and, if convicted, given appropriate punishment.¹⁰¹

45. Some less-lethal weapons deliver force autonomously or by remote control, which raises complex questions concerning accountability for human rights violations, including the right to life. The Human Rights Committee has recommended that these weapons systems

⁸⁷ Human Rights Committee, general comment No. 36 (2018) on the right to life, para. 14.

⁸⁸ INCLO, "Unhealed wounds – the faces behind the injuries of crowd-control weapons". Available at www.inclo.net/projects/unhealed-wounds/.

⁸⁹ Contribution of Amnesty International.

⁹⁰ Contribution of Switzerland.

⁹¹ Contributions of Omega Research Foundation and the Human Rights House Foundation.

⁹² CCPR/C/IRQ/CO/5, para. 41; CCPR/C/KOR/CO/4, para. 52; and CCPR/C/MKD/CO/3, para. 19.

⁹³ CRC/C/BRA/CO/2-4, para. 35.

⁹⁴ CRC/C/FRA/CO/4, para. 47.

⁹⁵ Ibid., para. 49.

⁹⁶ www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25269&LangID=E.

⁹⁷ A/HRC/30/12, para. 176.223; A/HRC/41/6, paras. 125.55–125.56; A/HRC/39/10, para. 129.73.

⁹⁸ A/69/265, para. 67.

⁹⁹ United Nations Human Rights Guidance on Less-Lethal Weapons in Law Enforcement, para. 3.1.

¹⁰⁰ The Minnesota Protocol on the Investigation of Potentially Unlawful Death (2016): The Revised United Nations Manual on the Effective Prevention and Investigation of Extra-legal, Arbitrary and Summary Executions (United Nations publication, Sales No. E.17.XIV.3), para. 20.

¹⁰¹ Ibid., para. 8 (c).

not be developed or put into operation unless it has been established that their use conforms to international human rights law.¹⁰² Special rapporteurs have further recommended that fully autonomous weapons systems that employ lethal or less-lethal force without meaningful human intervention once deployed should never be used for law enforcement during an assembly.¹⁰³

46. Lack of proper training on the use of less-lethal weapons is also a major concern. Such training is needed to ensure that these weapons are not used in a way that gives rise to unintended, harmful and sometimes lethal consequences for protesters and bystanders.¹⁰⁴ Given that less-lethal weapons can become lethal or cause serious injury, law enforcement officials must be properly trained in their use.¹⁰⁵ The Special Rapporteur on extrajudicial, summary or arbitrary executions, noting that protesters and bystanders have been wounded or killed following the use of less-lethal weapons, called for law enforcement officials to be trained on each type of device provided to them. In some cases, licences may be required for specific devices.¹⁰⁶

47. The absence of adequate provisions in national law regarding the use of less-lethal weapons, including on the type and scope of technologies that can be acquired and used for national security purposes, is another cause for concern.¹⁰⁷ Only 12 States are reported to have specific laws on their use.¹⁰⁸ Increasingly, advanced technologies require a more detailed national regulatory framework and guidance on the development and use of new less-lethal weapons, including on how to ensure respect for human rights in their use.¹⁰⁹ New law enforcement weapons should be tested prior to their use by a legally constituted, independent, multidisciplinary and transparent panel of experts that is free of direct commercial or law enforcement interests. Mandatory monitoring should also be required for the use of such weapons.¹¹⁰

48. When making business decisions and entering into business relationships, companies should apply human rights due diligence to avoid infringing on the human rights of individuals and should address the potential adverse human rights impacts these decisions may entail. Business enterprises developing and manufacturing less-lethal weapons should address the human rights impacts of such weapons. Concerns have been raised about the development of new less-lethal weapons and ammunition by private companies without a clearly defined law enforcement purpose and lacking evidence of their operational advantage.¹¹¹ Private companies that develop and manufacture less-lethal weapons should provide information about specific risks these weapons may pose to human rights, be transparent about technical specifications and conduct safety analyses.¹¹²

VII. Conclusions and recommendations

49. Given the importance of the enjoyment of the right of peaceful assembly for democracies, States must ensure that this right can be enjoyed to the greatest extent possible. Furthermore, States should endeavour to fully understand the causes behind protests, including structural discrimination, restrictions on fundamental freedoms and socioeconomic inequalities.

¹⁰² Human Rights Committee, general comment No. 36, para. 65.

¹⁰³ A/HRC/31/66, para. 67.

¹⁰⁴ Contributions of Defensoría del Pueblo de la Nación Argentina, Italy, ODIHR and the Omega Research Foundation.

¹⁰⁵ Contribution of the Omega Research Foundation.

¹⁰⁶ A/69/265, para. 74.

¹⁰⁷ Contribution of the National Human Rights Institution of Mexico and the Ukrainian Parliament Commissioner for Human Rights.

¹⁰⁸ https://rightofassembly.info.

¹⁰⁹ A/69/265, para. 73.

¹¹⁰ Ibid., para. 75.

¹¹¹ Contribution of Amnesty International.

¹¹² See United Nations Human Rights Guidance on Less-Lethal Weapons in Law Enforcement.

50. Any restriction on peaceful assembly must have a basis in law, be necessary to achieve one of the permissible aims and be proportionate. Furthermore, restrictions must not involve discrimination on any ground. In addition, more effort is needed from States to ensure accountability for human rights violations and abuses in the context of assemblies, and all victims should have access to a remedy.

51. New technologies can be enablers for the exercise of the right of peaceful assembly and related rights by facilitating mobilization for and the organization of protests. Such technologies may enable the holding of assemblies online and may facilitate and enhance the involvement and participation of those often marginalized. ICT can also support the proper management of assemblies and increase transparency and accountability.

52. At the same time, new technologies bring considerable risks to those wishing to engage in peaceful assemblies, including the potential use of such technologies to surveil or crack down on protesters, leading to human rights violations. These new technologies are being developed at a rapid pace and the recourse to them by States is becoming more common. They are often deployed without the application by States or companies of human rights due diligence and in the absence of a regulatory framework that is in line with human rights norms and standards. As a result, surveillance spreads, online civic space is reduced and a chilling effect on the right of peaceful assembly ensues.

53. In this context, the High Commissioner recommends that States:

Internet-based technologies as enablers

(a) Close the digital divide and secure affordable Internet access for the greatest number of people in order to increase the use of Internet-based technologies as enablers and facilitators for the exercise of human rights in the context of assemblies;

Network shutdowns

(b) Avoid resorting to disruptions and shutdowns of Internet or telecommunications networks at all times and particularly during assemblies, including those taking place in electoral contexts and during times of unrest;

(c) Repeal or amend, as appropriate, laws and policies that permit such network disruptions and shutdowns, and refrain from adopting any such laws and policies in the future;

Surveillance

(d) Ensure that any interference with the right to privacy, including by communications surveillance and intelligence-sharing, complies with international human rights law, including the principles of legality, necessity and proportionality;

(e) **Promote and protect strong encryption and anonymity options online, and ensure that laws provide for judicial supervision for any lifting of anonymity;**

(f) Prohibit the use of surveillance techniques for the indiscriminate and untargeted surveillance of those exercising the right of peaceful assembly and association, both in physical spaces and online, and ensure that targeted surveillance measures are authorized only when there is reasonable suspicion that a particular individual has committed or is committing a criminal offence, or is engaged in acts amounting to a specific threat to national security;

(g) Ensure that an assessment of the risk of human rights violations and abuses facilitated by surveillance technology is a key factor in decisions on export licences;

Facial recognition technology

(h) Never use facial recognition technology to identify those peacefully participating in an assembly;

(i) Refrain from recording footage of assembly participants, unless there are concrete indications that participants are engaging in, or will engage in, serious criminal activity, and such recording is provided by law, with the necessary robust safeguards;

(j) Establish a moratorium on the use of facial recognition technology in the context of peaceful assemblies, at least until the authorities responsible can demonstrate compliance with privacy and data protection standards as well as the absence of significant accuracy issues and discriminatory impacts, and until the following recommendations are implemented:

(i) Systematically conduct human rights due diligence before deploying facial recognition technology devices and throughout the entire life cycle of the tools deployed;

(ii) Establish effective, independent and impartial oversight mechanisms for the use of facial recognition technology, such as independent data protection authorities, and consider imposing a requirement of prior authorization by an independent body for the use of facial recognition technologies in the context of assemblies;

(iii) Put in place strict privacy and data protection laws that regulate the collection, retention, analysis and otherwise processing of personal data, including facial templates;

(iv) Ensure transparency about the use of image recordings and facial recognition technology in the context of assemblies, including through informed consultations with the public, experts and civil society, and the provision of information regarding the acquisition of facial recognition technology, the suppliers of such technology and the accuracy of the tools;

(v) When relying on private companies to procure or deploy these facial recognition technologies, request that companies carry out human rights due diligence to identify, prevent, mitigate and address potential and actual adverse impact on human rights and, in particular, ensure that data protection and non-discrimination requirements be included in the design and the implementation of these technologies;

(k) Given the frequency with which less-lethal weapons and ammunition have caused substantial harm in the context of peaceful assemblies, apply the standards of necessity and proportionality rigorously to their use, including by refraining from the use of such weapons in situations of crowd control that can be addressed through less harmful means,¹¹³ and ensure that the use of less lethal weapons is closely monitored;

(1) Take into account the *United Nations Human Rights Guidance on Less-Lethal Weapons in Law Enforcement*, which supplements and complements the Code of Conduct for Law Enforcement Officials¹¹⁴ and the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials;¹¹⁵

(m) Ensure mandatory training for all law enforcement personnel on lesslethal weapons and ammunition, including on international norms and standards on the use of force and human rights, and restrict the use of less-lethal weapons and ammunition to law enforcement officials who have undergone appropriate training;

(n) Ensure accountability for human rights violations related to the improper use of less-lethal weapons and ammunition by law enforcement in the context of assemblies through judicial or non-judicial mechanisms, such as commissions of inquiry or disciplinary boards, and ensure that investigations into the misuse of less-lethal

¹¹³ Human Rights Committee, general comment No. 36, para. 14.

¹¹⁴ General Assembly resolution 34/169, annex.

¹¹⁵ General Assembly resolution 45/166.

weapons and ammunition by law enforcement are effective, transparent, prompt, independent and impartial.

54. In addition, the High Commissioner recommends that business enterprises:

(a) Make all efforts to meet their responsibility to respect all human rights, including through the full operationalization of the Guiding Principles on Business and Human Rights, which implies conducting effective human rights due diligence across their operations and in relation to all human rights, including the right of peaceful assembly, and taking appropriate action to prevent, mitigate and address actual and potential impacts;

(b) In particular, carry out, as part of due diligence, a thorough human rights impact assessment prior to any potential transaction involving surveillance technologies;

(c) Also carry out human rights due diligence to identify, prevent, mitigate and account for any adverse human rights impacts of the use of facial recognition technology before deploying and throughout the entire life cycle of facial recognition tools;

(d) Challenge Internet shutdown requests from governments through available legal procedures and keep their customers informed of any such requests and any disruption orders implemented;

(e) When developing and manufacturing less-lethal weapons and ammunition, provide information about specific risks these weapons and ammunition may pose, and be transparent about technical specifications, design features and safety analyses conducted.

16