



UvA-DARE (Digital Academic Repository)

Biometrics and International Humanitarian Law

Zwanenburg, M.

Publication date

2021

Document Version

Final published version

[Link to publication](#)

Citation for published version (APA):

Zwanenburg, M. (Author). (2021). Biometrics and International Humanitarian Law. Web publication or website, Articles of War - Lieber Institute.
<https://lieber.westpoint.edu/biometrics-international-humanitarian-law/>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Biometrics and International Humanitarian Law

lieber.westpoint.edu/biometrics-international-humanitarian-law

October 28, 2021

by [Marten Zwanenburg](#) | Oct 28, 2021



In August 2021, [reporting](#) emerged that biometric devices used by United States armed forces in Afghanistan had fallen into the hands of the Taliban. This raised immediate concerns that the devices and the data they give access to might be used by the Taliban for social control and to identify persons who worked with international forces and punish them.

Beyond these immediate concerns, the reporting highlighted the increasing use of biometric technology in military operations. Such use has so far not received much attention outside of certain military circles. This is also the case for the legal framework that regulates such use. During armed conflict, that legal framework consists mainly of International Humanitarian Law (IHL). IHL potentially has important consequences for whether and how biometrics may be used during armed conflict.

This article will provide a brief overview of the relationship between IHL and biometrics. It will first explain what biometrics is, as well as the potential use of biometrics in various activities undertaken during an armed conflict. It will then focus on two of those activities, namely

targeting and the capture and detention of Prisoners of War (POW). The discussion in this article is based on an [article](#) that was recently published in International Law Studies, which discussed the application of IHL to the use of biometrics in more detail.

Overview of Biometrics

“Biometrics” or “biometric recognition” is defined as the automated recognition of individuals based on their biological and behavioral characteristics. It uses the physical, physiological, or behavioral characteristics of individuals to recognize them. Examples of such characteristics are face topography, hand topography, finger topography, iris structure, vein structure of the hand, voice, gait, and DNA. These characteristics are unique to individuals, which makes them very suitable for recognizing persons.

Broadly speaking, a biometric system can be used for two purposes: verification and identification. Verification refers to validating a person’s identity by comparing captured biometric data with a person’s own biometric template(s) stored in a database. This is a one-to-one process, which determines whether the person concerned is who he or she claims to be. Identification refers to recognizing an individual by searching the templates of all the users in a database for a match. Identification is a one-to-many comparison to establish an individual’s identity, without the person concerned having to claim an identity.

Military Use of Biometrics

Biometrics has many potential military applications. Many of these applications are relevant to situations of armed conflict, in which IHL applies. Examples are verification of the identity of persons who wish to gain access to military facilities, identifying the dead, identifying persons in the context of targeting, and identifying captured persons. The remainder of this article will look at the last two uses in more detail.

Targeting

The use of biometrics to aid in targeting during armed conflict is certainly not common, but it is an application which appears to be developing quickly. Because targeting involving the use of biometrics must conform to the rules applicable to the conduct of hostilities, principles such as distinction and precautions must be respected.

The use of biometrics may facilitate the observance of distinction by helping to identify individuals on the battlefield. While the technology is unable to determine the status of persons under IHL as such, it can contribute to confirming the identity of persons. Indirectly, this could lead to establishing the status of various individuals under IHL. For example, remote biometrics could use gait or facial recognition to establish that a particular person is a commander of an organized armed group.

When using biometrics to support targeting, it is important to remember that the technology is not infallible and that characteristics that could typically be used for remote use, such as facial recognition and gait, are reported to be relatively indistinctive. Therefore, reliance on this technology alone may not be sufficient to ensure respect for the principle of distinction. The less reliable the technology is under the circumstances, the less certain the accuracy of the identification becomes. And as the certainty of the identification decreases, the likelihood that the threshold of doubt described in [Article 50](#) of Additional Protocol I (AP I) can be overcome will decrease as well. That article provides that in case of doubt whether a person is a civilian, that person shall be considered to be a civilian. Although this rule does not appear to have the status of customary law, it is binding for those States that are parties to AP I.

The principle of precautions requires that constant care shall be taken to spare the civilian population, civilians, and civilian objects. [Article 57](#), AP I contains a number of specific measures that must be taken to this end. The first of these is the obligation for those who plan or decide upon an attack to do everything feasible to verify that the objective to be attacked is not a civilian or a civilian object.

The word “feasible” is not defined in AP I but is generally understood to mean that which is practicable or practically possible, taking into account all circumstances prevailing at the time, including humanitarian and military considerations. Doing everything reasonably feasible must be understood to also require making a reasonable effort to discover pertinent information. It has been suggested that this would definitely include obtaining all the reasonably available biometric data in order to verify that the intended human objective is in fact a lawful target. This of course presupposes that the armed forces doing the targeting have already undertaken biometric enrollment of persons in the area of operations. Without such enrollment, obtaining biometric data of the intended target would be of no use because this data could not be compared to other data. It also presupposes that the armed forces concerned are able to capture biometric data from a distance.

Capture and Detention of POWs

Another potential application of biometrics is in the context of capture and detention of Prisoners of War (POW). The Geneva Conventions contain requirements concerning the registration of persons who have been taken POW. [Article 122](#) of Geneva Convention III (GC III) requires a Party to an armed conflict to establish an Information Bureau for Prisoners of War and to provide this bureau with certain information concerning the POW.

Although it is obvious that the collection of biometric data may contribute to the purpose underlying this rule, namely the identification of POWs, it does not require such collection. The updated ICRC commentary to GC III [states](#) that “Article 122 does not provide a basis to

collect biological samples and the resulting DNA profiles from all prisoners of war; there must be a specific purpose for doing so” (para. 4795). At the same time, Article 122, GC III does not expressly prohibit the collection of biometric data from persons who have been captured.

This raises the question whether there are IHL provisions that prohibit such collection. Article 17, GC III merits further discussion in this regard. This article provides that every POW, when questioned on the subject, is bound to give only his surname, first names and rank, date of birth, and army, regimental, personal or serial number, or failing this, equivalent information.

The article continues by stating that if a POW “willfully infringes this rule,” the only possible sanction is a restriction of the privileges accorded to his rank or status. This means that other sanctions are not allowed.

One possible conclusion would be that compelling the POW to give information in the form of his biometric characteristics would be a sanction that is not allowed under Article 17. The updated ICRC Commentary to GC III can be read as supporting this view. The commentary to Article 17 only mentions the possibility of using biometrics in connection with paragraph 5 of the article. That paragraph provides that the identity of POWs who, “owing to their physical or mental condition, are unable to state their identity ... shall be established by all possible means.” This suggests biometrics may be used in the case of that particular category of POWs, but not when POWs are able to provide information concerning their identity but decline to do so.

Such a view also seems to find support in the updated ICRC commentary to Article 16 of Geneva Convention I (GC I), which deals with recording and forwarding of information on each wounded, sick, or dead person of the adversary falling into the hands of a party to a conflict. The article does not contain an exhaustive list of information that may be recorded, and in principle biometric data are therefore not excluded. The updated commentary however states in respect specifically of DNA samples that these “may not be taken without the person’s consent, unless there is a legal justification, such as in the case of a criminal investigation, or to identify remains.”

The commentary does not explain why this is the case, but it may be that the drafters of the commentary considered that there was a link with Article 17 GC III. After all, wounded or sick members of the armed forces who fall into the hands of the enemy are in principle POWs. It must be remembered however that the taking of a DNA sample requires taking body material, whether directly from the individual concerned or what the person left behind. Other biometric modalities, such as scanning of the iris or voice recognition, do not require taking actual material. As a result, it can be argued that capturing such biometrics is less invasive than taking DNA. Such a view seems to be supported by the updated commentary to Article 16 of GC I, which states that “an individual may be fingerprinted or photographed,” without making any reference to consent of the individual concerned (para. 1584).

Another view on the meaning of Article 17, GC III is also possible. It can be argued that taking biometric data from a POW does not constitute a sanction. Under this view, the purpose of taking biometric data is not to punish a POW, but rather to make it possible to identify him or her through alternative means than the POW providing the information. In this sense, the involuntary taking of biometric data would not constitute exposure to “unpleasant or disadvantageous treatment” in the sense of Article 17, fourth paragraph. This would in any case apply to the collection of biometric data in so far as it is done without physically restraining the POW or forcing him or her to adopt a certain position. Even with respect to the collection of biometric data while physically restraining the POW or forcing him or her to adopt a certain position, it can be argued that identification of the POW using such alternative means contributes to the objective underlying the obligation to register a POW discussed above, namely to ensure that no one goes missing or is forcibly disappeared. As a consequence, Article 17 should not be read as prohibiting biometric collection.

There is some evidence in state practice to support the view that Article 17, GC III does not prohibit the involuntary taking of biometric data. For example, the United States and Norway appear to allow the collection of biometric information from POWs, or even to require it (Joint Publication 3.63, p. IV-1; Norwegian Manual of the Law of Armed Conflict, p. 129).

Conclusion

IHL was not developed with biometrics in mind. As has been demonstrated above, however, this does not mean the use of biometrics in armed conflict is not regulated by IHL rules. On the contrary, such rules may have important consequences for whether and how biometrics can be used during armed conflict. Having said this, the application of certain rules of IHL to biometrics raises questions of interpretation, Article 17, GC III being a case in point.

This raises the question whether new law is needed to regulate the use of biometrics during armed conflict. It is submitted that a necessary first step toward answering that question is a discussion among states on the use of biometrics in armed conflict in general, and the applicable legal framework in particular. Such a discussion should take into account that IHL may not be the only relevant legal regime. It should also take into consideration not only the potential benefits of biometrics, but also the potential risks. The recent events in Afghanistan have brought some of those risks in sharp relief.

Marten Zwanenburg is Professor of Military Law at the University of Amsterdam and at the Faculty of Military Sciences of the Netherlands Defence Academy.

SUBSCRIBE