

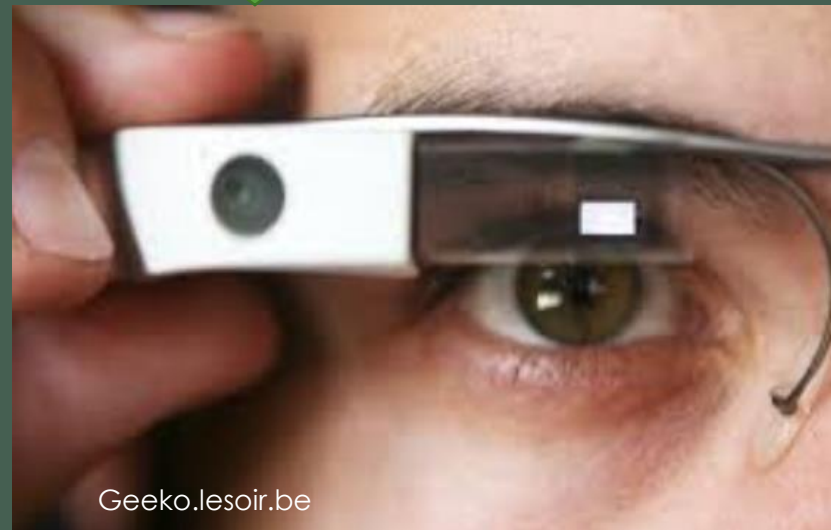


THE REGULATION OF FUTURE WARFARE TECHNOLOGIES

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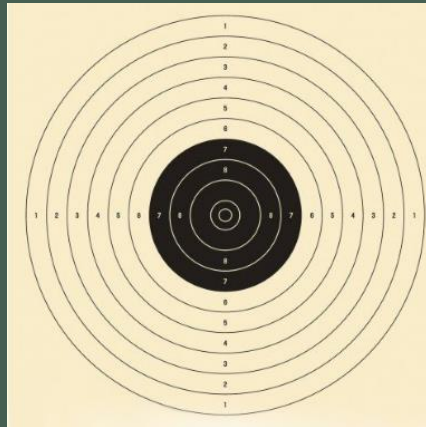
GoogleTM
GLASS



BMI:
a device that ‘translates
neuronal information into
commands capable of
controlling external software
or hardware such as a
computer or robotic arm’
(*Nature*)



'Humans [...] we're genuinely emphatic as species [...] we don't actually really want to kill each other. Which is a good thing. Until your future depends on wiping out the enemy [...] Many years ago [...] early 20th Century, most soldiers didn't even fire their weapons. Or if they did, they would just aim over the heads of the enemies [...] Even in World War II, in a firefight, only 15%, 20% of the men would pull the trigger [...] So we adapted. Better training. Better conditioning [...] Then comes the Vietnam War and the shooting percentage goes up to 85% [...] the guys who get a kill [...] came back all messed up in the head [...]' (Arquette)



'every action on the battlefield including firing your rifle can be broken down into smaller subparts' (Wayne Sharrocks)

**I – Regulating warfare technologies in
their experimental phase**

**II – Regulating the future use of warfare
technologies**

Conclusion

I – Regulating warfare technologies in their experimental phase

‘Microbial’ : ‘[o]f, relating to, or caused by microbes’
(*OED*)

‘biological’ : ‘[i]nvolving or consisting of living organisms;
derived from living organisms’ (*OED*)

‘toxin’ : ‘any poisonous substance produced by
bacteria, animals, or plants’ (*Collins*)

Chemical Weapons

↓
'toxic chemicals and their precursors'
(*art II-1-a*)

↓
'[m]unitions and devices, specifically
designed to cause death or other harm
through' their 'toxic properties' (*art II-1-b*)
+ equipment designed for their use (*art II-1-c*)

↓
'[a]ny chemical which through its chemical action on life processes can cause death,
temporary incapacitation or permanent harm to humans or animals' + the 'chemical
reactant' taking part in their 'elaboration' (*arts II-2 + II-3*)

Art 36 Additional Protocol I

‘[i]n the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Parties’

‘method of warfare has referred to how warfare is conducted, while means of warfare has referred to weapons or devices used to conduct warfare’ (*DOD*)



‘[w]here the BMI does not use external sensors to record neural activity but relies on implanted electrodes, the integration of the warfighter with the weapon system is such that it is difficult to separate the two ...



... In such circumstances, the warfighter becomes part of the weapon system, and thus a component of a means of warfare’ (*Chircop + Livoja*)

Problem of Dual Use

HR: ICCPR (no one shall be subjected without his free consent to medical or scientific experimentation') + ECHR case law = prohibition of non-consensual experiments

IHL: GCIII, GCIV, PI: no experimentation on civilians, POW's and other protected persons, except when justified by their medical treatment or state of health

Biomedical research law: non-binding (NC, DOH) / minor support (Oviedo)

II – Regulating the future use of warfare technologies

‘The proportionality principle may [...] not in itself exclude the use of nuclear weapons in self-defence in all circumstances’

‘It suffices for the Court to note that the very nature of all nuclear weapons and the profound risks associated therewith are further considerations to be borne in mind by States believing they can exercise a nuclear response in self-defence in accordance with the requirements of proportionality’

ICJ (Advisory Opinion, 1996) Legality of the Threat or Use of Nuclear Weapons





Wikipedia

Blinding laser
weapons



Youtube



slncmac

‘weapons
the primary
effects of
which is to
injure by
fragments
which in the
human body
escape
detection by
X-rays’



Wired

Incendiary weapons + mines and booby
traps (when risks for civilians)

Protocol I, II, III, IV to the 1980 Convention on
Certain Conventional Weapons

Fundamental principles of IHL:

- 1) DISTINCTION
- 2) PRECAUTION
- 3) PROHIBITION OF UNNECESSARY SUFFERING
- 4) NECESSITY AND PROPORTIONALITY

‘Generally speaking, the privilege against self-incrimination can operate to prevent the use of compelled information in subsequent criminal proceedings [...] one might draw a distinction between those implants that require some form of cognitive processing of the data by the individual and those which are merely a direct video feed and operate in much the same way as a helmet camera’ (*Harrison Dinniss and Kleffner*)



Tintin (published in the UK by Egmont)

"So you see the terms and conditions here.

- Yeah, that's like a whole essay, man".

"What is that?

- That's your consent video.

From when you signed up six months ago. Basically, it says you agree to Mass implant activation

- I didn't do this

- Yes, you did

[...] Part of what you're agreeing to is not realising you've been put in this state".



Conclusion

A need for a better protection of armies' own personnel?



Red Cross

Pictures Credit

Slide 2 :

- www.dailymail.co.uk/news/article-2322284/Revealed-What-really-like-look-Google-Glass.html
- <http://geeko.lesoir.be/2017/08/10/les-nouvelles-google-glass-sont-disponibles-a-la-vente/>
- Black Mirror

Slide 3 :

- www.rnel.pitt.edu/recruitment/individuals-tetraplegia/sensorimotor-microelectrode-brain-machine-interface
- Black Mirror

Slide 4

- www.etsy.com/fr/listing/582377465/tir-cible-11-homme-sport-formation

Slide 10

- www.pinterest.fr

Slide 11

- www.lepoint.fr/pop-culture/cinema/ghost-in-the-shell-la-reedition-de-tous-les-dangers-10-07-2017-2142073_2923.php

Slide 14

- www.pinterest.fr

Slide 15

- https://fr.wikipedia.org/wiki/Balle_dum-dum#/media/File:Expanding_bullet_after_firing.jpg
- <https://www.wired.com/2009/03/dont-lase-me-br/>
- www.youtube.com
- www.slnmac.gov.lk/
- Tintin (published in the UK by Egmont)

Slide 18

- Black Mirror

Slide 19

- Red Cross