AI and nuclear technology on humanity risks

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Peace as no violence (Johan Galtung 1930-2024)

Three categories of violence

- Direct violence   visible, physical/bodily
- Structural violence   invisible, often no human agent of the violence
- Cultural violence   visible, non-physical/non-bodily

Indirect violence and cultural violence nurtures direct violence

Peace as no violence   (Johan Galtung 1930-2024)

Three categories of violence

- Direct violence   war, conflicts, destruction
- Structural violence   unfair resource allocation
- Cultural violence   hate, discrimination, verbal attacks, mis/disinformation

Invisible structural violence and cultural violence nurture direct violence

Remembrance and reflections

We human beings learn from experiences, where experiences are from what was not expected nor planned.

Remembrance of the violent events and situations should not involve any exclusions or unfairness, as such injustices leads another structural violence.

Cycle of violence must be stopped.

- Remembrance of the history may control cultural violence.
- Reflections of the history may adjust structural violence.

Structural violence of "cognitive injustice" to oppress remembrance and reflections: deprivation of knowledge (interference of access to education)

Information and nuclear technologies on peace and humanities

Both information and nuclear technology are big science, where mathematically represented theories are implemented into physical objects.

They grows with military-industrial complex.

From the initial phase to the current, research and development (R&D) requires big fundings—-mostly impossible without military budgets. Thus R&D are forced to reflect national interests and concerns on potential international conflicts.

Thus, both as violence can be placed in the three categories.

Nuclear Technology and violence

Direct violence: Nuclear weapons

Structural violence=unfair resource allocation

- Forced NIMBY acceptance as consequence of structural violence

  Fukushima nuclear plants and Rokkasho high-level radioactive waste processing plant as a victim of unfair resource allocation at the Meiji restoration—left in poverty as a revenge and forced to accept the plant offers

Cultural violence: hate, mis/disinformation on the vulnerables, *Hibakusha after the war*

Information-communication technology including AI

Direct violence: Lethal autonomous weapons (LAWs), drones, cyborgs and human-body enhancements

Structural violence=unfair resource allocation : so-called algorithmic biases. Data biases and misinterpretations is fixed in social infrastructures via ICT

Cultural violence: dis/misinformation and accelerated propaganda

Information-communication technology BEFORE AI: catastrophe to be remembered as ICT failure

Direct violence: calculation of the most effective explosion point of atomic bombs

Structural violence: personal data from census processed by machines

Cultural violence: dis/misinformation and accelerated propaganda

The structural violence made the catastrophe of holocaust possible

- Census with machine processing: Nazis and IBM with races and sexual orientations among personal data. Punch cards enabled Nazis to extract target people.

ICT excluded from remembrance and responsibility

Information technology, esp. data science, has not been accused after holocaust, although it is the very technology behind the catastrophe.

No data scientists remember their responsibilities, because at that time computing power was poor. But now it equips big data, hardware power, and improved algorithms.

ICT-AI community itself is placed under structural violence. It is a background of cultural violence (fake news and propaganda) being rampant all over the information sphere now.

Easy shift from cultural violence to structural violence via data science

Automation may realize structural violence in the form of direct violence

ICT-AI under cognitive injustice (possibly intentionally)

Self-regulation has not work— unlike Asiloma gene tech case and Pugwash on nuclear technologies

EU AI laws reflects the history of holocaust, but not other regions

Physical AI and generative AI will facilitate homemade AI with physical interference to the real world

automated weapons soon as well as weapons in the space (or wherever hardly accessible for human)

Educational control does not fully work in ICT

Professional training of ICT usually lacks ethics and/or compliance: or even those without formal training can be ICT professionals

Ubuntu

Computer tech community has recognized the American military-industrial complex issues since its early period.

1986- proposal of open source software distributions including Linux OS,

With the slogan "Ubuntu" after Zulu tradition: *we are for the others*

https://ubuntu.com/

Ubuntu against polarity of human and fragmentation

Fragmentation from national interests

- Needs of "us" often trespass their life and properties
- "They" excluded from us; their humanities are just ignored or not recognized

So there are competing cultures in tech: ubuntu and national interests,

BUT the dichotomy is being blurred: open software and cheap devices for drone attacks and home-made weapons to transform power structures among competing parties

Democracy of science gravitates violence

Proposal: AI supporting, and supported by, citizens—
As well as Pugwash community

Research and development of AI and other big sciences are currently doomed to be sponsored by each nations and their military-industrial complexes. They have to maximize political and economical benefits of the nations, without consideration of the vulnerables, especially those who suffer from the consequences of those technologies

Supports for ICT community should involve reflection on the history—remembrance and memory are essential.

PUGWASH COMMUNITY CAN SUPPORT AI COMMUNITY TO CHANGE THEIR ATTITUDES, promoting dialogue among diverse cultures.

以下、質疑応答の中で必要があれば投影してください

Japan as a cultural repository

ゆめの国　燃ゆべきものの　燃えぬ国　木の校倉の　とはに立つ国 (森鴎外）

The country of dream

Where the flammables remain untouched

In the perpetually standing wooden *azekura*

MORI *Ogai* Rintaro