



# Restore or enhance

- Format** 2-hour workshop held at the IATLab
- Location** Technopôle, Sierre
- Output**
- Mapping of different ethical challenges related to innovations in assistive technologies
- Follow-up**
- Specific analysis of some auxiliary means
  - Implementation of an internal process for addressing ethical issues

“The workshop allowed us to identify the potential risks in specific projects. This methodology will be systematically used when evaluating new project ideas, in parallel with the drafting of project specifications, to identify and manage all ethical issues in advance.”

Julien Torrent, Head of the IATLab.

The IATLab develops “assistive devices” to support people with disabilities. Given the debates around human enhancement, how can we address the ethical challenges faced by their team?

The IATLab is a laboratory of the Swiss Paraplegic Foundation. It is the reference point in the field of auxiliary devices for people with disabilities. It develops innovative technological tools, linking IT and electronics and helping to improve the quality of life of people with disabilities. In particular, the IATLab has developed an eye-driven wheelchair, a reading program for dyslexics, and a program for text simplification.

As the IATLab is considering integrating an ethical dimension into its procedures for creating auxiliary devices, Julien Torrent gathered a team of three people for a workshop on the ethical challenges of human repair and enhancement. ethix’s mission is to engage in dialogue with Torrent’s team in order to map the debate on human enhancement and to identify research and innovation activities in relation to people with disabilities.

## The values at stake

The work of the IATLab is centered around a set of values focused on the individual with a disability. The keywords of freedom, autonomy, and independence are at the heart of the activities of the laboratory. They underpin employee motivation of this research and development unit: their ideas and their creativity are at the service of increasing individuals’ autonomy.

## Ethical risks

While debates on human enhancement, transhumanism, and profound transformations of human beings provoke vast controversies, the IATLab team does not perceive any particular tension in its work. In their daily operations, the main ethical concern is to respect the **procedures to be followed** when testing their innovations with people with disabilities.

Future challenges cannot be ruled out in the context of “**connected devices**”. For instance, a wheelchair will increasingly use geolocation-based technologies, raising questions related to data collection and use. During the workshop, these general and transversal questions are set aside in favor of those issues that are directly related to auxiliary devices.

To understand the absence of other clear ethical risks, two essential elements of the IAT’s work must be taken into account: its **non-invasive dimension** and its objective of providing **therapeutic redress**.

### Non-invasive method

The term “auxiliary devices” used by the IAT reflects its ambition to serve people with disabilities. The image that best portrays their work is that of a “crutch”. Their work does not involve direct intervention on the human body, but creating tools to support it. The example of the eye-driven wheelchair falls clearly within this crutch logic: it helps people, without being integrated into their body. This means that the IATLab is not exposed to all the ethical difficulties of an approach that directly transforms the human body.

### Recovery

The IATLab approach focuses on people with a disability and the restoration of their autonomy. The term “restoration” is essential for understanding the distinction between the logic of “repair” and the logic of “enhancement”. In its work, the IATLab operates with a view to the “normal” (statistically defined) person and their “normal” abilities. The definition of this “normal” person itself raises many challenges. But assuming it is possible to build a consensus on this definition, such a definition serves as standard. The team’s challenge is therefore to restore as best as possible functions considered normal for a person. The most important functions for the innovations of the IATLab are mobility, reading, writing, and handling digital interfaces. All these functions are linked to fundamental abilities that enable people to live their lives in a satisfactory manner.

## Overview

The combination of these two specific elements explains the absence of significant direct ethical risks for the IATLab.

	restoration	enhancement
non-invasive	IATLab	Augmented reality goggles
invasive	Leg or arm prosthesis; spinal cord stimulation (EPFL)	Organ replacement, brain implant

## Ethics and Communication

This mapping of ethical challenges can also explain the positive perception enjoyed by the Swiss Paraplegic Foundation and more specifically by the IATLab.

Restoration is carried out in a logic of redress in a situation perceived as unfair. Illness, accidents, or fate in general are seen as unfair phenomena that the work of the IATLab corrects. It restores the normal order of things. This type of argument explains the sympathy that the association enjoys with the general public.

It would be quite different if the IATLab were to embark on enhancement projects for people in “normal” situations. Communication with regard to ethics matters would then be much more complicated: exceeding limits perceived as “natural”, and the dangers of thinking of oneself as a “superhuman” force are crucial issues.

## Follow-up

- Specific analysis of certain auxiliary devices with regard to ethical risks
- Implementation of an internal process to integrate an ethical dimension into the development process of auxiliary devices

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