

Children and the Ethical Use of Artificial Intelligence

This paper aims to analyse the ethical, legal and social aspects (ELSA) of the project Horizon AInCP (Clinical validation of Artificial Intelligence for providing a personalized motor clinical profile assessment and rehabilitation of upper limb in children with unilateral Cerebral Palsy). The objective of this project is to develop evidence-based clinical Decision Support Tools (DST) for personalized functional diagnosis, Upper Limb (UpL) assessment and home-based intervention for children (5-15 years) with UCP, by developing, testing and validating trustworthy Artificial Intelligence (AI) and cost-effective strategies. The AInCP approach will: i) establish a clinical diagnosis and accurate prognosis for treatment response of individual UCP profiles, by employing a multimodal approach including clinical phenotyping, advanced brain imaging and real-life monitoring of UpL function, and ii) provide personalized home-based treatment, from advanced ICT and AI technologies. Compared to other applications of advanced technology to the health sector, the ethical, legal and social aspects of AInCP applied to children are understudied. The ethics issues of the project are the involvement of humans (children) and vulnerable individuals, incidental/unexpected findings, interventions, clinical trials, processing of sensitive personal data, involvement of non-EU countries, and the use of artificial intelligence. In this paper, we will focus on the ethical risks associated with the use of artificial intelligence, with particular reference to the consequences on the mental sphere of the participants involved. Furthermore, we will show how an ethical approach to artificial intelligence is essential to maximize the opportunities and minimize the risks related to the use of such artificial intelligence. This paper intends to provide a significant contribution to the critical literature regarding the ethical use of AI with particular reference to children, a subject that is still little dealt with and deserves greater scientific attention.

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