

# A Software Exoskeleton to Protect Ethics and Privacy of Users in the Digital World <sup>\*</sup>

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**Abstract.** In recent years there has been an increasingly amount of interest on the impact that the digital society can have on the fundamental rights of individual, citizens and societies. Starting from the raising of the economy of data to the appearance of the present and future AI fueled autonomous systems the level of attention has lifted from privacy concerns to more general ethical ones[7, 6]. Although there is a general consensus on the vulnerability of users and societies this perspective has been only followed by the regulatory approach that by putting at work new regulations, notably GDPR has effectively enhanced the protection of users. Differently, in research the approach is mainly focusing on AI and concerns the systems/software developers and companies by proposing code of ethics and guidelines for the development of trustworthy systems in order to achieve transparency, accountability and explainability of decisions [5, 1].

Therefore, despite the claim for a human centric AI and the recommendation to empower the user, the user is left unpaired in her interactions with digital systems beyond the basic choice of accepting or not accepting the interaction with a system with all the consequences this might imply. From the case of privacy preferences in the app domain [12] to the more complex case of autonomous driving cars [4] the average user is unprotected and inadequate in her interaction with the digital world. In the talk I will present the approach and preliminary results undertaken in the project EXOSOUL [2, 9, 8, 10, 11] that stands on the side of users. EXOSOUL aims at equipping humans with an automatically generated exoskeleton, a software shield that protects and empowers them and their personal data in all interactions with the digital world by mediating or discarding those ones that would result in unacceptable or morally wrong behaviors according to the user's ethical and privacy preferences[3].

**Keywords:** Ethics · Privacy · Software exoskeleton.

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