

Value co-creation ‘gradients’ in human-machine interactions

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Purpose. Today, decision-making processes are increasingly data-driven, decisions more 'informed', the exchange of information is rapid (often in real-time), it can be precise, punctual, efficient and valid. Nevertheless, the risk of 'data-deluge' and the difficulty of having useful elements is very high, while the possibility of making quick, accurate, thoughtful decisions becomes more and more necessary, indeed fundamental. In this sense, first in business, the evolution of A.I.-based DSS assumes increasing importance in many 'moments' of the service provision, both for diagnostics (descriptive-analytics), as well as in the assistance phases (follow-up-analytics) and even forecasting on possible future choices (predictive-analytics) and related reasons (prescriptive-analytics). However, value co-creation in human-machine interactions isn't commonly agreed yet. So that, this manuscript aims to typology human-machines interactions based on an efficiency/effectiveness ranking and distinguishing/classifying precisely in terms of (possible) co-creation.

Methodology. This study is 'desk' and affects the need to update and integrate modern decision support systems for new strategies that managers ought to plan and follow, inside the uncertainty conditions in which business organizations continuously operate today. The RQ can be as follow: the value originating by a human-machine interactions can be defined as co-created? To properly answer this, an epistemological and typological work will be performed here, also leveraging on System Thinking mindset.

Findings. Findings are in terms of inedited gradients' matrix of relationships among humans (first of all if individuals are involved in crucial decision making actions) and not humans (machines, algorithms, A.I. cognitive computing, neuronal networks, chat-bot, etc.), demonstrating which kind of interaction helps in overcoming the simple search of efficiency or standardized indicators and checks (typical of artificialities), usually when empathy and harmony between humans take place, and when not. Futhermore, typology of human-machine interactions for new value co-creation processes ranks will be outpointed, as well as new competences specific 'scale', in terms of language, learnings, know how, level of confidence, and knowledge endowment as a whole.

Implications. Managerial and practical implications could be in the sense of:

- i) nudges for Decision Support Systems, as they need to be much more customized in order to valorize different layers of relationships intensity;
- ii) insights identification for Decision Making AI users (managers, employees, human resource recruiters, etc.), with a focus on governance issues such as worker re-skilling for T-shaped professionals, management of organizations and territories, etc.

Originality. According to nowadays worldwide Literature, first in Service, every interaction is co-creative at all, even if involving not humans. Instead, a machine will provide more appropriate schemes, will gather more information, sometimes interacting emotionally with the most active subjects of the interaction (i.e. humanoid robots or animated software agents that recognize human affective intentions and to produce also emotive facial expression like disgust or happiness), but will not provide till-now a personal interpretative key or introduce the approaches needed for the effective co-generation of the value. This is exactly the aim to properly outline here.

Keywords. A.I., human-machine interactions, value co-creation gradients, DSS, decision making.