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ACTIVITIES (D5)

Knowledge management in the digital transformation (2)

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SPACE INDUSTRY: APPLICATIONS AND IMPLICATIONS OF DIGITAL TRANSFORMATION

Abstract

Over the last decade, modern society has come to witness an increase in space activities that have the potential to impact both civil and military spheres. The new industrial revolution driven by emerging technologies such as Artificial Intelligence (AI), big data and blockchain can change for the better space research. For instance, space data and imagery which have been dubbed as the ‘new big data’ gathered by satellites can provide new insights about our planet, climate change and earthquakes, to name but a few. Similarly, despite present-day progress in the context of ‘weak AI’, namely, image recognition and robot assistants (e.g. Crew Interactive Mobile Companion - CIMON), in the long run AI is likely to play a valuable role in many other aspects of space. Having said that, the strengthening of relations between the space and digital disciplines can also bring about disruptive changes as showcased by the potential abuses of AI systems and cyberattacks against critical infrastructure including the space. Based on the above, the paper aims to evaluate and analyse the interplay between space and emerging digital technologies from a policy point of view. We will also provide recommendations on how to maximise the potential of digitalisation in space and how to mitigate its negative impacts.