Why do I need to articulate the value of AI in geospatial?

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SUMMARY

Objectives

The purpose of this paper is to address why articulating the value of Artificial Intelligence (AI) is essential for geospatial professionals. AI has evolved from early innovations, such as automating habitat classification in Sydney using satellite imagery—as explored in the author's honours thesis multiple decades ago—to today's advanced capabilities that are reshaping industries worldwide. Understanding AI's transformative role is critical for demonstrating its value and ensuring professionals remain relevant in a fast-paced technological environment.

Results

AI has revolutionised geospatial practices by enhancing processes such as feature extraction, predictive modelling, and real-time decision-making. Drawing on both Australian and international case studies across government and commercial sectors, the paper highlights AI's ability to:

•Automate repetitive tasks and improve efficiency while maintaining precision.

•Enable advanced analysis and predictive capabilities for better decision support.

•Facilitate real-time data management for dynamic, actionable insights.

Examples range from Australian applications in urban planning and environmental monitoring to international use cases across Europe and the Americas, such as disaster response and resource management. These examples showcase the tangible benefits of AI in geospatial contexts and

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demonstrate its ability to address complex challenges across diverse fields.

Conclusions

Articulating the value of AI in geospatial is essential for professionals to adapt, thrive, and lead in an evolving technological landscape. Beyond improving efficiency, AI redefines professional roles, enhances organisational strategies, and expands sector capabilities. By effectively communicating the advantages of AI, professionals can:

•Demonstrate its potential to drive innovation and impact.

•Bridge technical concepts with practical solutions that are accessible to technical and non-technical audiences.

•Position themselves as forward-thinking leaders who embrace technological advancements.

This paper provides practical insights to help professionals articulate AI's value confidently and leverage its transformative potential—regardless of their technical background or professional discipline.