

# Role and Importance of Natural Language in Geomatics Engineering

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## **Abstract**

Data of geomatics engineering is inherently of two equally important types. These are the feature (or the entity itself) and its attribute. An important part of a feature is its spatial information which is referred to as quantitative, locational, graphical, etc. The attribute is sometime referred to as non-spatial, qualitative, non-locational, non-graphical, textual, metadata, footprint, semantic etc. These two types are usually summarized in a “what is where” slogan. The “what” part corresponds to the attribute, while the “where” part corresponds to the spatial data of the feature. Due to the fact that the “what” part poses no difficulties to human mind, the concentration in education and research has been on the “where” part, while the “what” part is almost ignored. It was not until automation becomes a necessity that the importance of the “what” portion started to increase. It therefore seems appropriate to address the role and importance of the natural language in geomatics engineering. The discussion is focused on the major issues of interpretation, integration, automation and education from the standpoint of mapping practice to prove the need of incorporating some linguistics courses into the discipline. Then, some limitations or hindrances of human language with respect to automation are analyzed. The paper argues that a full automation in geomatics engineering may never be reached due, mainly, to the lack of natural language.