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ONTOLOGY FOR THE ABOVE AVERAGE MANAGER

Ontology has three common definitions: (1) the science of representing reality, (2) products such as Web Ontology Language (OWL) files that contain representations of reality, and (3) software tools such as TopQuadrant used to create OWL files and other ontological products.

Managers need a basic understanding of ontology because their effectiveness and efficiency is determined largely by their ability to understand, access, and share information in various situations. Ontology, in the sense of the science of representing reality (i.e., the first definition above), provides concepts and methods that facilitate developing and managing the information managers need from data and information drawn from multiple sources (hopefully from all available sources).

Ontology's importance is growing because computer networks have the potential to connect all data and information. Realizing this potential, however, requires the right tools – and the right concepts and methods. The concepts and methods are important because they provide context for the users of TopQuadrant and similar tools. By understanding context, an ontology user can take the actions necessary to produce OWL files with contents that managers and other users need and can use.

Ontology addresses reality and how we represent it. We represent different slices of reality (i.e., different perspectives) with different constructs. But the essential characteristics of elements of reality that are common to two or more "slices" should be represented the same way in both slices. A bridge is a bridge whether we are talking about toll-bridge finance or trucking operations. What is different about a bridge in the context of highway-bridge finance and the context of trucking operations are the bridge's roles – what ontologists call "accidental qualities." Finance specialists are concerned about the bridge as a generator of toll payments for bond holders. A trucking company owner is concerned about the bridge as a means for his truck to cross a river so his company can deliver cargo. We have one bridge with one "essential" quality (i.e., a structure that provides a route to cross a river or other area) and multiple "accidental" qualities (e.g., a source of revenue and the means to cross a river).

Ontology is to data and information as meteorology is to air temperature, air pressure, clouds, and wind. We can make good use of data and information without the concepts and methods of ontology, but we will make better use of data and information if we understand and use the concepts and methods of ontology. A person with little knowledge of the concepts and methods of meteorology can sometimes look at the sky or feel the wind and know it is going to rain or snow. However, when we want the best possible weather forecast, we turn to meteorologists because they use their understanding of the concepts and methods of meteorology to produce accurate forecasts.

To learn how E-MAPS can help you to understand and exploit the concepts and methods of ontology to improve your use of data and information, call us at 703-385-9320 or send an email to ontology@e-mapsys.com.