

# Data Pricing Models for Data Exchange

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## Paper Abstract

The data economy has galloped considerably in recent years, and governments are putting forward data as a tradable commodity, thereby bringing forth the arena of 'data pricing'. In spite of the emergence of data markets such as Windows Azure Marketplace Data Market, we find dearth of research to determine a pricing model as well as parameters for profit maximisation to price a dataset. The absence of a well-defined framework causes hindrance in the overall development of a data market, with spillovers in data driven development, especially in socially vulnerable areas, thereby necessitating the need for data pricing. The paper addresses this gap by analyzing the main approaches of data pricing employed to value data. The paper follows the three-step methodology of paper collection and selection, analysis of the selected literature using content analysis methodology, and identification of gaps and potential areas for further development. Analysis classifies the pricing strategies under five major themes: i) general pricing; ii) quality-based pricing; iii) query-based pricing; iv) privacy-based pricing; and v) special cases. The main pricing models, prediction methodologies and themes are classified and described. The structures of the various pricing models are discussed through a comparative assessment. Thereby, the paper creates a platform for prescribing data pricing formulas.