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Evolution and Forecasting of Business-Centric Technoeconomics: A Time-Series Pursuit via Digital Ecology

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ABSTRACT

Time-evolution and hence, forecasting the growth profiles of business-centric technoeconomics are ascertained. As an example, the vast telecommunication (telco)-specific business is considered as a complex enterprise depicting a cyberspace of digital ecology (DE) with a backbone of network that supports a host of information sources and destinations facilitating a variety of triple (voice, data and video) services. To specify the temporal trend of evolution of telco economics in a series format, the approach pursued here (and differs from traditional series analyses) takes into account only a selective (and justifiable) set of autoregressive integrated moving average (ARIMA) parameters consistent with the test data. However, this simplified approach yields sufficiently accurate time-series (depicting the business growth) extendable to forecasting regimes. The efficacy of the proposed method is determined via goodness-fit evaluations both in time- and frequency-domains. The data adopted in the computations conform to typical telco service industry.

KEYWORDS

Digital Ecology, Business-Centric Economics, Evolution and Forecasting, ARIMA Modeling,Telecommunication Services

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