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Title: QoE-based Service Analytics and Optimization Model with Big data

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Customer Experience has become the central interest of new generation of Telecom service, and lots of business use cases into the industry are expecting customer-centric analytics, operational insight and effective decision making.
Network Performance Management basically still the main activity for operators to assess service they deliver. Providing such services rely on proprietary network equipment parameters design, both radio and transport level such as Voice Quality InterFrequency Handover, LTE QCI Relative Priority, and specific network level Quality of Service (QoS) parameters like Voice Drop Call or Throughput that measure service performance. Network Optimization engineering comes additionally to maintain best parameters value and deliver better service. Mostly, these parameters are strategy parameters controlling the service initiation and management.

This approach is proved to be inadequate to meet service quality experience as perceived by users. More and more customers complaints root cause are not correctly understood or time consumer to be identified. The quality experience transformation requires a distinct set of capabilities to move from network QoS level to QoE-centric performance management.

We present a service experience quality management concept that models QoE metrics with semantic and validated mathematical interdependency to QoS for real-time QoE analytics, and a Service Quality Optimization engine for prescriptive procedures to automatically adjust service delivery parameters. We use big data and cognitive technologies onto various telco's data, from call traces to network strategy data. Communication service is modelled also as a set of interactions of usage and management functions to be implemented through expectation, context and experience challenges to satisfy a set of QoS parameters.

Biography

Pierre-Espoir is an entrepreneur, research engineer, project manager and Director at ENGEEM a service experience engine company in France that develops cognitive techniques to help operators automatically control the impact of traditional network performance on user experience.
He has studied mathematics, telecoms and network. He holds an engineer diploma in Telecom in 2009 and a Master in Mobile Services from IMT Atlantique in 2012. He is now a PhD candidate where his major research interests focus on the area of service experience management and user perceived quality.

Since 2009, he has been working for Telecoms operators and vendors, HUAWEI, NOKIA, ORANGE..., over international environments and various projects including mobile service deployment, performance tuning and service quality experience management crossing Telecom specific issues and data integration.

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