



EXPERT OPINION:

How to find a needle in a digital haystack?

The role of business intelligence in the digital economy



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By the time you finish reading this article (assuming you aren't distracted by your Blackberry or iPhone and actually finish it!) approximately 200,000 tweets will have been sent on twitter, about 15,000 applications will have been downloaded from an App store somewhere on the planet, and Google and Bing will have processed more than 100 Terabytes of data. The era of 'Big Data', as described by some, is in full swing and this year alone more than 1,200 exabytes (billion gigabytes) of data will be created according to IDC. And as machine-to-machine communications get set to explode, the 'internet of things' will increase that traffic significantly as vehicles, packages, sensors, devices, buildings, everything becomes connected.

For communications service providers (CSPs), this situation represents both a blessing and a curse. As key actors in the hyper-connected world, through their networks, CSPs may have a unique role to play in the nascent data-centered economy which will increasingly treat data as a resource.

On the other hand, as large businesses, CSPs must also be in a position to analyse and make sense of this super-abundant data, for example to make better business decisions that will impact the success of their new offers, customer retention campaigns or geographical expansion. Before we consider possible answers for CSPs, let's first have a look at the current trends experienced by telecommunications service providers.

- **A deluge of data** - The pace and volume of data accumulation will only accelerate for CSPs as digital service consumption becomes wider and broader. Attempts are already underway to capture all the data associated with individual set top boxes (such as channel surfing clicks) in the hope of monetising this granular information for advertising-based models. Such examples will add to the staggering amount of data already gathered by CSPs to date. In addition, as more and more consumer electronics and M2M devices

come to market with embedded connectivity, market success will greatly depend on finding the right business models to reach disparate demographics and population segments. There is no doubt that business intelligence will play a critical role to enable this strategy.

- **I want it now** - The digital experience has already compressed the time span of many activities in the industry. Ordering a video on demand or purchasing a mobile app takes only a few seconds. In fact, the digital experience is rapidly moving towards a self-service, real-time one where instant access is the new form of instant gratification for a new breed of subscribers and partners. This tempo will increasingly dictate the tone of all facets of the relationship with subscribers, from instant activation and real-time diagnostic tools to detailed usage reports and analysis.

- **A growing digital eco-system** - To the traditional ecosystem of dealers, VARs, and installers, a number of new players such as content providers or application developers have emerged. These new actors play a unique role in the digital supply chain and will become increasingly critical to CSPs. As CSPs further invest in mobile content or IPTV, and fight back on the app platform space, they will need to learn not only how to 'onboard' and

"... accelerating the evolution towards ... dynamic pricing or yield management, already successfully applied in the airline or entertainment industries."



manage these partners but also how to interact with them in an optimal way. Timely information sharing and self-service tools will likely be important drivers in the satisfaction of these new stakeholders.

But while these trends unfold, many CSPs are still struggling to distill actionable intelligence from the mountains of accumulated data they already have.

- Today, approximately one out of four employees in CSPs has access to BI tools and solutions. This population typically includes power users, business analysts, managers and executives. Yet, the reporting or dashboard experience of too many of these existing users is still perceived as inadequate, highly prescribed by IT designers and whose relevance or timing is only appropriate to address yesterday's questions.
- That leaves three in four people with no access to BI tools in most organisations. Could the next innovation in handling customer complaints or improving a handset return come from such a group? Maybe from a more 'casual BI user' who will have been able to connect the dots and propose a better way to do business thanks to access to simpler yet relevant BI tools? Absolutely!

Both the deluge of data and the now generation trends identified earlier will only reinforce the need for a model that enables 'the rest' of an organisation to better contribute to the decision making process. So, what are the possible answers and solutions for CSPs?

- **Consider in-memory analytics**
What once represented a promising technology is now a reality. With the rapid decline of memory prices, the need to store pre-calculated data (in the form of OLAP cubes or aggregated tables) is being eliminated. For CSPs, this opens the door to the possibility of browsing through very large data sets (up to billions of data records) in seconds and deliver self-service analysis capabilities to their business user community.
- **Discover BI on-demand**
The SaaS revolution will clearly impact the

business intelligence space. IDC Research expects the SaaS BI market to grow three times faster than the overall BI and analytics market over the next five years. CSPs should explore how BI on-demand solutions may help them spread BI capabilities in their organisations in a very cost-effective way, to make BI more pervasive and enable the casual users to get access to relevant and easy-to-use tools. BI on-demand could also be an alternative deployment option targeting partners in the digital ecosystem, such as application developers for example, to provide this population with self-service data analysis capabilities on their own data.

- **Think and analyse in real time**
As highlighted earlier, the digital economy will increasingly run in real time. The business implications are obvious for CSPs. A greater level of agility will be expected to create more differentiation from the competition. And gaining this extra edge will virtually be impossible without real-time analytics. Thanks to the advent of technologies such as Complex Event Processing (CEP), opportunities exist for CSPs to operate at real-time speed and leverage real-time insight to make new decisions or react quickly to any changes in their business. But real-time BI will also probably boost innovation in the telecom industry by accelerating the evolution towards concepts such as dynamic pricing or yield management, already successfully applied in the airline or entertainment industries.
- **Do not re-invent the wheel**
As a new category of business analytics solutions become available, with KPIs, reports and dashboards based on pre-defined industry content, CSPs will want to leverage them to expand beyond their traditional BI user base or to deploy analytics solutions more cost-effectively.

Business intelligence has a critical role to play for communications service providers in the digital hyper-connected economy. Whether it is on-premise or on-demand, in real time or not, CSPs should select a comprehensive platform provider that can support them across the different dimensions they will require to broaden the usage of BI in their organisations and enable better business decisions.

VanillaPlus Jargon Buster

- BI:** Business intelligence
- CEP:** Complex Event Processing
- KPI:** Key Performance Indicator
- M2M:** Machine to machine
- OLAP:** Online Analytical Processing
- VAR:** Value-added reseller