Design for digital

A business vision to prepare communications service providers for the cognitive era

Get started

3. Total connectivity and the digital consumer

3.1 New propositions

The digital consumer will use multiple channels and multiple devices and expect a consistent and an excellent experience across all channels and all devices. However, the dominant channel will be online and the dominant device will be mobile, specifically the smartphone. Digital products and services must be designed from the customer experience viewpoint but design should start from an assumption of online, mobile first. In future many products and services will be essentially online and mobile only.

This is a challenge for many CSPs, who hold on to the belief that their customers still prefer 'personal' service through call centres and retail stores. Their failure to design an effective online experience is why CSPs often have online transaction levels below 10 percent. It is not due to customer preference. We believe there will be some back office requirement for call centres but it will be a greatly reduced role. There will also be a role for the retail store of the future, but to be effective it should be an extension of the online channel acting predominantly as a physical showcase for digital products. This applies just as much to enterprise customers as it does to consumers.

3.2 Big Data analytics

Clearly solutions for Big Data and advanced analytics are developed in many industries. As our recent study shows, 52 percent of the 65 CSPs studied had Big Data-related projects in 2014 in either pilot or production status. This is a significant increase compared to 33 percent in 2012. Still, there are few examples where companies have truly monetized data and used it effectively to change their business.

In general, there are three main sources of benefit from Big Data and analytics. They are: data-driven customer-centricity, operational effectiveness and new sources of revenue. They are summarized in the figure below. We describe them in more detail in the following sections.

3.2.1 Building customer focus

Improving customer relationships requires an understanding of customer preferences, behaviours and sentiment. Each phase in the customer lifecycle can be supported by analytics methods or models, from acquiring customers, through managing customers, expanding relationships/selling, retaining customers and risk analytics, to "voice of the customer" analytics, such as sentiment analysis.

By leveraging both company-owned and external data, CSPs can make business decisions that better anticipate consumer needs. External data includes that from third-party eco-systems, such as Twitter and Facebook, to generate richer insights in the context of customer issues and sentiments. However, only 21 percent of CSPs we studied collect and analyse social media today. As the demand for real-time support in business decision-making intensifies, cognitive analytics will become increasingly crucial. It will help to understand information, interpret context and learn based on experience. It will also help to engage customers consistently across all channels to provide instant Omni channel readiness 24/7. In the medium term, areas to focus on should include: building rich customer profiles (using structured and unstructured data both internal and external) and investing in building predictive and prescriptive capabilities. The diagram below summarizes the phases.

3.2.2 Enhancing operational effectiveness

As revenue growth slows and profit margins decrease, CSPs have to aim for dramatic cost reductions and more efficient operations. Analytics can play an important role here.

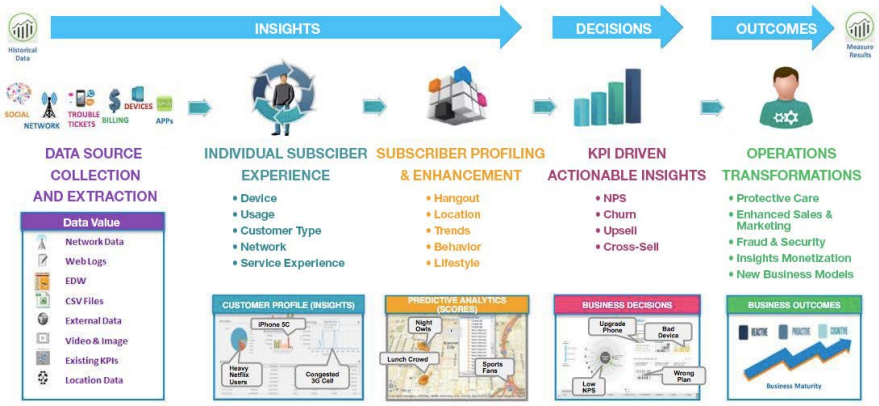
Enhancing operational effectiveness can be approached in at least two ways:

- Through digital interaction: re-imagine the ways people connect, transact and engage with companies, institutions and governments, as well as how these new interactions can create mutual value
- Through process re-invention: use embedded analytics to continuously monitor, measure and refine decisions related to organizational operations. This can help transform organizations for greater agility and precision that enable new growth.

Leading CSPs are combining both of these approaches. They create end-to-end transformation by integrating data into business processes.

Our medium term recommendations are:

- Embed analytics within business processes to automate, drive or inform key business processes within the organization by forecasting outcomes and empowering employees to act quickly and precisely in each situation.
- Enrich internal data streams with third-party social media (for example, Twitter) to create a set of new enterprise applications to improve understanding of your markets. Use these to learn about problems with new products or services, and to predict long-term trends.
- Create a mobile strategy, empowering employees to access insights from analytics anytime, anywhere by making enterprise assets accessible from mobile devices. Bring intelligence to as many actions as possible, in the moment.



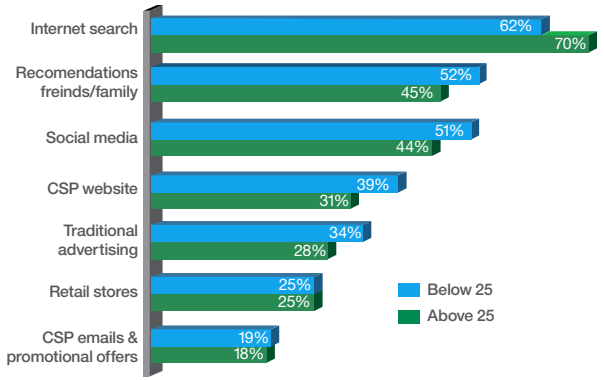
3.2.3 Generating new revenues

Possibly the most valuable asset CSPs can exploit is Big Data as they have access to a wealth of information about their customers' behaviours, preferences and movements. A number of CSPs (Telefónica, Sprint, and Verizon) are already taking expansive steps with Big Data to create entirely new revenue streams from "upstream" partners – such as retailers, advertisers and car manufacturers – to add to the revenue they already obtain from "downstream" end-users, such as consumers and enterprise customers. Big Data and analytics solutions open an array of opportunities for CSPs to offer services in multiple ecosystems, such as connected cars, clinical remote monitoring and pay-as-you-drive car insurance.

Being able to offer business-to-business (B2B) data and analytics services represents a fast-growing secondary revenue stream. This is especially true in ecosystems where connectivity plays an important role. For examples CSPs can provide solutions based on iBeacons or Wi-Fi technologies to help retailers better understand the customer behaviour in the store and provide a more seamless integration between online and offline. This service can be provided together with general connectivity.

It should be recognized, however; that there have been few examples of CSPs monetizing their internal data on a large scale. Weve, a joint-venture set up by the three largest UK mobile operators, did not achieve significant financial results despite having access to a majority of (anonymized) customer accounts. It was recently bought out by O2.

However, the key learning is that there is no one established business model that could be replicated. CSPs need to innovate with their partners, rather than wait for the next moves from the global internet giants, Apple, Google and Amazon.



3.3 Digital advertising

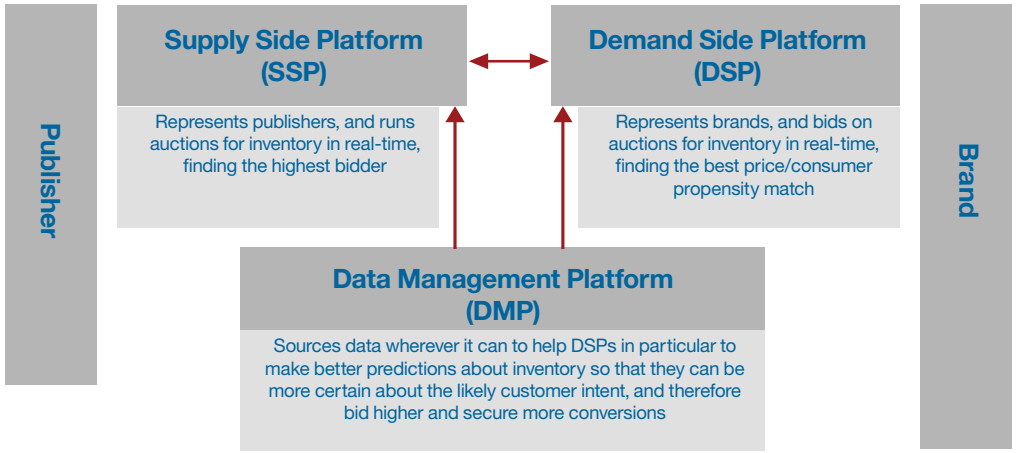
Digital advertising is increasingly used in telecommunications and other industries as well. According to eMarketer , digital formats will account for 41.4% of global advertising spend by 2019. This is driven by many factors, including improved targeting, ability to react in real-time, and greater personalisation.

This is in line with the trends on the consumer side. In our 2014 survey, we asked consumers in 35 countries how they find information about CSPs. The main sources (irrespective of age group) are internet search, friends and family recommendations and social media). Operator websites, traditional advertising and stores are no longer the most popular.

To respond to these trends will require an even greater focus on communication using digital media rather than traditional advertising. CSPs need to ensure that they are part of the conversations in places where they actually happen, whether that be social, search, video or other digital channels.

At the same time, the evolution of the digital advertising ecosystem creates a significant opportunity to materially increase value in buying ads, either directly on behalf of the CSP's marketing group, or supporting the buying process of third party advertisers with Big Data. Programmatic advertising is an open data and media-buying market and now powers 60-70 percent of online display advertising (by impression). CSPs can play a role in this new ecosystem. Implementing ad technology and automating digital advertising, you can now integrate Big Data into digital campaigns.

For the CSP's marketing group, this can lead to substantial improvements in customer acquisition. The idea is to bring insights of your own customer data to prospects.

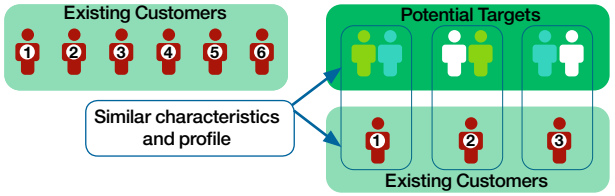


This can enable CSPs to:

- achieve 6-12% reduction in digital ad spend for the same results (assuming 30% market share)
- better identify new high-value prospects and improve campaign conversion up to 10 times by leveraging your own data
- target prospects where they are listening – leveraging segmentation to create effective social, native and search campaigns

How can you achieve this? CSPs can optimize digital media spend by leveraging their own data to exclude existing customers from the acquisition campaigns (if you use only third-party based segmentation for acquisition marketing, you may end up advertising to your own customers). You can also engage everyone aggressively online, through behavioural look-alike modelling, cookies, apps and other technology. You can now profile people who aren't your customers. You already know what your "perfect customers" look like – now find similar people in the digital ecosystem.

Existing first-party profiling and modelling helps drive highly personalised and effective cross-sell and up-sell campaigns. The data sets to help you create a better, more timely and more relevant communication with your clients now also include URLs visited, psychographic profile from Twitter, geotagging of locations, comparators considered, behavioural profile , social network connections, key decision levers, propensity to churn and moments of truth. Leveraging existing profiles, you can now target new customers who share those profiles, using similar campaigns and offers. This is illustrated by the figure below.



Thanks to our unique partnerships with major social networks (Facebook, Twitter) and leading digital advertising ecosystems (LIveRamp, the Trade Desk, Krux, Xaxis, MediaMath, shoutlet), combined with our innovative marketing, Big Data and advanced analytics solutions, IBM can help you develop market changing capabilities in the digital marketing space.

3.4 Network enabled monetary transactions

CSPs are looking to position themselves in every part of the supply chain and earn return from the millions of monetary transactions between customers and companies that are happening via their network. It makes sense for operators to offer monetary services as people start using their mobile phones as payment devices. There is an opportunity to take control of the mobile wallet on the phone as a platform for monetary services.

Mobile monetary services promise many new benefits for users, and are undoubtedly going to shape the telecommunications, technology and financial services industries. Technology innovation and new transaction types are changing the monetary services landscape, and opening up opportunities for telecommunication providers. Monetary services are also seen as key enablers for other value-add services in mobile commerce, like loyalty services or couponing.

The first success of mobile monetary services is found in developing countries where a large proportion of the population has little or no access to traditional financial services. M-PESA is very successful in Kenya and other African countries for money transfers from person to person and customer to business. IBM was involved in the development of M-PESA. Vodafone India has also rolled-out M-PESA as its mobile money transfer and payment service.

Mobile payments are now also becoming increasingly popular in developed countries, amongst others in mobile commerce as a replacement for cash or payments cards, and as innovative and convenient payment means for new mobile services like mobile ticketing or mobile pre-order services.

Furthermore, mobile wallets have the potential to consolidate several payment services, and even other trusted services like mobile IDs, car keys, or tickets. There are diverse perceptions about what a mobile wallet is, the different flavours it might have and how it can be used—not to mention the challenges related to its design, the complexity of its ecosystems and the business forces behind it.

Mobile wallets can be divided into two major groups: Proximity mobile wallets are based on NFC technology, and UICC cards could be used as the secure elements. For CSPs, this is a strategic opportunity to position UICC cards as the future core enabler platform for trusted mobile services like payments. Remote mobile wallets, also called Digital Wallet or E-Wallet, are used for payments services in remote ("card-not-present") environments. Monetary services like M-PESA belong to this group. The CSP can become a financial service provider and provide its own payment method with a Remote (Digital) Wallet offering. There are major distinctions between both wallet types in design, technology, usage scenarios, business model and position in the ecosystem. Understanding these differences between proximity and remote mobile wallets is fundamental for any further discussion.

The five major types of mobile wallet services and functions are payments, coupons, ticketing, access and identity. A wallet with no services is useless. The value of a mobile wallet depends upon the services it is made for—including not just payments but also loyalty programs, transportation and ticketing capabilities, access keys and important identifying information. The combination of these mobile wallet services adds greater significance to the wallet concept.

Mobile wallets provide essential customer data that can be collected and analysed to the advantage of users and vendors. Further business value is hidden in the data. Sharing data of separate services through the wallet can open up a variety of new opportunities for the business. Mobile wallet analytics allows CSPs to capture data, engage customers and execute personalized offers.

Developing a monetary services strategy is a highly complex task. IBM has the expertise and experience to help CSPs in developing and implementing monetary services.

3.5 “Less digital” segments

Digital technology is increasingly pervasive through all industries and professions. In a sense there are unlikely to be significant ‘non-digital’ segments. For CSPs this provides an opportunity to design solutions for specific areas such as education, health, finance, automotive — indeed for almost any sector. While the Telco can be the data pipe for all industries, designing effective digital products for specialized areas is more difficult and will require working with customers and partners to generate innovative solutions that meet the needs of the specialism. This is an emerging area and CSPs have not yet met their potential, though many are experimenting with building digital ecosystems, funding incubation facilities and testing the waters with new digital business units.

IBM is turning Watson technology into a cloud service, Watson Health Cloud. It will sell to doctors, hospitals, insurers and patients. That offering will be the centerpiece of our new dedicated, Boston-area business unit, IBM Watson Health.

Last year we opened IBM Watson Global Headquarters in the heart of New York City’s Silicon Alley and we are building academic partnerships and relationship with innovative developers and entrepreneurs.

Read the story at: http://bit.ly/ZcxKh2