



Case study: txtWeb

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Product summary

Year Launched: 2011

Business Model: Consumer (MNO led)

Targeted Device: Basic phones; feature phones; smartphones

Primary Delivery Technology: SMS

Products & Services: Information access

Markets Deployed In: India– live with Aircel, Airtel, Idea, TATA and Vodafone.

Estimated Total Number of Users: Over 12 million

Estimated Number of Active Users: Over 4 million per month

Messages sent per month: 120 million

Developers: Over 5700

txtWeb is the world's largest app store for text-based apps which work across all messaging platforms including SMS, as well as Facebook Messenger, Google Talk and others. It is an open platform for apps which enables all mobile users, including those with basic phones without GPRS or data plans, to access locally-relevant information. Users send an SMS containing keywords or search terms (akin to entering domain names into internet browsers) to one national short code and receive back the information requested (a 'pull' mobile service). Developers use the platform to quickly create and monetise apps that deliver locally-relevant content to all types of customer phones, stimulating entrepreneurship. A wide range of apps have already been created; examples include those offering Wikipedia and Google search, dictionary definitions, election information, health tips and budget tracking.

Background and opportunity

India covers an area of 3.29 million sq. km and is home to approximately 1.26 billion people, 68% of whom live in rural areas. Diverse in religion, culture and economic status, they speak 16 official languages, and a myriad of unofficial languages and dialects are spoken regionally.¹ It is classified as a lower middle income country by the World Bank and approximately 22% of the population live below the national poverty line.² Across India, there is a large unmet demand for better education and information access. There are approximately 243 million internet users in India³, yet there are 405 million unique mobile subscribers with many more being able to access a mobile phone through borrowing from family or friends.⁴ This means that the majority of the 1.26 billion population is not connected to the information available online, yet a significant proportion can access a mobile phone.

1 CIA Factbook <https://www.cia.gov/library/publications/the-world-factbook/geos/in.html> Accessed 29 April 2014

2 World Bank data <http://data.worldbank.org/country/india> Accessed 29 April 2014

3 Forecast for June 2014 by the Internet and Mobile Association of India <http://timesofindia.indiatimes.com/tech/tech-news/India-to-have-243-million-internet-users-by-June-2014-IAMAI/articleshow/29563698.cms> Accessed 30 June 2014

4 GSMA Intelligence <https://gsmaintelligence.com/images/analysis/entries/2014-04-15-infographic-subscribers-india.png>

Objective

txtWeb set out to empower mobile phone users with access to online information delivered via SMS.

Results

- More than 4 million active end-users per month.
- 120 million SMS sent per month.
- More than 5,000 apps available covering health, finance, entertainment, news, utility, jobs, education, government programmes etc.
- Five partnerships with major mobile operators: Airtel, Aircel, Idea, Tata and Vodafone India.
- High end-user engagement: A successful txtWeb app can have 2.3 times the number of monthly interactions of the equivalent iPhone app.

Lessons Learnt

1. Articulate your value proposition clearly and use data to validate that proposition.
2. Flexibility is important, but always stick to your vision.
3. Focus on the user to help create an active, loyal customer.
4. Use insights from usage data to inform product development.

Impact

End-users are empowered with access to online information even if they only use a basic phone or a phone with no data plan. App developers have a means to monetise their apps, facilitating the growth of entrepreneurship.

Approach

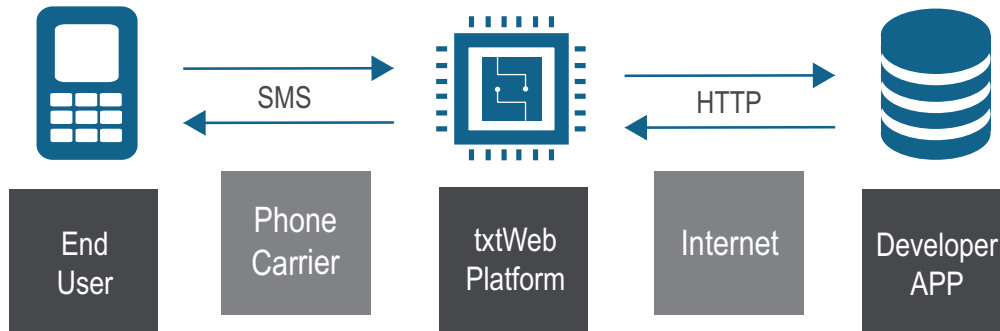
In order to empower mobile phone users with access to online information delivered via SMS, txtWeb understood that locally-relevant content was key to making the service valuable. Therefore, it created its open platform, on which developers could create the apps using any programming language and end-users could easily access that content. When an end-user uses an app, they do not download it to their phone as one would do on a smartphone via an app store; rather, they ask a question or send search terms to a short code (51115 in India) and get content back, both being done via SMS. txtWeb also enabled end-users to access apps by sending the keyword of the application they want to use via SMS, or choose which app they use by visiting the platform website if they have access to a web browser.

In order to encourage content development, txtWeb targeted engineering students at colleges in India and encouraged them to create apps that served their own needs, such as apps that provide exam results such as @JNTUK and @VTU, or @cricket, which provides cricket scores, news and schedules. This led to the evolution of a number of communities from which the service spread by word of mouth both to other developers and end-users. txtWeb has made the app creation on the platform free and straightforward, its goal being to enable as many people and small businesses to create apps as possible. Knowledge of app development or engineering experience is not necessary; txtWeb has enabled developers to create apps, even if they do not know how to code, through its txtSite and txtShuffle tools. Content can be made live and available to end-users within five minutes for simple apps; more dynamic apps can be built within five hours.

The firm has now partnered with five of the leading mobile operators in India to enable rapid user adoption by working closely with mobile operators to develop a model in which end-users pay per use or for a bundle of SMS messages to

the short code. The revenue share is in favour of the operator. However, the minority share txtWeb receives has recently improved as operators have come to see the benefit of having access to local, motivated content developers. A proportion of txtWeb's share is then paid on to the developers.

In addition to word-of-mouth marketing, promotion also occurs through an in-app mechanism to refer friends. txtWeb has a network of young ambassadors who promote the service to developers and users. There are also active Facebook pages for both developers and users, as well as an active online forum. Operator partnerships have been instrumental in reaching a wider user base and support the marketing of the service through below-the-line promotional SMS and voice calls.



txtWeb platform enables creation and consumption of interlinked information through SMS

Figure 1: txtWeb platform - how it works

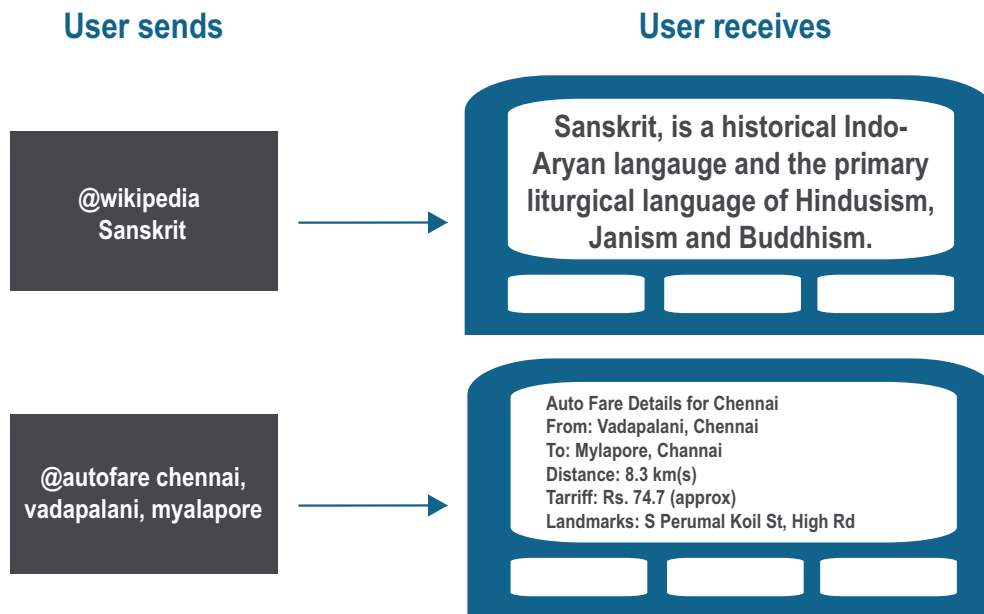


Figure 2: How an end-user engages with the service

Partnerships

txtWeb has partnerships with Aircel, Airtel, Idea, Tata and Vodafone, which enables its service to reach approximately 70% of the Indian mobile subscriber base.⁵

Partnerships with mobile operators are extremely important. Firstly, they enable txtWeb to scale easily, making it available to the millions in the operator subscriber bases (together, the above operators represent nearly 641 million mobile connections).⁶ Reach of this scale would be much more difficult, if not impossible, to achieve without operator involvement. Secondly, partnering with operators has allowed txtWeb to utilise short codes agreed with the operator, which improves the user experience and encourages regular use. Thirdly, operator partnerships allow txtWeb to operate a user-paid model that leverages the existing, large-scale billing systems of the operator rather than having to create a separate system. This means that the app developers can easily monetise their apps, which is a strong incentive for them to continue to improve the quality and quantity of apps that they create. This benefits the product, as it is continually improving, which adds value to the end-users therefore benefiting txtWeb; this in turn enables the developers to become entrepreneurs in their own right.

Developers are content partners who are critical to the service's success, adding the locally-relevant content that is so attractive to end-users, which ultimately makes the partnership attractive to operators.

When undertaking a partnership with a mobile operator, for txtWeb the process usually begins with a personal connection. This opens the door for a pitch which, if successful, leads to commercial negotiation, technical integration and then launch.

txtWeb notes that the speed of integration and launch varies with the operator, as does the work style: some are very process-driven, others give partners significant autonomy. The challenges the company has seen (see 'Challenges' section below) have emphasised the need to be adaptable and the firm offers the following recommendations for companies seeking mobile operator partnerships:

1. **Articulate your value proposition clearly and use data to validate that proposition.** txtWeb had records from users' small-scale use of apps on the platform accessed via long codes, and so could demonstrate what users actually wanted and how they engaged with it. This in turn demonstrated the demand for the product and how this differed from what the carriers already offered.
2. **Flexibility is important, but always stick to your vision.** Traditionally, mobile value-added services in India are priced relatively high, as the volumes of users are relatively small compared to the numbers using core voice and SMS services. However, the vision for the product was to enable information access for as many users as possible; therefore, it was key that the price was low enough to be as affordable as possible. For this reason, txtWeb built a strong business case for aggressive pricing to encourage high usage volumes, to which it adhered throughout negotiations. This demonstrated the conviction it had in its product and strengthened its position.
3. **Focus on the user.** txtWeb's experience shows that continually developing features and functionality to serve user needs will help create an active, loyal customer (see 'User-centric attitudes' section below for more detail).

5 GSMA Intelligence, Q1 2014

6 GSMA Intelligence, Q1 2014

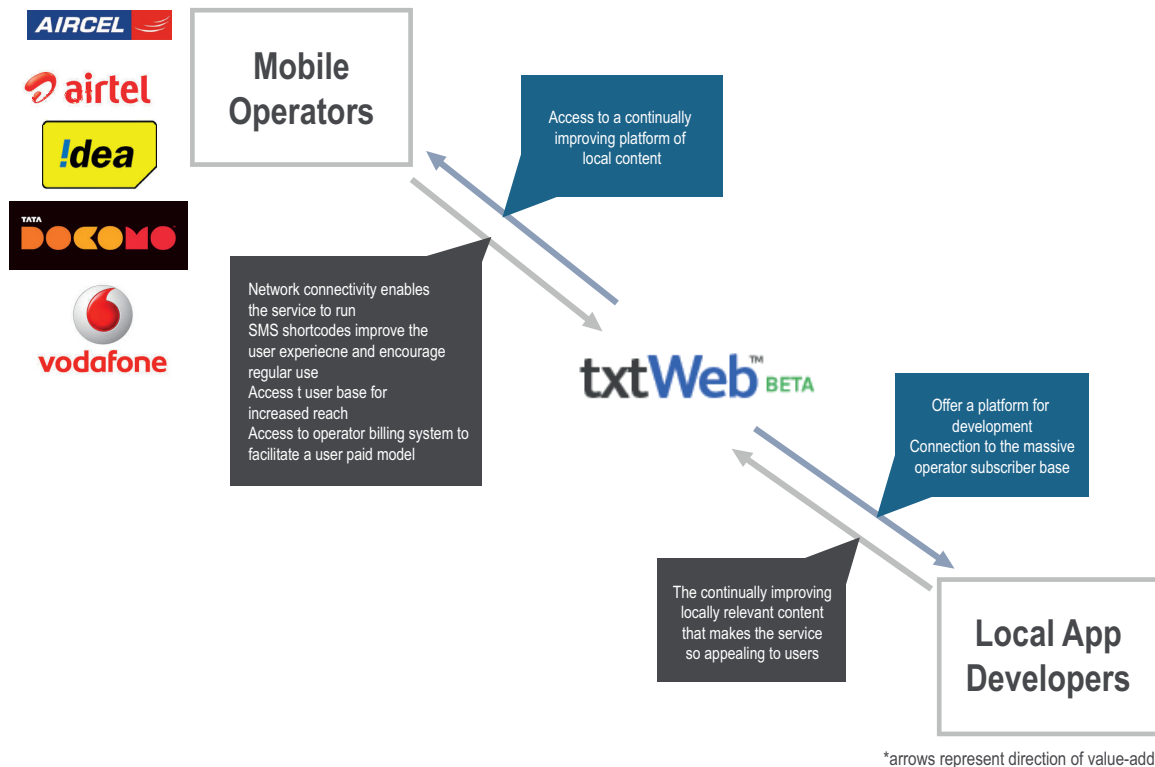


Figure 3: txtWeb's network of partners

User-centric attitudes

As an organisation, user-centricity is an important part of the txtWeb culture and approach to product development. In this regard, 'users' or 'customers' of the platform are both developers and end-users of the apps that are available on the platform. The company believes that understanding the pain points of these groups, solving them well and delivering a positive customer experience will drive the business forward. An example of user-centric design is the development of the recommendation engine. txtWeb understood that end-users were having difficulties discovering the range of apps available and that developers did not have a means to promote their apps to potential customers. They created a 'recommendation engine', offering a similar function to those seen on retail sites such as Amazon, which uses data on what an end-user has searched for previously to recommend new apps that may be of interest, by offering a snippet of information as a 'sample.' This helps the user discover new apps in a targeted manner based on the user's interests. It also offers a means of raising the profile of developers' apps among potential new customers, increasing business opportunities for the app entrepreneurs and for txtWeb as a whole.

The use and value of data

Data is central to the success and ongoing development of txtWeb. The key metrics txtWeb tracks include the number of users, the number of monthly active users (defined as those who have the txtWeb platform once within the previous 30 days), usage frequency, returning users and usage patterns as well as the popularity of apps and the number of apps per user, which reflect their stickiness to the platform. Analysis of this data informs the recommendation engine, which recommends new apps to users based on their previous engagement with the platform. As discussed above, this helps users discover new apps and encourages them to return, as well as creating greater reach for app developers.

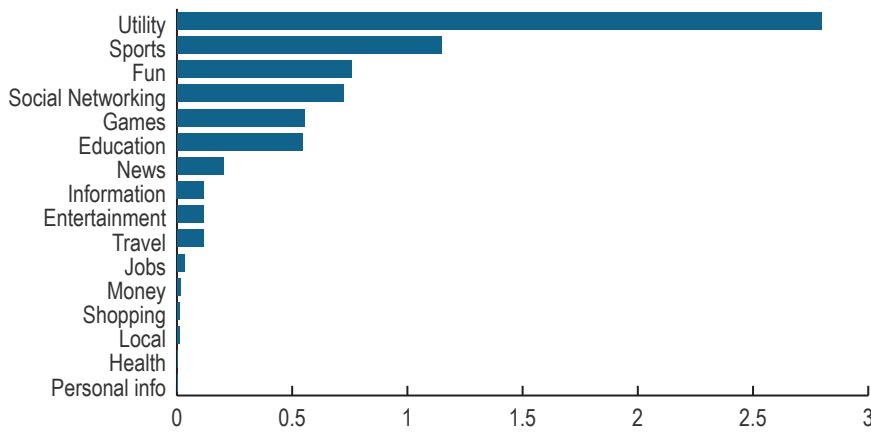


Figure 4: Hits (millions) to txtWeb apps across various categories, June 2014

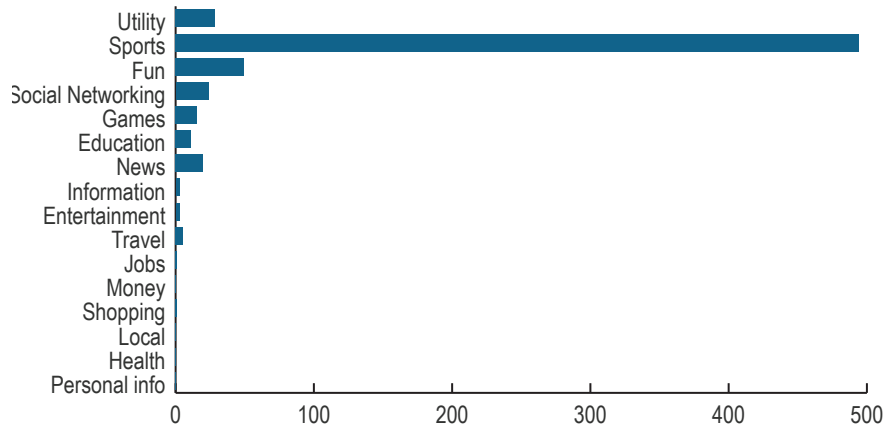


Figure 5: Hits (millions) to txtWeb apps across various categories, 2011 to July 2014

Scalability

txtWeb has recently moved to a cloud-based hosting service to allow it to scale easily and handle seasonality and spikes in traffic. For example, there will be higher demand for study materials during the exam season than outside of it, and more requests for sports scores during or just after a match. Hosting the platform in the cloud enables txtWeb to respond to varying levels of demand efficiently.

Challenges

1. **SMS Cost.** Initially, before securing operator partnerships, SMS costs were txtWeb's single highest expense; as more end-users engaged with the platform, the input cost of the SMS used to deliver information also increased. The initial business model was one in which the service was free to users, with fees charged to the businesses offering apps or advertising to txtWeb customers. The challenge of rising SMS costs was overcome by shifting the business model to one in which end-users pay per message and businesses develop on the platform for free. Operator partnerships were critical in enabling the success of this business model and achieving scale in a financially viable way.
2. **App monetisation.** Enabling app developers to monetise their creations presented a significant challenge. This was also solved by moving to a pay-per-use model which billed subscribers via their airtime credit (which was enabled by

the operator partnership).

3. **Keeping prices low for consumers.** As discussed above, operators were initially hesitant to agree to a very-low-cost-per-use model, due to historic attitudes around mobile value-added service pricing. This was overcome by making and adhering to a strong business case, backed up by current usage data which demonstrated that the value end-users could derive from the service was such that, if priced correctly, they would return repeatedly.
4. **Local language support.** Technically the txtWeb platform can support all south Indian languages and any other Indian language that uses the Devanagari script. However, the use of these languages is limited by what languages the end-user's handset can support. When txtWeb moved to the end-user paid model in partnership with operators, some operator systems could not support some local languages. The company is working with the relevant technology teams within the carriers to resolve this.

Future plans

txtWeb is exploring ways of partnering with mobile operators more closely so as to continue to add value, for both users and developers, with content that is more than pure entertainment. For example, there is potential to create more value for everyone in the value chain by incorporating location information from operators responsibly. This would enable txtWeb apps to offer more tailored, location-based services such as travel information or the location of the nearest doctor, agricultural extension worker, ATM etc.

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