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**Mobile Applications and Value-Added Services**

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Introduction

With more than 900 million mobile subscriptions, India is set to cross a billion-mark in mobile subscriptions by 2015 as per the projections. This is up from about 300 million in the year 2002, which is a substantial rise. The mobile penetration rate is more than 50% and there is room for further growth. The reach and penetration of mobile phones is almost universal and all-inclusive. The BoP segment has also not been left untouched. The latest data also suggests that about 40 per cent of total mobile subscribers are rural subscribers. This substantiates that the technology is reaching the entire population faster than imagined. This greater reach and is also leading to innovative and newer uses of mobile phones.

There is a rising demand for communication network, access and services in the rural areas as well. This is substantiated by the TRAI data on growth rate in mobile usability indicators and mobile penetration data, which suggests that the rural wireless subscribers increased from 350.37 million at the end of Sep-13 to 359.67 million at the end of Dec-13. In addition, the rural subscription increased at the rate of 2.65% in Dec-13 as against the decline rate of 0.21% in Sep-13. The share of rural wireless subscription increased from 40.25% to 40.58% in total wireless subscription in this quarter. It is estimated that by 2015, more than 90% of the total population will come under the “coverage gap”. This will further enhance the services and access networks including demand for 2G and 3G services. In the given scenario, the stakeholders have set their eyes on themes like network extension in the rural areas, network upgrading, innovative and customized applications, and convergence. The intra- and inter-departmental focus under the National Mobile Governance Framework is expected to spur the service delivery. The onus has shifted to the public agencies like Universal Service Obligation Fund (USOF) to step up mobile networks and coverage.

In this context, it might be interesting to note that rising mobile reach has a new meaning in the social empowerment. Mobiles have become an effective tool for social and behaviour change. The digital inclusion has raised the social position of underserved populations like women. Many mobile-based interventions by the government, non-government organizations (NGOs), bilateral agencies and private sector players have provided local solutions in locally suitable context to many problems. This scenario has resulted in elevated status of mobile phones as an instrument for social and behaviour change. A review of about 30 practices for this paper indicates that the mobile phones have emerged as an effective mechanism to derive project impacts in areas like- information dissemination, training of frontline workers and interpersonal communication, and project monitoring and tracking. The case studies are drawn from practices in the North India, mostly from Uttar Pradesh and nearby states. These practices and projects have been effective on various aspects, whilst have also faced multiple challenges like the inertia against the social and behavioural adjustment vis-à-vis age-old conventional practices.
In this context, there is a need for policy support for the priority sectors like rural based projects. The key to success and greater good can be in collaborative support from the government and other key stakeholders. There is also a need for considering and establishing the mobile phone as an essential utility device and as a potent tool for bringing about social and behaviour change. The need of the hour is to establish a central corpus to support such projects, for research and development aspects and for policy support. This paper on various projects presents the key areas of emphasis in the mobiles-for-development space in India. The challenges against which these practices were conceptualized and devised and the results they are yielding are also discussed here. The paper is expected to emerge as a guide for various stakeholders regarding the various ways in which mobile phones are emerging as a tool for social and behavior change, and the manner in which mobiles hold relevance to support the efforts for development globally.

End MM Now

Using mobile technology to address maternal mortality

The challenge

Ninety percent of maternal deaths are preventable. India leads the world with the highest number of maternal deaths, and Assam leads the country with the highest maternal mortality ratio: 390 deaths for 100,000 live births against the national ratio of 212. These health indicators persist despite the right to safe motherhood protected by the Indian Constitution and guaranteed under national laws and policies. Tea garden workers in Assam have insufficient access to health facilities and essential services. Existing facilities are severely underequipped and understaffed, and many villages are located in underserved and remote areas. Tea garden workers, many of them belonging to the indigenous “Adivasi” community, suffer the highest maternal mortality rate in India and abysmal rates of infant mortality. Tea garden workers have also minimal access to legal and advocacy support to redress violations and improve their access to essential services. The lack of data on the Adivasi community makes it particularly difficult to address some of the gaps in the implementation of maternal and infant health policies.
the solution

For this reason, Nazdeek, PAJHRA and ICAAD have developed the Project “End Maternal Mortality Now” (End MM Now) that uses SMS based technology tools such as those offered by FrontlineSMS and Ushahidi and website to provide the Government key data on the gaps in the delivery of maternal health services, increasing community awareness and monitoring of existing facilities and services, and ensuring access to remedies for victims of health rights violations. The Ushahidi platform allows for mapping of the reports received, after a verification process (conducted by phone or through field fact-finding) has assessed their veracity. The platform also allows for categorization of reports by issue and geographic area. The data collected through the project is analysed and submitted to authorities at District and State level which can utilize it to plan allocation of resources more effectively. Additionally, the data can also be used for litigation, namely to develop public interest cases which guarantee concrete reliefs for women, strengthen health infrastructure, and redress structural discrimination while avoiding overburden of the judicial system. The Project trained a group of 40 women volunteers living in Balipara and Dhekiajuli Blocks in the Sonitpur District of Assam to identify and report cases of health violations in their communities through SMS.

the result

Volunteers have reported over 70 cases of violations, including detailed reports of 11 maternal and infant deaths occurred due to unavailability of health services and facilities in the area covered. This data has been made available on endmmnow.org. During this process, volunteers have developed leadership skills within their communities, continue raising awareness of women living in rural areas about maternal and infant health services, and are monitoring the provision of health services at village level.

organization  Nazdeek, PAJHRA and ICAAD
location  Assam; Delhi
website  www.nazdeek.org
category  Health & Empowerment
the challenge

Health hotlines are medical call centers that provide health-related information, advice, referrals, and sometimes prescriptions to individual callers over a phone line. People lack basic information about the location and availability of pharmacies, clinics and laboratories and about prescription medicines. People widely consult with informal, sometimes traditional, healthcare providers who may not be trained or ethical. Poor information leads to poor healthcare outcomes.

the solution

104 Sarathi, an initiative of HMRI, is a 24x7 Health Information Helpline service that enables citizens from any part of Assam to call in and avail free services. Sarathi enables people to have authentic and standardized medical advice from skilled medical professionals, including prescriptions through SMSes on mobile phones. The calls for advice will be classified into three categories, i.e, critical, serious and stable, and advice will follow on the basis of the nature of the call. In case of emergency requirement, Sarathi will facilitate 108 emergency service vans. For non-emergency calls, the Health Advisory Officer (HAO) provides health advice
The project uses information helpline service which enables citizens from any part of Assam to call in and avail free services.

by diagnosing callers using a state-of-the-art, validated, and standardized portfolio of protocols embedded in a Clinical Assessment Decision System Software (CADSys). With this software, HAOs are able to provide standardised and qualified medical advice to the caller and thereby allowing doctors to focus only on cases requiring special intervention. Callers can also get directory information and register complaints.

The application also promotes awareness of eye ailments, eye donation and availability of eye care services by showing audio-video educative tools to rural households. Furthermore, the application screens individuals and refers them to base hospitals for surgical interventions, guides identified individuals to forthcoming nearby camps through a geo tagging feature and uses captured information to plan future eye care service delivery activities.

the result
Since its launch, 104 Sarathi has provided services to nearly 2.4 million people across Assam.

organization  Health Management and Research Institute (HMRI)
location  Assam
website  www.piramalswasthya.com
category  Health
the challenge
India continues to contribute about a quarter of all global maternal deaths with Assam being the highest contributor of 407 maternal death per 1,00,000 live births. Educating women about pregnancy issues, pregnancy complications, health care and raising their awareness can play a vital step in reducing maternal and child death as well provide safe and healthy motherhood.

the solution
Chetna is a body gesture enabled TV based information system to educate pregnant women in rural Assam. Contextual audio visual animation (through traditional Assamese home environment) is used to communicate maternal healthcare information in local language. Information such as symptoms and recommendations, food habits and tests and checkups are provided to users.

Chetna also provides an interface to remotely connect with doctors and help them answer their queries. Unique identification number is provided to each health device, which helps each pregnant women avail all government services during migration. This information is context specific and provided in Assamese language through an easy audio visual interface.
The project, ‘Chetna’ has been introduced at Bonmoja mini primary health centre at Chongsari near the city as a one-month pilot study.

This system is proposed to be deployed at health centers where pregnant women often come for routine checkup. It is mainly designed for pregnant women from low socio-economy and low literacy background, who also do not know to operate technological interventions such as mobile phones and computers. In addition to body gesture operated system, it also allows body-centric features where touching a body part triggers information specific to that body part for example touching the stomach will trigger stomach + pregnancy related information.’

The result

The project, ‘Chetna’ has been introduced at Bonmoja mini primary health centre at Chongsari near the city as a one-month pilot study.
The challenge

In India, there are adolescents (aged 10-19) and youth (aged 15-24) comprise 365 million, about 30% of India’s population. Despite India’s commitments and although current cohorts of youth are healthier and better educated than ever before, vulnerabilities persist, and evidence suggests that many young people are not making a healthy transition. In their everyday life, they face wide range of vulnerabilities - ranging from early school dropout to early marriage, early childbearing and violence. They have not been able to attend school because of domestic or income-earning responsibilities or lack of household income to pay for school related costs. Moreover they do not get proper food or poor diet which increases likelihood of illness and it also increases the risk of HIV and AIDS infection as individuals become sexually active.

The solution

GPower, a joint venture of Accenture and NGO CINI (Child in Need Institute) is a Digital ICT system that uses technology for tracking the vulnerabilities of adolescent by using 30 basic parameters in real time across four areas, namely Education,
the project uses mobile technology for tracking the vulnerabilities of adolescent girls on issues such as early marriage, school drop-outs, trafficking, child labour, etc. on a real-time basis.

Protection, Health and Nutrition (EPHN), and for simplifying their access to the services offered by government flagship programs in these areas in a uniform manner, by developing linkages.

GPower not only supports collection of ground-level data, but also manages data through a cloud-based system and makes it available to the girls and the stakeholders for effective convergence efforts. Community Facilitators (CF) collect the data on Android tablets equipped with a local decision support system application. This solution has features that enable error-free data collection, vulnerability analysis, and alert and reminder generation. The CFs register each beneficiary and maintain records on her status such as her health, her progress in school, the various schemes she is beneficiary of and her entitlements.

the result
Since 2013, the project has benefited 1018 adolescent girls from 10 villages of Midnapore district in West Bengal. It has helped in saving over 200 girls spread around 20 villages from either being trafficked or being a victim of child marriage, its makers claim. In the next 3 years, the project has target of reaching out to 7000 girls from 100 villages of South 24 Parganas and Murshidabad.

organization  CINI & Accenture
location  West Bengal
website  www.cini-india.org
category  Health
Mobile based surveillance tool for health workers

MoSQuIT was developed by the Knowledge Discovery and Analytics Group (KDAG) of C-DAC, Pune. MoSQuIT is an advanced mobile based surveillance tool for surveying Malaria prone areas in order to track and monitor the status of malaria prevalence in the community. Through real time surveillance by ASHA & other health workers, the tool enables decision makers to detect changes in trend, distribution of malaria in order to initiate investigative and control measures. This data is then transferred to a laboratory for testing through e-mail or SMS. The lab technician then transfers the generated result back to the health worker using MoSQuIT. This enables quick data analysis by the Indian Council of Medical Research for intervention.
the project is real time mobile based surveillance tool for ASHA and other health workers to detect changes in trend distribution of malaria in order to initiate investigative control measures. The solution also helps the state health agencies track the performance of the ASHA staff and they in turn find this easier to work with than the earlier paper-based system.

programmes. The tool also serves as an official measure to gauge the effectiveness of anti-malaria programmes thereby making it highly effective for malaria prevention and control.

MoSQuIT acts effectively to reduce the time-duration of providing treatment as the data reporting is carried out in real time by the local field worker without having to physically travel to the nearest health centre. Several of these problems are being currently addressed by MoSQuIT through leveraging on mobile connectivity to predict, prepare for, and control Malaria epidemics thereby reducing the mortality rate.

the result

MoSQuIT has been successfully deployed in the North Eastern state of Assam. The tool has proven to be very effective in Malaria prevalent areas of Assam, and has been widely accepted by field workers for its versatility and ease of use. The encouraging response to our initiative has been augmented with this award which recognizes our efforts in creating tools and technologies for the benefit of the common man.
Mobile technology for monitoring and tracking of patients to ensure holistic and timely TB treatment

The challenge
Prevent multidrug-resistant tuberculosis (MDR-TB), which develops when patients stop treatment before they complete the full course. Although this model hugely improved TB treatment, TB and MDR-TB continue to be serious threats in India. Lack of patient awareness and compliance and long distances from the health centres as against high frequency of drugs to be taken are the chief reasons of MDR-TB in India.

The solution
OpASHA launched e-compliance at 17 treatment centres in South Delhi, India with the objective of filling the gaps in effective TB treatment, in collaboration with Microsoft Research and Innovators in Health. E-compliance is a biometric terminal launched in 2010 by OpASHA, which identifies patients through a fingerprint reader to verify their physical presence for treatment. Through SMS, the system automatically synchronizes attendance data into a central medical record giving management up-to-date information on patient attendance. A text message also notifies health workers of any missed doses that day, requiring them to follow-up within 48 hours. This ensures regular drug adherence by the patients.
The result

There are about 159 E-Compliance terminals operating at 136 centers in South Delhi, West Delhi, East Delhi, Jaipur, Bhiwandi, Bhopal, Indore, Sagar, Raipur, Durg-Bhilai, Korba, Gwalior, Gwalior Rural, Dharavi, Bhubaneswar, Koderma and Daunkeo. The available data suggests that about 2087 patients are currently undergoing treatment and over 2 lakh visits have been logged till date. The eCompliance initiative claims that it has reduced the number of missed doses to 1.5 percent.

ecompliance is a biometric terminal that contributes to the goal of operation asha of preventing drug-resistant strains of tuberculosis from developing during patient treatment.

organization: Operation ASHA
location: Pan India, Cambodia
website: www.opasha.org
category: Health
the challenge
In the most remote and unreached rural areas, people face the issue of invisibility. Because of linguistic and other barriers, their voice does not reach beyond a very small distance. Unlike the ‘have’ in today’s society, who have platforms like internet, mobiles, computers, and tablets at their disposal, the people residing in these rural and tribal areas are far away from the means of communication to suit their needs.

the solution
The platform of Mobile Vaani serves the rural and tribal populations of the state of Jharkhand. It is a bottom-up approach that gives the people a forum to communicate by using mobile phones. It uses Interactive Voice Response (IVR) technology to allow the users to call and provide their views. The users can call to a toll-free number and leave audios about any issue relevant to them, and they can also listen to audios left by others and can participate and give feedback. It aims to improve awareness and empower the people to take part in matters relevant to them, in a local context. Being an oral media, it is literacy-neutral and anyone can use it.
Mobiles for social and behavioral change

**Mobile Vaani**

Mobile Vaani is a platform to empower people to share their views and experiences over the mobile phones and get their voice heard.

**The result**

The platform of Mobile Vaani enables the user to share their experiences and views, giving the power in their hands. As per the claims, it is very successful and is used by over 1 lakh users every day, who call over 2000 times a day, and they discuss issues ranging from culture, local updates of their respective areas of residence, announcement and government schemes, and other information over the mobile phones. The average time per call was reported to be three minutes, and about 1500 first-time callers call daily, leading to high rate of growth in the number of users. There have been qualitative findings to demonstrate the positive impact of the platform.

**Organization**

**Location**

**Website**

**Category**

Gram Vaani

Jharkhand

www.gramvaani.org

Empowerment
Mobile based training modules for community health workers

**The challenge**

As per the architectural corrections done in health care service delivery structure under the ambit of NRHM, the community health workers are supposed to play a crucial role in delivering health care information and service delivery to the last mile. But most of the health workers are not adequately skilled and educated. Their capabilities also get limited by the remoteness from the centres of learning, and their own financial status. This gets between the commitment of the community health workers to play role in reducing the maternal and child mortality rates.

**The solution**

BBC Media Action has developed a training course, called Mobile Academy with a support from Bill & Melinda Gates Foundation to reduce child mortality, improve maternal health and reduce infectious diseases in Bihar, India. The Mobile Academy is a training material to expand and refresh CHWs’ knowledge of 10 life-saving health behaviours and to enhance their communication skills. The audio course is delivered via Interactive Voice Response (IVR) – a technology that can be accessed from any mobile handset. Mobile Academy enables CHWs to complete the course anywhere, any time at a fraction of the cost of face-to-face training. A health worker can take
the project is an audio training course for community health workers on life-saving health behaviours delivered as an IVR service on mobile phones. The project provides knowledge of 10 life-saving health behaviours and enhances their communication skills.

the course by dialing a short mobile number from any mobile handset. The service is available across Bihar, with five of the largest mobile operators in India – Airtel, Idea, TATA, Reliance and Vodafone. The course is delivered in the voice of an engaging yet authoritative female doctor character, called Dr Anita. It consists of nine chapters, 36 lessons and nine quizzes covering nine lifesaving behaviours. Health workers receive an accumulative pass or fail score at the end of the course; they can repeat lessons, chapters and quizzes as many times as they like.

Health workers can take the course as quickly or slowly as they like. Book marking technology remembers where they were when they last hung up, and returns them to this place when they dial again. If they complete the course with a 50 per cent pass mark, they receive a printed certificate from the Government of Bihar. Health workers pay for the 160 minute course themselves. At less than one cent a minute, the total cost is approximately $1.50.

These health workers are responsible for counseling millions of families to take advantage of government health services, and to adopt healthier behaviours. An intensive three-day course, designed to dramatically improve CHW’s interpersonal skills, focused on the Sales Cycle approach to negotiated communication.

the result

Mobile Academy has registered 36,171 unique users who have accessed 5.11 million minutes of content and 17,481 community health workers have been trained by the beginning of October 2013.

organization BBC Media Action
location Orissa & Bihar
website www.ananya.org.in
category Health
The challenge

There is a gap witnessed in the health information system and diagnosis patients. The increased amount of administrative paper works and referral system reduced the efficiency of the health benefits.

The solution

Swasthya Slate is a powerful device that allows Android Tablets and Phones to conduct 33 diagnostic tests on the mobile device. The Swasthya Slate includes specialized applications that help users perform a variety of screenings and health analysis protocols.

Swasthya Slate is designed to extend the existing telemedicine and HIMS systems to mobile technologies. This system uses the mobile communications services to develop generic Body Area Network and a generic healthcare service platform for monitoring the following parameters: ECG, EMG, Pulse rate, Respiration Rate, Skin Temperature, Blood Flow, and Saturated Percentage of Oxygen. It allows users to deliver fast and accurate care at home, in clinics and just about anywhere. It contains decision support tools to enable users to deliver quality recommendations for achieving better health.
Mobile based health information system for monitoring health parameters in Punjab, it allows users to deliver fast and accurate care at home, in clinics and just about anywhere.

The slate stores electronic medical records both locally on the phone/tablet and also pushes the data onto our cloud. This allows offline/online operations and doctor on call services. mSwasthya also covers various mobile health applications for home care and are available freely for download at mGov store.

**The Result**

The system has been employed to screen 450 mothers in Muktsar, Punjab and app has enabled a 400% increase in number of antenatal care visits. The usage has reduced paperwork, and can be for multiple purposes, like patient history recording, diagnosis and treatment referral, decision support system, antenatal, intranatal and postnatal care delivery and monitoring, ASHA training also.

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<th>Organization</th>
<th>Public Health foundation of India</th>
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<tr>
<td>Location</td>
<td>Andhra Pradesh, Orissa and Punjab</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.swasthyaslate.org">www.swasthyaslate.org</a></td>
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<tr>
<td>Category</td>
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</table>
the challenge

The poor state of healthcare systems and outcomes in developing countries is widely known. There has been a growth in telephone consultation to assess patients’ symptoms, providing health information and referring patients to appropriate levels of care. People lack basic information about the location and availability of pharmacies, clinics and laboratories and about prescription medicines. People widely consult with informal, sometimes traditional, healthcare providers who may not be trained or ethical. Health hotlines are medical call centers that provide health related information, advice, referrals, and sometimes prescriptions to individual callers over a phone line.

the solution

Incubated by KIIT Bhubaneswar, Hello Doctor 24x7 was founded by young doctors and technocrats from Orissa to provide healthcare information to residents of the state. The service maintains up to date records on both public and private sector healthcare providers across Orissa, including primary health centers, community health centers, nursing homes, private practitioners, blood banks, counseling centers, and ambulance providers, etc. The project uses a call center and website to
By January 2012, more than 5000 patients served. The utilization of HelloDoctor 24X7 health hotline services aimed to facilitate health information, consultation and referral services over a three month period in the State of Orissa, India. A total of 1900 calls were received during this three month period. Gender data was available on 1377 callers of which 74% calls (n=1023) were made by males. 68% of the calls were made in the evening. Health information was delivered in 11% of the cases, doctor information was provided in 6%, and hospital information and medicine related general information was delivered in 6% of the cases. Of the total 1900 calls made, only 94 were referred during this time period that included 17% of the calls being actually referred to the specialists. 48% of the calls were made to gather information about treatment and 8% gathered information about medicines. Common ailments for which the calls were made included fever, diarrhea and vomiting, diet and weight management, allergies and women health related issues.
the challenge

India lags far behind in the development indicators, and more so on the health related indicators. On indicators like infant mortality, child malnutrition and maternal mortality, it fares worse than some Sub-Saharan African countries. We have just one hospital bed for 879 individuals versus World Health Organization recommendation of 1.9 beds per 1,000 citizens. The Indian government spends just 4 percent of the GDP on healthcare, leading to out-of-pocket expenditure from the individuals, comprising about 61 percent of the total expenditure on health. There is even greater disparity in low-income communities, where there is limited access to primary healthcare. In rural areas and smaller cities, the main source of primary care is government-run primary healthcare centres, which are understaffed and laden with inefficiencies.

the solution

Sevamob utilizes mobile technology to transform the delivery of primary healthcare and insurance to low income consumers in the developing countries. At a small monthly subscription, SMSs are sent on basic primary care and medicines and prescriptions are delivered on-premise by mobile clinics with the help of mobiles.
Sevamob harnesses mobile technology in a sustainable manner to deliver primary health care at the doorstep. Mobiles are used for delivering health care services and medicines with a subscription model and for also maintaining patient records.

The full-time mobile teams have B.D.S. doctors and sales representatives who carry Android tablets with mobile software installed in them. Once a patient is subscribed to Sevamob’s scheme, the teams pay a visit to their homes with Android tablets. These tablets have mobile software which can operate even without a wireless network so that it can be accessed in the remote rural areas. For advanced care, the teams are supported by MBBS doctors, a 24x7 call centre and a network of third party service providers like hospitals and diagnostic centres. In addition, basic primary care is performed for the subscribers at their doorstep. The services include dental care, vision screening, checking blood pressure, blood sugar, pulse, temperature, nutrition planning, etc. Medicines are also dispensed for common ailments. An integral part of the venture is the mobile app used by field officers, which captures patient demographics and maintains electronic medical record on sign-up. The complete workflow can be monitored without network.

The result

Sevamob has signed more than 2100 subscribers and is covered by 4 field teams. It also claims a monthly subscriber retention rate of 80%. Up until mid-2012, Sevamob was mainly targeting rural areas, but the program is now looking at moving more into urban areas, selling bulk subscriptions to schools, employers, women’s organizations and labour unions. With this model, Sevamob expects that each field team will be able to cover 1000 patients. By 2016, they plan to have 1, 20,000 subscribers. The model has been replicated by a partnering organization in Liberia which has established contact with 44 schools and 30 churches.
A Doctor’s Clinic on the Go

The challenge
Almost everyone today has mobile phones and also access to the internet. There are issues in providing health care in emergency cases, despite such connectivity. Therefore, this connectivity needs to be harnessed for better and faster healthcare delivery. Technological intervention will also reduce the costs of publishing reports and prescriptions.

The solution
Idea Brahma Consulting has produced the clinic management system as ‘Vbond Vita’ for doctors and their clinics on tablets, smart phones and web. With Vita, doctors can “Carry their Clinic” anytime, anywhere to manage patients, electronic medical record, e-prescription, referrals, appointments, Lab Management among others. Vbond Vita has comprehensive features to manage customer relationships for hospitals, diagnostic centres and health and wellness centre. The solution is based on zero IT Capital infrastructure and compliments maintenance and Value Added Services for patients to improve loyalty and stickiness to the system. The Vbond Vita Clinic management system offers doctors an easy to use dashboard that is both simple and user friendly. It serves as the main portal to access various features. Any
Vbond Vita is a dashboard for doctors to manage patients electronic medical records, e-prescriptions, referrals, appointments, and lab management. The dashboard has inbuilt features for managing customer relationships for hospitals, diagnostic centres, and health and wellness centres.

A doctor can view his or her appointments for the day, check for any new updates on drugs, etc., set their practice’s operating hours, and recharge their credits. In developing countries like India, where there are many unorganized clinics, polyclinics, and small hospitals, Vbond Vita can be very helpful for medical practitioners. Since doctors are not much habitual of carrying laptops, technology based on mobile phones is convenient for health professionals to serve the patients.

**the result**

Not only does the project solve the problem of providing health care in emergency cases, but also reduces the costs of publishing various reports and prescriptions. The project enables these reports to reach the doctor in a record time of less than 30 seconds, even via normal GPRS connection. Within 6 months of launching Vbond Vita, almost 600 doctors are already using it. It receives over 1 lakh unique registrations per month.

**organization** Idea Brahma Consulting Pvt. Ltd.
**location** Pan India
**website** www.ideabrahma.com, www.vbond.in
**category** Health
Ayurvedic Mobile Health Service

Ayurvedic health at your doorstep

Description

This mobile value added service (MVAS) was launched by Videocon Telecom in the year 2013 to help the customers get health service at one click on their mobile handsets. With the world moving towards alternative and holistic healing therapy systems, the initiative aims to enable the customer to get consultation and treatment via their phones. The service enables the subscriber to talk to any of the 150 certified Ayurveda specialists at the Ayurveda Telemedicine Centre for consultation and treatment advice. Post-consultation, medicine delivery service is also available across 1300 cities on cash-on-delivery basis. The service is available round-the-clock by dialing 535133 at the rate of 6 INR per minute.

Concluding Remarks

The value-added service is one-of-its-kind and there is negligible competition in the sector. It enables the customers to talk to certified Ayurveda doctors at the touch of a thumb. Medicines can also be received at home easily on cash-on-delivery basis. Videocon’s low subscriber base can be one hurdle in achieving success in terms of large numbers of callers gaining from the service. Also, the service is chargeable, so all the subscribers might not avail it. The service only provides Ayurvedic health
Ayurvedic mobile health service that enables the customers to talk to certified Ayurveda doctors at the touch of a thumb. The project also provides awareness about the effectiveness of the Ayurvedic regimes for various ailments to its customers.

Advice, consultation, and medicines. The customers need to be educated and made aware about the effectiveness of the Ayurvedic regimes for various ailments. Similar venture may be introduced by roping in doctors practicing mainstream medicine like physicians, and other specialists, along with physiotherapists, occupational therapists, among others.

**Organization**  Videocon Telecom in collaboration with JIVA Ayurveda Group and Think Health Services

**Location**  Pan India

**Website**  www.videocontelecom.com

**Category**  Health
Finding a doctor easiest with one tap on your mobile

description
The project “Aarogyam” aims at providing the patients the facility to easily contact doctors while saving time and effort. The doctors are also at advantage as they can create the prescription, appointment templates using web and smartphones. It has many essential features, like “lead and connect” services, which helps the patients find the health care providers and their details based on the location, specialty and availability of the same. It is a complete package of technology platforms providing multiple services. Another feature, called Healthmate invites the significant personalities of health care sector to help build a knowledge repository by writing articles and giving health tips to the patients and consumers.

concluding remarks
The technology platform “Aarogyam” provides the customers and doctors with a very efficient mechanism to interact with each other. It thus brings about complete operational efficiency in the system, saving time and effort of both, and thereby improving the quality of care. There is round-the-clock accessibility to the cloud.
**aarogyam** provides the customers and doctors with a very efficient mechanism to interact with each other. It thus brings about complete operational efficiency in the system saving time and effort of both and thereby improving the quality of care.

An inter-connected system will result in a mutually beneficial partnership among health care providers.

For further improvisation, cloud services may also be used for health care delivery via telemedicine. Collaboration with health care service providers and diagnostic centres can be beneficial for patients and customers on one hand and to the service providers on the other hand.

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<tr>
<td>location</td>
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description

This mobile application was intended to create, follow, and track the vaccination schedule for newborn babies. The user has to enter the date of birth and name of the baby, and the app creates a complete schedule chart with the tentatively scheduled vaccination dates. The app is instrumental in tracking the immunization calendar. It may be done individually for one/more babies on one phone. The record of immunization is maintained by changing the background colour of the vaccine shown in the app. On the tentative scheduled date of vaccination, a notification alert will be sent by the app.

concluding remarks

The app is very easy to use as the immunization schedule chart is prepared without any external intervention. The schedule formulation has been done by referring to the authentic sources; like “Immunization Handbook for Medical Officers” published by the Department of Health and Family Welfare and WHO recommendations. As per the feedback from many users, the pop-ups and advertisements slow down the app and disturb its functioning. This can be improved. For a holistic monitoring,
Baby vaccine guide is a mobile application that was intended to create, follow, and track the vaccination schedule for newborn babies.

Future upgradation of the app may also be done, e.g., putting the data of profiles of the babies on a common server, so that data can be retrieved in the case of loss/theft/change of device or loss of app. For improvisation, the app may also include features to record other information like baby’s height, weight, and other measures to track a normal and healthy growth of the baby.