

# Cellphones as a Tool for Democracy

## The Example of CGNet Swara

ANOOP SAHA

The social media revolution in the last decade was largely powered by communication technology advances, most notably by the spread of the internet. User-generated content, which embodies the power of each individual to get his or her message across to the whole world, has had a transformative quality that has made geographical and social boundaries irrelevant.

Unfortunately, despite India's claim of being an information technology (IT) powerhouse, the internet and computing technologies have had a minimal impact on the objective living conditions of the majority of Indians. The Indian internet almost in its entirety, is Anglocentric, though the language is spoken by less than 12% of the population, according to the 2001 Census of India. Is a similar paradigm-altering platform on cheaper and more accessible technology relevant to rural India possible? We discuss here one such experiment in alternative media deployed in central India, CGNet Swara.

CGNet was started in 2004 as an online listserv to discuss people's issues related to Chhattisgarh (Choudhary 2009). The platform has grown to have a strong network among the state's citizens over the years. Swara was a natural extension in taking it beyond online communities. This article aims to provide insight into the experiment, from its conceptualisation to deployment, adoption and usage patterns.

### Motivation

According to the "State of the World's Indigenous People", a report by the United Nations (UN), the indigenous people of India live in conditions that are at par or far poorer than sub-Saharan Africa. The report states (UN Permanent Forum on Indigenous Issues 2010: 29):

the level of poverty among Scheduled Tribes is [deep], despite the constitutional rights that apply uniquely to them. It was also found that while poverty among the general population had declined between 1993-1994 and 1999-2000, there had been little change in poverty levels among indigenous peoples.

Given this fact, it is little wonder then that the Maoist movement in India, from Naxalbari to Dantewada, can be classified largely as an adivasi rebellion (barring

the Maoist Communist Centre in Bihar, whose base was among dalits).

While poverty and human development can be treated as governance problems, issues of lack of communication can be an accentuating factor in aggravating this cycle of deprivation. Owing to their remoteness, the issues afflicting the adivasis are very different from those affecting the rest of the country. Much of the discussion about adivasis in the Indian media is through the prism of people who were themselves raised in relatively more privileged backgrounds. Well-meaning though they are, it is almost impossible for them to see the sheer injustice heaped on the community by the state since Independence, without experiencing it first-hand. This lacuna is best exemplified by the dismal media coverage of Salwa Judum, a private army raised by the state to combat Maoists in Chhattisgarh, and the massive rights violation by this group between 2004 and 2007 (Committee against Violence on Women – CAVOW – 2006).

The breakdown of communication occurs at both ends. The reach of traditional media outlets in adivasi (and even rural) communities is extremely limited. This is once again because of poor availability of education, roads and electricity. Language is a major barrier. The adivasis of India are largely oral communities, and their languages are not spoken by people outside these communities. Most of these languages do not have a written script and knowledge is passed on through very strong oral traditions. Neither print nor visual media, thus, have much significance for the adivasis.

CGNet Swara, a citizen journalism project, tries to plug this gap at both ends.<sup>1</sup> In the last decade, citizen media, or publication of stories directly from the source, has matured and taken different forms across the world. Swara was originated on the same premise: as a platform that lets rural India – the non-English speaking majority in the country – use the core powers of user-generated content to amplify their voice.

### Technology and Rollout

**Choices of Medium and Media:** Cellphones, in contrast to computers, are

Preeti Mudliar and Rahul Banerjee helped analyse the content of posts on Swara. The analysis is used in this report.

Anoop Saha ([anoopsaha@gmail.com](mailto:anoopsaha@gmail.com)) is part of the CGNet team.

quite ubiquitous now. According to Telecom Regulatory Authority of India (TRAI), the total number of telephone connections in India exceeded 91 crores in November 2011 (TRAI 2012). The pricing model helps in its propagation; call rates in India are one of the cheapest in the world and the device needs to be charged only once in a few days. In India and rest of the developing world, cellphones have been used in many innovative ways to solve local problems. If cellphones are the ideal medium for participatory citizen media, audio has to be the medium that can break the literacy, language and technology barrier.

**Concept and Deployment:** CGnet Swara is essentially a simple Interactive Voice Recording (IVR) system, where cellphones are used for both collecting and disseminating the news. Every caller to the IVR can either record a news snippet by pressing 1 or listen to those recorded by others by pressing 2. All recorded messages are vetted and edited by a trained journalist before being published on the platform, and becoming

available for others to listen to. Internet plays a very important role in the whole process. All posts are recorded and uploaded on the CGnet Swara website, as well as emailed to the CGnet listserv. Swara thus acts as the bridge that passes the message across the entire spectrum.

The first version of Swara was launched in February 2010. Although the back-end technology has undergone complete overhaul since then, there has been little change in its public interface. The system was first deployed along with a training programme in Kunkuri, a village in north Chhattisgarh. There have been two more training sessions – one in New Delhi in collaboration with Gandhi Smriti and Darshan Samiti (GSDS), and another in Koraput, Orissa, with the help of ActionAid in August-September 2011, respectively.

#### **Reception, Usage and Impact**

**Usage:** Since its first deployment in February 2010, more than 74,000 calls have been made on Swara for either

publishing or listening to news reports. Almost 9,000 unique numbers from 10 states have been identified, implying almost a similar number of users (Mudliar et al 2012). Figure 1 (p 25) shows a monthly chart for calls and posts made on CGnet Swara.

As is the pattern in most crowd-sourced social media, an overwhelming number of users only listen to reports. Only about 2% of all callers contribute stories to the system. CGnet Swara published 1,174 reports till 31 December 2011. In 794 of these posts, the callers identified their name and location. In 2011 alone, the corresponding numbers are 756 and 703. Each call is between two and five minutes.

The stories were contributed by at least 147 non-anonymous citizen journalists. Twenty-one of these submitted 10 or more stories, making up a total of 37% of all posts. Almost all of the top posters are journalists or non-governmental organisation (NGO) activists. This group of people also work as evangelists for Swara, spreading it to newer areas and newer sets of people. There is a very high



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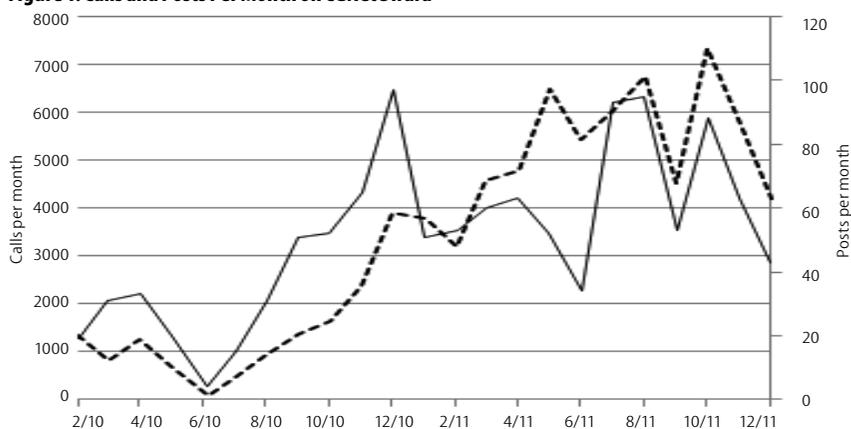
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**Figure 1: Calls and Posts Per Month on CGNet Swara**

bounce rate, and after someone breaks the barrier of posting a first message, he or she is inclined to send more.

The demography and geography of the reporters tells a very important story. Of the top 21 posters, there are five adivasis, two dalits and six from the backward castes. In all, we could identify 26 adivasis out of 147 citizen journalists who have published on Swara. This number is much higher than in mainstream media; there we could not identify a single dalit or adivasi voice in the bylines. There is not much demographic data for listeners, except for the fact that the largest number of calls are made from the Madhya Pradesh (MP)-Chhattisgarh circle.

**Content:** The content of posts made on Swara is quite diverse. We have categorised 1,013 posts of CGNet Swara till October 2011. Each post was tagged into one or more of the categories, as shown in Table 1.

**Table 1: Classification of Content of Posts Made on CGNet Swara**

	Number	Proportion of Total Categorised Posts (%)	Proportion of Total Posts (%)
Governance	660	41.22	65.22
Payment*	126	7.89	12.48
Living conditions	105	6.53	10.33
Event	58	3.65	5.77
Politics	420	26.21	41.46
Anniversary	4	0.25	0.40
Entertainment	75	4.66	7.38
Health	94	5.85	9.26
Education	60	3.73	5.90
	1,601	100.00	

Since some of these were categorised under multiple categories, the sum of all categorised posts (1,601) exceeds the total number of posts. \*MGNREGA and other payment for (temporary) government work.

The single biggest use of Swara is to report on issues of governance (or the lack thereof) in rural India. The grievances are of all kinds – schools not working, salaries not being paid, poor conditions in hospitals, allegations of corruption, complaints against private companies and authorities. Many of these are personal, affecting an individual, but symptomatic of greater institutional failure.

A total of 116 news items, or roughly 10% of all 1,013 published posts, mostly categorised under “payment” above, were related to complaints in Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) payments. The volume implies the immense potential as well as serious mismanagement of the employment guarantee scheme across rural India. Based on these messages, and as has been established in many other reports, in less than seven years of its notification, NREGA has become the backbone of rural livelihoods.

Another large proportion of posts are, not surprisingly, individual performances such as songs or poems categorised in some cases under “entertainment” and in other cases also under “event” or “anniversary” categories. Adivasis have very strong oral traditions. Posts under this category are made in many different languages – Hindi, Chhattisgarhi, Gondi, Kurukh, Nagpuri, Santhali, Bhilali.

Yet another category of posts are live reports or news bulletins including coverage or reports on conventions, fairs or public rallies, categorised under “event”, “politics” and “living conditions”.

**Impact:** One of the most heart-rending stories to appear on Swara was that of Pitbasu Bhoi from Ambikapur. On 8 January 2011, a citizen journalist posted an interview with Bhoi who was not paid his wages even after working 100 days under MGNREGA. A week later, another citizen journalist ran into Bhoi and discovered that his son had died due to the non-payment of wages. After two leading national dailies, *Times of India* and *The Hindu*, picked up the story from Swara and followed up, Bhoi was paid his due wages on 20 January 2011. Bhoi is now a regular contributor to Swara, despite not owning a cellphone himself. (He calls from someone else’s phones.)

In another story, D B Corp, owner of the largest circulating newspaper in Chhattisgarh, acquired a coal mine in Dharamjaigarh in Chhattisgarh. Despite the rigged public hearing, local media ignored the story. However, following two reports on Swara about the public hearing, three national newspapers did elaborate stories, leading to the cancellation of the allotment of the coal mine.

In both the above cases, CGNet Swara acted as a channel that amplified the voice of the poor. The stories were then picked up by mainstream media houses, which then forced the authorities to act. However, there have been cases, where the platform itself was the catalyst for change on the ground. For instance, after a report on Swara about State Bank of India (SBI) not giving money to adivasis purportedly because of their forefathers’ borrowing, the bank’s branch in Bhopalpatnam in Chhattisgarh opened two special counters for disbursing loans to adivasis.

Another very interesting possibility that emerged through Swara was that of community solutions to problems, just as on the web. A villager from Surguja, Chhattisgarh, complained about illegal stone mining in the forestland of their village. Despite several complaints, the authorities did not stop the work. A few days after this report was posted on Swara, another individual from Orissa reported how under the Forest Rights Act, gram sabhas are empowered to take decisions on common forest area, also

providing examples where this was done successfully.

Adivasis in central India face many similar problems. There were other isolated incidents where communities were successful in combating official apathy to get results. Swara helps in bringing these communities together, and allows them to learn from each other.

### Future and Challenges

Over the last two years, Swara was in an experimental mode. It was deployed and used by a small community. The initial deployment proved and disproved many of the original assumptions. The system has scored well on the triple matrix of social desirability, economic sustainability and technological feasibility. Over the next several years, this experiment needs to be replicated in different geographies. Scaling up will bring its own set of unique problems. There are three main challenges, of which two can be solved through some innovation.

The primary bottleneck is moderation. Swara has been designed and acts as a citizen news platform. There is a very strong emphasis on its journalism aspect. The team of moderators are trained in journalism, and have ensured that messages posted on Swara are of very high quality. Swara does not encourage anonymous reporting. This centralised structure, however works against scaling. A person can only moderate or edit so many messages in a day. The team is currently working on creating smaller hyper local models, which can be replicated anywhere with minimal effort (Venkatraman 2012). Each deployment will work on its own model for processing and distributing the content.

The second and related challenge lies in the technology. The CGNet Swara team would like to expand the model to create a full-blown audio portal. This is, however, easier said than done. Voice is a complicated medium. It is easy to collect and distribute audio content using cellphones. What is hard, and currently non-existent, is automatic processing of audio content, especially in Indic languages. Speech synthesis, to allow further scaling of audio or

voice-based networks, is still a decade of research away.

The third and most difficult part is ensuring the security of citizen journalists. The spate of attacks and murders of right to information (RTI) activists across the country is testimony to the resistance to accountability of people in power. Journalists are accorded a tiny bit of safety owing to their professional status, through their organisations, unions and international press freedom monitoring bodies. Despite this, India is regarded as one of the most unsafe places for reporters. This threat is magnified for unattached individuals when they report on personal or social grievances.

### Conclusions

No extensive technological or social research went into developing and deploying Swara. The system was developed through a clear understanding of the ground realities, translated for the engineering team to develop a solution. The engineers had to fiddle with many technologies before zeroing in on the ideal architecture. But extensive research or technological breakthroughs were not required to make it a reality.

So, is social media on cellphones the ultimate panacea for bottom-up flow of information? The case is wide open. Swara is a just a baby step in this direction. CGNet Swara is still in experimental beta mode. The case for its use among the adivasis has been proven by the initial experiment; the creases in the model have been ironed out. The deployment also proves that the dynamics of social media remain the same, whatever be the platform. The adoption rate has been very high and despite its limited

reach, the model has actually had significant positive impact on many individual lives and livelihoods.

### NOTE

- 1 The seed of innovation for Swara came from Shubhranshu Choudhary. Bill Thies and Arjun Venkataraman plugged the technical gap and led the engineering effort, helped by the team of engineers who worked on Swara at various stages – Latif Alam, Devadatta Sahoo and Samujjal Puriyakastha. Smita Choudhary was extremely helpful in conceptualising and bringing Swara to a deployable shape. Swara was financially supported through a fellowship from the International Center for Journalists (ICFJ). Elisa Tinsley and Benjamin Crowley of ICFJ guided and supported the project from its conception to the present.

Swara is available at (080) 41137280 on phone and at <http://www.cgnetswara.org> on the internet. One can reach the team at [shu@cgnet.in](mailto:shu@cgnet.in) or [cgnetswara@gmail.com](mailto:cgnetswara@gmail.com)

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