

2004—International Symposium on Online Journalism

Saturday—Keynote Speaker

New Frontiers for Online News: Wireless, Knowledge Management, the Information Society, and More

Speaker:

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ROSENAL: Our keynote speaker today, Dr. Madam Rao, is our Asian guru for Internet. And everybody in the world knows that if you are talking about the Internet in Asia, Madan is the right person to be listened to. So, I'm not going to give a big introduction about him but just save any minute for him to talk to us about how Internet in Asia is doing, especially with the technology and characteristics that he see from his privileged point of view in Bangalor, India.

MADANMOHAN RAO: Hi, thanks. Good afternoon, thanks for being here. The only thing I would add to Rosental's introduction is I have a habit of speaking very fast, like most of us do in South India. So, if you think I speak very fast, just raise your hand and I'll speak even faster. There's some advantages, of course, to speaking very fast, which is squeezing a four hour presentation in 15 minutes, 5 minutes, 3 minutes, depending on the bandwidth of the audience.

What I'll do is running through what I think some of the many new frontiers opening up in the world of online news based on some of my recollections and my experiences in this field. I've been sort of doing online media for about 20 years now. Started off as a hardcore techno geek and then drifted in to this media and writing and whatnot stuff.

I will also promise to make, in the course of this presentation, three somewhat controversial remarks. I'll warn you when they're coming so don't get to upset - just to stir things up.

Here's where the world was when I first got into this whole techno stuff: Back in 1984 we had PC's and LAN's. This is when the first group email discussions, some of the first e-newsletters began to emerge on very closed, what they call "closed user groups," only users of a particular office, of a particular company, so and so forth.

But even then they were very different kinds of narrative structure, different kinds of publishing and distribution, such as through Usenet, Britnet, CSnet, so on and so forth. In the news world we also had audio-text. In the Usenet world there was a company, I remember, called Clarinet. I don't know how many of you remember that. They were just news wire feeds through Usenet news groups and it was sort of a hybrid combination of broadcasts and pointcasts and those kinds of models which came out much later on.

Fast-forwarding about ten years later - I'm sort of going 2004, '94, '84. The hot topic back in '94 was BBS', and also even back in '84, but they began to peak with some of these products like Galacticomm. I remember reading a huge amount of marketing literature from this company called Galacticomm and they were selling all kinds of solutions for news agencies. For those who wanted to buy and upload, you could upload and download at the same time. I mean, this was a revelation back in '94.

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That time we also had the Big 3 online property technology online services: Prodigy, AOL, CompuServe. At that time if any newspaper wanted to go online the choice was either set up a BBS or choose one of these online services to set up your online operation.

There was also something called Gopher. I don't know how many of you remember. This is the first structured publishing documents systems on the Internet. Then, in many other parts of the, what used to be called "third-world" but is now more politically correctly called "developing world" or "emerging economies," there was something else called Fidonet – a very low cost, dial-up, fast, sort of forward kind of a solution for very small amounts of data information.

And I'm not sure if you can see the last line, but that's when we began to hear about the NII, the National Information Infrastructure, and GII, Global Information Infrastructure. So, this is when people began to look at datacom infrastructure as being as important as road and electricity and other kinds of infrastructure.

So, that's about ten years back. Now fast-forwarding to this year and where we're going next. We've already heard a lot of the very good topics yesterday and early on this morning so I've been dropped off a lot of my thunder, which I would have loved to have but I still have a lot of stuff to cover. And I'll cover some things in areas like wireless. I'll cover also thing - I'll talk a little bit about this whole information society and all that stuff. And I'll end with some trends for the future and what I think are some of the hopes that lie in this whole of online news.

I'll begin with wireless. In much of Asia and Europe the hot technology now is this 2G thing called GSM, Global System for Mobile communication, although some markets in Asia and parts of Europe have moved on to do .5G and 3G. I don't want to get into all description of all these technologies - that's another world, conference by itself, which Rosental, I'm sure, will be very happy to organize and sponsor some other time.

But there are very interesting, simple data services that have taken off like wildfire in much of Asia and Europe for something called SMS, Simple Message Service. This is the world's largest, simplest data sort of messaging platform. You can do person-to-person messaging or you can supreme for premium SMS services. These include stock quotes, business news, headline news, that kind of stuff. Very small, only 160 characters, so those of you who are talking about blurbs and headlines this morning, this is a very tough medium to write for. Only 160 characters in one SMS message, so you can actually pack a lot of pretty stuff, depending on whether it's business news or sports quotes, that kind of stuff. So it lends itself very well to certain kinds of information which have to be consumed very quickly, or which can be condensed and sort of summarized in certain ways.

Photo phones: We think a lot of this in the next wave, the successor of SMS, which is MMS, Multimedia Messaging Services, and this is part of a whole revolution in amateur sort of photojournalism that are many websites where just like you have blogs you also have photo blogs. People can take pictures of wherever they are and post those pictures onto various websites.

So during the whole war against Iraq there were a whole bunch of protests around the world against the war, and the BBC said a lot of people to take pictures of wherever they were, of protests from wherever they were, and you could you send that as an MMS message to the BBC website. So, a fantastic example of being able to see what citizens

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around the world were seeing in protests against the war. It lends itself very well, as I mentioned earlier – did I just hear a cell phone ringing?

We have a little, a nice practice in Asia to sort of deter people from using cell phones, which is whoever's cell phone rings buys drinks for everyone else at the end of the day. So Rosental, please make a big list. Don't turn your cell phones off – keep them on.

News ring tones: There's a huge business opening up in the whole music industry repositioned for musical ring tones. There are some cities, some markets in Asia and Europe, where music companies make more money by selling rights to music as ring tones down from CD sales. Because it's such a wildfire kind of a medium and people want to identify with their favorite musicians, the latest songs, the latest hits.

In some markets like Finland, correct me if I'm wrong, there are some music bands who perform only for ring tones. So they actually have some singers which are released only for cell phone users, not for CD, not for the Net. So it's a very interesting morph for this kind of medium.

Jokes aside, it's also a very serious medium for political mobilization and activism. You've probably heard of a book called, "Smart Mobs," as in "mobility" not "mobs," written by Howard Rheingold early last year. And he talks a lot about what happened in the Philippines. It's probably the first country in the world where a President was brought down by a political movement mobilized in part by SMS.

So what happened was there was a whole bunch of people who said we aren't very popular, we aren't very confident in our current President Estrada. And a whole bunch of activists said let's show the government that we don't approve of them right now. Let's mobilize people to come and meet in so and so square over the next few days.

So there was a huge campaign where people forwarded SMS messages – in fact, that's another whole school of design – how to design interfaces for information in mobile phones in such a way that whatever you get you can forward to your buddy list very quickly.

So anyway, they have this down very well in the Philippines. Thousands of SMS messages were sent out. Millions of people gathered in the various places, the public squares in front of the Presidential office and so on so forth and eventually the President had to step down. So that's one of the first documented cases of political mobilization using SMS.

I believe the recent elections in Spain also have been a good example where people who protested against how the government was sort of misinforming the public about who was behind the bombs also sparked off a huge amount of activism and mobilization using SMS to get people to come and vote. So it's a very nice person-to-person mobilization tool sort of.

You've all seen lots of jargon and acronyms and all that stuff, hereto which I have coined for the record, just for my posterity sort of in the whole acronyms game – **P2S** and **T2S**. There's a very common form of TV now called "participatory TV," where there's a game and you can take part in the questions and the answers by SMS'ing your answers, your replies, to a particular question. Or there's a, I think MTV has a "vote for the Best Song" kind of a contest and you can vote by SMS to that particular program and take part in the voting procedures. So, **T-to-S** is "Text-to-Screen," when I can actually text a message

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to the TV program and my message comes on the screen. So there are people who love to see their message come up on the screen. They might have this in a dating show, in a game show, something of that sort.

The next one to that is "**P-to-S**," "Picture-to-Screen." You can MMS your photography or a photograph of wherever you are and that comes up on the TV screen through the broadcast network. So there's a very nice, interesting form of convergence between wireless and television taking place in much of Asia and Europe, and I believe it's taking off in Canada and part of the U.S. as well.

Once again, I should've sort of made this a little bit lower, public relations also is another industry which uses wireless very heavily. I remember when one of my books was released in Singapore, I was in India that time, and the PR agency took a picture by an MMS phone right when the book was being released and SMSed it to me and also emailed it to me from where I was in Bangor. So I could see the event almost live just by someone sitting in a room just like this and taking a picture of the audience. So this has been used very heavily by the public relations industry as well.

Let me show you some of the screen shots of what this looks like. Today almost every website, almost every news site in Asia and Europe, has a little section for SMS. You can click on that section and you'll typically get a screen somewhat like this, which has movie ring tones. You can get your favorite songs and theme, a small riff from a particular song, download that as an SMS onto your cell phone and then play it back whenever somebody calls you. So there's a whole bunch of super ring tones. Depending on how fancy your phone is you can get a polyphonic ring tones rather than just a few tones in the song, you can get a full range of drums and all that stuff.

And down here you can see news, stocks and that kind of stuff. I'm sorry, it's right down at the bottom of the screen. But all the very popular things are logos, wallpapers, film stuff, jokes, astrology – very popular in India, your horoscope in the morning. Beware of people wearing green shirts, take two rights and then drink a glass of water. All of these kinds of weird things very popular in Asia and parts of Europe as well, I believe.

Amongst sports fans there's a huge cricket match series going on between India and Pakistan and the whole country's come to a stop just to watch this game. GDP has dropped by at least 2% in the last one week. You can get all kinds of news, stock information, stuff which is short, pretty, and is consumed almost immediately when you get it. For those kinds of applications SMS is fantastic.

A very nice, unusual alliance over here - ? is one of India's leading portals and so is Yahoo. But they've formed an alliance over here because ? has got very good stuff in terms of the movie rights for all this kind of content, whereas Yahoo has got a very good bunch of content developers doing wallpapers. So you can get a wallpaper from Yahoo and a ring tone from these guys. ?

So there's a very nice close sort of alliance between these two very different place. One is a global portal, one is a local portal; one is more in multimedia content, one is more into audio sort of a content. So there's a very nice configuration coming up here.

And by the way, all this is paid for. It's not free. This is Channel News Asia - is the website of a news channel in Singapore and they have a website called ChannelNewsAsia.com and you see the rates way down here. You can get 25 SMS alerts as Singapore \$10 a

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month and 100 SMS alerts at \$35 Sing a month, which is roughly, what, half in U.S. rates. So, it's about 17 or 18 U.S. dollars a month.

So, this is real serious money, which all these guys are making. So people who want to get news about technology or business news, typically very short sorts of news, either on the mobile phone or on the PDA. You actually pay to get this stuff.

So, the operator typically gets about 10-20% of the cut, I'm sorry, 80-90% of the cut, and the rest goes to the content developer. So it depends on how the mobile operator builds the whole eco-system. So, the mobile operator is powerful in ways in which the ISP could never have been in the Internet world, because all this stuff can be billed on your cell phone bill. If you don't pay for your content they just cut off your bill so your voice, your data services are gone. So there very nice leverage in ways that ISP's could never have.

So, this is a solid, working, proven business model. In fact, many of the Chinese dot com portals in the dot com years, there were three very high flyers. One was ?.com, one was ?.com, one was NetEase.com. Many of them began to bleed ink and money and all that stuff after the dot com boom years, but after that they launched SMS services for person-to-person messaging. They launched ring tones, news, all that stuff, and all of them are in the black now. So, thanks to this whole pre-paid sort of business model locked into this technology you can get a lot of money out of this.

In fact, it's become a huge licensing business and, ironically, companies like Disney are making more money licensing mobile content outside the U.S. than in the U.S. So, a lot of their cartoon characters and little jingles and all that stuff are downloaded in Japan by companies like iMode.

This is a small blog item from a group blog, which Steve Outing edits on the Poynter site and this is one of my little posting on how mobile content management has become a big business in its own right.

So companies like Votaphone – Votaphone is the world's largest cellular operator. They have about 100 million users in maybe 20 or 30 markets around the world and for all of these users through one single license they can negotiate content rights. So they talk to Disney's, they talk to the CNN's, they talk to all the various global content providers and they channel this news through various SMS gateways, MMS gateways, in their various markets. So there's a very nice global sort of configuration emerging of these content players.

Another area that I've seen on the news come up a lot is in business schools and in organizational newsletters, in addition to the explosion of Internet users and cell phone users in the consumer marketplace. We are seeing a huge amount of usage of Intranets and wireless communication within organizations. So there's almost a parallel universe opening up within organizations and this is used very heavily by organizations on their intranets.

There's, almost every big organization that is more than maybe 100-200 has their own Internet newsletter for which the higher with a background in journalism. So this is targeted towards all of those of you who are students. If you looking for a career and you can't get something in the news industry there's another whole microcosm of news in this industry in the online organizational intranet news.

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There's a whole field called Comparative Intelligence, which is all based on sniffing through different kinds of news feeds and websites and whatnot and finding out who's saying what about you, who's saying what about your competition. And there's a huge market for online news feeds in these kinds of markets.

So, we've talked a lot about who is the user in the past day and earlier this morning and we've talked mostly what consumer user of content and news and whatnot. But there's a huge market in these guys who got serious dollars to pay for good news for good value added fees, so on and so forth.

Blogging is also emerging in the organizational setting. A lot of the companies that concern for are doing what they call "digital dashboards." So they ask the various VP's and all the guys doing all the critical stuff in new media and venture capitol stuff, etc. to type up a little blog, sort of like a group blog of all the VP's in the organization and this becomes a sort of digital dashboard.

So in addition to all the numbers that they get from the ERP and all that stuff with all the financials, receivables, accounts, all that stuff you also get a very subjective kind of a narrative from the employees in the organization using a group blog. So they call this is a digital dashboard.

Knowledge management is sort of a mix of technology tools, content management, alerting, discoveries, so on and so forth, along with collaboration tools and different kinds of HR kind of techniques for team building, collaboration, etc. And news plays a very big part in this. In a very fast moving world it's news which gives you the first trigger of, "wow, these guys did this, where did they get this technology from? How did they get into this market before we did?" So news is the trigger for different kinds of knowledge in organizations.

News also is a source for understanding the market better for understanding trends, changes in global regulations, so on and so forth. And there's also a whole discipline called Organizational Storytelling, which is becoming very popular, which is how to tell stories within the organization to inspire people, to bring people on board so there's a bit of that PR spin in this.

So, there's a lot like online journalism. It may not have the nice, lofty, priestly stuff about the public interest and all that but many of the skills, the basic skills of journalism – fact checking, getting the right scoop, moving fast enough, building a good narrative structure – all of these come in useful here also.

And, unfortunately, I see a lot of this happening mostly only in business schools and not so much in J-schools, so if you don't do something quickly all of you J-school grads are going to wither away and die. Controversial statement number one.

So keep an eye on this. Its very interesting stuff. Unfortunately, a lot of this is only happening in the B-schools. So it's only companies talking about **MI** systems and organizational motivation, blaa blaa, all that stuff, but there's a huge overlap with the basic J-school kind of philosophy over here.

Here's an example. This is from one of my books on knowledge management. This is a case study of a company called Open Text. They make many of these photos for knowledge collaboration so on and so forth. And there are plenty of sections which you

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might find interesting. One is CI Sources, Comparative Intelligence Sources. So here they have feeds coming from all the various news wires, the Dow Jones, the Lexus Nexus, dialogue, so on and so forth, and you can link from those to any analyst's research or market research reports about those particular topics.

So, you might read a news item about so and so company has set up a new oil rig or whatever in country X, Y, Zed. And you say, "Hey, how come we aren't in that market yet." And you can go and click on an analyst's report about that company or that particular sector and connect news with the research in that particular sector.

There's also a competitor direct link, so they can actually track news about their competition in different sectors defined by geography, by client size, by technology so on and so forth. So there's a very nice blend of news, market research, narratives and sort of a difference of blogging also emerging in this kind of a knowledge ecosystem.

I'll talk briefly about outsourcing as well. I don't want to scare you all – this is election year and all that. Jobs won't come that much to India. You will all have your jobs. I'm not going to take your jobs away to India. But anyways, this is one of the very hard topics coming up is outsourcing. In the world of very large organizations, including news organizations, there are lots of pieces of the workflow, which you can outsource to other parts of the world. The first of poses technology solutions. Many of the very big content players in the U.S., Europe, Japan, so on and so forth, outsource different parts of their technology infrastructure, maintenance designs, so on and so forth, to companies in the Philippines, in Mexico, in India.

Analysis, financial analysis, has done all these very big brokers and financial news services. A lot of this can also be outsourced to countries like the Philippines, South Africa, India, Ireland. In some cases, even journalist's roles. I know that ZDnet, ZDNet, depending on how you say it, is outsourcing a lot of its technology directly to reporters in India whose job is to understand different kinds of tools, products, protocols, so on and so forth.

Also, editing – you can edit a lot of stuff after it's been published on the website and then, also, get this to other parts of the world. So Lexus Nexus, for instance, does all of it's editing of news feed in India after it's all collected and packaged and all that stuff. A lot of the editing is done in India and then sold to people in other parts of the world.

And, finally, other somewhat more boring things like transcription. There are all these companies who transcribe the news feeds from ABC, CNN, so on and so forth. A lot of this is being done now in places like the Philippines, South Africa, etc. So, it's not to say that all journalists' roads will be outsourced but in sufficiently big news organizations, especially in the post-production phase, a lot of this stuff can be outsourced to other parts of the world.

So, right now, for instance, AOL is doing some of its technology in India. Yahoo is doing some of its information classification in India. AOL has also outsourced some its tech to Manila, in the Philippines, so on and so forth. So there's a lot of nice stuff happening. Also, this thing has been happening anyway for what 20 or 30 years offshoring, sending it to another part of the world all together, is happening more in the last say 10 or 15 years. So this is coming to the online news industry as well.

And here's a nice bunch of links from the Economic Times newspaper. They've got a section where there's a whole bunch of links to articles about outsourcing. Here's a nice

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partnership they have with Google – any company who wants to outsource stuff to India or to some other part of the world can then plug in a little bit of their reports here through partnership with Google.

So, IT also sent to India so there's a company called Baker and **McKenzie** so they have seminars about outsourcing, how to do it, so on and so forth. And they can plug this into any article, which comes up over here. Another nice sort of link way up towards the right link refers to India. This is where people living in the U.S. and other parts of the world. So, I took this screen shot from my hotel room last night, so they must have figured out I'm logging in from the U.S. So the ad that I'm getting is targeted towards NRI's – non-resident Indians living in India who might want to go to India. So there's a great example of global distributed advertising model where knowing where you are you can target different kinds of ads for different kinds of communities in different parts of the world. And this is a very big business for many of the diaspora communities, which I shall come to in just a minute.

Online news in Asia: I'll talk briefly about wireless. Many of the portals in Asia are becoming profitable thanks to news distribution and messaging services through SMS. Diaspora: people who live in Country A, who are from Country A but now live in Country B. The Internet is the only source of good news on a regular basis about your countries. So whether you're traveling or whether you're working on a work visa for two years or you've immigrated to some other country for a larger amount of time, the Internet is the only place where first generations immigrants get any amount of news from their home countries.

So, there's a huge market here. For them online news is indispensable. They cannot get this news enough in the local medium. So, there's a huge market for the Diaspora communities of Asia on the Internet. I'm sure there's a place to Africa and Latin America as well. I don't have numbers with me to back that up, but I can tell you that in the case of China I believe there may be some 50 million people of Chinese origin living outside of China. Maybe 30 million Indians, or people of Indian origin, living outside of India. Perhaps, I believe, 8 million Vietnamese living outside of Vietnam, so on and so forth. And so for them the Internet is the best way of getting tons and tons of news about the home country.

We also have a lot of diversity in Asia in terms of sophistication of infrastructure, political maturity towards online news, so on and so forth. We have, for instance, countries like Japan and Korea, which are right at the cutting edge of the wireless information society. As you enter other sections you've got countries like Laos and Cambodia, which don't have much in the way of infrastructure for computers, so on and so forth.

I'll give you some examples now of how news aggregation is working in some of these sites. SMS alerts, I talked about that briefly already. Business stories – a huge business market in countries like India and China right now for business news. Censorship is an issue right now in some countries like China and, to some extent, Singapore where the government does not want people to see certain kinds of news or certain kinds of time, or certain points of time. So, there have been times when the Chinese government has blocked access to Google, to the New York Times, to the Washington Post, to BBC, to CNN at various controversial points in its history.

As I mentioned earlier, in the Philippines SMS has been used as a great tool for political activism and there's also a nice movement towards getting the news industry involved in

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what's called the Knowledge Movement, which is trying to look at where news leads to information leads to knowledge leads to wisdom.

So in South Korea the publisher of The Maeil newspaper is also head of the World Knowledge Forum. This a very high profile event which meets in October every year in Korea and it's trying to look at what's the meaning of knowledge in a globalized world, how has knowledge affected the technology industry, how is it affecting the post-WTO arrangements for China, so on and so forth.

Let me show you some examples of what's happening here on this field. This is a nice sort of a spidering kind of a Google News kind of a site called **Somanchar.com**. This is run by entrepreneurs in the company that I used to work for in Bombay. And this shows you maybe five or ten headlines from the various Indian newspapers in two or three screens. So you can just sort of scan through it and see what's happening in the Telegraph from Calcutta, the **D?** from Bangalor, the Pioneer from Delhi, so on and so forth, sort of competitor in a sense to Google News, which also has a special edition just for India.

This is a very interesting site – **MalaysiaKinney.com**. This is a bunch of dissidents in Malaysia who weren't happy with the way they were being treated by the press in Malaysia and also how the government was trying to censor certain kinds of news items, and they were also upset with the self-censorship practice with a bunch of the media – mainstream media in Malaysia. So they set up their own company, called MalaysiaKinney.

Way up on top you can see a small little link called SMS. So you can subscribe to headline alerts from this site also by SMS, and they charge for that SMS service. A lot of the site is free but if you want alerts of what's happening in elections, they just finished elections I believe last week, and you get, I think, all of you can see general elections, seven-day search, so on and so forth. So you can actually ask for headline news from this site and you pay for this kind of news.

So this is a great example of the Internet use to expand the political spectrum and also make money in the same process by using SMS as a revenue generator. We heard earlier about OhMyNews – unfortunately the site is largely in Korean. I can't show you a lot of the site but this is an article by Dan Gilmore talking about how there's a new kind of a citizen's reporter concept emerging in countries like South Korea. It's one of the most wired countries and unwired countries on the planet. It's the Wi-Fi capital, the broadband capital, the 2.5G capital, whatever, of the world and almost 60+% penetration of each of these technologies. And there was a time when a lot of the people, especially younger generation – the post sort of Cold War generation - were very disillusioned with the existing government about two or three years back and they all voted en masse through this site, OhMyNews, for the President who is now in power. So this is largely credited with having moved a whole election towards conclusion in one particular direction - very good example from Korea.

This is the site I was talking about earlier – the whole Knowledge Forum. This is run by a newspaper in South Korea called The Maeil newspaper, and they run something called The World Knowledge Forum every October, and it's the meeting of the minds of the top, somewhat like the World Economic Forum, which is held in Davos in Switzerland, but more of a focus on intellectual property, knowledge, the content industries, media, so on and so forth. Very nice example of somebody from a news industry with a much larger vision of content, information, knowledge, so on and so forth.

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Now, for the last few minutes I want to talk – I want to keep a lot of time for question and answers – I want to talk about this whole information society stuff for some time now. There was a huge conference, and bunch of preparatory conferences before that, called the World Summit on the Information Society held in Geneva last year and to be held in Tunis in Tunisia next year. It's a, sort of a typical big, mega 30,000 feet, whatever, UN kind of a conference. A lot of hot air, etc. has to be expected but also a lot of good discussion, good networking on where is all this information society going.

In other words, what is the role of information in today's world? What's the size of the information industry? How does technology affect the way you interface with technology? Who controls the standards for this technology, so on and so forth?

So, some of the big issues that come up here are A.) the Digital Divide. We've talked mostly about the people, the universe of people, who already are online but there's a whole group of people, most of the people in the world in fact, who aren't on the Internet at all and won't be online for a long time to come. So how do you extend the fruits of digital, the digital revolution, digital content, so on and so forth, for people who can't afford to buy their own PC's, Internet access, so on and so forth?

So there's one model called the "Telecenter Model," somewhat like a cyber-café, which is becoming very popular in many countries of Latin America, Africa, Asia, so on and so forth. And the basic idea is you have shared access to the Internet to get news, information, send content, get information about crops, so on and so forth. But what's happened is, in sort of a euphoria of the dot com years, many people thought just plug in a Telecenter in a village and everybody will be up and running and they can use the fruits of the Internet. Unfortunately, they found that the technology was not enough, access was not enough – you had to have a good content management system, good content for people to use in local languages, in a very well structured, easy to use interface.

So a movement has come up now called the "Open Knowledge Network," and I'm a part of that. We're trying to look at how to bootstrap some of these Telecenters in rural parts of the world by using an open source content management system. So, it begins by doing a sort of content audit, conducting a content audit of the needs of village communities in different parts of the world, and categorizing it by say agricultural community, fishing community, artisan community, so on and so forth, and come up with a list of what are the most common information needs. What kind of news do they need on a daily basis? What kinds of yellow pages, reference information do they need? What kinds of health care applications would they like? What kinds of e-learning applications may be useful?

And to build sort of a content management system in a box and give this to all these Telecenter operators.

So using this you can sort of bootstrap a village information ecosystem using news, local information, so on and so forth. That's one thing which I'll talk about. During the whole mobilization fought and against the war against Iraq in the last year and the year before that there was a lot of optimism that hopefully the Internet can help galvanize activists around the world, can build public opening towards a cause of peace or against the war, so on and so forth.

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There was also a lot of concern at the same time that the Internet could also be used to put a different kind of a spin to spread misinformation, etc. And I'll give you examples of both. I'll also talk briefly about how do countries evolve down the information society using online news as a particular metric. And I'll talk briefly about how some people even view the Internet as the second super-power, simply because it's a great tool for publishing global news, global opinion and rallying activists around the world for different kinds of causes. So I'll examine some of these issues briefly.

Here is the announced of the Open Knowledge Network that I was talking about earlier. This is launched a year and a half, almost two years ago now, through a network called One World. OneWorld.net is the website. And as I mentioned earlier, what they did was take a look at all the content gaps, the content needs of village communities in different parts of the world and tried and mobilize the telecom operators, the big IT companies, the content providers, the local news media into setting up these kind of Telecenters with some amount of entrepreneur support in the early days in the hope that within a year or two this would become self-sustaining.

So this sort of is a big attempt to sort of attack the digital dividends, bring home people on this side of the digital divide and give them access to tools, information, so on and so forth. So this is sort of an acknowledgement of the very important role that content, including news, information, educational content can play in bringing local communities into the information age. A very interesting initiative.

This is the website of the Red Cross - the International Federation of Red Cross and Red Cross societies - and what's very interesting is how they also have their own photo gallery. So it's almost as if they have their own reporters, their own employees taking pictures of the various trouble spots they are at around the world. There's a photo gallery you can click on to see in this case. I did this, again, last night, but the homepage talks about the big earthquake in Iran, which happened a few months back.

And there's also a great section called "Make a Donation." You can actually pay through the Internet if you feel moved enough by what's happening in this particular story. So in many stories which you could access through Google at the time of the whole Iran earthquake - I did a bit of a Google search to see what kind of articles were coming up - many of those articles would have a link straight to this site.

(tape turns over)

So if you felt something by the pain of what happened in Iran you could actually make a donation, become a volunteer and take part in different kinds of activities. So I think there's a very good example of the Internet closing the loop - we talked earlier about the Internet closing the loop between the reader and the writer. The writer publishes something and the reader says, "Hey, I like it," or "I don't like it," or gives some kind of feedback to the writer. This closes another loop for those who get sufficiently moved and want to do something about it - either donate money or take part in some activities, so on and so forth. I think this is a great contribution of the Internet to the world of news.

Yesterday, there was a gentleman from this University, I believe, a professor, who asked a very interesting question, which is, what if you want news to take you to the next step to learning and knowledge. In other words, you're interest has been peaked, you're very aroused by something that you saw on the net, and you want to learn more about it. What can a news site do?

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And he mentioned a very interesting point yesterday, which is many news sites just say, "Sorry, we're in the news business. We don't educate people and learning is not our goal." They just give you the news and what you do is up to you. But I think there's a great example. This is a site of, a section of the site, on the BBC website – they wrote a section on the whole Israel and Palestine conflict. It's a very controversial issue. I'm sure any statement they make about it will piss some people off and make other people extremely happy about it, but at the same time there's a great site which tries to put together all of the various perspectives on this issue. And if you spend some time through the site you'll see how much care and attempt has gone to try and picture this, capture the very delicate perspectives behind this issue.

There is for instance a section down here called "Timeline: Important Dates in the recent Middle East history." There's a section on key maps – what are the map of the region look like in the 40's, 50's, 60's, 70's, so on and so forth. A checkpoint guide to find out what happened to the typical West bank checkpoint, and if you were to scroll further down you could see other very interesting sections.

Way up there there's a section called Key Documents. You can actually see some of the International documents which mandated what was going to happen in the region – the Belford Declarations, so on and so forth. There's country profiles, etc. A lot of analysis on what is happening and, here, is leveraging the full multimedia potential of the net – a photo journal, an email exchange where you can actually listen to what people from the Middle East are talking about. There's also an interview with someone who is the father of a suicide bomber. So, it's all about what does it feel like for a father to see his son join a suicide brigade and get into this insanity.

So, it's, in my opinion, an excellent example of a news site taking that extra step to educate its users on a very controversial issue with a lot of documents, history, analysis, photo stuff, etc. I should also mention this site – Al Jazeera – I think it's a breath of fresh air in a region, which has not had a lot of free press for decades in the past. This is a snapshot I took just after one of the Hamas leaders was, the Hamas leader was assassinated, and they also had at that time a lot of links to reactions from other parts of the world, etc. This site, by the way, gets a lot of flack from both sides of the spectrum. A lot of the people pro-Iraq war didn't like what is happening on this channel and on this news site. And a lot of Arab governments also don't like this site because of the kind of criticism it gives of the regimes in existence at that time.

This is another great example of the how the Internet was used and is being used to mobilize activists around the world. This is a site called UnitedForPeace.org. These, again, a whole bunch of links to all kinds of news on this site and also information about people who want to join movements against various Presidents, never mind the politics of Bush One and Bush Two and all that, but I just want to draw your attention to things like "View Events," in "Select a State," "Select a Country." So great example of a site mobilizing people around the world for different kinds of causes.

If you go further down there is a section on "Find Groups Organizing Near You," in your state and your country. So you can actually find out who's doing what in my neighborhood – is there rally? Is there a protest? Is there some kind of a demonstration? There's a whole bunch of activists and what not.

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Another very interesting site – MoveOn.org. There's another nice link over here – where has that gone? Ah, here you go – “Make a Donation.” Right down here there's a section for “Make a Donation,” and they've got a link to a site called Paypal. You can actually pay; one person can pay another person. And they had a huge rally in New York City the day before the war broke out. I happened to be there for it. And they actually raised money for the entire rally - \$100,000 – through this website. And after the amazing example of using the Internet to channel news and angst and anger, etc., about an issue into a movement.

This is also, this example is from Australia, so these example are just not U.S.-centric, but also in other parts of the world. This is a site called VicPeace – Victorian Peace Network from the state of Victoria in Australia. Australia also was one of the countries which was on the side of the U.S. in this war. And here's a whole bunch of what is happening in Australia against the occupation. And here also is a whole bunch of links to news to activists to reports and so on and so forth about this.

And this is my controversial statement number three, which is I believe the U.S. media has failed in its mission, has failed the world in its cause of staying away from the path of violence. We can get into the details of that now – it's not just me who says that. Here's another posting from me on the Poynter blog. Here's the quote from an article in The Independent: “As U.S. media slavishly back the President, the public is going online for mobile news.”

Another very interesting article from The Guardian: “The only debate in the U.S. media is on the web. Weblogs are doing all the work that the U.S. media did in the past.” That's an interesting development. So, this is opening which, sorry if I'm offending some of you, but a lot of people in many parts of the world are very upset at how the government here has been able to put so much spin on this issue of weapons of mass destruction, so on and so forth, and actually sway public opinion into believing that Saddam Hussein was responsible for September 11, so on and so forth.

So anyway, these are some of the bigger issues of what's happening with news, the role of ethics concerning peace, and the role of the media and how the Internet is able to fill in many of the gaps, perceived gaps in coverage of the press and the world.

There's a nice paper which talked about this concept of the second super-power. Unfortunately, it didn't quite work out in preventing the war, but this is available in different forms in different parts of the net – documents, articles, interviews, so on and so forth. “The Second Super-Power,” is published from the Bookman Center for Internet Society at Harvard University – a very nice document which talks about how the Internet can be a big part of the global movement towards peace in different kinds of conflicts.

Now, what do different countries do to position themselves on this kind of a spectrum? I'll come to the last part of my presentation. This is part of a presentation which I made at the World Summit on the Information Society last year, which is how does the online news environment of a country shape its political future in terms of spectrum of evolution, in terms of maturity, so on and so forth.

So I have framework, which has two parts in it. In the first part I look at the size of the online news audience and the power of the online news industry, so to speak. So I look at how mature is the online news industry in terms of content, in terms of distribution tools. And, secondly, I take a look at how sophisticated are the users of this online news. What

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channels are they using to get access to this stuff? What do they do with the news? What do they do once they get incensed or moved in particular ways, so on and so forth?

The other part, the other dimension, is something which I call the "Eight C's of Online News Environments." I've used this in the framework for two or three book CD's on how to compare how different companies operate in the online news environment, or even how different countries compare in terms of its online news environments. So I have a framework which I call the "Eight C's." Obviously I've read too many marketing books – all I think of is the "eight c's," "five p's," "seven i's," etc.

So, the first one is connectivity, which refers to how are people connecting to the online news environment? Is it broadband? Is it narrowband? Is it SMS? Is it MMS?

Content refers to what kinds of content are available. How much does it cost?

Community refers to what kinds of community forums are there – blogs, so on and so forth.

Commerce refers to what's the business model behind all of this. How are people making money, if at all, in the kind of a venture?

Capacity refers to human resources in the organization, the news organization, in the country, in the government, so on and so forth.

Culture refers to what is the country's attitudes towards online news. Is it one of censorship? Is it one of free flow information?

Corporation refers to how much corporation is there between the industry, between auditors, between advertisers, academics, so on and so forth.

And finally, capital refers to how are you going to jump-start this whole ecosystem? So the Open Knowledge Network was a great example of trying to jumpstart an information system in the village areas.

If you marry these two frameworks together – the sophistication of the online audience and the size of the online industry and these Eight C's, here's what you get. You get eight categories of information societies, depending on the maturity of their online news environment.

The first category is restrictive. These are countries where online and offline, the government, controls the news in a very strict manner or even restricts most of it. North Korea, unfortunately, is an example over here.

Second would be embryonic. The government doesn't want to be restrictive anymore but is just now embarking on the journey of online news, digital infrastructure, so on and so forth. So, Afghanistan, East Timor, etc. would come in this category – countries which are just now emerging into a modern life with this kind of technology.

Third is emerging – these are countries who have been doing this kind of online stuff for awhile but still haven't mastered digital divide, still don't have enough news online, enough content flow, so on and so forth. Countries like Nepal and Bangladesh would come here. They've had Internet access for at least ten years but they still don't have a very wide reach for this kind of news.

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Then you have negotiating countries; I would put countries like China over here. Huge domestic markets for technology, for news, so on and so forth. It's currently the world's largest cell phone market. They're going to reach about 300 million cell phone users by the end of the year. Very soon the largest PC-handheld Internet markets, so a massive market in terms of sheer numbers.

But if you'd look at the political feelings associated with this technology, China's a bit nervous about it. They don't want, they want all the goodies in terms of the numbers, the commerce, the business, all that stuff, but they're a bit nervous about the political freedoms that come with the technology. So they're negotiating. They want the business part but they don't want too much of the political part of it. So countries like Singapore also were in this position for a while.

Then you have intermediate countries, which have passed this stage but still have a big gap in terms of a digital divide in their countries. So countries like India and the Philippines would come here – countries with a very free political system; free speech, largely uncontrolled press, but at the same time a huge digital divide. So, there are significant markets but free flow of information online and offline.

Mature countries are countries, like say Australia and New Zealand, which have very significant penetration of broadband and wireless and there's no big pressing concerns over digital divide. There may be some divides in rural areas, senior citizen, so on and so forth, but by and large it's not a main, pressing issue.

The next stage is countries like say Japan and South Korea – advanced, very advanced in terms of not just having high penetration of infrastructure but also exporting their business models to other parts of the world. A great example is Japan's I-Mode NTD-CoMo wireless Internet service called "I-Mode." They're exporting that to Korea, to – I'm sorry – to Taiwan, to Netherlands and two or three other markets in Europe as well.

And finally you have agenda setting countries. I would put countries like the U.S. in this area - ? for the wired Internet world. These are countries which I would say don't dominate or exert hegemony in this kind of a world, but they set the agenda. They set the agenda for what are the issues for online publishing, what are the issues for online censorship, and other countries either agree or disagree or modify what's happening here in the U.S. So I would put the U.S. in sort of that agenda setting in the world of online news.

So this is sort of the migration part for countries down the wireless information society or the wired information society using online news as a parameter to compare what's happening in these countries.

Moving towards the conclusion, how are we doing on time? Do I have another 45 minutes? No, 5 minutes, yeah. Just kidding, sorry, yeah.

The road ahead – credibility of online and wireless information. We talked about this in a few panels early on also, which is how well do you trust in what's coming to you in SMS messages, or through email. A great example is the, when SARS – Severe Acute Respiratory Syndrome – SARS broke out in Asia last year. There was a time, I remember in Hong Kong where an SMS rumor campaign was circulating that "my god, there's SARS everywhere – the country's going to be evacuated – everybody bail out of the country

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now." The government had to jump in and say, "no, no, no – that's a rumor. It's not true. There's no evacuation happening but we will give you information on what to expect in terms of health alerts," so on and so forth. So, a very good example of how at the same time SMS can mobilize people towards a particular political cause, when also spreading panic through rumors and stuff of that sort.

Capacity building – a fellow from the New York Times talked about this yesterday. Learn – this is a message to all you students. Learn as much as you can about all the different kinds of media. Learn what's happening in the outside world of consumer news. Also take a look at the news ecosystem within big organizations.

Content management will continue to be an issue, as well as attention management. I think we talked about this a bit earlier in terms of blogs and all that stuff. Some very interesting questions coming up in the world of mobile telephony as well. One of the hardest challenges in, the biggest in Japan now is digital shoplifting. People with multimedia phones, camera phones walking into bookstores and magazine stores and taking pictures of articles or taking pictures of entire chapters then walking out of the bookstore. Companies very worried about espionage – you come to a company, nice company, nice office, you take a couple of pictures and you can't tell whether it's a picture or you're texting. If you've seen people using texting on the phone, they look at the phone and do this – so, are they reading mail, are they sending mail, are they taking pictures? It's very hard to tell.

Now the government of South Korea is mandating that all new cell phones with cameras in them should have a built in shutter sound, so when I take a picture a sound like a shutter comes, so people around me know – "aha, someone took a picture." Just to get at this whole problem of digital shoplifting.

Other kinds of concerns about cell phones - camera phones being used in women's showers and all that stuff but we can talk about that in some other conference.

Methodology and research: Very serious ethical questions on how you do research in the world of mobile. How do you target direct marketing campaigns using SMS? What kinds of **P-to-P** or what kinds of permission open marketing campaigns should be allowed in SMS? How do you prevent SMS Spam? Along with email Spam, SMS Spam is becoming a very real and valid concern in many parts of the world. How do you research all this stuff? How do you have focus groups where you ask people these kinds of questions? So, how do you research information flow? I'd love to see one of those, Steve's Eye Tracking study on the small little cell phone keypad. What are people looking at on the cell phone ? – very, very tricky, very interesting to watch.

And you can't see the last thing here, unfortunately, but these days I'm getting a lot of interest in, developing a lot of interest in, what's called "Complexity Theory." How do you explain how so and so technology takes off in Country A, but not in Country B? How come so and so content service takes off like wildfire in Country B but not in Country D? So there's a whole theory building up on the tipping point and these kinds of other theories based on Complexity Theory, which is the sum of the parts is very often more than - the whole is greater than the sum of the parts, whatever, is very complex.

Anyway, there's a lot of interest now in using Complexity Theory to explain media deficient patterns and media patterns – media usage patterns. So, I see a lot of nice interest building up in this theory as well. Some resources for those of you who want to

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follow this in greater detail. I'm one of a member of maybe seven, eight people in this – how many do you have Steve in your group blog? --Ten people in our blog ...the e-media tidbits... Twenty – we've got about 20 people from around the world taking part in this blog called E-Media Tidbits on the Poynter site. I also would also consult a group called AMIC, Asian Media and Communication Information Center. They do a lot of Pan-Asian research on media diffusion, media habits and stuff like that. So, if you have that in your readers ? I'd be very happy to tell you more about it.

There's a nice site called Japan Mobile Media Review, which tells you a lot about what's happening with mobile media in Japan. And also like the site Archives.org about what's happening with the net. Here's a small list of the some of the links to my blog items from this Poynter site.

There's also a series of books which I'm working called "The Asia-Pacific Internet Handbook." The first one was this one called, "Emerging Powerhouses." It talked mostly about who the technology players with the Internet in the Asia-Pacific, so we covered India, China, Singapore, South Korea, Japan and Australia.

The second one looked at the Internet as an instrument. So, the first one was Internet as an industry, then Internet as an instrument. How is the Internet being used as an instrument by the news industry? What kinds of narratives are emerging? What kinds of diaspora patterns are emerging? What kinds of industry ? mix are we seeing in the news industry? I've got a copy of that book floating around here. You're most welcome to come take a look at it afterwards.

And the third book in the series, which I'm wrapping and it's coming out in a couple of months, is more about intimacy. I don't mean about erotica, but more about cell phones and how, for the very first time, there's a piece of very fancy, expensive technology which many of us go to sleep with, literally. The cell phone is next to us in most of Asia and Europe when we go to sleep. And all the news, all that information, everything comes in that little piece of technology. It's like there's a great book called, "The History of the Mobile Phone," which talks about – it compares things like pocket watches and how that was one piece of technology which was very close to people. Now it's being taken over by hand phones – a piece of technology which we carry with us everywhere with all kinds of information on it. So, anyway, that book is called, "Asia Unplugged." It talks about the whole wireless industry in the Asia-Pacific.

I'll end with this slide. Yesterday we had a very nice panel on is online news indispensable? I will say "yes" for these categories - diaspora communities, online news is indispensable. If any of you ever get into the field of Comparative Intelligence or market research, online news is your first bread. You begin by Googling whatever is that you want to research. For certain kinds of information like business, sports, infotainment, again, the Internet, especially wireless, are very important. If you are in the public relations industry or in investor relations industry, analyzing the archives of news in a particular agency are very important.

If you are a big global organization you will have your own internal news cycle – your own internal blog, so on and so forth. And if you are an activist and you are involved in any kind of a movement in any part of the world, wireless and the Internet are, again, absolutely indispensable.

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Here's my last sort of Keynote level, meaning of life kind of a quote: "In the 21st century every business is a publisher, every Internet or mobile user is a reporter and every citizen is an editor." We can work on it a little bit later on, but anyways. But the basic idea is every website is a source of information and very often reporters will go to a company's website to look for press release and so on and so forth, so there is a bit of news competent over there.

Every Internet user or mobile user, especially with a photo phone, is a reporter. And every citizen is also an editor. You need to edit the kind of information you get in your information "enforce field," shall we say, and before you believe any rumor, before you pass on information to anyone else, my message is think like a good editor.

I think I'll end over there. We have some time for questions, I believe, or you can send me email – madan@inomy.com or since I travel so much, digitalnomad@hotmail.com. Thank you.

AUDIENCE QUESTION: Why do you think, you when you see that people in Indonesia or in Malaysia have championships of writing on the cell phone and they are so fast with the fingers even if its number has noted three letters, whatever. Why this kind of messaging did not develop, has not developed in the United States? Beyond the technological thing that they adopted, GMS, whatever, do you think there is any cultural thing related to this?

MADANMOHAN RAO: Excellent question. I think it's a million, trillion dollar question, perhaps. We just talked about that over lunch with my friend from Hong Kong, Andrew, and we talked about how one reason is, of course, the technology. We have SMS built into every cell phone. Everybody who has GSM can use that technology, so it's not a question of you're on PCS, you're on Sprint, you're on AT&T, so we can't talk to each other. So on a GSM network anybody can send an SMS to anybody anywhere else in the world.

So, having the common center has helped a lot – number one. Number two; perhaps people in the U.S. are more tuned to big keyboards, big screens, landline phones, etc. And the perception is the cell phone is more of an instrument to be used only when you're traveling, only if there's an emergency, and I'd rather talk to somebody than to this painful SMS texting kind of stuff.

I think the Blueberry's – the new Blueberry's – Blackberry, Blueberry, what's it? Blackberry! Sorry. The new Blackberry's I've seen are pretty sophisticated. You can do voice and data on that, so on and so forth. But I think it's partly more of the inertia of getting stuck with wired line, with PC's which are wired, big interface, nice, easy type on keyboards, so on and so forth.

To be fair, when I first saw this whole SMS thing I didn't find it interesting at all. It took me more than two years after SMS became available in my telecom circle to actually use it. I preferred email, I preferred voice. But when I saw more and more people doing it, when I found I was getting so many SMS messages I thought, hey, let me just see what it's all about. Now I can't function without SMS. When I come here it's very hard for me to be in an non-GSM country sort of, so it's a bit tough.

But I would say wait for about 5, 10 years when we get a new technology – it will change again. The way this stuff goes so fast, SMS may be just yet another footnote in data

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communications. Once you get heavy bandwidth, two-way radio conferencing, all that stuff, you won't even bother with SMS perhaps. Maybe short text messages, but not these strange 160 kind of things.

And one of the side effects of using this text on the cell phone is your vowels go for a toss. There's a phenomenon called "linguicide" – the death of language – because people are not typing vowels anymore. It's just, "Hi – how are you = HWRU," and then "See you at home = CU@HM," something of that sort. So vowels have gone for a toss.

So many teachers are very concerned that because of SMS students can't spell anymore properly. So there's lots of very strange side effects. Yes, sorry?

AUDIENCE QUESTION: Yeah, I was wondering after what happened in the Philippines, I guess the government's been pretty threatened by SMS. Do you see any sort of crackdown on SMS, the same way they can shut down ISP? Are people using SMS in China or in Iran, and is the government reacting to that?

MADANMOHAN RAO: Great question. I think there have been some attempts to try and control what's called the SMSC – SMS Data Center. The way SMS works the telecom operator has the big data for all of this stuff, so it's not like you have your own website with your SMS sitting on it. All the SMS messages sent come through the operator's network. And the operator has an SMS data center and an MMS data center, so every text message, every photograph you take comes through that particular center.

So, yes, there's a lot of potential for this Big Brother kind of stuff as well. But very often when these things spread like wildfire it happens even before the government can do anything. So this whole Philippines thing happened in just two days. Within just two to four days they were able to mobilize all these people and swing the election the other way.

So, I think speed is a big concern. But, yes, it's a possibility. I haven't come across too many case studies of this in Iran and other places as well.

AUDIENCE QUESTION: I'm proud to be a Banglorian myself and I'm very proud of the fact that India has achieved such great success in information technology. I have two questions for you. One is, I'd like to know, in your opinion, what would trigger the growth of Internet in India? And is it, for instance, bad TV via cable television, because the cable diffusion is quite high in television homes? Or, is it the mobile devices that might triggered this?

MADANMOHAN RAO: I think it's more mobile, because I think the penetration of mobile is already much more than most of the media in India for people who are on the move. The cable TV option is also a very good option in the very big, dense, urban clusters where it makes sense for ISP's to have some type of the local cable operator. So, that's just beginning to happen now as well.

So I think that we're just in the early stages of the growth, even for cell phone usage. Last year was a big year of growth for India. So usually in India the levels must take some time to settle down, but once it settles down things just take off like a rocket.

So, for instance, the ISP regulatory environment took about four years before the government said, ok, private companies can become ISP's. It took about three years to get the whole interconnect agreements between cell phone operators to an ok level

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before cell phone levels took off. So, I see the same levels taking some time to fall into position for India.

AUDIENCE QUESTION: My second question is about rural penetration of the Internet. What are the efforts that are being made currently and what how much is the penetration, if you know it?

MADANMOHAN RAO: Ok. It's very small in rural areas – almost 80%, 80 or 90% of Internet use in most of Asia for that matter is in the big, urban clusters. The Telecenter model is probably the most viable model to increase Internet access in rural areas. So, it's basically a Wi-Fi connection or some kind of other WLL loop kind of a connection for a Telecenter or a cyber café or an info kiosk. People share access to that particular info center.

So, there have been maybe about 30 or 40 case studies of this in India, Malaysia, Indonesia, etc. of rural telecenters where maybe 40 to 100 people get Internet access through that particular center. And there's information in local languages, there's some kind of a content management system with news, yellow pages, information, so on and so forth.

But I think that's one of the very exciting new frontiers, which you will see in much of Asia, Africa and Latin America. I think in Latin American they call it "Telecentros Movement." In Africa it's called the "Info Kiosk Movement." In Asia we seem to call it the "Community Telecenter Movement." They also call it "Community Informatics" sometimes - the science of information technology and information flow in rural areas.

So, there's some promising movements over there. But I think Wi-Fi and Wi-Max are the things to watch.

Coffee time. Great. Well, you've been a wonderful audience and I guess we have -