Leadership in the Digital Age: Discussion Summary (7/14):

GVradenburg: Opening Speech

Today I wish to address an emerging kind of Leadership that is enabled and encouraged by the new digital technologies. It began in the private sector with executives trying to use the new technologies to improve corporate performance within the company and then between the company and its customers and suppliers moving across organizational boundaries. Now this new leadership has spread to other sectors like government; today some leaders are moving beyond just "digital leadership" to social *stewardship*, as top leaders think about communicating across all sectors and working more for the good of society.

Digital "stewardship" means leaders take ownership of major economic issues and social issues. They want to find ways to use information systems across all 3 sectors: public, non-profit, and business. Finding underlying problems and solving. Skills needed similar to normal ICT company. Understand problem areas. Information and familiarity can come from any sector. In ICT sector traditional leader is Steve Case. He became a steward when he crossed boundary into after-school centers which integrated normal NGO mission of under privileged kids. Bill Gates became a steward when he took on vaccines. He joined with U.N. and governments tackle major social problems. Locally, we find high profile business executives donating services to philanthropies. New information tools are joined to private wealth to address education and economic problems. Homeland defense: efforts to bring private and non profit into problem to integrate into education response and prevention.

Characteristics of these new stewards: private wealth. Leverage by forming non profit, or contribute massively. Tend to be ICT background and in their early 40's. Achieved wealth and want to give back to their community. Mission driven. Ability to relate to public sector. International level.

But there are major barriers to integration of 3 sectors: differences in speed of decision. Finance. Capacity to move. Motive forces are different. NGOs are mission driven. Public driven by perceived public needs. Business by profit. All bring different and important values. Creating cross sector cooperation is difficult because all are used to interacting in a particular way. We need new forms to organize cross sector relations that go beyond advising, sub-contracting, etc.

Stewardship on top of leadership.

Barriers: some info is classified. E.g. homeland security. Sharing info and collaboration is difficult because information agencies have different regulations. Structural organization is starting to be a problem. Systems of information are different.
Solutions: regulations and laws are changing.

Thus there is a wide variety of forms of digital leadership. The highest form is just about to emerge among top leaders with a capacity to integrate across borders using common information systems to relate to all sectors. Changes notions of government. Information and

communication technologies now give us tools to pursue new ways to cooperate across all three sectors.

Three Case Studies- A Region, A City, A Country

Greater Washington Region as a Case Study

GVradenburg:
Development of ICT in Washington DC originally was not product of particularly strong cross sector leadership. History of region is deep in ICT background. Defense and space programs have made DC high quality area in terms of work force. Development was built on very strong base, with very little if any interaction from university community or national lab system and little interaction with traditional downtown business community. Mario Marino became champion of ICT in DC in early 90s. He created Potomac Knowledge way. He possessed large private wealth and periodically hosted groups of entrepreneurs. Giant networking functions spirit of self consciousness and awareness in community along with several at Potomac knowledge and others within community that had interest in seeing it grow invested in industry. Later 90's the larger business communities started to invite IT business into activities because they realized the value and importance of IT companies. Greater Washington Board of Trade came to play a major role. Twice a year conference, started as agenda setting. Now more practical. Involved in national defense. University relations. Try to create relationships in high tech sectors. Change the way universities are led. Beginning next conference, more attention to social models and philanthropy investing in inner city. Retail and housing investment.

Alliance of regional stewards.
Trying to model what is working in different communities around the U.S. in integrating techniques. How to develop cross-regional relations outside of traditional jurisdictional boundaries. Want to try to connect all the experts in practitioner field in order to accelerate larger regional development.

ICT sector grew up out of good base of multiple sectors. Now trying to construct linkages across sectors to attack economic and political and social problems.

EWilson: Why did Marino do this? Earned a lot of money in Silicon Valley. Wanted to reproduce Silicon Valley in Washington. Brought together well to do power brokers, but was also interested in developing a work force. Vision was top down as well as bottom up. He realized he can't have successful industry without workers and stability in society. GV suggests not quads, but small groups who built outward.

GVradenburg: Mario is metaphor for guys who came out of one industry and became regional economic leaders, and cross sector leaders. A lot of people in IT in early 90's made a lot of money and wanted to give back. Like hitting the lottery. Guilt or life opportunity. Give back to community, invest in community, make world a better place. Movement motivated by wanting to make the world a better place.

Leadership will play a different role at different times. Hopes theorists will be able to look at models and find predictability.

Cross sector approach. Common investment facility. Common resource training.

Maybe we just had a good opportunity for leaders with IT boom. Hopefully people can look at time period and discover what produced these leaders.

DCogburn: As you've seen this community start to engage across sectors, how have you seen the character of what you're doing change? Motivations, speeds, efficiencies? Have you seen a change?

As you were describing social philanthropy story, points to reason for engaging, how did it work, why did it work, is it a motivating factor for involving university research community?

GVradenburg: All sectors are fragmented into different areas. How do you organize all the fragments of individual sectors? Have to try to regionalize, and get simpler decision making. Regionalize bodies in sub-sectors to get fewer levels. Network the networks. For example, trying to plan for how to respond to a mass disaster. Multiple service agencies. Take learning from one to the other. Scale models. Argue for greater non profit funding. Regions aren't just physical areas. There are non-profit, private and public facets as well. Challenge is to get three sectors to think they all have roles and responsibility, all respect others, all work together.

Non profits are having trouble raising funds for operating side. Have tremendous capacity for scaling, but neglecting financing for operating.
Now talking about subcontracting to private sector.

JDempsey: Fascinating to map this scenario. How are current philanthropists' approaches different from classical philanthropists? Much more collaborative type of process to social change. Past didn't work collaboratively. Digital revolution may represent a different approach to collaborative thinking. Entrepreneurial perspective vs. academic context. Difference is tone and approach. Are there changes in tech industry or computing, faster cooperation? To what extent have they influenced the way current leaders think about promoting change? Are there lessons to learn about how value is created in tech industry, and how that translates over to social side?

KJarboe: What George said about lack of National labs and universities, curious case of dog that didn't bark. Didn't have linkages. Grew up organically based on entrepreneurial model. Invading other sectors. Beginning to integrate northern Va and MD. Wealth of resources. Interesting set of entrepreneurs. There have been earlier attempts at organization. The state of Virginia's "Black cube" supposedly in middle of growing hot spot has done nothing. Then, Montgomery County, deliberate ties between National Institute of Health and biotech that have been successful. George, what does it take?

ATaylor: Interesting set of questions in comparing philanthropy. The older philanthropists also started very similar. Carnagie and Ford started as entrepreneurs who could afford to donate. Then newer class today is more entrepreneurial in approach, because newer, freer, different motives and desires. Infusion of new entrepreneurs, foundation community cannot ignore this. Reexamination of allocation of resources. Forcing change in approach of foundations. If we are to make any change, now understanding how pervasive IT is, there has to be a new paradigm. Witnessing new entrepreneurs who move more quickly more efficiently, new mix that emerges. None of these people have sufficient resources to solve problem, and so demands greater collaboration. Context of leadership, leadership is not just a top down phenomenon, in underserved community, all new; need to be aware of how leadership developed. In order to be long lasting, need to understand how leadership develops.

GVradenburg: There is very active discussion today of strategic philanthropy. Larger funders debate. Money with strings attached. Don't underestimate people who want to have personal impact. Undervalue entrepreneurial approach. Not that many entrepreneurial philanthropists. Some efforts to have people contribute into larger combined funds, but relatively small movements. Where are the rest of the rich people who made so much off tech movement? Locally, there is an association of Washington area grant makers. Try to decide what needs of community are. Collaborative of smaller foundations are forming to fund large movements.

Lots of non profits pouring money into education, but no one is coordinating. Public sector can't cope, because lack of model. How to integrate non profit and private efforts into public education. We have the capability at small cost to have better education programs, but don't have them because no organization.

Internet in 90's was metaphor for change. Anything was within reach. Think some of that spirit is gone. The ability to capture information and coordinate, that is happening very slowly until we see examples.

Over a period of time we will begin to integrate biotech and info tech. Meld two distinct and receive dramatic advances.

FGrillo: A little uncomfortable about limiting to three sectors. Each one contains very different aspects. For instance, federal and city government are completely different in values and mission and organization.

About regions and clusters, Italy's economic strength has been built around clusters. Strength in small areas. Nature of clusters is changing. The exchange of values and ideas is much more important.

ABadshah: Breaking down sectors gives new answers. Quite clear that paradigm has changed. Complete proliferation, use of information technology is there. Contrary to Vradenburg, feels there are hundreds of people doing these things but we don't know about it. So-called new wealth is working in philanthropy field. Lots of people approaching social sector with business sector skills. Much smaller scale then Gates or Case. Or remain anonymous. Key difference is that none of them are just willing to write a check. All trying to donate time and efforts. Major

shift. Seen through foundations and how programs get evaluated and done. How is same kind of grouping formed in different parts? There is concentration of wealth.

JKoch: Observed the difference between public, private, and NGO's, just in terms of perspective on time. In 80s and 90s you saw time to market, time to volume. NGO's address individual social problems, don't think just in terms of market, think of beneficiaries. There is a clash of lexicon and paradigm. Important to recognize. Social benefit people bring deep knowledge of local ground level circumstances that is far better then market research. There is conflict and tension between two. Need to synthesize the two.

Scaling is not how social benefit people think. Model is much more clinical. Since scaling is not an issue, most people don't have perspective of building models and systems. The venture capitalist have the answer with scaling. But the business model is not always right.

KJarboe: Pre-institutional phase? Knows many small donors. What happens when they run out of energy? Is this just a phase? Will it go back to traditional institutional role? Or is it really a change in paradigm? Will people get tired, and turn into new versions of same old philanthropy?

ATaylor: The reason that this has come about has changed so dramatically.
2 different scenarios:
New guys are really new and will stay new.
New guys will get tired and institutionalize. Environment is so different that the whole philanthropy sector will change.

JDempsey: Carnagie didn't say that his steel knowledge would build libraries. Time is critically important to early philanthropy. Don't think initial philanthropist, that understanding of time is transferable to other sectors. Testable hypothesis: some of the ways our approach in tech industry is appropriate to other sectors.

ATaylor: Specific example of Carnagie. Beginning of 20th Carnagie. Gates in 21st. neither is being connected in study.

FTipson: What has plagued international development is that sometimes U.S. models are not transferable to outside markets because of values and culture.

JAnderson: Useful to distinguish between self image and institution. Carnagie applied image of self made man to libraries. Same thing with Rockefeller. Transfer to current phase. What kind of institutions do ICT people create, and what is their self image. New guys built into institutions work habits. How will ICT affect institutional change? Background in software which gives them a very different approach to problem solving. One thing definite that is "anything is possible" not constrained by laws of physics and politics. Different Ethos. Comparison w/ old form. Old didn't start in a vacuum. Started as charity. Created institutions. Used knowledge to create. ICT professionals today are trying to promote their own model and self image. They believe one can do anything with right tools and people, it is a network model

not institutional. Implicitly pushing the value of software people. If you can think it, you can do it.

GVradenburg: Agrees that they believe that anything is possible. Networking is pertinent.

On issue of it's too simple to talk about world in three sectors…
Yes. Each is very intricate and complex. To get them to operationilize is nearly impossible. Work on own pace. In order to collaborate, requires simplification. More and more pragmatic to find simplifying mechanism to use strength of community to mobilize society. ICT has power to do this. Information is at the core of comparison. constantly trying to find metrics to compare. How can we measure performance of different sectors. Capacity of measure, capacity to use. Power of information. Cost of acquiring, comparing, using. Not enough competition for institutions. Old foundation thinking is static. Will never spend down money.

How has global environment change?

People are very mobile. Community needs to find opportunities to raise standards of living. Freedom in creativity. The ability to pursue what you want. Mobility and social networks are highlights. Attract creative people. Opportunities are key. Do whatever you want. Something for everyone.

Leadership:
Important to get a typology. One has to find a classification scheme. What are the action steps to incent leaders, develop leaders, attract leaders. What would be useful for leader to study, interesting to study about leaders.

SESSION NO. TWO: Leadership in an ICT City

SPitroda: To understand Bangalore today, we must first understand last 20 years. What we see today, planted 20 years ago. When Mrs. Gandi died, people were hopeful cause son understood tech. Saw an opportunity for generational change. Some groups met and talked about what kind of India they wanted to built. Three most important things. Tech as entry point to bring about generational changes. Not necessarily end point. Second, information technology will bring about transform. Infrastructure of infrastructure. ICT before education and health. Institution from scratch. Had to be done using Indian talent. Not going to bring in foreigners. Launch 8-10 different institutions. Non hierarchical systems from U.S. business based models. Most were young people. Focused on Bangalore, cause had minimum critical mass. Work culture is different. Then brought in US companies.

Political will was necessary in India. If you didn't have political support it would have been impossible. All processes are very old. Needed to change processes. Until old process change to use new technologies, India is stuck.

ABadshah: Significant proliferation in ICT sector because of lack of bureaucracy placing burdens on industry. People on top in India didn't understand industry. At same time, enormous revolution in U.S. and many people emigrated. Whole new generation of people riding wave of

IT industry boom today. Much more able to move than earlier waves of Indians. With increased technology, you got proliferation. How do you change systems so that what has happen in India with benefits of IT industry can stay in the country and not just exported. Info technology bypasses bureaucracy. Social change is enormous. How do you multiply. Leaders are both in corporate sense and government leaders. New thinking is moving into the bureaucracy, and into the younger generation. Video conferences in arranged marriages. Have taken the place of telephones.

RSarkar: Transformative ability of technology in terms of it's ability to impact people on the ground. In terms of the ability of IT , shift is taking place. Lost energies. Whole revolution is over. The ability of people to talk to each other is going to profound affect how business and governments deal with issue. Bottom Up.

On India, the importance of culture. Interviewed leading CEOs about management culture. One outcome in India is civilization interested in carta leadership around villiage heads fathers of community, and their ability to command respect and influence through indirect leadership. Distributed structure around leadership to allow people to come up with ideas. Syncratic dynamism. Able to handle multiple speeds. Able to handle complexity. Often missed in western world. Peer to peer revolution. Used to handling hassels of India. Important of how information is traded in India.
Elite aspiration of India. How has revolution affected elite aspiration. Info tech has permeated India aspirations.

EWilson: Willingness to develop hypothesis is very useful.
We should continue with that. Secondly, reference to the quad. Growth of it in Washington area. Clear it didn't start off with full blown quad. Reaching a level where they must create a quad to break barriers and continue innovation and growth.

Cross border, cross sectoral, vertical dimension of crossing borders. Something about technology that allows people to cross borders in new ways. Did not exist before. Continue at same pace of change, or interesting interactions?

LUNCH

Reed Hundt: Lunch Speech: *The Power of Information*

Why do we the people know more then our leaders?

We are the second super power, the people who choose to participate in world news. Our agenda is eclectic. Never really totally reflected in the mainstream. Why do we the people know more then leaders? First, we have paid no one to tell us what we want to hear. Whereas leaders are surrounded by people who tell them what they want to hear. It is a world in which people are hired to tell the leader what the leader wants to hear. We the people do not have people telling us what we want to hear. There is no media service that tells us what we want to hear. Package

of marketing, advertising, and entertainment. Second reason why we know more, is experience. There is no news. Just stuff we already knew. From work, friends, family….

A statesmen is someone who grabbed the coattails of history as it was galloping by. –Bismark

The statesmen had in fact the necessity of analyzing the situation correctly. In the pre-information age, the statesmen didn't have to share much info but have to now. Woodrow Wilson made a horrible blunder about treaty of 1919. Reservations by Senate about treaty. Wilson didn't understand that the right goal was committing the US to the League of Nations, not his own goals.

Goals have to be picked in public and shared. Diplomacy ought to be open.

You cannot be inflexible. Have to be able to adapt. In today's day and age, you have to be willing to talk to the people about the ways and means, so you can be flexible.

Goals: Leaders have to tell the truth about the goals. Have to be big goals. People don't want to know the details; they want the general theory, general means, general proposition. This is an era of uncertainty. We don't really need to know all the facts, although we can get much greater access to them if need be. All the more reason for the leaders to talk about them in a positive way. Fundamental problem is we are being led the way we want.

But times are changing and leaders must be more open in the digital age of open, interactive communication. On a global scale many ICT options are possible for other countries, but ultimately culture determines technology.

We don't have the tools to operate as a whole. We need our leaders to tell the truth so we may be confident in them to lead us where we want.

EWilson: New info age means we all operate in an environment that makes it difficult for leaders to operate behind closed doors.

RHundt: The only goal where there is some ability for private discussion is the details around the means. you cannot have one set of goals that you privately seek, and another that you publicly claim.

TSherman: With the understanding that dialogue should occur, the challenge is resources. Since resources are limited, how is this dialogue supposed to occur?

RHundt: If you add up time in a week that people look at tv vs. computer., tv outweighs computer. At any level of leadership, tv is crucial. Everyone on all sides of debate, has same view on tv. What's interesting about the war in Iraq, is there has never been so much non western controlled coverage of an event in history. Greatest event since end of Cold War. Previously there was another world that was blocked off from the West. There is now a third world media. Very big fights informed by Internet and broadcast by traditional media.

Virtually impossible for presidential candidates to connect to public through tv. If you use the internet, you can step ahead. Use of media is key.

FGrillo: Not sure political system is structurally able to tell the truth. if Bush was digital leader, he would have shown some doubts about WMD. Truth is about likelihood.

Perhaps there is a new class of people - young, successful, global, relevant from political point of view. Can they be the driving force of change?

Not sure we the people must wait for leaders to change attitudes. We the people must become leaders. There is an element of conflict.

RHundt: Not clear how much the young group will become leaders or will influence. Not clear how that will develop. Iraq conflict was fascinating because more people on a global level formed an opinion quicker then any other time. Smaller more populated world.

JPeizer: Global security overlay, in terms of partnerships, global security has led to uncertainty. All of civil society is hurting. In terms of discourse and transparency, 9 out of 10 new Yorkers assume something really terrible is going to happen. A lot of people are very comfortable with discourse but for national security reasons must leave it up to leaders to decide.

RHundt: In general terms, everything must be honest. Below that, there is a level of specificity that people don't want to know and just want to trust. If you told goal, means, and result it is better. If people knew that the govt. was keeping info about people they would be much more comfortable then not knowing.

SDickert: Worry about transparency and clarity. Do we the people really want that? The people are being taught to listen to a sound bite. Don't want to hear "we are trying" "we believe".

RHundt: We the people would prefer more nuance and ambiguity then traditional styles provided. When the situation is discussed, people are willing to accept a certain amount of bad news.

Formula for CEOS about compensation/layoffs. Situation and the goal and the means are all disclosed in advanced. We are not immune from change, not perfect forever.

SDickert: Those organizations had clear mission. Under governments, similar ideas, but not coherent.

ATaylor: We the people more diverse and more mobile. Population where more people do look at television. Also populations where 1 out of 3 people are illiterate. What are the dangers for society in that truth?

RHundt: 60% of people who watch tv also use the internet. For those 60%, they use the media in a complementary manner. For social as well as economic, the US would benefit from having universal service. Broadband universal service.

ATaylor: Do you think that political leadership will push for universal service because of desire to succeed?

RHundt: Those who support it, will support it. Those who fear it will oppose it.

EWilson: Public will accept ambiguity because they have so much more info and realize how difficult to decide is.

RHundt: By far, Churchhill followed model more then anyone else. He assessed that people believed him. With respect to the means, he was clear. Respect to details, people left it up to him.

Back to India

GCampi: From outside India, a lot of activity in India is happening because of foreign interests. Big competitor is China. Different system and govt. participation. If Indian leaders do not participate helping IT leaders emerge and advancing the IT community, will the industry be sustained with competition, considering the barriers of system?

SPitroda: Industry has privatized. All family run business. No influence from government.

FTipson: How do you create a culture where IT development is focus? Political culture inhibits development of the industry. Developing countries are stifled. The power of the quad is a hypothesis that by mixing the cultures of different sectors, create opportunities for a different viewpoint and overcoming culture. How do we promote the freeing up of the industry from government control and barriers.

SPitroda: Mindset in India is still that of feudal times. Those in power don't want to share power. What you really need is massive political reform where talent is recognized not connections. Massive administrative reforms. How do you manage 1billion people? How do you change the process to allow you to overcome. In India, systems are still left over from British system. Have to change all dumb little laws.
Third is judiciary reforms. 23 year long court case. If you really look at bottom line, illiterates, no water. Bangalore is great, but so what?

ABadshah: Some mindset is shifting, but difficult. Volume of people and entrenchness of system. But look at education. There is change. Because of educational reforms, leading to other reforms. Some states are becoming much more competitive. Within that whole backwards infrastructure, industry developed.

EWilson: Yet much to my surprise, it is almost impossible to find sustained academic study about success of Bangalore

IAgamirzian: There was no one single name of leader in US mentioned that was not entrepreneur. In India example, only name mentioned was Rajiv Ghandi. Difference in culture.

Fastest growing countries in 2 categories, were efficiently exporting, and efficiently importing. In business model there is a lot of cultural things around technology. Cannot just export technology. Must export management as well. In the case of India, the efficient importing comes in technology not business. What are the limits for growth in India, what can the rest of the world learn from that.

DCogburn: Importance of culture, one important part is the impact on local individual level. In many areas there is cultural aversion to this technology. Can you change those fundamental elements of culture? As you have public sector champions, you have loss of momentum when they die. How do you continue longevity of movement. How has India been able to engage in forward looking technology, as well as grass roots problem?

KJarboe: On issue of anti-leadership. Question of certificates. What happened that the bureaucrats that allow you to now by pass them?

FGrillo: India is democratic enough to have democratic problems. We did a study on how Internet is affecting health care. 3 clusters. Countries who have strong legacy of welfare systems which can become an obstacle. Then countries which have the advantage of dictatorship. China. Third, zero based scenario interesting case where developing industries do not have to destroy existing infrastructure.

ABadshah: Back to notion of china vs. India, notion of economy of industry of export. How long can an export economy survive? Software industry is outward looking. Not developing a core user base internally. interested in culture aspects. Too intertwined to make generalizations. Lots of innovation in poor countries to allow access. Solar panels. Intermediaries were being bypassed by kiosks. Internet allowing corruption to flourish. Allowing collectors to focus on bribes instead of filling out forms.

SPitroda: What happens to value chain. India started with body shops. Now people are going up value chain. E.g. General Electric does all balance sheets in India. People are advancing up value chain. Most companies are coming up with own products. Forced to change to ensure survival.

On institutionalization; institutions don't survive. Real challenge is to build new. over a period of time we will be able to build institutions that survive leaders. IT tech forces you to change organizations. Info by definition forces openness. Cannot have hierarchy of old type and allow IT. Here you take it for granted. In India you have to rebuild it.
How do you bring about change; computerize railway reservation. Air conditioning with computers.

RSarkar: The revolutionary nature of tech will be the impetus toward breakthrough in systems and organizations. Impact of gestural leaders is extraordinary. Extraordinary bottom up potential. Lower classes are getting involved in politics. We are at the moment of getting people involved in the process. Understanding connection between democracy and promoting growth and development. Democracy is deliberated. How do we capture a language of politics that gets across to the people? How do the people re-engage.

WCurrie: During the anti apartheid movement we were able to bring all sectors of South Africa together to try to achieve change. That methodology also produced a new national communications technology awareness.

Today however there is a Quad model where everyone participates but no one agrees. No trust. Contest for material gain, power influence, from politicians, NGOs, don't see advantages of diffusing situation. Paradox.

NMaepa: If India has had 50 years of democracy, that is not a lot of time. South Africa has had only 9 years. Colonization for 342 years. In S.A. essentially, those in power like to latch onto power. There is not much history of sharing power. S.A. now has opportunity to learn from many other countries, and has been position to leap frog forward. S.A. is so much like the US in diversity of population. That's human capital. Important to learn and cross fertilize across groups. Think how much U.S. has benefited from India, and India from US. We have talked about knowing who some of the leaders are. Minister Jay Naidu is one. Someone who would take on a challenge. Background in chemistry. Today is in telecomm sector. Another name is Shuttlesworth. Mark Shuttlesworth's brain child is security certificates for e-commerce. SA has human capital to allow it to grow. Why then the decline in rank of internet diffusion? Too much political maneuvering and control. As a technocrat and a person raised on telling the truth, I made it very clear I would follow the law. Telecom and other laws written were pretty good. Reflected what people wanted to see. Harder question was how could we forge these relationships like in Silicon Valley in S.A.? 2 very tough socio-political facts and relations. One is knowledge base. At the top are the white people who were privileged above all. Just because it is democracy, if you were white before democracy, then you were still white. Change to democracy didn't change prior allocation of education. Below whites were Asians and mixed. Taught some science. At the bottom were black people, who were taught very little. On political side, which determines the future, the people who set up system as rulers were blacks. Then mixed race, Asians, Indians. At the bottom of determining who rules are the whites. So how do you make the political situation work with the knowledge based system and the political system which are completely opposite? How do you forge relationships? One small problem, those who went abroad and studied science were not in power. Those in power were taught in places like Havana and Bulgaria where they don't teach consultation. So it's evident why democratic means don't lead to democratic ends.

Didn't shy away from things that were in line with the new laws and white paper. Some openness is found in law itself. It said internet was available for anyone to use.

Still a lot of work to do. But human capital in South Africa is incredible.

DCogburn: When you talk about people who play a leadership role, you talk about government actors. Politicians as leaders adapted and embraced these new technologies and promoted role of technology. SA government leadership has been crucial. From private sector there are people, white and black, academic and research sector, ngo, who all play tremendous role in developing IT sector. Range of diverse actors that run the spectrum across all four sectors of the quad.

However, the process that brought them together initially to consult, then turned around and ignored them and their recommendation.

How did leadership emerge?
Consultative telecomm process was landmark. One of the things that took place in process was much greater involvement of NGO grouping. Then they were marginalized from green and white paper process. First telecomm consultative process is important for leadership to emerge. 1996-G7 Developing information and developing society conference was also important. A second consultative process for computer technologies also proved a disappointment.

All leaders from the ISAD conference posses tremendous intellectual curiosity, diplomacy, energy. Social networking skills. Identify own interests.

The participatory process, involved all different stakeholders. They asked their constituents "What would you like to see?" S.A. built on previous consultative processes. Also structural aspects unique to S.A. One organization brings together 3 sectors in unique way is NEDLAK. Involves participation in processes.

FTipson: Cultural factors are big frustration because makes consulting ineffective. Communications have gotten worse. Political cultural is tightening and grid locking. Processes are preventing growth, causing SA to fall behind, yet tremendous human capital and resources. Whole economy has been sub-optimized because of slow developing telecomm industry. It's hard to use growing pie argument. It's a politically very difficult argument. You get zero sum economic game. Control mentality. Hierarchy mentality. Democracy is good thing, but very difficult and consuming. SA has tremendous research capability, takeoff capability in private sector. Full of talented people. Quad interaction though, doesn't happen. Government has inhibited diffusion of technology.

JPeizer: Never took as long as it did in SA to penetrate ICT restrictions to get things done. We were trying to help bandwidth issues. It was totally ineffective to do anything. It was tremendously expensive. The argument was S.A. Telecomm had responsibility of satisfying rural population who wouldn't pay, so had to balance out somehow. Investment would have happened in academic and research network if they could have a special rate for access. Academic and research did get more bandwidth, but had to be via only one client. Created new network for all Academic and Research. The regulation in S.A. was ironclad.

EWilson: I've heard the S.A. story a bunch of times, yet never heard a complete assessment from side of ministry that led them to take this position. Usually, people not wanting to give up power. Selfish reasons, ideological reasons. Why was there so much opposition? Is it because if you privatized industry, it would go to ex-ruling group?

NMaepa: The ministry has responsibility to government. It is a responsibility to make money. Not to deliver services at affordable rates.

EWilson: But that started off being true everywhere. So many other places have advanced so much faster. Why not S.A.?

NMaepa: When law enforced to mandate competition, government simply gave itself another license. Government owns three companies, private sector 0. State insists on owning the "means of production".

DCogburn: Recursive issue. Because of the vision of IT technology, they want to be able to control, thinking that's the best way to do it. They have a political development agenda. Only 9 years old. Same people, who engaged in apartheid, are still in South Africa with continuing power. People now are increasing interaction in SA. Many people are happy to only have whites at top. But state has development agenda. We understand the role that technology has. We want to ensure that everyone gets access. There is a political agenda, govt. wants to make sure it happens.

JPiezer: Not evil people. There are wants to satisfy. You're a monopoly now, may not be a monopoly later. So, have to fund. Third world problems with first world regulations. E.g. American Indian reservations. Regulations to meet social obligations.

FTipson: Need to evolve idea that these are public assets not public goods. Parcel out service. Pay full price. Get the story that what's good for the overall society and get telecomm to swallow it. Sell larger argument that people will be better off. Economy is being wrecked because telecomm feels entitled to control revenue stream.

JPeizer: Throughout Europe, no one had obligation to do anything. In S.A., they had obligation.

JAnderson: Everyone is institutional actor. Culture of these companies are formed as state monopolies. They still think this way.

Government has to get out of two things. Everyday management and ownership. Public asset is sold. We have given away public assets. It's a matter partly for creating sites for the exercise. Not a matter of morality. Not a substantive theory, but for comparison. How do you multiply the institutional points for leaders to develop. Not invested n morality, but invested in institutions.

IAgamirzian: About public-private partnership. Had strong momentum from public sector in early 90's in defining new global world. The situation has changed. Government doesn't want partnership with private sector, forgetting about information facet. Business focuses around information technology. Not as strong an infrastructural institute. Such things like software, value added, are much more flexible.

SGannes: When I first started at Stanford, I asked what was ICT. If you would take a poll of people, most people have never heard of ICT. Merger of IT and ICT. Different expectations. IT is basically about selling computers to companies. We first started talking about wealthy people and philanthropy. Then talked about manipulation by government. Perception that IT technology enlightens people. Argue that IT technology is not the solutions. Then we shifted to technology is good for development.

Problem is the telecomm is a money making machine is 125 years old. Asking vested powers to give up money. Communication is fundamental human desire. Data communications has proved that there is no cost to providing access to communication. Asking people to give up idea that communication costs to assume a system they don't understand. What people need to look for is new technology. Ways to circumvent regulation.

EWilson: One of the challenges of leadership is technological and commercial convergence. Today for the first time, people who are in industries of telecommunications, IT, broadcasters, and content makers are being thrown together in "multimedia", and all sectors are inconsistent. Even multimedia are different sectors colliding together. Leaders from different sectors don't necessarily work well in the multimedia sector.

FGrillo: Talking about changes in other systems, very important to include other sectors of society in model. Health care, production.

Definitions of Digital Leadership:

ICT as a sector

ICT as enabler and infrastructure

ICT as revolutionary factor.

ICT as a medium of content.

JPeizer: Don't forget in leadership, there are non profit leaders as well. In many cases they don't have resources, but they do have ideas and content. As we talk about leadership, don't forget NGO's provide leadership in a different way.

SDickert: ICT infrastructure. People are beginning to use ICT as infrastructure.

JAnderson: ICT as a developing market. ICT as a leader of sectors, leader of infrastructure, leader of society.

GCampi: Missing one basic concept. When we are talking about ICT, assume infrastructure is first layer of ICT. What is the common factor of definition of definitions. It's communications. Key factor. If we talk about leadership, we are talking about communications.

SDickert: If you talk about telecomm in terms of engineering, this is different. Talk about multichannel. If you extrapolate communications…

FGrillo: Leadership instruction is about managing the transition between present and future. Time related. Definition today, tomorrow, transitionary. Future is very fascinating, but we don't know what it is. Need vision of where we're going.

IAgamirzian: Defining in terms we use now is not correct. ICT existed in entire history of mankind. From the very beginning people were communicating in different ways. Specific connection to telecom is not what we mean. Add the technological aspect. ICT is using the means of the software controlled devices. Point of conversance between telecom and infocomm.

ABadshah: Not sure he conventionally agrees with idea of group leadership. Leadership is individual.

FTipson: In a society where ties between quads are weak, you get weak ties. In a society with good ties, you get good performance

TSherman: Does it concern anyone that it's individuals advancing industry and not interest groups or constituency? How have these technologies promoted democracies?

JPeizer: Question the premise that only people in leadership are entrepreneurs. Ngos. There are companies out there providing information to people who aren't entrepreneurs. These people are just as relevant leaders as venture capitalist. Canadians actually do development work for development sake.

ABadshah: What is interesting is how these relationships shift. Leadership in urban field is very similar to IT. The Atlanta project. London first. Examples of how the quad plays important roles. The partnership needs to get formed and that's where leadership starts to get exciting.

RSarkar: What we miss about digital revolution is distributive. The revolution will be led by people without business cards. It is essential to recognize that the swarm of collective intelligence is empowered by peer communication. Until we get that idea into conversation we will not look into future.

JKoch: Add equity to democracy and efficiency. Growing global divide. The quad is useful framework that varies over time. Very underdeveloped. Weak in the sense that the ground rules of social interaction and trust don't exist. There is no trust towards government. Viewed as stand back. No trust. Many examples of faltering efforts to build trust. A lot of interaction appropriated by NGO's. Universities have been disappointing in trying to shape discourse.

WCurrie: So far, issue of leadership has been following example set by multilateral institutions. Allowing developing countries to be involved in global affairs. We need to see a much more open type of situation. No global recipe. No analysis of telecomm reform to continue on with deregulation. The telecom's reform models are useless. No leadership because no one knows what the outcome of this major downturn will be, and no one will believe someone who says they do. There is no legitimacy.

Discussion of the Quad Model

JAnderson: The quad leadership model is very difficult to operationalize. By civil society, we mean NGO. ICT has had big impact on NGOs. ICT has been enormous boom. Can match capability of bigger sectors. But so far, no convincing IT innovations come from NGO.

Government and private based R and D has created innovations. Not one timeline, but many. Some come and go. Base technology is not computers but digitization. You couldn't predict future of digitization. The simple hypothesis is that leaders are the ones who make the lines between the nodes of the Quad, whether it be managing, or applying. What you want to measure are the lines.

DCogburn: There is some useful work coming out of analyzing the links among Quad actors. How dense networks are. Whole range of networks. If the Quad nodes drawn up as circles are aggreagates of institutions, it's the leaders who are initiating interaction between circles. It's not the centers that are involved. It's the people who got the centers involved.
On swarming, on emergence. If we follow that line, it's emergent leadership. Not traditional top down leadership.
About the quad, anytime you have a typology it is limited in describing reality, so we do the best we can. I am also uncomfortable with leaving out international organizations. Play a tremendous role. When you talk about civil society, you should add questions of labor. It was labor sector of civil society that was opposed to liberalization.
Also disagree about NGO only being organized active NGO. Nursing groups. Older people. Able to articulate ideas. We are now considering their needs.

FTipson: Who is outside the countries in that Quad? Diasporas. Concerned because it's becoming apolitical. When talking about swarming, you still run up against old fashioned political parties. Greater clarity about what leadership is trying to accomplish is key to applying model.

IAgamirzian: We are also missing people. Cannot be shown on 2 dimensional Quad model. They define the goal. Cannot define the model with goal outside the model. Can also have negative leaders. Change things in ways that are not positive. We cannot associate the personal computer or the internet with one specific person. All these are products of revolutionary change of lifestyle. Come out of 2 dimensional model, and find how each of these objects influences life.

FGrillo: In this case it is very true that our model is not neutral to all sides. Affects efficiency. Assume that sides of the Quad do not depend on number of people involved, but depend on way each aspect structures relationship and participates.
It is true that leaders are in the center of the model. Belong to the sectors but understand the language of the model. Each segments need to understand other language.
The leaders are most times unknown. Those leaders are consultants. Need to identify these people. Transform consultant into heroes.

GCampi: Open questions. Talking about leadership. Digital divide will affect leadership. How, what, can promote the lower quads.

SGannes: These networks are an obstacle to be routed around. Maybe the solution is to avoid the model.

TSherman: ICT as a ___ (sector/medium) for what? Strong economy, more informed citizen. ICT as a means to an end. We're applying our own values.

ECollins: Complex phenomenon. It has not been clear how any of things would evolve. Judging from evolution of Quad, it is very flexible. The import thing for a leader inside is ability to communicate to all sectors. The ability to go many ways is important. Don't want to lock in one structure because we don't know how world will evolve. How do we track relationships as they relate to problems we're trying to solve. Like to see a quad that can change.

SDickert: How the silicon model translates to other models. A Quad leader seems to have money. Has influence. A leader is a connecter between maven, leader, and salesman. There needs to be vision. People are driven by improvement of own life. It's actually vision. Leader is a visionary. The ability to cross borders.

EWilson: How do you know who leaders are?

7/15/03:

EWilson: Let's build on discussion of yesterday and really concentrate on leadership dimension. Whatever the leaders are doing, how do we model it, and how can we predict or model their future behavior? What's the balance between analytic work and normative work we have to do? Normatively, what should the quad do?

Given the potential insights of the quad model, how would you go into a country to try to intervene to make leadership more effective? If we believe that intersectoral cooperation is important, how do we intervene to accomplish this? Are there things that can be done at the local, regional, national, and international levels?

TSherman: *Top 10 Lessons Learned on Day 1*

10. Learned that she needs to be much better story teller in order to be successful. Model for how to communicate info to citizens.
9. Know the trends of how info is used, consumed, will be consumed, support change, know limits of leader, build social and intellectual capital among other leaders and citizens, trust. How will be consumed, vision. Lesson the conflict in any network. How to support change, resources. How to be responsive, and leverage assistance. Ability to cross borders. Limits of their leadership, requires flexibility and perspective.
8. Challenges. Cultural receptivity, regulatory environments, and knowledge and political hierarchies.
7. The quad is not a perfect but useful conceptual tool to map out socio political relationships in the global info revolution.
6. The quad, in theory, is distinct from quad in practice.
5. Digital leaders and info champions can be from any sectors, entrepreneurs and govt. and NGO.
4. Common links and relationships across the quad require clear roles

3. Public citizens need to be more involved in the decision making process of leaders.
2. Future and direction of info revolution is uncertain. Leadership will likely change.
1. Communication, thoughts messages and info, are central to these technologies and to the info revolution. However, for what should info be used, should leadership play role in determining, cross borders, vary?

RSarkar: Setting up a challenge, the Washington example, the Indian example, reed hundt why people are smarter then leaders, SA example, what is leadership, prospect of model.

What was key to Vradenburg's speech is that power computing inside companies was key to corporations. Now is communication between companies. What info needs to be distributed across the supply chain. Military example. New tech enables new types of leadership. Boundary crosser. no real difference between types of leadership. No real difference between development issues. He proposed concept of stewardship. Demonstrated that people can use different sectors together as a tool. New philanthropists. What is the challenge for traditional non profits?

Indian example, the IT phenomenon was product of sustained effort over last 20 years. Forced generational change. The role of govt. create engineering clusters, bolstered by private industries. Lead institutions in producing engineers. Importance of the Indian Diaspora. The idea of transformative capability of IT. Through communication and information, deregulation.

Hundt speech asked us to question leaders. Deliberate contrast between what people know and what leaders know. Beyond the media. Where the media fails in meeting civic role. Privilege of information. Leaders are trying to break through this. Establish facts. Deliberate goals. Means of getting there. Truth is key. New types of leadership is required.

SA, the important role of the goal of civil society institutions. The impact of global civil society institutions. Giving power back. Instinct of power.

Definition of digital leadership. Difference between IT and ICT. Subtle but important. Idea of ICT is a sector enabler medium, potential of quad is good overview. Flexible and it can change. Nodes and circles themselves need further expectations. Insert people from bottom up. Leaders are at center. What are the normative purposes. Efficiency? Are leaders just rich? Resource connected, boundary crossers?

DCogburn: Role of social activity, bringing together leaders through social events. To strengthen and build leaders.

JKoch: Leadership towards what end?
Leadership in relation to democracy, efficiency, equity?

Discussion: What would you do if you were consulting to yourself on this issue? What points of *leverage* would you use to improve digital leadership and what are the *attributes* of digital leaders?

ECollins: Asking about what is point of trying to leverage?

JKoch: Dependent variable is leadership, but also thinking of other factors around leadership that would help advance leadership and what leadership is trying to produce.

ABadshah: How are we using term leadership, in what context? Are we talking about "leaders?" "Digital leaders?" "Leaders in the digital age?" Three quite distinct categories. What do we need to do to prepare leaders? Where are we focusing?

JKoch: Digital leaders, and leaders in the info age. Those who can see this like the industrial revolution. How do we act so that this ends up the way we want to? If the end game is growth, what are the keys to success?

Points of leverage, and what might we do?

JAnderson: IT is now a resource. Hard for elites to capture value of IT. Problem comes out in software areas. Depend on people's expertise. Soft Infrastructure.

WCurrie: Distinguish between traditional and organic leadership. Traditional doesn't understand IT. Focus on organic leadership. The sets of skills are how to build coalition. "Across-the-network" thinking. Recognize positionality. Combination with skills and knowledge of process. Windows of opportunity. Competing interest are accommodated. Not state driven leadership. Encircle the state and force state to release control. Looking at social windows of opportunity. Govt. as barrier not source of innovation.

RSarkar: Looking to change the world. Impulse involved with startups and NGOs. New, paradigm breaking. Impatient with status quo. Deeply embodied passion to change something. Part of the impulse is egalitarian. Implicit democracy. Distributive form of leadership. Not top down. Importance of space. Physical proximities. Mentor is important. Finding an elite champion to support, then get the kids in there and go for it. Leadership is transformative. Importance of sponsorship to jump start.

SDickert: Vision. Only time ever saw things become real was with a sense of business commercialism. Altruism is important, but need to be able to surpass commercial boundaries. "Enders Game" orson scott card. New model of society. Going to create something. The leaders need to have a space to develop. Physical and mentoring space. Ability to fail and make a mistake. Already have constraint which prevents. Not just born, but made by circumstance.

JPeizer: An uber category of attributes of leaders: Visionary, horizontal consensus, political, operational. Ex. WWII. Einstein thought leader, general grove operational, oppenhiemer was consensus leader, Roosevelt political leader. Hypothesis, in the quad, collectively you need to have all characteristics. Complementary in leadership among leaders.

NMaepa: Need to find someone with attributes of passion about what their doing, whatever it may be. Whatever sector. Someone who is not able to stop talking about it. Secondly,

somebody that is already doing something. Already involved. If not involved, find someone who shows an understanding of why the digital sector would assist them. appreciation of why the digital sector is important. Finally, what are the costs. What are the time lines.

ECollins: Any new project is hooking into an already huge complex multi interconnected network. Collaborative leaders. . . . .curiosity and respect for other leaders and other people. See people who are logical and open. What can be accomplished. What are uncertainties. We are experimenting. Not a precise road map. The amount of technical knowledge is enormous. Encourage activities to make resources and info available through out the world. Need for providing information bases. Available in a usable way to these people. A tool kit . best practices for various stages. Places for people to learn through various processes.

ATaylor: Innovative vision of what is possible. Someone has a vision. Have to be able to dream. Innovative vision. Critical thinking skills. Embrace diversity. Ethical motives. Seeking technology literacy for best interests of public. Public awareness of potential benefits. New models for social integration of new technology. Specific demonstration from beginning to end. Resource increase. Leverage resources. Concept of natives and immigrants. Native are young people who are literate digitally because that's how they grew up. Naturally. Immigrants are older people who have to think of using technology. Now, immigrants are in position of leadership. Have to empower natives and immigrants. Vision includes diversity. Sense that is grounded. Raising public awareness. Ability to see practical benefits.

CBraga: To what extent leadership in digital age solves problems differently from traditional leaders. Vision without implementation is hallucination. To what extent in a network environment does contestability increase?

JKoch: New kind of social morphology. In the network society, contestability becomes a new dynamic.

SGannes: Technology is a tool. It has no value inherently attached. People have seized this tool and used it for their own purposes. Used for both good and bad. Money making and changing the world. Like learning a language, key attribute is flexibility. People who can adapt will be able to use it as leaders. Fully expect it to be used for evil. Technology can be used to concentrate power. Most significant, pitroda notion that everyone under 25 involved. Young didn't know what was right, and didn't know what was wrong. Points of leverage: the future of ideas, by larry lessik. Involve government initiatives. Underwriting fiber optic backbones to allow for connectivity in countries. Spectrum comps. Involves wireless spectrum that everyone has right to exploit. Rise of info comm. Technology has created new opportunity for govt. to redefine role. Policy related things around tools themselves. What happens to the social appropriation of tools.

GCampi: Basic need to fulfill is technology adoption. Need an engagement model. A model to interact between sectors. When we evolve into second stage, we have evolution of needs. Switch to problem solving approach. We need specifics. Cross boundaries key. Open minded government to foster development. Most critical facet is impact on social life and democracy.

Need vision of effects. Need capability to manage, need people with integrity. Stages of development. Adoption, experimentation. Problematic, specification. Optimization.

FGrillo: Medium term vision. Right leaders. Crucial that four quads have equal size in model. In long term, it is possible that quads will merge. As far as govt. in medium term, government must become smaller and more efficient. Civil society must become smarter. Private sector must become less naïve. More sophisticated. The Rand D must become solution oriented. Key words: for govt. democracy. For civil society; education. For private, competition. For R and D is relevance. More important now for leader to select info, not just get info. Need a leader of leaders. Socrates.

IAgamirzian: No real specific attributes for leaders. In any age, the leader was someone applying new technology or models to some sort of change. What is typical here, we have difference between the author of innovation and who applied it. Attributes are changes of lifestyle. Computed integration. Moving towards everything around networking. Post industrial society. Future shock example. Different goals. Different types of society. Notion of models changing. Idea of winners and losers.

ABadshah: The continuous spiral of leaders. Rather then hierarchical. Appear and disappear at any time. Non discriminatory.

FTipson: ICT for development. Looking at quad, by promoting interaction of leaders in different sectors, one way of improving. What are the context where you can promote cross sectoral relations? 1, global meetings and processes. 2, national planning processes 3, local level. Crisis that generate stress and promote cooperation by mandate and default.

DCogburn: The quad is useful. Can keep it as summary view. In order to add complexity, you can expand sectors. Network any. . .

Suggestions on where to go:

DCogburn: Collaboratories. Bigger projects. As social scientist we need to be able to draw on common resources. Building a social scientist collaboratory.

FTipson: Revise the paper. Approach a country as designing an intervention to implement quad model.

ABadshah: Support collaborative idea.

IAgamirzian: Support collaborative idea. Useful.

FGrillo: Develop model… systematic and quantifiable.
Diagnostic or educational tool for outside companies.

GCampi: Set up meetings in different sectors to share ideas and define a program with phones. Have a specific area of approach. Joint activities to see if we already have something, or if we need new.

SGannes: Go back to 3 examples we started with, and develop into case studies. Used to teach lessons.

TSherman: Encourage introducing quad into sectors, encourage discussion., meeting to get feedback from different sectors. Public discussion. Open forum. Keep thinking about issues. How leaders can build trust throughout sectors. With trust comes willingness to work together.

CBraga: Case studies in developing countries. Use networking to put together different elements. Second thing is Carnagie Mellon University of science foundations. Whole discussion is about Johannesburg agenda. What would it take to design a program that could be implemented.

ECollins: Use web for sharing and collaborating. And case studies. Mine existing research literature for any information useful to us. Web site as a resource for people to find information in literature. Design issue for coping with uncertainty in emerging development. National Science Foundation as a funder.

NMaepa: Quad is actually a distributed effort. Demonstrate and distribute. Having something that one can point to and talk about. Tool kit.

JPeizer: Continued advisory.

SDickert: Modification on theme. Set a goal, target for when list is over. Agenda needs to be clear. Drive the discussion. What motivates us to do something? We are a resource. Take a look at success of quad in U.K. broadband Britain. Digital Britain.

RSarkar: Finding a concrete example and set of partners that demonstrates this. Look to create a conference format in India.

JKoch: Synthesis discussion of this meeting. Case studies are needed. Model of change is called for.

WCurrie: Suggest an experiment. Global quad experiment. investigate global civil society. World dominated by govt. what is there to stop an experiment. World social forum. World ICT civil society. intervene into other initiatives. People who are not compromised by public or private sector.

JAnderson: Write a popular book. Include tool kit. Ideas about measures. Hypothesis. Enlist principles in discussion. Carry forth as a research project in developing countries. Literature review. Shift off America as standard for measure. Need more cases.

GCampi: G8 dot orgs are already focusing on developing countries. They are already ahead in this stage.

ECollins: Wonder to what degree lessons in developing countries would be beneficial to remote parts of the starts.

IAgamirzian: Balance both on developed and undeveloped.

Jonathan Peizer presentation [See Attached Chart]:

How to get quads to cooperate.
Nature or nurture?
Do the circles get people to change goals?
Leaders tend to gravitate towards particular sector. Politicians to govt. thought leaders to r and D.

Corporations beholden to stockholders.
Ngos closest to constituents.
Foundations
Return on Investment (ROI) v. Social ROI
Romania example. Would never have worked under ROI model. Worked under SROI model.

The multi laterals each have a different personality. Each does something really well. Each does something really badly. Why not specify to increase productivity.

Stuart Gannes Presentation

Power of a standard. Power of a constraint. Allows you to fuse technology to create a scale. Eg. Standards. The ibm 360. allowed for the whole expansion of the main frame industry. Second great standard. Win-tel. since then, some really interesting new standards. Html and the world wide web, IP. These standards came from academic sector. Those standards had really advanced connectivity more then any great leader.
Gramine telephone. Very poor country. Avg. income is $1500 dollars a year. How do you provide connectivity. I didn't create an opportunity, I identified an opportunity.

India. I can't get connectivity at current cost. How do we reduce cost. Use a broader technology. Wireless radio loop.
China. GSM telephone growth. How do you reach those not in cities. Not interested in development out side cities. Mobile local loop. Personal handi-phones.

Phenomenon. Wireless local are networks.

Constraint is affordability. Solution is to aggregate customers, bandwidth, areas. People adapt and find solutions to current problems.

Akhtar Badshah Presentation

Talking about innovators, and implementation of innovations. If you look at how it happened, these four sectors did cooperate. Able to pull four sectors together.
Technology has existed for eons. Advancement and development didn't happen until all factors came together.

Focus on leaders called social entrepreneurs. Someone that has an idea that wants to implement that idea. We have been constantly struggling with conflict between ROI and SROI. We have developed an approach which we think works. If there were a way to utilize know-how and talent without money using existing technology in most efficient way. Combined volunteer work from intellectuals and CEOs and government officials. Has created a way in which people interact adding value to a specific project. Each of these people have felt like people got value out of project. Someone has a technology need, someone has a business need, someone has an education need. Everyone gains something. All done through internet. All willing to give time to further the cause.

Biggest challenge is ROI v. SROI. Social stories have no impact on ROI. So we look at value of amount of service given with technology vs. cost without technology.

Try to capture the value of social story to apply ROI model. Assign value to benefits.
Show social impacts of business.