INTRODUCTION

This document reports on the Colloquium on “Leadership in the Digital Age” held in Washington D.C., July 14-15, under the auspices of the LIDA Program at the Center for International Development and Conflict Management, University of Maryland, attended by thirty experts from around the world in the areas of government, the private sector, civil society and the academy. It identifies key themes and concerns that emerged during a day and a half of intense discussions, and accompanies a summary description of participants’ comments prepared each day. This Report is necessarily selective, and does not claim to capture every issue in the very rich discussions that occurred. Readers are invited to review the longer summary and other conference materials at (www.cidcm.umd.edu/anouncement.asp?id=18)

Why This Conference Now?

The topic of “leadership in the digital age” resonates today with experts from many countries and sectors. At least four distinct reasons make digital leadership a compelling issue.

First is the current context of economic stagnation and techno-skepticism. In the midst of a downturn in the business cycle, and the collapse of markets for telecommunications services and goods, and the spectacular flame out of the ‘dotcom’ industry, a search for more robust explanations of failure and success is not surprising. Amidst corporate bankruptcies, plunging profitability and sour non-profit performance, attention turns naturally to ways to improve organizational performance.

Second is a greater awareness that the success of the information revolution depends on people not just technology. Whether conceived as the knowledge society, the networked society or the information revolution, success cannot ride only on the back of new technology. Other factors play a huge role as well. Analysts have already paid close attention to the contributions of
financial arrangements, the design and implementation of public policy, and of course the design and roll-out of technology itself, but other factors have been overlooked. Now some of the ‘softer’ factors like leadership and politics are starting to attract greater attention.

Not only is there a greater sense of realism about the business cycle and politics, but also a greater awareness today of how complicated is the task of assembling all these disparate components of technology, financing, marketing, public policy and corporate strategy so that the right information is delivered to the right people in the right form at the right time in the right place for the right price. Successful ICT initiatives in the public, private or non-profit sectors always have a lot of moving parts; the miracle of coordination does not happen automatically. Outside of laboratories and planning offices coordination is actually very demanding and uses expensive human resources – sustained, superior leadership is absolutely essential to bring these separate activities together into bundles of efficient and effective goods and services consumers can use.

A fourth recent development is much greater urgency to uncover lessons and best practices. This urgency is widespread -- the Information for Development program (infoDEV), a multi-donor initiative housed at the World Bank, has recently committed itself to trying to capture and distribute ‘best practices’. The private sector Global Business Dialogue for Electronic Commerce, GBD(e) published a best practices document after 18 months of research, reflection and consultation. Bilateral agencies like DIFID in the UK are also leading in this area. One finding in all these reports is that leadership plays a large and commanding role in successful ICT projects and programs.

Finally, after ten years of experimentation, real evidence is starting to accumulate as to what works and what doesn’t. The less quantifiable factors like politics and leadership are turning up repeatedly in studies like China Dawn by Sheff, or Robert Horwitz’s Communication and Democratic Reform in South Africa, and Reed Hundt’s excellent You Say You Want a Revolution. Politics, partisan and otherwise, plays a large part in all of them. Recent research in Brazil, China, India, South Africa, and Silicon Valley has pointed to the role of individual leaders in bringing about successful performance. These are the “information champions” -- the individuals in Beijing, Sao Paulo, and Menlo Park, without whom the shape, trajectory and timing of the world ICT explosion would have looked quite different.

Across different countries and continents observers are reaching similar conclusions -- an essential element of successful ICT diffusion is collaboration and cooperation among innovative leaders across a variety of very different institutions and sectors; and that such collaboration is far more important -- if challenging -- than originally conceived. The rapid creation of new knowledge, its speed of dissemination, the multiple sources, overlapping channels, the intrusions of politics and regulation, the rise of insistent NGOs and other groups of civil society, the need to filter masses of information to capture useful knowledge, all have served to push leaders to reach out to trusted interlocutors in other sectors in order to stay on top of their professions and to achieve their own goals. More and more organizations – private, public, non-profit -- recognize how important collaboration is among leaders. Experts like Jonathan Peizer of OSI find that as critical as these relations may be they are too often confounded because the leaders come to ‘common’ discussions separated by different objectives, different resources, different time frames, and almost different languages and organizational cultures. Getting these ‘cultural differences’ right can make the difference between good and bad technical and organizational performance.
Indeed, the LIDA project itself is predicated on the belief that the political, social, economic, and organizational conditions of the emerging digital age are calling forth a new kind of leadership – one based as much on persuading as commanding; that must learn to lead outward and across organizations as well as down within them; that recognizes that all useful knowledge cannot be contained in any one executive’s head, but must be distributed across a community of practice.

The Colloquium’s background papers clearly set out this framework – that the technological architecture of information and communication (ICT) resources, their infrastructures, performance and capacities, will reflect in explicit ways the social architecture and purposes of the designers of those systems. Here at the start of the information revolution, the initial evidence from many countries reveals a new social architecture that is emerging, initially small social networks linking leaders and innovators across government, the private sector, the non-profit sector and the research and university community. We call this four sided social architecture a Quad, recognizing that the organization, effectiveness and indeed existence of the Quad will vary substantially from one country to the next, and one time period to the next.

How the Colloquium Was Organized.

The meeting was organized into three parts. First, we had the benefit of hearing the rich reflections and insights of two top leaders in this field, leaders who have made notable marks across several sectors of the economy. George Vradenburg, currently Senior Advisor to AOL/TW, with a distinguished career in many aspects of the information and communication industries, is very active now in the world of institutions that help in important ways to link together the various sectors, including non-profit bodies like the Potomac Conference. He described the slow emergence of new kinds of leaders who go beyond their own narrow institutional base to become more innovative and broadminded ‘stewards’ of modern digital society. The other leader was Reed Hundt, former Chairman of the Federal Communications Commission, who complemented Vradenburg’s focus on private and non-profit leadership with a fresh and insightful analysis of the new requirements of contemporary political leadership in the digital age.

Second, the Colloquium analyzed three different but complementary examples of digital leadership in very different settings - leadership in a city flush with ICT successes and building a global reputation; leadership in a region whose leaders are trying to take it to the next level of ICT sophistication; and leadership in a developing country with much going for it and many challenges, with leaders that hold different views about how best to proceed. These three are Bangalore India; the greater Washington, D.C. area; and the country of South Africa.

Finally, with these empirical groundings in concrete leadership experiences, we rounded out the first day distinguishing among key terms like leadership, digital leadership, and leadership in the digital age

On the second day we reviewed the first day’s findings and carefully identified the personal attributes of leadership in the digital age. Participants also discussed where the analysis and practice of digital leadership should go in the future, and what kinds of immediate steps should be taken to advance the process.

Who Was There: The Participants

In this Colloquium we were able to practice what we preached by carefully balancing the participants and inviting those with years of professional experience in at least one of the main
four sectors, and virtually all with considerable experience working ‘across borders’ with other sectors.

Thus the participants themselves had substantial experience working across sectoral ‘cultures’, they had values and attitudes of being respectful of the opinions of others with different professional expectations and priorities, and the skills to manage the potential conflicts among them. Attitudes, skills, experience and substantive knowledge proved essential elements of the meeting’s success. Those in attendance were:

PARTICIPANTS

Igor Agamirzian  
Microsoft Corporation  
(Moscow)

Jim Dempsey  
Center For Democracy & Technology  

Jonathan Peizer  
Open Society Institute  
New York

Jon W. Anderson  
Catholic University of America

Sanford Dickert  
Rawlings Atlantic  
(London)

Sam Pitroda  
WorldTel

Akhtar Badshah  
Digital Partners

Stuart Gannes  
Stanford University

Rana Sarkar  
Rawlings Atlantic  
(London)

Carlos Braga  
World Bank

Francesco Grillo  
Vision  
(Rome)

Tina Won Sherman  
General Accounting Office

Gabriella Campi  
Vision and Value  
(Rome)

Reed Hundt  
McKinsey & Company

Andrea Taylor  
Benton Foundation

Derrick L. Cogburn  
University of Michigan

Kenan Jarboe  
Athena Alliance

Fred Tipson  
Markle Foundation

Eileen Collins  
Center for Women and Work  
Rutgers University

James Koch  
Santa Clara University

George Vradenburg  
AOL Time Warner

Willie Currie  
University of the Witwatersrand, South Africa

Nape Maepa  
Consultant  
Former Member, South African Telecommunications Regulatory Authority

Ernest J. Wilson III  
University of Maryland
The Three Case Studies – A City, A Region, A Nation.

‘Leadership’, even ‘digital leadership’ is such a broad term that to provide concrete specificity the organizers selected examples of leadership from three very different contexts. Experts were invited to address ICT leadership experiences in a national setting, in a city setting, and in a regional setting. Leadership in each context revealed both unique and common aspects. In each context the participants tried to ask and answer the following questions:

1. Who were the principal ICT leaders? What sectors did they come from?
2. What was the timing of their emergence as leaders?
3. Did they have notable personal characteristics that made them leaders?
4. Was there something in the immediate local environment that produced leaders?
5. Were there features of the broader national environment that promoted – or retarded – leadership?

We reviewed the role of leadership in the region around Washington, D.C. encompassing Northern Virginia, Southern Maryland and the capital city. For decades this region has been slowly undergoing a great deal of structural and organizational transformation from government services to becoming one of the top ICT providers in the United States, joining Palo Alto, Cambridge and Austin. This remarkable transformation occurred in part because of very enlightened local leadership, initially in the private sector, that set goals and targets for ICT expansion. Later, these and other leaders began to mobilize political constituencies and the human and material resources to sustain the expansion. Vradenburg reported that outreach, cooperation, shared vision and resource commitments across jurisdictional lines initially proved very difficult for the region. He and others reported that much of the initial dynamism was confined to the private sector. Cross sector leadership came later after a threshold was reached.

The experiences of these public, private, research and non-profit leaders across a region has direct implications and lessons for any group or locale seeking to enhance its position in the global ICT marketplace, and seeking to upgrade the standard of living for the people of that region. Although the capital city of a highly developed nation, its peculiar evolution may be directly relevant for regions in other nations developing and developed.

Our discussion of digital leadership’s appearance in one of the world’s newest and greatest ICT cities – the city of Bangalore, India -- sparked a fascinating debate over the relative weights of ‘nurture’ and ‘nature’ in creating a distributed, digital future from a non-digital past. One of our presenters pointed to the very deliberate efforts in the mid-to-late 1980s by some Indian leaders to create a city where science and technology could flourish as never before, attracting a new generation of India youth who would help modernize and democratize the country. ICT was an essential component of Rajiv Ghandi’s ambitious transformations when he was Prime Minister (1984-89). By contrast other observers pointed to the long term prior investments in non-ICT sectors from the 1950’s onward, driven by other imperatives, notably commitments to build rapidly a space program and a nuclear power industry, suggesting that the birth of one of the most vibrant software centers in the world was more a function of nature taking its slow and circuitous course than the deliberate vision of a few digital leaders. Here again were raised questions about the relationships of leaders at different levels of the political
economy and across jurisdictions – was it local or national leadership that mattered the most? But all agreed that for the information revolution to take off in a city or a region, top level political leadership beyond the confines of the sector itself was essential to provide political cover and unequivocal support. When the leader goes, too often the support withers.

Tensions between national and local digital leaderships were also very evident in the discussions on the growth of the ICT sector in South Africa. That country presents a superb example of the dynamics of cross-sectoral and cross-community leadership throughout a deeply-divided society. In the early 1990s South Africa was in the long and difficult process of removing decades-old formal structures and rules of rigid racial segregation called apartheid. To do so, grass roots leaders created consultative bodies to bridge the social chasms that divided the black, white, Asian and other communities in the country, through a remarkable consultative process widely described in the literature on the country (for example, see Horwitz).

Within this same process, activists, experts and other interested parties also created consultative bodies sector by sector, including the telecommunications and for information sector preparing a series of green papers, community reports and other documents for submission to the new government. Over the period 1992-2003 this consultative process across industries, sectors and communities has met with successes and failures, with some prominent ICT activists in the country complaining that their cross-sectoral consultations were politely received and routinely ignored by government leaders.

Definitions: What is Leadership in the Digital Age?

In the afternoon the group turned to the thorny and essential question of what exactly we mean by “Leadership in the Digital Age”.

This discussion had already been partly framed by George Vradenburg’s kick-off presentation and Reed Hundt’s lunchtime address. Vradenburg began by saying that the kind of leadership we are talking about is still emerging. It is new, it is inchoate, but it is recognizable as having features that earlier waves of leaders did not have to the same extent, driven in large part by the availability of new communications and information technologies. Vradenburg noted that the first “ICT leaders” were based within organizations that they built and created (those now-legendary names like Bill Hewlett, Andy Grove and Bill Gates). As the technologies matured, they provided commercial imperatives and technological possibilities for leaders to reach out beyond their own perch in large private corporations, to engage far more with their customers, their suppliers and others. Eventually the same opportunities – and imperatives – spread to non-commercial organizations like government and non-profits. At the same time, some who were leaders in the ICT sector (but certainly not all) began to reach out beyond themselves to become more concerned with wider issues of global health, local education and so on. At this point, Vradenburg claims (and he was in a position to see these processes in action), they morph from being ‘ICT’ leaders to being ‘stewards’ of the broader community. Bill Gates’ interests in tropical medicine is one example. The efforts by successful Silicon Valley entrepreneur Mario Marino to develop a progressive ICT industry around Washington, D.C. is another.

Former FCC Chairman Reed Hundt made a similar point about the impacts of the new communications and information technologies on society. While Vradenburg emphasized the commercial and community dynamics, Hundt underlined ICT’s implications for contemporary political life. The new technologies create new imperatives for openness and transparency in market and society. Followers gain the means to shine new light into the dark corners of political decision making, and to insist that their leaders be more open in considering and setting
their goals and means. Yet sometimes the rhythm of imperatives and response are not in synch, and leaders are far slower than their followers to realize that conditions have changed fundamentally. Asking why the people know more (and perhaps know it faster) than their leaders, Hundt hazards to guess that in today’s media and information-drenched environment, leaders must be more open with their constituents than in the past, and citizens’ views and concerns must be taken directly into account. The new media create a new environment and new expectations, and these require new behaviors by our new leaders. Leaders filter information and surround themselves with flaks and sycophants at their own peril.

But what then is leadership in the digital age? Several nested definitions emerged from the discussion; the value of any particular definition being more shaped by the purposes of the analyst than by anything inherent in the words themselves.

Most generally, ‘leadership in the digital age’ was taken to mean any kind of leadership in today’s modern society, whether within the core ICT industries of computers, telecommunications, and content but also fields like education, health care or automobile manufacturing, since knowing how to use ICTs, and knowing how information processing and communications are changing society, is absolutely essential for the contemporary leader. More narrowly, ‘digital leadership’ was by contrast taken to mean the leadership of an ICT company, ICT government agency, ICT non-profit or research body focused mainly on the sector. The most modern and innovative forms of digital leadership seem to have emerged first in the ICT industries. Most also agreed that while leadership first emerged most visibly in the private sector, it has also emerged in other sectors as well.

A Functional Definition of Leadership in the Digital Age.

Several participants pointed out that there are different kinds of leadership that provide different kinds of contributions, meeting different functions. These can include awareness-building leadership, operational leadership and political leadership. If lucky, a community, region, or country will have all types available to call upon to serve. There was also considerable discussion about the ends of leadership – that is, the purposes to which leadership should be put, especially the ethical purposes of e-leadership, including advancing democracy, promoting equality, and enhancing development.

Leadership Definitions Based on Information Revolution Definitions.

Another definition of leadership emerged around the prior definition of the information revolution. One conception of the information revolution is a massive shift from one kind of economic structure to another, from one where manufacturing dominates to another where services, especially information services, are dominant. Under this definition, leadership is in the hands of those who promote and sustain such an economic, sectoral transition. A second definition of the information revolution focused on the provision of digital infrastructure that enables so many other modern activities – the infrastructure of the infrastructure. Leadership that helps furnish digitalized infrastructure provides digital leadership. The same might be true for the other great element of the information revolution, the provision of digital applications to potential users. More sweeping and far-reaching, and perhaps more inclusive, is the definition of leaders as those who help to bring about a new kind of society, a digital society, through a social revolution. This too is a distinct definition of leadership in the digital age.
Finally, much of the discussion concentrated on defining leadership in the context of the social architecture that helps shape the subsequent technical architectures and their performance, especially as leadership emerges from the cross sector relationships called the “Quad. There was a great deal of discussion about the origins of Quad leadership and its behavior. Does it originate mainly inside the four nodes or between them? Is there a distinct real or virtual space where Quad leaders meet?

Attributes of Leadership in the Digital Age

Even given these definitions, it is apparent that not all individuals will be leaders in the Digital Age. How do we distinguish among leaders and non-leaders? What do the digital leaders have that others do not?

The conference participants pointed to two kinds of factors critical for leadership – one adhering in the individual leaders, the other in the social environment surrounding the individual. For the former, it was their unique skills, attitudes, experiences and knowledge that separated the leaders from the non-leaders.

Individual Attributes.

Skills
- Organic leadership
- coalition building
- navigate commercial barriers
- sensitive to costs/time
- logical/critical thinking
- energy/health
- multitasking
- ability to implement vision
- facilitator
- ability to forge communities
- can enter and exit given circumstances
- articulate enlightened self interest
- technically proficient
- organizational skills

Attitude
- passion
- revolutionary ethos
- egalitarian approach
- results oriented
- surrounds self with others
- vision/innovative
- inclusiveness/diversity
- open
- moral foundation
• flexible/ adaptable
• integrity
• intellectual curiosity

Experience
• already an actor
• connected
• wide perspective on issues
• be global in perspective
• Gain elite sponsorship (info champions)

Knowledge
• operational know-how
• political knowledge
• know what don’t know
• understand networks

Participants did not reach consensus on the exact balance of traditional and new attributes, but there was some agreement that today’s leaders need to draw on traditional leadership attributes but also on new ones.

LIDA needs to have specialized experiences, attitudes, aptitudes and knowledge. These four should fit together in complementary ways that mutually support leaders’ goals. For example, Tina Won Sherman pointed out in her excellent summary that leaders today must know how to build social and intellectual capital among other leaders and citizens, by building trust, and concomitantly they need skills in consensus building and conflict management since conflict will be inherent in any effort to build cross sectoral alliances. Leaders also require the cognitive and intellectual capacities to understand current ICT conditions, and the foresight to anticipate the most likely future trends of the technology and the uses to which technology is likely to be put by consumers. They also need the moral vision to know how the technologies could be employed to make their fellow citizens become better. Political skills are also essential as one participant put it, since “vision without implementation is hallucination.” Therefore, LIDA needs the skills to mobilize the resources necessary to connect with others, the skills to create the connections, and the skills to sustain them in the pursuit of common ends. Fundamentally, and this is why they are driven to cooperate with other leaders in other nodes of the Quad – LIDA must know the limits of their own knowledge, and where to go to learn what they do not yet know or to engage with others who do know. Leaders must be able to integrate their knowledge into the collective knowledge of a team.

These are the personal attributes that the new digital, distributed environment seems to require of its leaders, whether political ones like Reed Hundt or economic ones like George Vradenburg. But what are the features of that environment which together are best able to call forth and sustain

Situational Attributes.

There are a variety of situational attributes that can foster good digital leadership. One is the Quad relationships which can sustain and empower digital leaders, providing them with several potentially mutually reinforcing resources they could not get so readily on their own
through more conventional and limited ties, and which allow them to build up and leverage their leadership skills and track record. First, Quad members get better information about what is happening in their field, information they couldn’t get on their own. Equally importantly, they gain superior interpretations. As an isolated individual they might not be able to recognize the importance of some information without colleagues in other nodes bringing it to their attention, interpreting its meaning for them and providing context. Everybody can get the same information; not everyone can mix it with other information and interpret the results in the same way. Quads not only provide information and context, they are also a network through which lessons and best practices can be shared, practical answers to concrete problems. When a Quad member needs support, the Quad also acts as a political coalition or constituency which can be mobilized to help a member obtain a valued but otherwise-difficult outcome.

A continuing theme in the sessions was that viewing the digital, distributed environment through the lens of the Quad was an excellent first step to understand the new environment which calls forth and rewards LIDA. However, the Quad framework is certainly not the last step. It has limitations as a heuristic, including being over static and too aggregated to capture some nuances in the ICT world. For example, some pointed out that even within each node of the Quad there are sub-units with their own perspectives, interests and preferences.

Other Themes on Leadership in the Digital Age
Other important themes emerged over the course of the discussion. These should be important for practitioners, and interesting and compelling to researchers.

Leadership and Institutionalization. As long ago as the late 19th century, Max Weber speculated about the relationships between short-term charismatic leadership and the development of lasting institutions that can preserve the original goals and sense of mission over the long term. Several times in our discussion participants voiced concern about the relationship between the two. Mostly, evidence was presented showing that once the supportive charismatic senior political leader left the stage (as did Rajiv Gandhi with his electoral defeat in 1989), then the forward progress of the Information Revolution could be badly blocked by information conservatives no longer held in check by senior political leaders who could ally themselves against the information champions. Conservative incumbent institutions during the transition are more likely to thwart emergent digital leadership than promote it. Observers pointed out that in LDCs, there were great problems in institutionalizing this leader-provided energy, and political protections of bottom up, distributed, grass-roots ICT approaches typically dissipated after the leader leaves.

Timing and LIDA The conditions and needs of the emergent knowledge society have changed very quickly through the 1990s. Indeed, the sense of accelerating speed and high velocity is a central element of the information revolution, and one is reminded that a single Internet year feels equivalent to seven ‘normal’ years. Internet diffusion has gone through at least three or four distinct phases in its short history, from its pre-commercial phase, through commercialization, competitive, and consolidation phases. In each the requirements of the industry were very distinct, whether for the necessary workers, financial capital, infrastructures, government support or other resources like leadership. The kind of leader that thrived in 1994 is not necessarily the kind of leader who could survive and thrive in 2004. This requires a lot of further investigation and research.
Generational Dimensions of Digital Leadership

On a slightly longer time scale is concerned is the fascinating question of generational differences in leadership styles, substance and capabilities. Across the sectors, it is apparent that among ‘Net entrepreneurs, venture capitalists, NGO experts and even researchers there is a significant representation of younger people in their 20s and 30s, more so probably than in other fields. Are there also sharp differences in attitude and approach by these younger leaders of the digital world? For the moment these are questions without a lot of answers, though Warren Bennis has given us an excellent start with his analysis of “geeks and geezers”. More than one participant pointed to the capacity of the young to do ‘parallel processing’ – responding to instant messaging, talking on the telephone, with both the radio and television going, without appearing distracted. Another participant provided a powerful metaphor when she said that the young are natives in this new digital land, they speak the language and understand the mores intuitively, while the older adults are merely immigrants managing to experiment as they go with language and expectations. Yet the immigrants have the power and experience, and as leaders must teach the ‘locals’ even as they are being taught.

Culture and LIDA

One speaker said unequivocally that ‘Culture determines ICT successes.” Curiously this assertion was not seriously challenged. Experts on Bangalore reported that the cultural values of that region are somewhat more open and less hierarchical than in other regions of India. All agreed there is something about the informal, education-drenched values of northern California that has given a huge boost to its ICT successes where inherited or other formal status and rank are not as determinative as in other regions, and where raw talent and achievement is valued regardless of national origins and creed. Other cities on other continents suffer by contrast because the cultures in which the local leadership, entrepreneurs and innovators are trying to surface are burdened with values that checkmate ICT expansion. At the same time, there was also a feeling among some participants that the achievements of the ICT successes can be partly explained because leaders deliberately fostered a brand new culture on top of the old. ICT successes seem associated with new values, new ambitions, and a new kind of culture. Prospective leaders emerge from one culture and over time, exercising their capacities, can create a new one.

Cross National Differences in LIDA – North and South.

Most of the Colloquium was spent seeking similarities across the very different kinds settings where digital leadership emerged over the past two or three decades. At the same time, there was a general if tacit agreement that there were huge differences between North and South, in terms of the pool of people available to lead their individual capacities for coalition building and their abilities to build incentives and institutions that will last for the long term. Poor countries have a harder time creating all the necessary institutions whether of government or research, and especially those that bridge the different sectors. The consequences are that many LDCs do not appear to be catching up, because the race is about leaders building up sustainable practices and then building institutions and not just short-term charismatic leadership to build awareness.

LIDA ISSUES Insufficiently Addressed.

Some themes arose in our discussions that did not receive adequate discussion and debate. These are subjects which certainly need more research and reflection in future
discussions of LIDA. A major one was LIDA and conflict, since very real conflicts arise between different elements in society who wish to employ the new technologies in innovative ways through innovative channels, and other social forces who want to capture the new ICTs and incorporate them into existing organizational forms with traditional authority, which they typically control. That is, most of the emphasis in the seminar was upon the new wave of progressive leaders who sought to employ ICT for purposes and using means which are relatively novel and innovative, not on understanding the leaders who steadfastly oppose them. There was agreement that leaders could be sinners as well as saints, could bend their effort to block diffusion as well as promote it, could arrest and murder reformers as others protected them. Lessig argues that much of that early innovation and its potentials for the future have been severely undercut by the prevailing powers of market and state that be now busily reshaping the innovative to the conventional. All of these issues need to be further and discussed. Among other issues that needed more discussion was the importance of ICT leadership and gender, especially given the paucity of women in leadership positions in the field; whether leadership can be taught; and the contributions international organizations can make to leadership development.

Next Steps.

Participants recommended a number of concrete next steps that could be taken to advance the study and practice of leadership in the digital age. These included concrete, practical steps; proposals for conceptual, analytic activities; process-oriented activities; and others.

Among the practical steps were to build up the country examples into more sophisticated case studies of digital leadership in a city, a region and a country; select one case and demonstrate how practical interventions could be made to improve Quad digital leadership in that country, and hence improve ICT outcomes; prepare a practical ‘tool kit’ for actual and potential ICT leaders. There were recommendations too for the project to define more carefully key terms like digital leadership, Quad, and others. Developing explicit hypotheses, and introducing aspects of the Quad model more explicitly would also help advance understanding of the phenomenon and make it more theoretically robust and helpful to practitioners. Several participants suggested putting the Quad Leadership idea into a book oriented toward a general audience that could draw on the academic research and analysis.

Participants also recommended a number of process-oriented steps to sustain the rich dialogue and discussion, from creating a “collaboratory” within the group, to involving more people in the project through wider dissemination of the products, through a listserv and by systematically interviewing leaders from each of the four nodes in the Quad. Suggestions were made to find partners for the project, especially in civil society, and especially in developing nations.