Building a Searchlight Function

Workshop Report and Participant Reflections

Society for International Development and The Rockefeller Foundation

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Part I:

Foreword - Searchlight Function Overview

The Searchlight Function: Pro-Poor Foresight in Action

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The Rockefeller Foundation, United States

For all stakeholders operating in the global ecosystem and engaged in improving the human condition, attempting to anticipate the evolution and direction of the medium- and long-term future can be a daunting prospect, one that may appear to be filled with more darkness than light. The Rockefeller Foundation has undertaken an innovative approach to confronting the task of systemically trying to understand the present to make clear multiple pathways ahead. It is known as the "Searchlight" function—an apt metaphor to describe the regular, ongoing scanning for novel ideas, research results, and "clues" to where the world is evolving.

This notion reflects the Foundation's interest in finding creative and unique ways to operationalize and integrate foresight on-the-ground, across the regions and countries where it works. Composed of 10 organizations located throughout Africa, Asia, and the Americas, the Searchlight function aims to achieve three major goals:

- Illuminate the current contextual environment within which the Foundation, its partners, and its grantees operate;
- Identify early signals that could have long-term implications for poor and vulnerable communities; and
- Present a diversity of opinions and perspectives across a range of topics, utilizing a variety of methods, from different geographies and regions.

Each organization participating in the Searchlight function contributes to achieving these objectives by preparing monthly trend monitoring newsletters that reflect their points of view, areas of expertise, and knowledge of local conditions. Taken together, these publicly available documents outline a rich mosaic of themes, patterns, and concepts that provide early indications of how various driving forces might intersect and

interact with one another over time. In addition to the preparation of these written trend analysis materials, the Searchlight function is envisioned as an iterative process that builds and links together networks of talented individuals and cross-cutting institutions that can highlight how the complex, sometimes disjointed findings of today might fit together and constitute the new realities of tomorrow.

The Searchlight function has its roots in a growing set of efforts from around the world that have emerged in recent years within governments, businesses, philanthropies, and other non-profits to apply forward-looking analysis for the purposes of expanding opportunity and strengthening resilience to social, economic, health and environmental challenges, particularly with the aim of improving the lives of poor and vulnerable populations. The importance and need of applying foresight for the purposes of development—an approach that has been termed "pro-poor foresight"—is evident in the everyday world around us, as the effects of systemic crises have led to unexpected consequences that will likely have significant impacts for years to come.

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Especially in the early stages, we believe that a critical component to establishing a successful trend scanning enterprise involves bringing the practitioners together to learn from each other, share knowledge and best practices, and foster a sense of community. This was the spirit guiding the workshop held in Bellagio, Italy and organized by the Society for International Development, with support from the Rockefeller Foundation, in April 2010. As listed in the Appendix, the workshop consisted of multiple representatives from each Searchlight organization, along with the participation of an additional set of experts and scholars who provided invaluable insights and intriguing outlooks on both the process of horizon scanning and the content and ideas that can result from such efforts. We are deeply thankful for the time, energy, and enthusiasm that all of the participants lent to the workshop, and its success is a testament to the willingness of each individual to engage collaboratively, question conventional wisdom, break down disciplinary silos, and strive for a deeper understanding of the events unfolding around us.

Given the distinctive ways in which the participants assess and analyze the world, this report, which emerged from the workshop, is not conventional in its structure. Instead of providing a linear summary of the discussions as they took place, this report consists of a series of reflections and short essays—written by some of the participants themselves—that expand upon and explore the topics addressed in the meeting. In this way, the sections of the report can be taken independently as stand-alone pieces that consider a specific topic or, conversely, as a collective whole that illuminates the interconnections

among a range of topics. We are greatly appreciative to the many participants for their efforts in recording and expanding upon their thoughts in the writing presented here.

The following section contains two essays focused on the methodology and practice of trend monitoring and horizon scanning, containing suggestions about best practices in the field, as well as how to overcome potential drawbacks. The subsequent section then contains three sets of two essays each, with each set touching on the main content-related topics addressed at the workshop: Africa's changing role over the coming decade, the influence of information and communication technologies in transforming the developing world, and the applicability of the concept of resilience in understanding the future direction of urban and rural livelihoods. These disparate, yet interrelated, issues reflect both the breadth and depth of interests of the assembled participants and led to an engaging and provocative set of discussions centered on how these and other trends might cause system-wide changes on a global scale. The final section of the report concludes by indicating a set of next steps and recommendations that will be relevant as the Searchlight function moves forward into its subsequent phases.

Whether you are steeped in the process and outcomes of trend monitoring or whether you are new to the field, we hope that you find these thought pieces engaging and instructive to read and that they raise stimulating questions or observations.

Part II:

Methods: Trend Monitoring and Horizon Scanning

Introduction: The Importance of Foresight for Strategy

Arthur Muliro
Society for International Development, Italy

Arie de Geus, formerly of Shell International, studied why some companies survived for centuries while many others seemed to fold up and close within decades. In his book, *The Living Company*[1], he outlined that one of the reasons behind the success of long-lasting companies was "their sensitivity to the environment." Leaders of these organizations were able to apply foresight consistently over time to enable them to remain competitive in rapidly changing circumstances. One of the early proponents of the idea of "learning organizations," de Geus reminds us that decision-making within organizations is about the degree to which learning is fully integrated into its operational and strategic processes. A critical component of learning is the ability to understand the "relationship of changing environments," and appreciating the implications of how contexts shift over time is vital for organizations that want to stay ahead in the game.

Environmental scanning has become an increasingly important tool to help leaders examine information about events and relationships that affect their organizations. Research by Bourgeois[2] has demonstrated that those firms capable of examining their external environment more accurately were able to achieve a higher than average level of economic performance. As Costa[3] writes, the main functions of environmental

[1] De Geus, A. (2002). *The Living Company – Habits for Survival in a Turbulent Business World*. Boston, Harvard Business Press Books.

[2] Bourgeois, L.J. (1985). Strategic Goals, perceived uncertainty and economic performance in volatile environments. *Academy of Management Journal, 28*, 548-573

[3] Costa J. ,"Scanning the Business Environment" in Olsen, M. and Zhao, J (eds.), (2008), *Handbook of Hospitality Strategic Management*. London: Elsevier

scanning are essential to "learn about events and trends in the external environment; to establish relationships between them; to make sense of the data; and to extract the main implications for decision making and strategy development." But even as this practice has become more important within organizations, there is the danger that it remains largely disconnected from the overall planning process.

The purpose of environmental scanning, therefore, is to provoke leaders within organizations to become more aware of faint or emergent signals that are likely to have an impact on the organization's future operations and to prepare to cope with them when they arise. By focusing attention on what lies outside of the organization's boundaries, leadership should be able to create institutions that adjust and adapt to the environment in which they operate. Scanning can be a powerful tool to support the strategic planning function of an organization if it is properly positioned, has clear objectives, and enjoys the commitment of top leadership.

There is, however, no specific technique that works best for environmental scanning. Each organization must tailor the approach to its specific needs and to its strategic planning processes. According to Costa, the following aspects need to be kept in mind with regard to whichever scanning technique or model is chosen:

- It should be deliberate and prospective;
- It should be ongoing and not crisis initiated;
- It should provide for a high degree of interaction between the scanners and the decision makers;
- There should be a clear definition of information needs and sources; and
- The means of storing, processing and disseminating the information needs to be clearly defined.

Properly executed, environmental scanning efforts should contribute to shifting the mindset of the organization to accommodate "what if" scenarios and to prepare for eventualities that might not be presently visible. Typically, environmental scanning models tend to be highly analytical, capturing and processing a variety of discrete and unrelated bits of information to discern how they might combine to shape or become driving forces. The scanning effort should not concentrate on assigning probabilities to outcomes, but should rather inform and facilitate conversations about how external events are influencing performance within the organization. Sadly, in many organizations, various weak signals are often dismissed as being "highly improbable" and are therefore largely ignored by decision makers.

The role of intuition in such processes is much harder to capture and contextualize. General recommendations have been broadly made, suggesting that intuition needs to be taken much more seriously. Mintzberg[4], in his critique of strategic planning, talks about the "fallacy of formalization," which is the mistaken belief that analytical systems can be built with the capability of generating intuitions that carry the same weight as strongly held beliefs or paradigms developed by those with first-hand experiences of different events and situations. He suggests that rather than breaking up information into pieces, it is the opposite that is needed: intuition can synthesize fragmented pieces into meaningful wholes.

No matter the environmental scanning technique or model chosen, its eventual success within an organization will be much more a function of the quality of the conversation that it is able to spark and sustain rather than the accuracy of its predictions. The clarity of thought and action around any environmental scanning function will also be helped by the input and focus that is provided. It cannot be random patchwork of data gathering but, instead, a purposeful collage of assembled information that helps to assist the organization in its task of charting its future course of action. As Mintzberg noted:

"The real challenge in crafting strategy lies in detecting the subtle discontinuities that may undermine a business in the future. And for that, there is no technique, no program, just a sharp mind in touch with the situation. Such discontinuities are unexpected and irregular, essentially unprecedented. They can be dealt with only by minds that are attuned to existing patterns yet able to perceive important breaks in them."[5]

The following two essay contributions further explore how to build a structured process of intelligence gathering with an eye toward the future. The first, by Tanja Hichert of the South Africa Node of the Millennium Project, outlines some of the basic principles of horizon scanning and trend monitoring, noting that the process "is as much an art as it is a science." Ingo Rollwagen, a foresight practitioner at Deutsche Bank in Germany, subsequently proposes a number of dimensions that are important to include in any horizon scanning effort in a more conscious and structured way, thereby enriching the process and managing complexity so that individual decision-makers are not left feeling "deeply troubled and almost paralyzed."

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[4] Mintzberg, H. (1994). The Fall and Rise of Strategic Planning. *Harvard Business Review, January-February 1994*, 107-114.

[5] Mintzberg, H. (1987). Crafting Strategy. *Harvard Business Review, July-August 1987*, 66-75.

Theory and Principles of Horizon Scanning and Trend Monitoring

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SA Node of the Millennium Project, South Africa

Working with the future requires a slightly different mindset, and the points below are some of the characteristics and attributes about the future that are worth noting:

1. The future is the only space in time on which humans can have an impact.
2. There is not one future, but many possible futures, including those that are (most) probable, as well as preferable futures, even "impossible" ones. In other words, the future is like a fan, and we feel more certain about the probable future in the shorter period of time ahead, but as time extends further, uncertainty increases and multiple futures come into play.
3. The future cannot be predicted or foretold, only anticipated. So, we cannot know the future, but we can know about the factors shaping the future.
4. The future is not predetermined or ordained, which means that decisions and choices we make now influence the future. The future is influenced by our actions.
5. A preferred future can, to a large extent, be produced if we act purposefully in cooperation with others and with insight, understanding, and wisdom.

It is critical to recognize complexity and take a systems thinking approach to making sense of the future. Always keep in mind that most issues or "things" that we want to know about are part of a complex adaptive system, so the future will not play out rationally or linearly, but rather by way of relationships and networks, the parts making up more than the whole, and through multiple diverse elements on a multitude of levels.

Because much of the theory behind horizon/environmental scanning emanates from the management[6] and technology management fields, it is often confused with technology forecasting. Scanning is not forecasting. Scanning is also not about managing uncertainty. Rather, it is an aspect of identifying issues that will affect the organization or the subject area being studied; it is an expansion and contextualization of knowledge.

Issues can be identified in different ways, and the information around them can be treated in different ways as well. The kind of information that is strategically important needs to be identified—this is the focus of the study or issue at hand. Issues to watch are those that are important but not yet at a stage where they require action. However, those issues that have an impact or outcome that is difficult to determine also require attention, and issues requiring action are those that already affect the organization or that will certainly affect the organization in future.

Scanning, however, is about looking continuously across diverse sources for any information that may be relevant. It is therefore a different way of treating information than is typically the case in organizations. Putting a scanning program or activity in place is not always easy and, as mentioned earlier, scanning is not a monolithic activity[7]. While practitioners and scholars such as Aguilar[8] and Cornish[9] provide various definitions of the concept of "environmental scanning," it is important to note that environmental scanning includes both looking at information (viewing) and looking for information (searching). In *The Art of Scanning the Environment*[10], Choo distinguishes between four modes of organizational scanning: undirected viewing, conditioned viewing, informal search and formal search.

1. **Undirected viewing** consists of reading/examining a wide variety of publications and information sources for the purpose of being informed.
2. **Conditioned/directed viewing** consists of responding to this information in terms of assessing its relevance to a specific organization.
3. **Informal searching** digs more deeply into a single issue or event, in order to determine quickly and efficiently if a need for action – including formal research in greater depth – exists.

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[6] For a good overview of environmental scanning as it pertains to a strategic planning process, see the short article Environmental Scanning Principles and Processes which can be found here: http://staff.cce.cornell.edu/administration/program/documents/scanintr.htm

[7] Choo, Chun Wei (1998). T*he Knowing Organization: How organizations use information to construct meaning, create knowledge and make decisions*. New York: Oxford University Press.

[8] Aguilar, Francis J. (1967). *Scanning the Business Environment.* New York: Macmillan.

[9] Cornish, Edward (2004). *Futuring. The exploration of the future*. World Futures Society.

[10] Published in the Bulletin of the American Society for Information Science, February/March 1999.

4. Retrieving, or **formal search**, is an in-depth research process focused on a specific issue or event, characterized by an articulated methodology and an exhaustive search for and of sources.

Some of the practicalities to take into consideration when scanning include that there may be a low degree of public awareness and few mentions of emerging issues, while well-recognized trends and megatrends are highly diffused. Scanning should not only consider well-documented trends and mainstream publications, but it should also look at the fringe and so-called grey literature. Remember: scanning is as much an art as it is a science.

Observations on Structuring Horizon Scanning

Ingo Rollwagen
Deutsche Bank, Germany

The world is in the midst of major structural changes[11]. Dynamics such as climate change and its implications, progress in science and technology, demographic developments, and societal changes are altering the conditions and contexts in which decisions must be made. The interconnected nature of these dynamics and their impact on such critical dimensions as the global financial and economic architecture and the geopolitical security system is leading societies and communities, organizations, and individual decision-makers to become deeply troubled and almost paralyzed.

Being confronted with crisis-like situations of increasing complexity, decision-makers are trying to understand the profoundness and abundance of structural change and how it affects their attempts at shaping the future. They are turning to foresight and scenario methods to help shape responses for tackling global poverty and other problems in a smarter way[12].

In order to deliver outputs that can be used in everyday practices, foresight practitioners should refine their horizon scanning approaches as one of the cornerstones of foresight in general and "pro-poor foresight" in particular.

I participated in an April 2010 meeting of foresight practitioners and experts from different continents held at the Rockefeller Foundation Bellagio Center that explored, in part, some methodological and practical approaches to trend monitoring and horizon

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[11] For an overview of structural changes and defining dynamics see: Hofmann, Jan / Rollwagen, Ingo / Schneider, Stefan (2007), *Germany 2020 – New challenges for a land on expedition*. Deutsche Bank Research, Frankfurt. Current Issues No. 382.

[12] See for example Institute for Alternative Futures and the Rockefeller Foundation (2010), *Foresight for smart globalization. Accelerating & Enhancing pro-poor development opportunities*. Bellagio, Italy.

scanning. The meeting's rich content and discussions provided me with a number of new insights. From my vantage point as a corporate foresighter, who is deeply integrated in my organization's operations, one observation emerged as being particularly important: horizon-scanning can be powerful in reducing complexity when it is both broad in scope and structured in approach.

Structuring horizon scanning by incorporating…

…actors and agents.

Horizon-scanning can enrich insights into different social contexts by paying specific attention to actors and agents and their networks and relationships. A number of political mobilizations have been initiated by certain actors with specific interests. Asking questions such as "what motivates which sets of actors and agents?", "who are the relevant, powerful and influential actors in this context?", "who seems to be marginal?" – can produce more useful horizon-scanning outputs.

…social structures and actor configurations.

In the same vein, another important part of horizon scanning lies in following closely the changes to social structures. Without asking the question "which social structures, which social networks on the basis of which capacity (money, ideas) are predominant in certain countries and regions?" changes on the horizon cannot be easily perceived or integrated into horizon scanning. It is also very important to not only look at existing political institutions. Many developing countries have socio-political structures that are in constant flux and only looking at existing institutions could hinder foresighters' ability to perceive the emergence of new forms of solidarity and community emergence.

…geographical and regional dimensions.

There is a lot of discussion about the value and utility of the nation state as a unit of organization. Whether it is at the international, regional, or sub-national level, an understanding of the geographical context within which actors and agents relate to each other can provide illuminating insights.

...historical dimensions.

If you want to scan horizons you are well advised to bring history back in. Many trends as well as unexpected discontinuities are rooted in some way to history. Horizon scanning should explore the "paths" or heuristics (rules of thumb) that are historical legacies and remain at the heart of current business, political and social structures. Are actors and agents deviating from established paths? Are they shaping new paths, or building new

capacities (socio-political, technological) to determine new directions? How are they shaping their future history?

…temporal dimension.

Horizon scanning must be conscious of time. The timing, pace and difference in the speed of change should be explored for their implications on the future. For example, building infrastructure, growing the economy, and stabilizing the political system all happen at different speeds, and their timing and sequencing shapes the ultimate outcomes. An illumination of this dimension of change can add significant value to horizon scanning.

…cognitive/epistemic dimensions.

Finally, horizon scanning should track the realm of ideas. Ideas and their direct and indirect effects on the development and on the materialization of trends should not be underrated. This is particularly so when ideas create or emerge from new forms of imagined communities based on faith, or on shared aspirations or technological paradigms. Scrutinizing ideas and the institutions they spawn may help to broaden the scope of future possibilities.

These ways of enriching the dimensions of horizon scanning are very selective. However, I hope that they may help those organizations that use foresight to better shape their contributions to the Millennium Development Goals and other development processes.

Part III:

Insight from Selected Themes

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Introduction: Exploring the African Decade, Role of ICTs and Urban Resilience

Aidan Eyakuze
Society for International Development, Tanzania

As way to illustrate and apply the practice and process of environmental scanning, a set of critical content and topical areas were selected to be the subjects of deeper, more extended forward-looking analysis. These three disparate topics—the potential for an “African Decade” of economic growth, the role of ICTs in development, and urban resilience—were selected because of their apparent and growing importance in the development field, their relevance for multiple stakeholders, their ability to invigorate a conversation with multiple layers of complexity, and their inherent level of controversy that was expressed in energized debates at Bellagio and in the essays presented below.

Consider each in turn.

The African Decade. The hosting of the FIFA Football World Cup tournament in South Africa in 2010 prompted the international pop star and anti-poverty campaigner Bono to declare that the event would “kick off the African Decade,” a sentiment echoed by a June 2010 McKinsey Global Institute report about Africa entitled Lions on the Move. Noting that the quickened pace of economic growth has “infused the continent with a new commercial vibrancy,” the report argues that “global businesses cannot afford to ignore the potential.” However, such optimism is confronted by the reality of Africa’s slow progress towards achieving the Millennium Development Goals (MDGs). A 2009 report by the African Union, the African Development Bank, and the Economic Commission for Africa noted that despite African governments’ “efforts to accelerate progress to achieve the MDGs, at current rates, the continent continues to lag on many of the goals.”

This ambivalence about Africa's future is reflected in the first two commentaries in this section. Charles Onyango-Obbo identifies four trends that warrant attention. The major surprise is the clues pointing to the "quiet extinction of the African male" with profound implications for the organization of society. Two other identified trends challenge the conventional wisdom that ICTs are benign and that China's resurgent economic engagement with Africa may lead to its dominating Africa's social and political life. Brazil's and India's influence, though subtle, could become stronger. Geci Karuri-Sebina explores how Africa's youth bulge, combined with growing inequality, could slow or even reverse Africa's progress in the coming decade. She argues that if technology is to contribute to changing the continent for the better, it should be developed for people, "instead of hoping to adapt people to technology."

ICTs and Citizen Agency. The soaring penetration of mobile communication devices around the world is having profound effects on access to information, business models in financial services, forms of social mobilization, and sources of innovation. In their essay on the topic, Aidan Eyakuze and Edgar Masatu reflect on the ability of social media to serve as an "aggregation of voices from the bottom up," citing examples such as social media being credited with amplifying the mobilizing power of Thailand's Red Shirt protestors and facilitating citizen journalists to "report" on the Chinese and Iranian authorities' responses to recent street protests. Should we believe the hype that ICTs may re-shape the relationship between the state and the citizen? Is the technology enhancing citizens' participation in civic life or their ability to hold governments more accountable? Can social media change politics? Lawrence Haddad from the Institute of Development Studies in the United Kingdom predicted that driven by ICTs, "people power in development will move into a new age," but the complexities surrounding this potential trend need to be explored in greater depth.

In the second essay on this topic, Geert Lovink takes a clear-eyed look at "Media Activism in the age of Web 2.0." He argues that "*in the short run, social media remain additional, secondary sources of information that primarily generate interpersonal context*." Furthermore, as privacy and anonymity become scarcer, and governments could potentially use the same tools for surveillance or to control their populations, political activists who use social media for mobilization, and who fear for their personal security may need to become rather savvier about protecting their identities.

Resilience: Urban livelihoods, innovations, and demographic implications. Resilience is defined by the Resilience Alliance as "the ability to absorb disturbances…to be changed and then to reorganize and still have the same identify…basic structure and ways of functioning." The alarm being raised by prominent and ordinary people about the ability of natural and social systems to respond to the instabilities surrounding us is getting louder, particularly as the size of humanity's footprint on the Earth's natural

system is becoming apparent. Societies are also under stress due, in part, to widening inequality and an uneven distribution of means both across geographies (for instance, between Europe and Africa) and within countries. How resilient are these systems, and what can be done to strengthen the capacity to absorb and respond to unanticipated shocks?

In his commentary, Sundeep Waslekar echoes an important dimension of resilience by highlighting the centrality of foresight to ensuring the longevity of human institutions alongside political will and ability to act. In the second reflection in this section, Apiwat Ratanawaraha's contribution describes how cities will play a critical role in building resilience over the coming decades, as urban regions have recently became the home for more than half of the world's population for the first time in history. This essay connects the theory of resilience with practice, describing an initiative that combines urban planning, innovation, and future studies and that recognizes the principle that "people should matter in innovation as innovators."

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Although these topics are presented in a linear fashion, the many direct and indirect connections linking the three are evident and apparent. For instance, following a decade of robust economic growth unseen since the 1960s, Africa's economic prospects as a region through 2020 are of particular interest, in large part due to the innovative applications of mobile phones and communication technology on the continent. Similarly, while the rapid penetration of mobile phones has been a defining feature of last decade's technological landscape, the expansion of the role of ICTs in the developing world has even more potential to change business models greatly, affect individuals' social lives, and further redefine the political landscape and state-citizen relationships over the coming years. Finally, as the world is being hit with what seem like ever-increasingly severe shocks on multiple dimensions, processes such as urbanization and migration could experience sudden, discontinuous systemic changes that will likely have a significant impact on individual and collective welfare in truly unexpected ways.

The Coming African Decade: Dream or Reality?

Charles Onyango-Obbo
Nation Media Group, Kenya

I want to preface my contribution to the debate on whether the coming decade will see the rise of Africa by endorsing the kind of horizon scanning which looks for early, hidden signals, interprets their implications, and tries to avoid bad but irreversible consequences. Let me give you an example from the early days of the war in Rwanda in 1990. As a reporter I noticed that 99% of the wounds on the refugees who had fled into Uganda had been inflicted by machetes. This fact, which went largely unremarked, was a strong harbinger of what was to happen in 1994. We should have paid a good deal more attention to this and other similar signals. In exploring the fate of Africa's future in the coming decade, I want to argue that there are four trends that needed to be noticed, explored, and understood.

The quiet extinction of the African male. Africa's strong patriarchal system is producing strange, unintended consequences as the economic realities shift. Women have always been the primary producers, while men used state corporations to capture and allocate the value of that production. The decline of state enterprises has led to a crisis of relevance for men, and in some parts of Kenya political rallies have been held to appeal to men to step up to their responsibilities. Other signals include the fact that 50% of families are headed by single parents in Kenya, there are relatively few boys compared to girls in Uganda's urban private schools, 60% of aborted fetuses are male, between 66% and 90% of the children put up for adoption in orphanages are boys, and single women with sons reduce their chances of getting a husband or partner because he would not want his children to compete with another man's male child for his assets. As women rarely inherit property, the looming gender imbalance implied by these data needs urgent attention before it becomes irreversible and very difficult to handle through policy.

The rise of the "familiocracy". Many African heads of state are increasingly positioning their sons to take over, such as in Gabon, Togo, DR Congo, Egypt, Libya, Tunisia, Uganda, Rwanda, and Kenya. The post-independence party project has failed, and families are more organized as vehicles for gaining access to power. As power is being devolved to regions and districts, it is enabling influential clans and families to dominate local politics. However, there is still a chance that by expanding the political class, devolution may be a positive development for competitive politics in Africa.

The rapid spread of communications technology may not be benign. Digital technologies, social media, and SMS may amplify fragmentation and alienation in societies with low social cohesion. The shrill text messaging around the *Kadhi* (Islamic) Courts in Kenya, for example, has left many Muslim citizens very uncomfortable. Governments have had a fairly carefree attitude about this, choosing to focus almost exclusively on worrying about building the communications infrastructure. They may have to start paying special attention to education around this issue to avoid it leading to unrest.

Africa's relations with the world. A focus on the military and economic dimensions of Africa's relationship with the West and East may be misleading. If civic engagement is a crucial component of securing influence on the continent, then India and Brazil are the countries to watch with respect to their "soft power" engagement with Africa. For instance, there are three million Indians in Africa, and one million Diaspora Africans in Brazil. China lags behind on that front, and therefore may not be as influential as it would appear at first glance. Finally, the strong culture of civil society in both India and Brazil could actually strengthen democratic institutions in Africa.

Reflections on the Future of Africa: Demographic Trends, Inequality and High Hopes for Technology

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An important use of foresight is in the consideration of several trends simultaneously as a means to identifying key drivers, levers, and plausible scenarios. This brief essay identifies three key variables that will almost certainly affect Africa's future development (demographics, inequality, and technology), highlights some aspects of their current trajectories, and comments on the interplay of the variable set.

Demographic realities

Africa is on a demographic trajectory that makes it crucial to consider the prospects for inclusive development. The following key facts about Africa's demographic profile are prominent:

1. ***Africa is Growing***: Africa's population is expected to double by the year 2050, growing to form up to 30% of world population[13]. By that time, it is also projected that 7 out of the top 21 (and a third of the top 10) most populous countries in the world will be African[14].
2. ***Africa is Youthful***: It is projected that by 2050, 43% of that escalated African population will be under the age of 15, compared to 17% in the developed world[15].

[13] Population Reference Bureau, 2009

[14] World Population Prospects, 2008

[15] CIA World Fact Book, 2009

In the 1990s, countries with a significant youth bulge were much more likely to experience an outbreak of civil conflict[16]. Social scientists have advanced the "Youth Bulge Theory of Social Unrest," linking demography to historic wars, genocides, European imperialism, and even today's Islamic terrorism[17].

3. ***Africa's Population is Mobile and Urbanizing***. Nine out of the top 20 fastest growing cities in the world are in Africa[18]. Africa is one of the fastest urbanizing regions in the world, although her population is still projected to be significantly rural by 2050. What is significant about Africa's urbanizing population is that it is largely attributable not to a skilled, middle-income workforce but rather to masses of unemployed job-seekers or internally-displaced persons who typically end up in the teeming slums of likes of Nairobi, Lagos, Johannesburg, Abidjan, or Luanda. Coupled with poor public sector capacity to service these areas, they rapidly become epicenters for a range of human and environmental security risks, raising significant policy and humanitarian concerns in recent decades.

Economic growth and the pressure of inequality

Two critical future perspectives on Africa's socio-economic underdevelopment are highlighted:

1. ***Growth***: Four-fifths (80%) of the African countries covered in the latest Africa Economic Outlook registered positive economic growth in 2009 compared to only 10% of OECD countries[19]. However, the rate of change reflected in Africa's GDP figures often is only indicative of changes in quantitative output and may not involve any substantive improvements in human development indicators, nor redress conditions of underdevelopment, nor improve economic participation rates through increases in employment. In fact, while the world is generally on track to achieve key Millennium Development Goal (MDG) targets, Africa is simultaneously underachieving on the goals and may even regress due to the global economic crisis, an argument based on evidence that adequate progress was not achieved even during the periods of rapid growth.

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[16] Population Action International, 2007

[17] Gunnar Heinsohn (2003). "Population, Conquest and Terror in the 21st Century" and "Demography and War" as cited on Wikipedia.

[18] Based upon the annual growth rates for cities and urban areas between 2006 and 2020, based on past growth/decline and forecasts by international and national statistics organizations, cited at http://www.citymayors.com/statistics/urban_growth1.html

[19] AfDB Africa Economic Outlook 2009

2. ***Inequality and risk of decline***: Instability is one of the biggest risks for Africa's future, and it manifests socially, politically, and economically. Current levels of poverty and inequality in Africa do not bode well for the future stability or security of Africa, let for alone for economic prosperity. Evidence suggests that highly unequal societies tend to grow more slowly and that the effects of such growth tend not to be pro-poor[20]. This concern, in addition to humanitarian and security arguments, has spotlighted chronic poverty and structural inequality as a key development priority for Africa.

What is clear is that progress is not being made fast enough in addressing inequality in Africa, and there are no identified pathways for how this could be achieved, even if poverty at a macro-level were to be rolled back through rapid economic growth.

Technology to the rescue?

The notion that scientific advancement and technological innovation are driving forces for societal development, competitiveness, and sustainability are well supported in Africa. The African Union (AU) affirms that "the ability of countries to create, diffuse and utilize scientific and technical knowledge is a major determinant of our capacity to take advantage of international trade and effectively compete in the global economy as well as improve the quality of life of people.[21]" However, in their chapter on "Systemic Technological Innovation as a Driver of Change for Africa 2030", Maharajh et al reject the simplistic notion that shopping lists of technologies are a likely to be a "key driver of change" for Africa's development[22].

First, not all technologies are beneficial or successful. Although the rapid uptake of mobile phone technology is a favorite case study given their tremendous growth in developing world, including Africa, there is little evidence that the same would be true for any other technology. In fact, there are countless examples where key technologies have not been met with the same rapid uptake, such as in the energy, health, hygiene, sanitation, and construction sectors.

Second, cultural adaptation—developing technologies for people, instead of hoping to adapt people to technology—is a key factor. Consider the example of a hospital design failure in Mpumalanga province in South Africa, where a highly innovative ventilation

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[20] World Development Report, 2006

[21] African Union (2003). Declaration of the first NePAD Ministerial Conference on Science and Technology. AU, Johannesburg.

[22] Maharajh, R., Sall, A., & Karuri-Sebina, G. (2010). "Systemic Technological Innovation as a Driver of Change for Africa 2030". Chapter in forthcoming publication *Key Drivers of Change Shaping the African Development Context Toward 2030*, Hampshire: Palgrave Macmillan.

design for infection control relied on strategic windows being kept open. Unfortunately, this ignored the behavioral reality that the local people would inevitably shut the windows at night due to weather, security concerns, mosquitoes, culture, or habit. Technology does not work if it does not consider its users.

Third, technology itself can expand the divide between the haves and have-nots. Technological advancements that consistently target one end of the economy, and perhaps even the most extreme ends of the spectrum, or a particular set of commercial interests and fail to engage with the whole development context are likely to entrench and augment inequality.

Conclusion

Given the demographic realities presented in the two prior variables, it is critical to ensure that Africa's development paths are inclusive, both for efficiency as well as for humanitarian and security concerns. Systems of innovation have to be relevant and accessible to the broad base of the population, including in reference not only to addressing issues of basic needs—such as health, energy, food, and water—but also to advancing the globalized aspirations of youth and their communities. Ensuring this requires not only technology, but also deliberate leadership focused on addressing Africa's inclusive progress.

A Reflection on ICTs and Citizen Agency

Aidan Eyakuze and Edgar Masatu
Society for International Development, Tanzania

The age of the "virtual life" might be at hand as personal and political life is increasingly organized through mobile communication devices connected to the Internet. There is tremendous potential for this technology to be used on a larger scale as a tool for citi*zen agency*—the activities of people [who] participate [in] social and political life and somehow have the capability to influence the decision making process[23] — and thus enhance citizens' interactions with their governments in a more organized, efficient, and effective manner.

The capacity to quickly aggregate popular sentiment into political action is a powerful feature of contemporary ICTs, particularly the combination of broadband Internet and mobile phones. However, the technology also amplifies the characteristics of the societies in which it operates, entrenching parochial or divisive sentiment in some places while transcending social boundaries and facilitating cohesion in others. Furthermore, ICTs are also helping some to disengage from the real world, while offering governments a powerful new way of keeping an eye on their citizens.

Aggregation of voices from the bottom up

In ways unprecedented, ICTs have assisted in the rapid collection of information from the public even in areas where ICT infrastructure is below par. No matter how remote one is, all one needs to have is a cell phone. A case in point is the Kenyan post-election violence in 2008, where *Ushahidi*, a crisis information crowd-sourcing platform, was used to aggregate information via SMS. The platform was later used by different organizations across the globe, including the International Center for Transitional Justice (ICTJ), Peace

[23] Giacomo Zanello and Paul Maassen (2009), *Strengthening citizen agency through ICT: an extrapolation for Eastern Africa*, unpublished paper presented at Governing Good and Governing Well: The First Global Dialogue on Ethical and Effective Governance, May 28-30, 2009, Amsterdam.

Heroes, Kenyan National Commission on Human Rights, Vote Report India (to monitor the local elections), Pak Voices (to map incidents of violence in Pakistan), Al Jazeera during the conflict in Gaza, Haiti for the earthquake relief effort, the Washington, DC snowstorm experience and cleanup, and, most recently, to help tackle the BP oil spill in the Gulf of Mexico. The Obama for President campaign and the Tea Party movement, the Mzalendo project (a website that monitors performance of Kenyan parliamentarians), post-election protests in Iran and the Red Shirt movement in Thailand, are all additional examples where ICTs were used on larger scales to further and mobilize political agendas.

Amplifying existing socio-cultural characteristics

ICTs may also facilitate the rapid spread of divisive sentiment in societies where these fault-lines are prevalent. Through their choices of online social networks, groups can target their particular social preferences and messages, while shutting out alternative voices and perspectives. While this facilitates the freedom of expression and assembly, these spaces are largely unregulated and can be used to entrench exclusionary, socially divisive points of view. This amplification of separateness was ruthlessly effective even in the pre-Internet world, or instance, in the example of the genocide-inciting Radio Television Libre des Mille Collines (RTLM) in Rwanda. The 2008 post-election violence in Kenya may have also been fueled by hate and rumor-spreading SMS.

On the other hand, ICTs can promote social cohesion. Building on a general culture of non-violent political debate, Radio Micheweni, a community project in Pemba, Tanzania, seeks to promote political reconciliation on an island which had been torn by post-election violence in 2000 and 2005. Other projects around the world seek to unify divided communities using ICTs, such as the E-school project in Macedonia that is rebuilding the country one town at a time following the refugee crisis from the Kosovo war of the 1990s and the ethnic-Albanian uprising in 2001.

Alienation of the "digital natives"

Taken to the extreme, ICTs can also facilitate people's disengagement with the non-virtual world. South Korea's government estimates that the country has two million citizens addicted to the Internet, with reports further suggesting that 30% of adults and 26% of teenagers are addicted to online games. As a South Korean psychiatrist put it:

"In South Korea it's easier for citizens to play online games than to invest in their offline personal relations through face-to-face conversations…People are becoming…numb to human interaction."

This is the darker side of being one of the world's most "wired" countries. The government has launched a number of initiatives to address the country's online addiction, including a boot camp for cyber addicts. Internet addiction has been a South Korean headache for almost a decade, where more than 90% of households are connected to high-speed broadband.

Might this be a harbinger of things to come in other countries? The International Telecommunications Union (ITU) January 2010 report estimated that there were 4.6 billion mobile cellular subscriptions in the world by the end of 2009, corresponding to 67 subscribers per 100 inhabitants globally. Mobile subscriptions drive mobile technology use, with mobile broadband subscriptions up to 9.5% of the world's inhabitants at the end of 2009. Mobile broadband growth eclipsed fixed broadband growth in 2009, and was second only to mobile phone subscriptions.

As more mostly youthful eyeballs become glued online, the future of political and civil engagement in the physical world may well hang in the balance, as social activism is reduced to clicking an "I like" button on a Facebook page.

"Big brother" is watching

The state has followed its citizens online as it comes to terms with the new relationship that is emerging with its increasingly virtual citizenry. Kenya's government launched a wiki portal attempting to streamline communications with citizens. Several African presidents have online presence with websites, Twitter, and Facebook accounts reaching out to people outside the traditional media.

However it is the regulating function of the state that has raised eyebrows. The "great firewall" of China monitors content and blocks websites that the Chinese government deems dangerous for the country's moral fabric, Russia has been accused of cyber attacks on Georgian government websites, and the United Arab Emirates (UAE) recently announced that from October 2010 it will limit Blackberry service usage in the country as a security measure, due to the government's inability to monitor communications. Saudi Arabia and India announced similar moves shortly thereafter. Most governments are capturing virtual identities through SIM card registration, citing the move as a security measure against online and mobile phone crime. The collateral damage is the citizens' loss of the "anonymity platform" that they could use to express themselves without fearing the prying eyes of inquisitive governments.

In the final analysis, new communications devices and their applications are narrowing the digital divide between the developed and the developing worlds. One affordable web-enabled mobile phone will soon link its owner to billions of people with whom one can share information at unprecedented speeds, thereby opening up societies in ways

previously unimagined. Virtual citizen agency could pressure governments to deliver better social services, but this is most likely to occur in those political and social environments where freedom of expression and dialogue already prevails.

Media Activism in the Age of Web 2.0

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The question of social networking sites in art and in activism is highly strategic. It touches on key issues, from internal organization to campaign design and publicity. What looks like yet another layer of social fluff actually demands careful consideration and principled decisions. There are moral debates condemning Web 2.0 as hype and calling for the deconstruction of the mainstream obsession with the latest gadgets and killer apps. But such a rushed critique of ideology also stops us from making careful observations. Social media are invading all aspects of life.

The hardcore underground community can no longer dream of having an invisible status because it is subjected to the same techno-surveillance as all others. In response, soft subcultures happily create websites, groups, and channels in the hope to be left alone. And indeed, it can be quiet, at the very end of the Long Tail. There is no avant-garde outside the marketing realm. Social media promise to make unmediated, direct connections between people, but ironically, it is this utopian energy that drags us deeper into corporate media arrangements. But, instead of making the simple call to reject such technologies once and for all, what is to be done?

> "The master's tools will never dismantle the master's house."
>
> Audre Lorde

Social media are playing an increasing role in the "organization of information." Originally brushed aside as an ordinary online address book that generates meaning through informal chatting amongst "friends," Web 2.0 is now a prime news source for millions. This directly affects the way we transform news items into issues that we act upon. How does urgency occur? Official journalism is in an all-time crisis, but will we really delegate our need for our daily "world view" to a diffuse cloud of blogs, tweets, and emails? Not

for the time being. In that sense Jürgen Habermas is still right[24]. In the short run, social media remain additional, secondary sources of information that primarily generate interpersonal context. From the perspective of the attention economy, they fragment the centralized public discourse as organized by print and broadcasting media. In the long run this perception of what constitutes "news" will become less relevant. The actual use of Web 2.0 is what counts rather than how columnists frame the topics of the day.

This social fact alone confronts us with the Web 2.0 question, the fact that we also have to be aware of a stricter separation between internal organization and external communication. Because of the lack of privacy and increased surveillance, militant protest can no longer rely on electronic devices in the early stages as the decisive moments of socio-aesthetic action. This is a problem as, for instance, email is still used as a tool for mobilization and internal debate. It is tempting to use mobile phones on the streets to coordinate action. To decommission such tools at the right moment is an art in itself, comparable to the sense one has to develop to locate the all-present surveillance video cameras. It is likely that activism has to, once again, become hyper-local and offline, in order to strike its target effectively. This might even be the case inside larger non-governmental organization (NGO) structures.

After Facebook changed its privacy settings, the DigiActive website advised fellow activists to "unfriend" fellow activists and to leave any political groups they were a member of, stating, "Delete political status messages, notes, and links and do not add new ones, un-tag yourself from photos of you taking part in political activities or in the presence of known activists and remove any linkages connecting you to politically dangerous people, ideas, or organizations.[25]" This is a serious issue that should be discussed along the lines of Danah Boyd's work, which constantly warns of privacy issues on social networking sites[26].

Luddite offline strategies can only become real if practiced collectively after having been detached from individual lifestyle design. DigiActive continues: "Activists need to create separate **anonymous profiles** for their political activities, which contain no accurate personal information and are completely unconnected to their real friends, affiliations, and locations. In some cases, it may even make sense to create a "**throw-away account**," much as activists use throw-away cell phones: create a fake account to do one sensitive

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[24] See his March 2006 lecture in Vienna in which Habermas makes the observation/judgement that the Internet is a secondary form of publicity: www.renner-institut.at/download/texte/habermas2006-03-09.pdf (in German).

[25] Mary Joyce, What the New Facebook Privacy Rules Mean for Activists, www.digiactive.org, December 10, 2009.

[26] http://www.zephoria.org/thoughts/

action, and then never use it again. So that a single IP address cannot be connected to you activism account, you should access that account from different public computers in cyber cafes and never from your home computer."

In a discussion with Clay Shirky, Evgeny Morozov states: "I believe that a mass protest movement needs a charismatic leader, such as Sakharov, to really unfold its potential. I fear that the Twitter age will no longer produce a Sakharov.[27]" The old-school masses protesting in the streets used to delegate and project their desires onto a charismatic leader. So far we have been looking, in vain, for how to reassemble the masses. What Morozov implies is that there will be no masses as long as we sabotage the production of leaders in the first place. Instead of counter power, we have dismantled power itself.

We need to experiment with new forms of organization. Web 2.0 puts the question on the table of how to organize dissent in the digital age. How do social movements these days come into being? If there is nowhere to hide, should we adopt the "open conspiracy" model? Do movements grow out of the "mass crystals" that Elias Canetti talked about in his *Crowds and Power*, small and rigid groups that knew how to gather crowds on the streets and squares? Is this why we are so fascinated with "viral communication"?[28] Who is designing the content that goes viral? Will "organized networks" become the "crystals" of the 21st century?

Consider Africa News. This investigative newsletter from the Democratic Republic of Congo (DRC) started off as a print publication, then moved to the web, and was eventually closed down because it could not handle corruption and propaganda. According to editor-in-chief Sage Gayala, it turned out that the social problems that plague the media in the DRC were also to plague the Internet-based Africa News. Africa News had become an online medium for the elite and some individuals in the African Diaspora. It served politicians who wanted to know what other politicians were doing. Says Gayala, "It took us a while to understand, but the tragic fact was that, instead of helping to develop the democratic process in my country and empowering citizens, we started to enable people in the elite to do what they do best: use information against each other." Africa News was meant to be free, accurate, important, and independent, but the newsletter fell prey to the messy reality of DRC.

This can happen to both print and online initiatives. The problem was the expectation that Internet distribution would make the newsletter immune to influence from outside. Says Gayala, "It seems wrong to assume that new technologies can solve the paradoxes

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[27] Das Unbehagen an der Digitalen Macht, a skeptical dialogue, in: *Frankfurter Allgemeine Zeitung* (online, only in German), April 11, 2010. URL: http://tinyurl.com/y8lpym9.

[28] See for instance the Rotterdam viral communications conference, organized by Florian Cramer on April 12/13, 2010: http://viralcommunication.nl/.

and complexities of African media. Before we come with solutions, we should ask ourselves what the problems really are. African media don't exist outside African societies: they are part of them. It would be shortsighted to assume that a transfer of technologies could achieve independence and freedom of, and professionalism and best ethical practice in African media. The Internet is no panacea, especially not when most people don't have access to it at all.[29]"

Evgeny Morozov asks, "Why not study how technology helps various nutcases to join forces? Wouldn't this help us draw more insights into technology's "net effect"?" Indeed it might.

[29] Sage Gayala, Censorship, Manipulation and Other Ills also Affect the Internet, in: Fair, http://www.fairreporters.org/?showcontent_home&global[_id]=1252, February 14, 2010.

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Resilience Through Foresight and Political Will

Sundeep Waslekar
Strategic Foresight Group, India

Looking at history around the world, one clearly notes that systems, institutions, and structures in Europe and the Arabic world have survived for 2,000 years or more, while those in many parts of Africa and Asia have barely passed the 30 year mark. The Umayyad mosque in Damascus, for instance, has existed for 3,000 years and continues to be a place of worship having survived Roman, Ottoman and Arab rule. The beautiful village of Bellagio in Italy or Oxford University in England have been serving similar functions for centuries as well. These are just a few examples of the systems, structures, and institutions that have existed for hundreds and thousands of years.

My understanding of resilience is that it means the endurance of institutions, systems, or structures for a long time. I think there are only three basic conditions for resilience, namely: a) foresight, b) political will, and c) tackling the problems of rural areas as a means of making cities viable.

Foresight is the absolute first essential precondition for institutions to survive over many years. From my own long experience, I have come to the realization that foresight is not a tool or something you can choose to have or not to have. Slums across the globe are a direct result of lack of foresight on the plausible futures of cities.

My home city of Mumbai is arguably the dirtiest city my mind can think of. City leaders have been for sometime been talking about transforming it to become a properly functioning Asian mega-city, such as Shanghai or Singapore. Their grand dreams are based on their notions of an ideal 21st century city. I wonder, though, why they have not started with the basics, such as cleaning the city. This is something that, in my opinion, could be done first before trying to implement bold transformational ideas.

The second condition for resilience therefore is the political will of influential leaders of the political system to embrace much-needed change. Foresight alone will not work if those at the helm of power do not have the will to embrace and use it.

Finally, across Asia I have noticed that a huge rural-urban migration is underway. The trend is that people are leaving beautiful rural settings for the slums in the cities where life seems rosier. Such a pattern of city growth is probably not sustainable, neither in Asia nor in other parts of the rapidly urbanizing world. Foresight and political will are essential to tackling the problems of tomorrow's cities and to making them more capable of absorbing the coming shocks and disruptions inherent in the pressure of humanity on small spaces. Possible solutions could well emerge from a deep understanding and creative tackling of the current and future challenges of yesterday's villages.

These conditions complement each other, and I think are the bare minimum for creating resilient structures, systems, and institutions.

Understanding City Innovation Systems

Apiwat Ranatarawaha
Noviscape Consulting Group, Thailand

This essay explores the underlying rationale of an initiative called "Towards Innovative, Livable, and Prosperous Asian Mega Cities," focusing on six Asian mega-cities throughout the region. This project brings together experts from the fields of urban planning, innovation, and future studies. The initiative, having looked at Asian countries national policies on planning and innovation, reached the following conclusions:

First, current perspectives on innovation as studied and practiced in Southeast Asia are not sufficient, as they are based on imported models of national innovation systems from the rich West where contexts and conditions are different. They focus on industrial and business innovations but do not address current developmental problems. Urban planning methods in Asia are outdated. The initiative set out to develop common frameworks for analyzing city innovation and their systems guided by principles that people should matter in innovation as innovators, both formally and informally.

Secondly, cities continue to be the centers of developmental problems that need innovative solutions. Despite demographic changes such as aging populations and smaller household sizes, mega-cities continue to become bigger. Current urban planning and developmental practices continue to focus on existing problems, paying little attention to future risks, scenarios, and the innovations required to meet new challenges.

In search of a practical understanding of city innovation, the initiative believes that people should be at the center of city innovation, as they are the ones who negotiate urban challenges on a daily basis. City innovations should have both commercial and social dimensions, incorporate individuals and communities alongside formal organizations, and lead to practical outcomes that address specific urban challenges.

The initiative has introduced the concept of human-space ecology which includes cognitive, informational, and physical spaces in analyzing city innovations to supplement product, process, paradigm, position, institution and services, which are the traditional dimensions of city innovation.

The initiative is pursuing solutions with the following characteristics:

1. **Novelty**: a solution that is relatively new to the mega city in question.
2. **Effectiveness (impact)**: a solution that already has had noticeable impact on prosperity and livability in a mega-city, or exhibits potential to effect substantial changes to prosperity and livability.
3. **Equity**: a solution that does not worsen the income distribution and social inequality in the mega-city. A city innovation should reach a broader base in the urban population, rather than benefiting only the rich and elite in the society.
4. **Environmental sustainability**: a solution that is aligned with the principle of environmental sustainability.
5. **Economic and financial feasibility**: as we think ahead about how to diffuse a city innovation from one mega-city to another and/or to replicate it on a mass scale, the costs of creating, adopting, and diffusing an innovation becomes critical.
6. **Transferability**: a solution that is socially, culturally, or geographically neutral is more likely to diffuse quickly and widely. However, successful implementation of an innovative idea may rely heavily on social and cultural contexts.
7. **Political sustainability (acceptance)**: any solution that is to be adopted on a mass scale needs political acceptance.

This is still an ongoing project, but a major lesson we have learned so far is that when engaging the public on city innovation, it is crucial to make the project interesting enough to draw them into the activity. For example, when inviting people to discuss solid waste management, we needed to draw them in through something that they were interested in first before working our way to the main focus of the project. People face hardship every day, and so might not be interested to engage in something that is not fun and exciting.

Part IV:
Conclusion

“Moving the Searchlight Function Forward

The ideas presented in this collection of essays cover a wide-range of issues related to the theory and practice of implementing foresight. Notions such as the timeliness of information, balancing analytic rigor with intuition, and considering topical issues from a cross-cutting perspective all surface as major lessons and themes. In addition, there are a number of additional ideas that emerge from the discussions in Bellagio that are worthwhile exploring in greater depth going forwarding, both for those involved in environmental scanning in general and for the organizations participating in the Searchlight function in particular. These gaps include:

- ***Mitigating a balance of developing a scanning framework structure through both top-down and bottom-up processes***. While trend scanning can be conducted in service of enlightening a particular theory of change, it is can also be undertaken without any reference to a larger notion about how systems operate. However, pitfalls can emerge. On one hand, horizon scanning conducted in the service of a too-rigid, top-down framework can lead to critical insights being missed or ignored. On the other hand, a lack of a guiding interpretive framework can lead to information being poorly aggregated or linked-up, making it difficult to surface important, emerging patterns. The Searchlight function itself continues to aim to achieve a middle-ground that allows the scanning institutions to operate within a flexible set of domains and world views while, at the same time, offers enough “white space” to encourage and promote the identification of surprising results and findings. Maintaining this balance is critical as the Searchlight function evolves over the longer-term.

- ***Covering actors operating on multiple levels***. Trends, novel ideas, and innovations can emerge at a variety of levels, from specific individuals to small groups of people to formalized organizations in the private and public sectors to amorphous networks involving stakeholders at multiple levels. Figuring out how to take stock of actors across this spectrum—from a single person operating in a highly localized context to multiple sets of organization connected globally, and other forms in between—is a challenge that continues to require more consideration. It is likely that different sources of information vary in how well they are able to identify the role of different actors across these various levels, thereby necessitating that a diverse portfolio—

across multiple languages, types of source material, and author perspective—is constructed when conducting horizon scanning.

- ***Ensuring broad coverage of issues across both "hard" and "soft" disciplines***. Given its history and roots in strategic planning, trend monitoring is often focused on and emphasizes paying attention to areas such as economics, politics, technology, and demography. However, in many cases, expertise and insight from other fields, such as anthropology, sociology, and cultural studies, can have as much—if not more—value in discerning the aggregate forces shaping the future. Both scanners and users of information gleaned from environmental scanning need to become more comfortable and adept at integrating information from these multiple, sometimes disparate, ways of viewing the world.

- ***Tyranny of the present can overestimate change***. As scanning often involves aiming to identify quick changes in systems by way of faint and early signals, this perspective can sometimes lead to biases in which a disproportionate emphasis on the "new" ignores the continuation or slow evolution of existing patterns and structure. It is possible that the lack of change in a system—particularly when a change is expected or anticipated—could be informative and serve as valuable information. Getting better at knowing which types of developments are indicative of future pathways can increase the quality of information emerging from environmental scanning processes.

Lessons learned and next steps

As the Searchlight function remains in its early phase—with the meeting in Bellagio occurring approximately six months after the Searchlight function began in operation—this gathering provided a valuable opportunity to make a set of key decisions that have relevance both for the field at large and, more specifically, for this emerging network. These lessons learned can also serve as an initial set of guidelines for other trend monitoring endeavors that are looking to evolve and achieve greater impact over time.

First, the organizations agreed that although the focus during the initial phase of a trend monitoring effort should be on achieving a set of high quality outputs from individual institutions, there remains a need to *conduct a broader analysis across the collective body of work* that is able to piece together information and identify emerging patterns. Undertaking such a comprehensive thematic cluster assessment helps to ensure that the whole becomes greater than the sum of the individual parts.

Second, the *value of adopting cutting-edge visualization techniques* as a way to communicate the results of the aggregated trends was also identified as a key item to pursue further. The value of presenting such trend analysis information in an engaging graphical manner was seen as necessary to make the findings of any environmental

scanning activity, including the Searchlight function, understandable, intuitive, and relevant to non-expert communities that will be recipients of this information.

Third, there was an expressed need for t*he utilization of technical systems that facilitate more regular collaboration* among trend scanners, such as the new Foresight for Development site (www.foresightfordevelopment.org) that has been created by the South Africa Node of the Millennium Project. In the specific case of the Searchlight function, this would involve the consistent use of an information sharing platform that was developed for the purposes of sharing documents, keeping other Searchlight organizations up-to-date on trends in various regions, and fostering further discussion on unexpected or surprising findings.

Fourth, *expanding the dissemination of trend monitoring outputs by proactively linking them to policy-makers and decision makers* in the public, private, and non-profit sections was identified as an important lesson for facilitating the uptake of such information more broadly. To accomplish this goal, there are a number of useful strategies that organizations can adopt, including tailoring their outputs to suit different policy, research, or business audiences; translating trend monitoring products into local languages; and developing a targeted outreach plan that is relevant to specific regions or geographies.

Finally, there was a need to continually emphasize that all trend scanning organizations, including those in the Searchlight function, make an explicit effort to *maintain a more consistent focus on teasing out the future implications of current events, research results, and news*. This involves trend monitoring organizations providing a distinctive point-of-view and perspective on the future, as well as explicitly identifying and considering personal and organizational biases that can emerge at various stages throughout the scanning process.

Appendix:
Participants and Searchlight Organizations

Workshop Participants

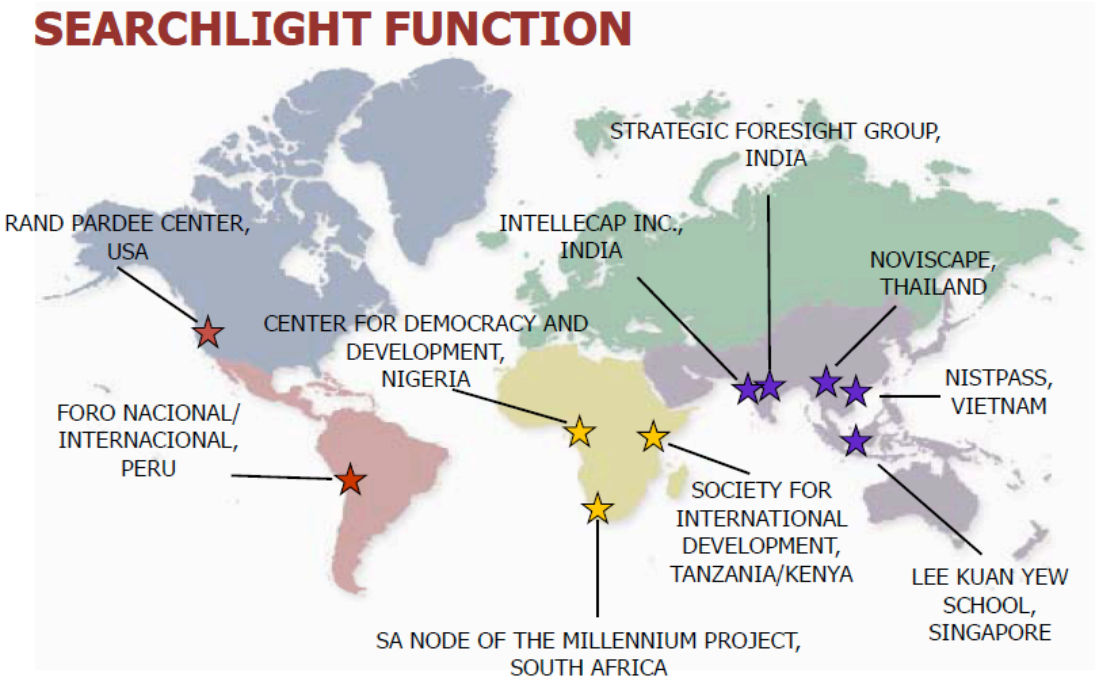
Aparajita Agrawal	Intellecap	India
Okon Akiba	Centre for Democracy and Development	Nigeria
Mario Bazán	FORO Nacional/Internacional	Peru
Pun-Arj Chairatana	Noviscape Consulting Group & Chulalongkorn University	Thailand
Lindsay Clinton	Intellecap	India
Ashvin Dayal	The Rockefeller Foundation	Thailand
Aidan Eyakuze	Society for International Development	Tanzania
Ilmas Futehally	Strategic Foresight Group	India
Tanja Hichert	Hichert & Associates; SA Node of the Millennium Project	South Africa
Darryl Jarvis	Lee Kuan Yew School of Public Policy, National University of Singapore	Singapore
Claudia Juech	The Rockefeller Foundation	United States
Geci Karuri-Sebina	SA Node of the Millennium Project	South Africa
Betty Kibaara	The Rockefeller Foundation	Kenya
Robert Lempert	RAND Pardee Centre	United States
Geert Lovink	Institute of Network Cultures	The Netherlands
Edgar Masatu	Society for International Development	Tanzania
Evan Michelson	The Rockefeller Foundation	United States
Arthur Muliro	Society for International Development	Italy
Daniel Nengak	Centre for Democracy and Development	Nigeria
James Nyoro	The Rockefeller Foundation	Kenya
Charles Onyango-Obbo	The Nation Media Group	Kenya
Natalie Phaholyothin	The Rockefeller Foundation	Thailand

Kai Hong Phua	Lee Kuan Yew School of Public Policy, National University of Singapore	Singapore
Nguyen Thi Phuong Mai	National Institute for Science and Technology Policy and Strategy Studies	Vietnam
Fernando Prada	FORO Nacional/Internacional	Peru
Apiwat Ratanawaraha	Noviscape Consulting Group	Thailand
Ingo Rollwagen	Deutsche Bank	Germany
Benjamin Sovacool	Lee Kuan Yew School of Public Policy, National University of Singapore	Singapore
Tran Ngoc Ca	National Institute for Science and Technology Policy and Strategy Studies	Vietnam
Gregory Treverton	RAND Pardee Centre	United States
Sundeep Waslekar	Strategic Foresight Group	India
Andre Zaaiman	Ndibano: intelligence in systems	South Africa

The 2010 Searchlight Workshop Participants, Bellagio, Italy

Searchlight Organizations

The ten current Searchlight organizations are identified below, grouped by region. The Rockefeller Foundation will be adding an additional Searchlight organization, the African Center for Economic Transformation in Ghana, in 2011.



Asia

- ***Noviscape, Thailand:*** A start-up, for-profit consultancy focusing on large scale societal shifts—such as identity issues, the relationship between demographics and urbanization, and new trends in food production—throughout Southeast Asia. Noviscape continues to connect the trend scanning conducted for the Searchlight function with an IDRC-funded project investigating the future of megacities in the region.

- ***National Institute of Science and Technology Policy and Strategic Studies (NISTPASS), Vietnam:*** A government organization focusing on the future of science and technology issues in the region. NISTPASS plans to use the Searchlight newsletters to inform the development of Vietnam's science and technology strategy through 2020.

- ***Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore:*** Six university-based researchers and 11 Searchlight Associates scan for trends in the areas of trade, health, and energy. In addition, the Searchlight Associates produce

podcasts, conduct interviews with thought leaders about trends and developments impacting disadvantaged communities and explore the solutions to these. In 2011, the Lee Kuan Yew School plans to organize a high-level, forward-looking conference for policy makers on issues emerging from the Searchlight process.

- ***Intellecap, India:*** A social-sector advisory firm that focuses on tracking new ideas emerging from social entrepreneurs in South Asia. Intellecap will be organizing the 2011 in-person gathering of the Searchlight grantees in Mumbai, India.

- ***Strategic Foresight Group, India:*** A forward-looking research organization that investigates a series of long-term geopolitical, economic, technological and societal trends in India, Bangladesh, Indonesia Thailand, and Vietnam. Strategic Foresight Group also conducts trend scanning for the Searchlight function on broader contextual issues related to the Middle East and Northern Africa.

Africa

- ***Society for International Development, Tanzania/Kenya:*** An international civil society network that works to encourage, facilitate and support dialogue on critical development issues of our time. Amongst other activities, SID's work on foresight and futures tracks key trends around regional integration, and social issues throughout the Greater Horn of East Africa. The Society for International Development organized the April 2010 meeting of the Searchlight grantees at the Rockefeller Foundation Bellagio Center in Bellagio, Italy.

- ***South Africa Node of the Millennium Project, South Africa:*** A non-governmental organization conducting broad scale scanning on a range of development-related issues in Southern Africa. This institution has also developed a knowledge sharing platform—ForesightForDevelopment.org —to serve as a public repository and social network for foresight-related resources on the continent.

- ***Center for Democracy and Development, Nigeria:*** A non-governmental organization focusing on security, political, and social issues in West Africa. The Center for Democracy and Development reports on a different issue each month and has distributed the Searchlight newsletters to a growing network of partners throughout the region.

Americas

- ***FORO Nacional/Internacional, Peru:*** A civil society organization covering a variety of political and economic issues in South America as a way to track macro-level

developments in that region. FORO's plans on producing both an English and Spanish language version of the newsletter and has developed a systematic source base and scanning methodology.

- ***RAND Pardee Center, United States:*** This think tank follows poverty-related issues associated with political, economic, and social trends in the United States. RAND interacts closely with the Foundation to respond to a set of specific trend-related questions that are relevant to the Rockefeller Foundation's issue areas and initiatives.

For all stakeholders operating in the global ecosystem and engaged in improving the human condition, attempting to anticipate the evolution and direction of the medium- and long-term future can be a daunting prospect, one that may appear to be filled with more darkness than light. Organizations need innovative approaches to trend monitoring and horizon scanning as a way to confront the task of systemically trying to understand the present to make clear multiple pathways ahead.

A critical component to establishing a successful trend scanning enterprise involves bringing practitioners together to learn from each other, share knowledge and best practices, and foster a sense of community. This was the spirit guiding a workshop held in Bellagio, Italy in April 2010, organized by the Society for International Development and with support from the Rockefeller Foundation. This workshop brought together participants from Africa, Asia, Europe, and the Americas and served to kick-off the "Searchlight" function—an effort to undertake regular, ongoing scanning for novel ideas, research results, and "clues" to where the world is evolving. This report consists of a series of reflections and short essays written by some of the participants that expand upon and explore the topics addressed in the meeting.

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