# GOV 2.0
## Wikinomics & Government Democracy

# Government 2.0: Transforming Government and Governance for the Twenty–First Century

Through the industrial age, democracy's uneven evolution took societies from feudalism to various forms of mass democracy. Today, tectonic shifts in technology, demographics, politics and economics are driving the next evolution of democratic government — a transition from monolithic government to Government 2.0 where pluralistic, networked forms of government called "governance webs" become the dominant organizational model for service delivery and policy-making. Governance webs — or g-webs — are digitally enabled networks of public, private and/or civil society participants. These networks of public and private organizations deliver or perform activities once the exclusive domain of single public agencies or institutions. While industrial-age government was based on monopoly power, and structured around rigid hierarchies, g-webs distribute power broadly and leverage innovation, knowledge and value from the market and civil society. The shift to Government 2.0 will result in greater value and lower cost for the customers of government, and more engagement for the owners of government; the public.

**Don Tapscott,**
**Anthony D. Williams and Dan Herman**
**January 2008**
©2008 New Paradigm

**NEWPARADIGM**

# TABLE OF CONTENTS

## WIKINOMICS AND THE CHALLENGE TO GOVERNMENT

Thanks largely to the Internet, the kind of creativity and innovation that used to take place primarily within the confines of corporate walls now occurs across large, loosely connected networks of firms and individual entrepreneurs. Already, millions of people have joined forces in self-organized collaborations that have produced dynamic innovations in goods and services rivaling the world's largest and best-financed enterprise networks. If masses of ordinary people can peer-produce an operating system (Linux), an encyclopedia (Wikipedia), the media (YouTube/Current TV), a mutual fund, and even a physical thing such as a motorcycle, one should carefully consider what might come next. Arguably, this vast global network of specialized producers who swap and exchange services for entertainment, sustenance and learning is becoming an economy unto itself.

The lesson for business leaders is clear: The traditional, monolithic, multinational business that confines value creation within its closed, hierarchical organization is dead. Today's winning companies compete by reaching outside their walls to harness knowledge, resources and capabilities. These firms set a context for innovation and then invite customers, partners and other interested third parties to co-create products and services along with them.

As Don Tapscott and Anthony D. Williams pointed out in *Wikinomics: How Mass Collaboration Changes Everything* (Portfolio, January 2007), a new breed of 21st-century enterprise is emerging. This enterprise is one that opens its doors to the world: It co-innovates with everyone, especially customers; shares resources that were previously closely guarded; harnesses the power of mass collaboration; and behaves not as a multinational, but as something new—a truly global firm.

Now we ask: What does Wikinomics entail for government and how will mass collaboration transform the business of delivering public services and the nature of democracy? Could societies "open source" government much the way thousands of dispersed Linux programmers converged on the Internet to develop one

"The citizen does not care whether they're talking to the Taxation Department or the Benefit Department or the Health Department or the Education Department; they expect the public sector to behave like a single entity."

— John Suffolk, CIO of the United Kingdom

"One of the biggest assets for our department is capturing the knowledge and contacts held by our personnel around the world. Until now we've lacked a means of capturing and exploiting that data. Too often we end up having to start from scratch. Diplopedia allows us to remove these inefficiencies."

— Stephen Smith, Director, U.S. Department of State, Office of eDiplomacy

of the world's leading computer operating systems? Would large-scale, Web-enabled consultations improve political decision-making or channel greater ingenuity and urgency into efforts to solve global challenges like terrorism and climate change? What about the provision of public services; how can public agencies use ongoing collaboration with citizens, civil society and the private sector to achieve better results at a lower cost?

These are among the key questions New Paradigm is addressing in *Government 2.0: Wikinomics, Government and Democracy*, a global, syndicated research program that will identify and analyze emerging opportunities for new models of collaboration that will transform the public sector. The program is being conducted in partnership with the world's leading thinkers and practitioners and is funded both by governments around the world and private companies seeking to participate in this transformation.

This introductory paper examines the public-sector revolution now under way and describes the next era of governance, government and democracy for the 21st century. It argues that a confluence of technological, demographic, social and economic forces is enabling societies to fundamentally redesign how government operates, how and what the public sector provides, and ultimately, how governments interact and engage with their citizens. We call the new organizational model for achieving this historic transformation a "governance web."

## The perfect storm

In recent years, governments have embraced "citizen-centric" approaches to service delivery and emphasized inter-agency collaboration. Some governments have even extended new roles to citizens, community-based organizations and private businesses in a bid to lower costs, harness new competencies and leverage untapped sources of innovation.

But despite significant progress, transforming the deeper structures of government is proving to be an intractable challenge. Deep and resilient traditions combine to frustrate progress, including conflicting time frames and motives, a lack of incentives to innovate and deeply ingrained cultural and institutional legacies. Indeed,

there are often more penalties than incentives for innovative behavior in the public sector.

Nevertheless, there is also a growing appreciation that deep change must occur, and the pressure for this goes beyond taxpayers' desires for better/cheaper government.

A perfect storm of forces, one that has already unsettled the private sector, is now bringing the urgency of public-sector transformation to the fore. Among these are:

➢ **A Technology Revolution – Web 2.0.** The static, publish-and-browse Internet is being eclipsed by a new participatory Web that provides a powerful platform for the reinvention of governmental structures, public services and democratic processes. The Web is no longer about idly surfing and passively reading, listening, or watching. It's about peering: sharing, socializing, collaborating, and, most of all, creating within loosely connected communities. As computing becomes even more mobile and pervasive, still more powerful digital networks and capabilities will drive deep, compelling and even unsettling transformations in government and governance.

➢ **A Demographic Revolution – The Net Generation.** Born between 1977 and 1997, the first cohort of young people to be totally immersed since birth in an interactive, hyper-stimulating, digital environment is coming of age. Globally they represent over one-quarter of the world population, and will soon come to dominate the workforce, the marketplace and the political arena. This generation thinks differently about the role of government in society and will demand increasingly speedy, responsive and customizable public services. N-Geners also expect innovative work environments, flexible working hours, upward mobility and agile decision-making processes—traits that are too rarely nurtured in public-sector organizations. As the Baby Boomers retire, public-sector employers are facing enormous pressure to change as the market for talent tightens.

➢ **A Social Revolution – Social Networking.** Online collaboration is exploding and citizens increasingly self-organize to peer-produce everything from encyclopedias and operating systems to advocacy campaigns to stop global warming. With 85 percent of university students on Facebook and MySpace—growing at 300,000 new registrants per day—new venues for online collaboration and social networking are a phenomenon that no politician or public official can afford to ignore. Social networking sites provide compelling venues for elected representatives to reach out and engage with their constituents. But a more connected citizenry is also more powerful. As citizens continue to adopt the Internet as an organizing tool, governments can expect to encounter more transnational, visible and diversified networks—both civil and uncivil.

➢ **An Organizational Revolution – Wikinomics.** For centuries, governments have maintained a near monopoly over planning, anticipating problems, and overcoming obstacles in order to guide the development of modern nation-states. Today, governments find themselves increasingly dependent for authority on a network of powers and counter-influences. Whether streamlining government service delivery or resolving complex global issues, governments are either actively seeking—or can no longer resist—broader participation from citizens, civil society and the private sector. Honing the capacity to integrate competencies and contributions from these multiple participants will help governments meet expectations for a more responsive, resourceful, efficient and accountable form of governance. Yet, most governments currently lack the management competencies, resources and organizational flexibility to manage the perils, or leverage the benefits, of mass collaboration.

## A revolution in government and governance

These four forces have ushered in an age of participation where billions of people can play active roles in their workplaces, communities, national democracies and the global economy at large. The result is a number of dramatic changes in the government and governance environment.

**Civil society and the marketplace are claiming new roles in governance**. The private sector—from individual corporations to entire industries—is increasingly focused on competing in a global economy where borders and national laws are seen as irrelevant or hindrances. Global commerce is challenging traditional tax laws and enforcement mechanisms while opening up the global marketplace to thousands of new competitors. The unprecedented pace of change is exposing government's sclerotic decision-making machinery and giving rise to new models of regulation where the private sector plays a larger role in setting and enforcing standards.

Civil society—the vast collection of associations, trade unions, religious and cultural institutions, interest or advocacy groups and people as individuals—are using new technologies to communicate, organize and co-operate in ways previously unimaginable. Rather than seeking solutions from regulatory regimes, for example, citizens and advocacy groups are using the Web to target corporations directly through boycotts, public ridicule and other pressure tactics. Together, these powerful actors are driving a reduction in the authority of nation-states, and redefining the nature of public services and decision-making.

**Governments' authority is undermined by a crisis of legitimacy and relevance**. Governments across the industrialized world face falling voter participation, declining political engagement and reduced levels of trust.

Several factors feed this malaise. Many governments are only now coming out of a period of restraint where controlling expenditures, paying down debt and trimming entitlements were the priorities—a stark contrast to previous generations where public service and the role of government were expanding. Citizens are turning to private solutions for services previously only delivered by government. And many public institutions suffer from a widespread perception that they are unable to keep pace with—and may even hinder—evolving technology, markets and societies.

**As citizen trust decreases, citizen power increases**. Emerging digital citizens have a higher set of expectations of government and politics than their industrial-age comparators. These digitally shaped expectations represent a far more radical shift than previous "generation gaps." Not content to stand in line for routine transactions, or passively receive media-fed campaign bulletins, digital citizens impatiently demand better service, more convenient access to information and people and the opportunity to have their say on their own terms. This is particularly true of young adults who have only known a digital environment.

**Transnational economic, social and security issues demand agile, better-connected governments and global institutions**. Digital communications have made geography less relevant to the formation and mobilization of interests and organizations such as advocacy groups, businesses, cultural associations and trade unions. At the same time, terrorism and new forms of military conflict are forcing better cooperation and integration within and between internal government departments, as well as between governments, civil society agencies and private corporations. Threats place new financial burdens on governments, causing them to look for ways to streamline operations to avoid growing debt. The declining relevance of borders is a fundamental challenge to the centuries-old basis of national governments and international institutions, most of which are defined by geopolitical (especially military) power rather than economics or communications. In some domains, power is shifting away from national governments toward supra-national organizations such as the European Union and the World Trade Organization (WTO).

All of these changes raise basic questions about the role of government and the shape of governance. Clearly, the challenges facing governments are increasingly sophisticated and complex yet around the world one sees more evidence of thinking than actual breakthrough action. Governments still focus on automating existing processes and moving existing government services online—that is, paving the cow paths. Some even take a client-centric approach to government services with Internet portals that mesh services from more than one department. A few more advanced governments are exploring how public-sector information and databases can be made available to the private sector for productive exploitation. While

fruitful, all of this activity is only just the beginning of what's needed.

To be sure, there are many positive examples of government transformation around the world as we will describe. But most "e-government" efforts still work within the traditional hierarchical structures of the public sector. It's becoming clear that real breakthrough thinking on the role of information and communication technologies won't happen until societies begin to rethink the deep structures of government, the roles of various sectors in a democracy, the relationship between citizens and the state and nature of governance itself.

A full transformation of the nature of government and governance requires more than piecemeal improvements on the existing model: It requires that governments embrace digital-enabled mass collaboration and governance webs. These networks of public, private and/or civil society participants will deliver government services or enable stakeholder participation in government processes. After all, in a complex and interdependent world no individual—and certainly no company or government—is an island. To succeed, governments must learn how to collaborate more effectively with other governments and a diverse array of social organizations.

Governance webs are emerging as the organizational form best able to break down the old paradigm of centrally driven, hierarchically organized "stovepipes."

As outlined below, digitally enabled g-webs stand in contrast to industrial-age government by:

➢ leveraging innovation, value and commitment from a broader group of participants

➢ distributing power more broadly and appropriately

➢ instilling greater transparency and legitimacy into political decision-making

➢ delivering higher value to end-customers, including services not previously possible

➢ bringing a new agility, responsiveness and flexibility to the way societies are governed

➢ delivering services at a lower cost

As networks grow in sophistication and reach, g-webs are found in increasingly complex contexts and can be combinations of multiple governments, civil society and the market. They deliver statutorily mandated services, intermediate diverse participants to common goals and bolster policy deliberation and decision-making.

# FROM INDUSTRIAL-AGE GOVERNMENT, TO E-GOVERNMENT, TO GOVERNMENT 2.0

Regardless of their political persuasion, few observers agree with a once-popular assertion that the best role for government is simply "to get out of the way." It's not that easy, particularly if a country aspires to be competitive in the global economy. Public and private sector leaders alike understand that government is a critical catalyst to achieving maximum wealth creation, and that the best government is flexible, agile and well-managed.

The digital economy and the rise of the Net Generation forces countries to re-examine the core rationale for government—not to proclaim the end of government, but to discover its new roles and forms. As information becomes bits, and communications are at light speed, citizens and markets are refashioning their expectations of the public sector. They want their concerns addressed more quickly. They want the public sector organized in ways that maximize convenience to the citizen as opposed to the bureaucracy and in a manner that re-engages them in government policy and processes.

The new function-rich infrastructure of the Web 2.0 allows the age-old question of "who does what" to be answered more creatively than ever before. Public value no longer needs to be provided by government alone; it can be provided by any combination of public agencies, the private sector, a community group, or citizens, using the Web as a mechanism for collaboration, innovation and engagement.

The challenge for governments is to be a leader in building these new institutions of governance, leveraging the power and innovative capacity of the market and the capabilities of an increasingly networked citizenry. In the more complex and interconnected digital era, the public sector's industrial-age command-and-control model, characterized by hierarchy and centralization, becomes untenable.

The need for dramatic change in the public sector has been recognized for some time, but the industrial model has proven resilient.

More than a decade ago in 1993, the U.S. federal government initiated the National Performance Review, a team-developed report and set of accompanying documents that addressed key issues of government reinvention.[1] The report noted that public confidence in the federal government had never been lower. At the time, the average American believed 48 cents of every tax dollar was wasted; five of every six people wanted "fundamental change" in Washington. Only 20 percent of Americans trusted the federal government to do the right thing most of the time—down from 76 percent in 1965.

The conclusion was that the United States was suffering the deepest crisis of faith in government in memory.

A Canadian government report published at the same time entitled *Blueprint for Renewing Government Services Using Information Technology,* written by public servants, candidly recognized the public's rising frustration in that country: "Many consumers of government services appear to have lost their tolerance for bureaucracies. They feel they receive better service from banks, car rental companies, even supermarkets that have transformed business with innovative information technology."[2]

Desire for change gathered momentum on both sides of the Atlantic. In March 1999, the U.K. government's *Modernizing Government* white paper set out the British government's overarching approach to the reform and modernization of public services, with information technology being the foundation of reform.[3] The main themes of the program were: "joined-up government" and collaboration; a focus on the user and on outcomes; the use of information technology to change the nature and delivery of services; and re-establishing the value of public service. The program was based on five commitments:

1. to create more evidence-based policy-making

2. to make services more responsive and user-focused

3. to deliver high-quality, efficient public services

4. to introduce information-age, online government including the first corporate IT strategy for government

5. to value and reward public service with a program of civil-service reform and greater diversity in recruitment

Former Prime Minister Tony Blair later added, "For public services, the real opportunity is to use information technology to help create fundamental improvements in the efficiency, convenience and quality of our services…our task is to shape public services that meet modern expectations."[4]

Nearly a decade later, the large majority of governments have adopted e-government applications as a means to improve the quality, convenience and efficiency of services offered. The 2005 U.N. Global E-government Survey found that 94 percent of member countries had some form of e-presence.[5] But what this broad adoption rate signifies is that getting government services and information online is but one step toward meeting the evolving expectations and requirements of governance in the 21st century.

It's no longer sufficient to simply provide one-stop shopping for government services. Single window service offerings – once the sine qua non of e-government – constitute one-way information flows to the citizen. In the current social-media environment, however, these one-way conversations fail to build credibility and trust in government, and perhaps more importantly, they fail to harness the knowledge, skills and resources that could be tapped by government using a more collaborative approach to service delivery and policy-making.

If governments are to ensure their relevance and authority, they must move beyond e-government to forge governance webs capable of meeting rising expectations for openness, accountability, effectiveness and efficiency in the public sector. The transition to "government 2.0" and governance webs begins with opening up formerly closed processes, embracing

transparency and renovating tired rules that inhibit innovation. But that is merely the beginning. New Paradigm concludes that a new breed of public sector organization is emerging in response to these challenges: One that opens its doors to the world; co-innovates with everyone, especially citizens; shares resources that were previously closely guarded; harnesses the power of mass collaboration; and behaves not as an isolated department or jurisdiction, but as something new - a truly integrated organization.

---

"For public services, the real opportunity is to use information technology to help create fundamental improvements in the efficiency, convenience and quality of our services…our task is to shape public services that meet modern expectations."

— Tony Blair, former Prime Minister of the United Kingdom

---

The need for deeper government transformation is being recognized around the world. The 2007 *Power of Information* report released by the U.K. Cabinet Office noted that while the United Kingdom had indeed adopted e-government, it was failing to engage the minds of a new breed of digitally enabled citizens.[6] In Australia, the same challenges were recognized by the Australia Government Consultation Blog , a consultative process established to provide citizens with greater input into government policy.

As these reports suggest, the time to act is now. Digital technologies, especially the latest generation of user-friendly tools such as blogs, wikis, and social networking, are moving all institutions in society (whether in government, the economy, or the community) in the direction of greater democratization. Governments must follow suit or risk losing power, authority and relevance in a world where citizens are increasingly empowered to act collectively.

## Toward the G-Web: a technical evolution

As noted, most governments still reflect industrial-age organizational thinking, based on the same command-and-control model as industrial-age enterprises. Bureaucracy and the industrial economy rose hand in hand. The economy needed roads, sewers, electrification, railways and a sophisticated military. As government got bigger, and thereby the revenue of government increased, it became necessary to have more elaborate procedures, structures and controls than were appropriate for an agrarian economy. These helped to ensure some degree of accountability, the reduction of overt patronage and the use of a government job as a payoff for political support.

As a result, different departments or agencies were created, run by new layers of professional managers. Hiring practices not controlled by politicians, pay scales, procedures for making appointments, financial systems, audit processes, etc., were put in place. Such agencies grew in size and funding, applying new rules and procedures to ever-increasing layers of staff. All of this was judged to be state-of-the-art at the time. (Bureaucracy was a very positive term a hundred years ago!)

Such bureaucracies have therefore traditionally operated like individual "stovepipes"—with information only flowing vertically and rarely between departments.

During the last forty years, governments, like corporations, applied computers to their work as each agency acquired and built data processing systems to meet their automation needs. Old procedures, processes and organizational forms were encoded in software. Huge, unwieldy mainframe beasts not only cemented old ways of working, they required additional levels of bureaucracy to plan, implement, operate and control them. In the 1970's, this was extended to minicomputers; in the 1980's to PCs and LANs; and in the 1990's various web sites placed existing information structures and processes "online." The result? Government organizations today are locked into old structures and ways of working, each with corresponding islands of technology.

A first step in correcting this problem was the implementation of department-wide Enterprise Resource Planning systems. As in the private sector, ERP was used to break down both information- and business-process stovepipes within agencies. Applications in diverse business functions helped create a more unified government "enterprise." These included financial and HR management, procurement, supplier relationship management, resource management, and a plethora of agency- or organization-specific applications.

In another positive step, leading governments are emulating their private sector counterparts and embracing the new standards, capabilities and architectures of web services. Most important, there's a change in mindset from thinking about enterprise applications only, to building an Enterprise Service Architecture (ESA) founded on the new paradigm in software—web services. Here, a single service platform enables and drives all applications so that internal or external users can access important services regardless of channel. Web services and an ESA reduce integration costs and dramatically speed application development creating much more open, powerful and adaptable IT environments. With an Enterprise Service Architecture, governments have Net-based, standards-oriented, flexible software environments that can encompass information in structured and unstructured form, as well as in multivendor systems.

Moreover, the adoption of master data management across government departments fosters data sharing, which in turn provides the foundation for delivering high-quality services—such as education, health, and security—as a coherent government entity, not as a collection of hundreds of departments with disparate systems. As John Suffolk, CIO of the United Kingdom, observes: "The citizen does not care whether they're talking to the Taxation Department or the Benefit Department or the Health Department or the Education Department; they expect the public sector to behave like a single entity."[7]

Master data management resolves the chaos of inconsistent databases, dueling spreadsheets, and other data anomalies. It defines, populates and disseminates a single, consistent, actual "version of the truth." A coordinated approach for arriving at good master reference data creates the information foundation that can transform government and bridge the siloed

approach to service delivery that has defined the past century of government.

To move to the next level of service improvement and efficiency, public-sector organizations must collaborate and share data beyond the walls of their organizations. Increasingly, it's not a question of "if" this issue must be addressed, but "when," "how," and "what price" organizations are willing to pay for waiting. While some still struggle to arrive at internal versions of the truth, their more progressive counterparts are already focused on the strategic opportunities that master data creates for external collaboration.

Therefore, it becomes clear that while e-government most often refers to customer/citizen-facing web sites, back-end databases and applications are turning out to be integral building blocks in the progression to the g-web.

## GOVERNANCE WEBS IN ACTION

Our research shows that given the maturing of technology over the last decade governments can move from yesterday's industrial-age structure—in which a single agency, ministry, or level of government assumes central control of political responsibility—to digital-era governance webs, in which a network of civic and market actors participate in the "ordering" and "management" of public affairs. The results can be seamless, role-based access to existing and new government services, delivering the right services to each citizen and stakeholder. Today, such access is a radical notion, but perhaps it's only as fantastic as the current version of government would seem to a feudal prince from the Middle Ages visiting us now. Or perhaps it's just as improbable as a European Union would have sounded to an early 20th-century European.

Whether organized around service delivery or policy development, governance webs stand in contrast to industrial-age government by leveraging innovation, value and commitment from a broader group of participants, distributing power more broadly, delivering higher value to end-customers and bringing a fresh responsiveness and flexibility to the way societies are governed. G-webs challenge government to

profoundly transform, to let go of industrial-age command-and-control hierarchies and to accept different, and in some cases diminished, roles in both service delivery and policy formation. It's a new form of governance that rewrites the rules and the relationships for society.

G-webs challenge government to profoundly transform, to let go of industrial-age command-and-control hierarchies and to accept different, and in some cases diminished, roles in both service delivery and policy formation.

A quintessential g-web example is Networked Knowledge Los Angeles (NKLA), a diverse partnership of public and private organizations that is empowering residents to improve their communities. The cornerstone of the project is an online tool that provides easy access to a vast collection of previously obscure public data about properties and neighborhoods facing urban decay.

Here's the dilemma: Neighborhoods on a downward spiral usually generate early-warning signs years in advance, but nothing is done until it's too late. Tax delinquency, unpaid utility bills, mortgage defaults, building code violations and tenant complaints all start to climb well before buildings are eventually abandoned. Spotted early enough, a community's decay can be reversed through a combination of well-targeted public programs and private-sector investment. But although the danger signals are all on public record, they're typically inaccessible to the public, buried deep within the bowels of city hall.

NKLA—a collaboration of the municipality and UCLA, with funding from organizations such as Microsoft and the FannieMae Foundation—illustrates what can be done when simple Web-based tools transform raw public data into formats that are meaningful and useful

**8**

to community residents and local-government policy-makers.

The project knits together municipal databases and inspection records, looks for indicators of urban decay, and plots the information on city maps posted on its Web site. Rather than having to look at each database separately, public officials, citizens and businesses can search by zip code or other parameters to view comprehensive information on one property, or see at a glance which communities might be headed for trouble. Private-sector developers can now spot potential investment opportunities such as a cluster of buildings in financial difficulty, while community organizations are using NKLA as a tool for community empowerment.
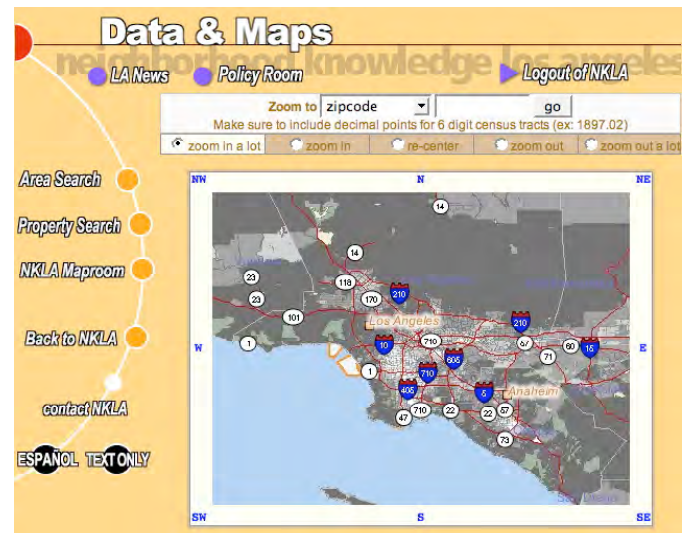
One early criticisms of NKLA was that it often reinforced the image that low-income communities only contain "deficits," such as nuisance properties and environmental hazards. Moreover, the information displayed by NKLA was supplied by government databases, while the real neighborhood experts—i.e., the people who actually live there—were initially not invited to contribute their own information to the project databases.

Those issues have since been redressed, and with minimal expertise community members can now upload their own spreadsheets into NKLA's system and create their own personalized maps. Youth in the Vernon Central community, for example, have initiated an electronic "treasure hunt" using GIS-enabled devices to locate and describe spaces important to them and their community. Residents can use NKLA to find information about church groups, organizations, social programs and youth activities. It's all part of a wider community asset-mapping initiative run by groups like Concerned Citizens of South-Central Los Angeles, in which NKLA is playing a key role in helping community members identify strengths for rebuilding their community.

NKLA has also developed a code-enforcement tracking system that lets residents monitor the City of Los Angeles' responses to housing-code complaints and violations similar to the way online customers track their FedEx packages. Users are supplied with information on how to conduct their own inspections, contact city inspectors using electronic forms for complaint letters

and other documents, and find assistance in resolving housing concerns, including mediation groups. NKLA researchers also work with grass-roots community organizations, tenant groups and activists to promote code enforcement by government officials. These grassroots efforts, in turn, are helping improve compliance by property owners.

## Figure 1: NKLA



Source: nkla.ucla.edu

NKLA is now the city's most comprehensive repository of neighborhood-based public data, and is a good example of what happens when governments, citizens and the private sector exploit Web-based collaboration technologies to transform government. Public data that would go unused in filing cabinets is suddenly a catalyst for better policy-making, more effective local government and neighborhood economic development. Particularly for communities left out of the high-tech boom, well-designed Web services can provide real hope when applied to concrete social problems. Community outreach, access to technology and training also help low-income and linguistically isolated communities connect to effect social change. In fact, the powerful combination of interactive mapping applications and citizen participation could easily be replicated to track information on issues such as employment, public health and migration patterns.

NKLA is just one of many governance webs that New Paradigm is studying in its Government 2.0 investigation. In our research, we distinguish between g-webs for service delivery and g-webs for policy creation. The following sections highlight their respective forms and offers examples of each.

# GOVERNANCE WEBS FOR SERVICE DELIVERY

Governments that once supplied standard transactional services through a fragmented public bureaucracy are increasingly providing citizens and other stakeholders with a single window to public services. As technologies evolve and governments move up the capability ladder, the next stage of service transformation will involve new opportunities for customer-driven innovation. It may also create new challenges as the private sector moves into areas that were once the exclusive domain of government. While public service delivery is a diverse and complex domain, we address four issues that will likely confront all public-service providers as they harness governance webs for service delivery:

- The opportunity to exploit Web 2.0 technologies to deliver responsive, high quality, consistent, end-to-end services tailored to the unique needs of individual constituents and customer segments

- The increasing need for time-and-resource-constrained agencies to take advantage of external knowledge and expertise through new models of "crowdsourcing"

- The challenges of managing private-sector participation in service-delivery webs as corporations weigh-up opportunities to enter public markets

- The opportunity to turn formerly passive recipients of public services into active 'prosumers' who play an important and ongoing role in creating public value

## Leveraging web 2.0 to accelerate service innovation

In recent years, Web 2.0 technologies have transformed the Internet from a medium for publishing information into a place where the knowledge, resources and computing power of billions of people are coming together into a massive collective force. Energized through blogs, wikis, chat rooms, personal broadcasting and other forms of peer-to-peer creation and communication, this utterly decentralized and amorphous force increasingly self-organizes to provide its own news, entertainment and services. Hundreds of companies have sprung up embracing the ideas of Web 2.0 and re-shaping the way the Web influences many areas of service provision, perhaps most notably, health care. The result is a radical transformation of the health care environment similar to that experienced in the media and entertainment industries.

The practice of medicine has always been based on a strong authority model, in which patient knowledge, no matter how acquired, is subordinate to the knowledge of health care professionals—particularly, physicians. This model is breaking down somewhat as:

- The Internet provides everyone with a rich source of authoritative information on the universe of medical conditions and treatments

- The focus of medicine shifts away from a narrow technical concern with diagnosis and treatment of organic disease, to a recognition that the "whole patient" needs to be treated

- Web 2.0 mechanisms enable laypersons to contribute to the sum total of useful knowledge

## Figure 2: Web Services—From Pure Knowledge to Pure Community

| Knowledge | Focus | Examples |
|---|---|---|
| Knowledge ↓ Community | Information seeking in a Web 1.0 world | WebMD |
| | Blogs and traditional discussion groups | Doctissimo |
| | Q&A Web sites | Yahoo! Answers, Answerbag, Wondir, Windows Live QnA |
| | Wikis | wikiHow, Wikipedia Medicine, wikiCancer, Flu Wiki |
| | Swarm intelligence + communities | Sermo, OrganizedWisdom, MDjunction, RateMDs |
| | Support communities | CaringBridge, theStatus, CarePages, DailyStrength |

Source: New Paradigm

The result in many jurisdictions is that the singular, top-down, provider-patient relationship is being replaced by a multiplicity of information providers, aggregators and communities of like-minded users that join together in g-webs to provide medical services and information.

The first area of interest for policy-makers, services providers and end-users is determining what constitutes useful, trusted knowledge for participants in the health care system. At the same time that evidence-based medicine has provided a firm base for medical decision-making, we're seeing the rise of a complementary platform for knowledge evolution and exchange—one based on the collective intelligence of the population of users who contribute content to the Web in the form of pictures, videos, opinions, diaries, etc. This has the twin advantages of addressing a larger knowledge base than that of traditional medicine and, through the mechanisms of participation, creating a greater level of trust in the accuracy and utility of the knowledge created.

Another area of interest overlapping with this is the creation of communities—online social networks—that provide information and support to people who are sick and those taking care of them, as well as to providers themselves. These online networks frequently mirror communities that already exist in the real world of families and friends, but create new communities of interest as well. In addition, we see emergent phenomena based on these communities, such as the rating of providers, and analysis of treatment effectiveness.

The net effect of these mechanisms as it regards health care is to enrich and contextualize health information while at the same time adding to the noise, clutter and misinformation. These dual strands of knowledge and community reflect the way the Web has evolved, as shown in Figure 2.

We know that searching for health care information is a leading use of the Internet and that it is restructuring the nature of the physician-patient relationship. While governments may prefer that people visit or trust "authoritative" Web sites such as www.besttreatments.co.uk, the reality is that citizens will draw on a multiplicity of sites to guide both their behavior and their attitude to treatments. Demand for health care will be shaped in part by the way this important information pathway evolves. The opportunity for government innovation in this case is to shape the evolution, or at least participate in it.

## Crowdsourcing government: augmenting the bureaucracy with crowd wisdom

Established legal and political conceptions of bureaucracy assume that elite groups of experts are in the best position to make dispassionate decisions in the public interest and that these experts have access to the best information. While that may have been broadly true until recently, it's not necessarily true today. In theory, ubiquitous information networks can allow organizations to tap the insights of large numbers of people to arrive at decisions and outcomes that are superior to those presided over by individual experts. Social software such as prediction markets and collaboration tools could, for example, enable public-sector organizations to apply the "wisdom of the crowd," or more accurately the wisdom of the experts, to complex social and scientific problems and to domains such as such as health care and education.

While the practical promise of "collective intelligence" remains a subject of intense debate, some agencies are experimenting with new crowdsourcing models where external experts augment the work of the bureaucracy. A leading example is the Peer-to-Patent: Community Patent Review initiative whereby patent examiners at the United States Patent and Trademark Office can draw on the expertise of external field experts using online collaboration tools to increase the speed and accuracy of their decisions.

The network of external experts will advise the Patent Office on prior art and assist with patentability determinations using a combination of wikis, social reputation technologies, collaborative filtering and information visualization tools. Beth Noveck, the project's founder and director of New York Law School's Institute for Information Law and Policy, says: "The idea is to create a living, breathing ecosystem of scientific expertise, where the community of inventors decides on its own criteria for assessing patent applications."[8] Greater participation from experts familiar with the technological domains under consideration should increase patent quality. "This will make it easier to protect the inventor's investment while safeguarding the marketplace of ideas," says Noveck.

### Figure 3: The Peer-to-Patent Project



Source: dotank.nyls.edu/comm./communitypatent

While skeptics worry that external participation could compromise impartiality, most observers agree that Peer-to-Patent is a welcome innovation for the USPTO. A dramatic increase in the number of patent applications since the late 1980s has put enormous strain on the agency. Critics argue that the quality of patents has decreased as underpaid and overwhelmed patent examiners struggle with a backlog of over 600,000 applications and growing. Mounting pressure to plough

through this backlog means that the average patent application receives fewer than 18 hours of review by a single examiner—a fact that perturbs many in government and industry alike.

> "The idea is to create a living, breathing ecosystem of scientific expertise, where the community of inventors decides on its own criteria for assessing patent applications."
>
> — Beth Noveck, director, Institute for Information Law and Policy, New York Law School

The potential economic and administrative benefits of Peer-to-Patent are immense. It currently takes an average of 44 months before a patent application even reaches the desk of an examiner—far too long in an era where technology advances at breakneck speed. With Peer-to-Patent, the USPTO expects the same application will be processed in 23 months or less. The subsequent benefits of faster and better decisions to both inventor and the economy at large seem obvious given the strong link between patent approval and economic competitiveness.

### Managing private-sector participation in service delivery

New software and networking technologies make it easy for the private sector to compete with government on a growing number of fronts, but especially in the public service arena. While governments have long maintained a monopoly on most areas of public service provision (e.g. drivers licenses, tax collection, social security, etc.), new technologies let the private sector invent extensions to public services with fewer inhibitions and greater speed than government.

A number of companies have already moved in on existing government services such as small business development assistance and electronic health care records and added new forms of value. Onvia.com

provides small businesses with an online RFQ marketplace and Google and Microsoft are both maneuvering to provide electronic health care services in the United States. Both go beyond what the government has thus far provided. Indeed, Google harbors ambitions to leverage its technological prowess and powerful brand to provide access to government information and services around the world.

Advertently or not, government is relinquishing some of its existing and potential services and control to the private sector. This amounts to a de facto privatization of government services—similar to what Princeton professor Paul Starr calls, "privatization through attrition."[9] Unlike traditional discussions of privatization, this privatization is descriptive, not prescriptive, and in many cases is inevitable.

Reacting to changing economics at various stages in the government supply chain, for instance, companies are creating services that compete directly with government. Whether governments approve or not, they have become part of emerging service webs—networks of private firms, civil society and even other government institutions—operating in traditional government areas.

Most public sector g-webs are less dramatic than private sector business webs. Rather than disaggregating and rebuilding entire supply chains, many governments have transferred their internal information and systems to the Web. To be sure, this has had a dramatic impact on service costs and efficiency. But replicating existing systems and processes ignores one of the most powerful implications of the Internet—the ability to create new forms of value by focusing on and transforming core competencies while creating partnerships for non-core activities.

Private sector investment in public service provision could catalyze much-needed innovation and potentially lessen the financial burden on taxpayers. To manage this change effectively, however, government leaders must think carefully about when and where to retain control and how to leverage government's core competencies to create a sustainable and appropriate service strategy. Among other things, governments will need to address issues such as lost opportunities to connect with citizens, consumer privacy, data security and the potential misrepresentation of government content and services by the private sector.

## Citizens as co-producers of the public good

In the book *Wikinomics*, Don Tapscott and Anthony D. Williams argue that one of the most exciting frontiers in business is the opportunity to harness "prosumption," a new model of innovation where formerly passive consumers participate in the creation of products in an active and ongoing way. In other words, customers do more than customize or personalize the products and services they consume; they add value throughout the product lifecycle, starting with ideation and design and extending to aftermarket opportunities for customer-driven commerce and innovation. Increasingly, customer-driven production is at the heart of some of the most innovative products and services around, from the user-generated content on MySpace, flickr, and YouTube, to customer-created advertising campaigns and virtual communities such as Second Life in which "players" create all of the game content, own their intellectual property, and even provide volunteer customer support.

The questions now being raised are: What roles can citizens play in the creation and delivery of public services? Will citizens be content to receive timely and efficient service from government or might a deeper role in value creation be warranted or even demanded?

It's true that in many interactions with government citizens simply expect fast and efficient transactions. As CIO John Suffolk rightly points out, "The vast majority of the time citizens want to do a simple transaction, whether it be to pay their taxes, renew their driver's licenses or schedule a doctor appointment."[10]

New Paradigm's research suggests, however, that just as the Net Generation customizes their consumer goods, so will they demand highly tailored services from government, which naturally entails a deeper relationship with service providers. Indeed, in many domains of government service it will be advantageous for agencies to open up formerly closed business processes to customer involvement.

Initiatives such as www.fixmystreet.org in the U.K., for example, enable residents to submit concerns about safety, vandalism or other local issues directly to their municipal council. Set up by www.mysociety.org, the

aim, according to its founders, is to "give people simple, tangible benefits in the civic and community aspects of their lives."[11] Using the site, British residents play a more active role in increasing public welfare, while helping local government officials to be more attentive to issues that require resolution within their jurisdiction.

Another way for governments to harness the power of prosumption is to ask customers for ideas on how to improve service quality. Dell Computer's IdeaStorm provides a useful template for government agencies to follow. Launched on February 16, 2007, IdeaStorm (www.dellideastorm.com) looks and feels a lot like Digg.com, the popular technology news aggregator. Users post suggestions and the community votes so that the most popular ideas rise to the top. Less than a week after IdeaStorm was launched, users had contributed over 1,300 ideas that were voted on more than 120,000 times. Many of the ideas contributed by Dell customers have already been translated into product and service innovations.

CEO Michael Dell says he sees customer-driven innovation as the lynchpin of his strategy for Dell 2.0. "We need to think differently about the market and engage our customers in almost everything we do," he says. "It's a key to us regaining momentum as a technology industry leader."[12] Public-sector service providers that aspire to Government 2.0 will need to empower their customers in a similar fashion.

### Figure 4: Dell Computer's Ideastorm



Source: dellideastorm.com

## GOVERNANCE WEBS FOR POLICY CREATION

Policy has traditionally been the means by which societies, through their governments, bring their founding principles and constitutions down to earth. Sometimes codified in law, sometimes less formally set out in direction-setting statements, government policies turn ideas and visions into the means through which they establish and maintain order, shape social and economic destinies and promote justice among citizens.

Emerging Web 2.0 technologies make the process of engaging citizens in policy-making easier and less costly than ever before by providing tools to support knowledge creation and community building; two core aspects of digital-era policy-making.

In most countries, policymaking has always been a static, top-down process. Politicians study issues, seek counsel from a select group of advisors, deliberate and enact laws on the population's behalf. Most citizens are on the periphery, playing no role other than casting a ballot every few years. In early democracies this system made sense; citizens didn't have the education, time, resources, or communication tools to offer meaningful advice to government between elections. But it also gave well-connected insiders undue influence over elected officials and senior bureaucrats who crafted the policies.

Times have changed. The increasingly complex social, political and economic environment demands more sophisticated policy development processes. Governments no longer have sufficient scope, resources, information or internal competencies to respond effectively to the policy needs of a complex and fast-

changing global environment. Policy-makers must now seek out new partners and participants to help identify problems and create innovative solutions. With a superior capacity for organizational networking and knowledge creation, policy webs are emerging as the leading organizational form for greater innovation, agility and citizen participation.

Citizens, in particular young Net-savvy citizens, are keen to play this larger role. The idea is not merely for governments to understand what the electorate thinks should happen; public opinion polls can do that. But what polls don't capture is the wisdom and insight that a nation can collectively offer through online brainstorming and discussion.

Emerging Web 2.0 technologies make the process of engaging citizens in policy-making easier and less costly than ever before by providing tools to support knowledge creation and community building; two core aspects of digital-era policy-making. For example, government agencies can post background information on the Web and use online videoconferencing to bring in expert testimony. Web-enabled forums can provoke discussion and debate among hundreds, thousands and even millions of geographically dispersed participants. Wikis provide a platform for collaborative editing of policy documents, while social networking technologies can connect citizens and organizations with common goals and interests. The promise is that digital-engagement technologies will support a policy-making process that integrates policy development and implementation into a seamless and flexible practice of continuous engagement, improvement and innovation.

## Policy webs In action

Depending on the issue, policy webs will draw participants widely from governments, international organizations, businesses and industry associations, think tanks, academic institutions, civil-society organizations such as NGOs, associations, religious groups and the general public. Consider the following examples:

### United Kingdom Foreign and Commonwealth Office (FCO)

Foreign policy is a complex, politically and strategically driven topic, yet that has not stopped the U.K. FCO

from attempting to bridge the gap between government policy and public opinion. Three online forums were established in 2007 through which citizens could contribute their thoughts on the government's foreign-policy priorities and several hundred comments have been posted to date. To process the public's input, the FCO set up a Response Unit to collate and analyze all the replies received. And herein lies the real crux of digitally enabled political engagement: it's one thing to welcome ideas and opinions, but keeping the public engaged will require governments to demonstrate how public input has been translated into action.

### Politicopia

Politicopia is a shining example of participatory and transparent policy making. Developed in 2000 by Utah state representative Steve Urquhart, Politicopia runs on a wiki, the same collaborative Web authoring software that powers Wikipedia. The wiki allows users to provide input into some 30 bills that are currently under discussion in the state legislature. According to Urquhart, Politicopia's goals are threefold: to politically empower citizens; to encourage better dialogue in the legislature; and to produce better ideas for the State of Utah. Urquhart claims that the wiki site is already having a genuine impact on political debate. "Legislators are talking to me about things they've read on Politicopia and saying that because of the input they've received, they've changed a position they've held for years."[13]

### Diplopedia

Although many policy webs involve external participants, agencies shouldn't overlook the importance of capturing the intelligence that already resides inside public-sector organizations. Under the oversight of the U.S. Department of State, the Office of eDiplomacy was established in the aftermath of September 11 to develop new mechanisms to share knowledge within the Foreign Service and to foster better decision-making at home and overseas. Since its inception, the eDiplomacy office has focused on nurturing online communities for employees, administrators and diplomats who are geographically dispersed but possess practical field knowledge that may be invaluable to each other and to the broader mission of the Department of State.

## Figure 5: Dipnote: The U.S. Department of State Blog



Source: blogs.state.gov
A key element of the office of eDiplomacy

Diplopedia, an internal Wiki for diplomats and Foreign-Service personnel, is one of many tools in use today. As eDiplomacy Director Stephen Smith notes, "One of the biggest assets for our department is capturing the knowledge and contacts held by our personnel around the world. Until now, we've lacked a means of capturing and exploiting that data. Too often we end up having to start from scratch. Diplopedia allows us to remove these inefficiencies."[14]

## Global problem-solving

The new world of digitally enabled policy-making would be unnerving enough if policies were confined to individual departments, but increasingly public-policy issues don't conform to bureaucratic restraints. Voters are less interested in the policy specifics of cutting back motor-vehicle emissions or reducing plaque, for example, than the broader societal goals of reducing pollution or improving health. The big issues don't conveniently fit into departmental pigeonholes. The bureaucratic temptation is to drill down and confine the discussion to the tightest possible constraints that conform to bureaucratic structure, but the public's inclination is to do the reverse. Indeed, issues such as security, trade and the environment have inextricably altered the 21st-century governance agenda.

The global impact of previously local issues and challenges has been increasingly visible and dramatic:

Riots surged throughout the Middle East, Africa and South-Asia in protest of the Danish publication of cartoons depicting the Prophet Mohammad. Starting with the disruption of the 1999 WTO meetings in Seattle, transnational non-governmental organizations in North America and Europe have, with varying degrees of success, fought to have developing country interests better represented at the WTO; and most recently, students across the West have marched in support of democracy-seeking activists in Burma, the latter who have used text messaging and blogs to transmit images and accounts of their struggle worldwide.

Local has increasingly become global. And while this global interconnectedness is not necessarily new, the amount of information and ease of access to it for today's generation of information seekers is startling. The Net Generation has an unprecedented amount of information at its fingertips. Wikipedia, YouTube and AgoraVox provide the tools for a truly global network of citizen-journalists to emerge. And while the BBC was once the undisputed leader in global news coverage, it is increasingly challenged by international media such as al-Jazeera. The latter now attracts upward of 50 million viewers, a tenth of whom are in North America and Europe.

"For far too long, climate change has been seen as a problem of the future, one that only a limited range of ministries and institutions should manage. This must change now. Climate change requires broader engagement."

—Kofi Annan, former secretary general of the United Nations

These changes only reinforce the need to open up the policy-making process to global participation. Today's youth may not read the newspaper, evidenced by a 27 percent decline in national newspaper readership in North America, but s/he is more informed about global

news and events. And having grown up on an interactive media diet, ignoring their desire for inclusion and participation will only further alienate a demographic that has proven it can effect change.

No issue has captivated the new transnational audience as much as climate change. As noted by Kofi Annan, former secretary general of the United Nations, "For far too long, climate change has been seen as a problem of the future, one that only a limited range of ministries and institutions should manage. This must change now. Climate change requires broader engagement."[15]

While many governments have been slow to respond, citizens around the world, in particular N-Geners, are harnessing the Web to reduce isolation, build far-flung networks and co-ordinate for collective action to address what is shaping up to be the most challenging issue that humanity has ever faced. It is not surprising that the Net Generation is leading the charge and framing this as an issue of inter-generational justice. After all, those most aggrieved by the impacts of climate change have yet to be born.

Since 1999, the Canada-based International Institute for Sustainable Development has targeted N-Geners (then estimated at 22 percent of the total Canadian population) in its efforts to educate and mobilize Canadian citizens. As the debate has grown, so too has the global dimension of this conversation. TakingITGlobal (TIG), an international social network of over 120,000 socially conscious youth, provides a poignant example. The network's discussion forums and blogs feature a series of conversations about climate change. But unlike top-down and geographically specific government engagement efforts, the TIG platform allows youths from North America to learn of the experiences of youths in Africa and Asia, and vice versa.

Meanwhile, on January 31, 2008 in the United States, millions of American students at over 1,000 academic institutions will take part in "Focus the Nation," a one-day academic and civic-engagement discussion focused on climate change, its consequences and potential solutions. Organizers hope the event will create a groundswell of activism and help spur government policy-makers into action. The event will feature an interactive forum where citizens, students and political representatives can discuss issues, challenges and solutions. Participants will then vote on their top five

priorities for action and the results will be forwarded to local and state representatives.

## Figure 6: Focus the Nation



Source: focusthenation.org

Few other issues have garnered the attention of more than a million participants, and few, if any, have gone as far as Focus the Nation in convincing colleges, universities and secondary schools to lend an entire day of instruction to just one topic. The process should serve as a model for citizen engagement on other topics of global importance.

## Imperatives for digital-era policy-making

We're moving into an era in which the power and authority of government, and the legitimacy of public policy, will become ever more dependent upon interactive democracy. Policy webs and citizen engagement should not be confused, however, with so-called "direct democracy" schemes where citizens vote online after watching the evening news. Voters don't have the time, inclination or expertise to become well-informed on all issues. Policies adopted by government should reflect reasoned opinion, not just any opinion. So the role of elected officials and legislative assemblies in debating, refining and resolving issues will still be paramount. Rather than diminish the authority of elected representatives, effective policy webs should

empower politicians to claim more credibility to speak on the electorate's behalf.

Indeed, policy-makers must ensure that digitally enabled citizen engagement doesn't merely amplify the voices of organized interest groups already heard in policy-making. To avoid this, policy webs should address social and political divides; ensure an explicit relationship between citizen input and policy outcomes, and provide trusted public space where participants of all political persuasions will engage in policy deliberation. Most important, policy webs are an antidote to simplistic surveys that pose either/or or limited multiple-choice questions. More substantive deliberative models such as citizen juries, online consultations, deliberative polling and virtual question periods are leading options for broadening participation.

Properly functioning policy webs will create more timely laws and regulations. In the existing top-down model, comprehensive government policy reviews are undertaken as infrequently as possible. Conventional wisdom says that good policy stands the test of time, and policy that requires frequent change is flawed. But in today's world, good policy is responsive and supple. Building policy webs to harness expertise and resources from emerging networks in the market and civil society will be an essential part of developing effective and forward-looking policy responses.

Finally, effective policy making should be transparent. At minimum, policy-makers should publicize their objectives, documents, participants and decision criteria, and provide reasons why alternative policy options were not pursued. True transparency, however, will extend beyond posting policy documents on Web sites to making the processes and underlying assumptions or political presuppositions (including supporting research) of policy explicit and subject to critique. Freedom of information should be extended to include not just data, but also the tools of policy-making: the models, simulations, problem-structuring tools, and geographical information systems that policy-makers use themselves.

The promise is a continuous circle of policy innovation and adaptation that integrates the knowledge and experience of a broad range of stakeholders in government, business and civil society. In the internetworked policy webs of the future, decision-making will be the product of consultation and

collaboration within networks that assemble around relevant political issues. Governments will abandon their monopoly over the policy process in favor of participatory models that invite input and ownership at all stages of development, from problem definition, to analysis, to identifying strategic options and making decisions.

## MANAGING CHANGE FOR NEW GOVERNANCE DESIGNS

The inertia of old models is compounded by the political nature of government bureaucracies. Civil servants and their political masters are conditioned to avoid mistakes that could be used by opponents or the media to embarrass the party in power. Rather than develop flexible systems that give civil servants discretion, rigid systems of public administration make discretion virtually impossible. Even simple travel arrangements require endless forms and numerous signatures. Straightforward purchases take months; larger ones take years. Routine printing jobs can take dozens of approvals. This emphasis on process steals resources from the real job of serving the customer and engaging the constituent.

For all of these reasons, transforming the structures of government from command-and-control hierarchies to innovative and agile g-webs is proving to be a major challenge. Deep and resilient legacies combine to frustrate progress. Common obstacles to change include conflicting timeframes and motives, particularly between the public service and politicians; a lack of incentives to innovate; and the absence of a sense of urgency.

Persuasion has long been one of government's most crucial powers. Persuading citizens that engagement will be met with accountability, persuading partners that private contributions will be met with public effort and tangible returns, and persuading civic organizations that community action is a strategy and not a maneuver are just some of the challenges for which governments must plan.

Our research reveals a number of strategies for moving toward the g-web concept:

➢ *Start with a compelling value proposition*. Any public sector service or policy needs to provide definite value to citizens. A compelling value proposition specifies the contributors to value creation, the direct and indirect value recipients and the mechanism for value delivery.

➢ *Identify the roles and competencies that government must discard, maintain or acquire in the digital era*. Governments can deliver value in new ways, or even create new forms of value for citizens. In some instances this means that agencies and institutions must relinquish their traditional roles, while in other cases they will assume new responsibilities.

➢ *Design frameworks for partnering through which the complementary strengths of the market and civil society can be leveraged to deliver value to citizens and customers*. Government cannot afford to operate in a vacuum. The best services and policies often draw on the strengths of those outside of government. These contributions must be woven into the structure of government with an effective framework for achieving high performance.

➢ *Develop mediums for participation and engagement with citizens in order to leverage the value of public knowledge and creativity*. A government must align its values and policy processes with those of its constituents, especially the growing demographic that is the Net Generation. Engaging them in a digitally enabled conversation regarding policy and legislation will allow government to tap into a vast database of new ideas, technologies and knowledge.

➢ *Create innovative structures and cultures that reward creativity and provide incentives for human capital to flourish*. Successful public service demands streamlined structures and the best from public servants. Governments must become dynamic organizations in which individual contributions are recognized and leveraged.

➢ *Shorten decision-making cycle times and increase response time to keep pace with the dynamism of the global economy*. Government policy must be timely in order to be effective. The accelerating pace of change requires a radical renovation in the decision-making processes of government.

➢ *Leverage the value of information and knowledge by sharing it openly with partners and the public*. Information is the currency of the digital age. Government can make the most of its vast stores of information by ensuring that they are accessible to partners, citizens and businesses.

➢ *Embrace citizen-centric behaviors and allow citizens and customers to be value managers and content creators*. The new infrastructure of the Web 2.0 is empowering individuals to participate in the economy and public affairs like never before. Governments should embrace the notion that citizens and customers can make valuable contributions to government and governance and provide tools and venues in which citizens can self-organize.

As we transition from the industrial economy to the information economy, governments must dramatically accelerate their pace of change. The internally focused command-and-control public sector model is no longer appropriate. In the private sector, business webs have eclipsed the vertically integrated corporation as the most effective means of wealth creation. Business webs produce better products at less cost, with information and knowledge acting as lubricants throughout the value-creation process. Companies are building deeper relationships with their customers through Internet-enabled knowledge sharing and collaboration.

In the sea of government and public sector activity on the Internet, too many e-government initiatives are little more than electronic versions of the rack of pamphlets available in every government office. Of course, they are more readily accessible, at hours convenient to the public, but often the transaction part of the service is unchanged: the line-ups remain and the office hours haven't expanded. However, amid the clutter, more sophisticated offerings are emerging, pointing to a significant shift in the way governments are organized, services are delivered and policies are formulated. Governance webs are taking root, drawing on a wider group of participants beyond the precincts of legislatures and public buildings to create new value.

Sharing power, opening up the decision-making process, forging new relationships and partnering on service delivery are the foundations of 21$^{st}$-century government. They offer the opportunity not just to do better, but most importantly to re-engage the citizenry in the important work of governing. Governments can and must rise to these challenges. It is truly a time when either government plays an active and positive role in its own transformation, or change will happen to it. The transformation process is at the same time exhilarating and painful, but the price of inaction is a lost opportunity for government to redefine its role in a new golden age of democracy.

# ENDNOTES

[1] Al Gore. *From red tape to results: creating a government that works better and costs less*. Report of the National Performance Review, September 1993.

[2] Treasury Board of Canada. *Blueprint for Renewing Government Services Using Information Technology,* 1994.

[3] Cabinet Office (1999) *Modernizing Government White Paper*, Cm 4310, London: HMSO.

[4] Tony Blair, 19 November 2002, remarks at the 2002 United Kingdom E-Summit.

[5] United Nations Online Network in Public Administration and Finance. *UN Global E-government Readiness Report 2005*.

[6] Cabinet Office (2007). *The Power of Information Review*. June 2007.

[7] Interview with John Suffolk, chief information officer, United Kingdom, conducted by Anthony Williams and Dan Herman, New Paradigm, October 24, 2007.

[8] Daniel Terdiman. "Web Could Unclog Patent Backlog." *Wired Magazine*, July 14, 2005.

[9] Paul Starr. "The Limits of Privatization," Washington: Economic Policy Institute, 1998.

[10] Interview with John Suffolk, chief information officer, United Kingdom, conducted by Anthony Williams and Dan Herman, New Paradigm, October 24, 2007.

[11] http://www.mysociety.org

[12] Interview with Michael Dell, chief executive officer, Dell Inc., conducted by Don Tapscott, New Paradigm, February 2007.

[13] Steve Urquhart, Utah State Representative, comments recorded at: http://ross.typepad.com/blog/2007/01/politicopia_a_w.html

[14] Interview with Stephen Smith, director, Office of eDiplomacy, United States Department of State, conducted by Anthony Williams and Dan Herman, New Paradigm, November 13, 2007.

[15] Kofi Annan, *The Human Face of Climate Change,* Geneva, 11 October 2007.

# ABOUT THE AUTHORS

### DON TAPSCOTT

Don Tapscott, one of the world's leading authorities on business strategy, is chairman of New Paradigm, which he founded in 1993. He is an internationally sought authority, consultant and speaker on business strategy and organizational transformation. His clients include top executives of many of the world's largest corporations and government leaders from many countries. The Washington Technology Report called him one of the most influential media authorities since Marshall McLuhan. He is also an Adjunct Professor of Management at the Joseph L. Rotman School of Management, University of Toronto.

### ANTHONY D. WILLIAMS

Anthony D. Williams is the co-author with Don Tapscott of *Wikinomics: How Mass Collaboration Changes Everything* (Portfolio 2007) and is vice president, Government 2.0 at New Paradigm. He holds a master's degree in research and political science from the London School of Economics and is a doctoral candidate in the Department of Government.

### DAN HERMAN

Dan Herman is program director, Government 2.0 at New Paradigm where he has authored a wide range of white papers and case studies on corporate strategy, innovation, and collaboration. Dan holds a degree in business administration from Wilfrid Laurier University and a master's degree in development studies in trade and development from the London School of Economics.

# BIG IDEA

## WHITE PAPER

This report is an analysis of a Big Idea, presented as part of New Paradigm's Government 2.0: Wikinomics, Government and Democracy Program. The program, sponsored by leading government agencies and private companies such as yours, identifies and analyzes emerging opportunities to harness new models of collaboration to transform the public sector.

Don Tapscott: Chairman

Joan Bigham: Executive Vice President, Strategy and Business Development

Anthony Williams: Vice President, Government 2.0

Brian Gillooly: Vice President, Member Services

The Government 2.0 research program membership includes unlimited free access to a secure web site where the research team project plans and research publications are posted for member review and feedback. Please visit wiki.newparadigm.com for information or contact Joan Bigham at jrbigham@newparadigm.com or at (860) 536-6693.

**NEWPARADIGM** The Business Innovation Company™

www.newparadigm.com