E-government in Africa: Progress made and challenges ahead
Presentation by Nancy J. Hafkin

Electronic/Mobile Government in Africa: Building Capacity in Knowledge Management Through Partnership
http://www.unpan.org/emgkr_africa

Addis Ababa, Ethiopia
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Presentation Outline

• Defining and outlining e-government

• Measuring/evaluating progress in e-government in Africa

• Challenges to further development

• SWOT analysis

• Building successful e-government projects

• The road ahead
E-Government

- Electronic or digital government
- Varying approaches
  - ICTs in government - all aspects of government activity
  - Internet government service delivery
  - Capacity to transform public administration through the use of ICTs
- ICTs for
  - Their capacity to improve communication between people
  - As a tool for development [ICT4D]
  - Not technology for the sake of technology
- Computers in Government for 50 years:
  - New elements are communication, development, improved governance
E-government definition

- E-government is the use of ICT to:
  - promote more efficient and effective government
  - facilitate the accessibility of government services
  - allow greater public access to information
  - make governments more accountable to citizens
Major aspects of e-government: interconnected and interdependent

- Improving service delivery
- Improving information management
- Improving accessibility and participation of the different stakeholders.
Keyword in e-government is government, not electronic!

- Emphasis on government/governance, not technology.
E-governance is the outcome of E-government done well . . .

- E-governance: “The use of ICTs, especially the Internet, to adopt a new conception and attitude of governing and managing where participation and efficiency are required of all the partners linked in a network.

- “Governments can utilise e-governance to re-invent themselves, get closer to the citizenry and forge closer alliances and partnerships with diverse communities . . . . . within the context of development.” (CAFRAD)
Origins e-government Africa

- African Information Society Initiative (1996) called for:
  - Development and implementation of national policies and plans to promote ICT adoption throughout key economic sectors and national administration (NICIs)
  - Using ICTs to improve effectiveness of government service delivery
Primary e-gov delivery models

- Government-to-Citizen (G2C)
  - Rwanda Online Government Services
  - Mauritius Government Online Centre
- Government-to-Business (G2B)
  - Contribution Network Project Mauritius
- Government-to-Government (G2G)
  - Woreda Net Ethiopia
- Government-to-employee (G2E)
  - Specialized services for government employees
- Need not be technology specific
## Elements of G2C

<table>
<thead>
<tr>
<th>Talking to citizens</th>
<th>Providing citizens with details of public sector activities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening to citizens</td>
<td>Increasing input of citizens into public sectors decisions and actions.</td>
</tr>
<tr>
<td>Improving public services</td>
<td>Improving services delivered to public in quality, convenience and cost.</td>
</tr>
</tbody>
</table>
Evaluating progress in e-government in Africa
UNPAN E-government readiness survey 2008

- From e-government to connected governance: few have made the leap
- E-governance readiness highest in Europe, followed by Americas, Asia, Oceania
- Africa lags far behind in terms of citizen engagement
Africa in 2008 survey

• How ready are African governments to take advantage of opportunities arising from information technology?
  - Includes G2C, G2G and some G2B

• Stages: emerging, enhanced interactive, transactional, connected
### Africa regions’ comparative e-readiness

<table>
<thead>
<tr>
<th>Region</th>
<th>Rating</th>
<th>Best in region</th>
<th>Newly online since 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Africa</td>
<td>0.39</td>
<td>South Africa 0.51, Lesotho 0.38</td>
<td></td>
</tr>
<tr>
<td>Northern Africa</td>
<td>0.31</td>
<td>Egypt 0.48, Libya 0.36</td>
<td></td>
</tr>
<tr>
<td>Eastern Africa</td>
<td>0.28</td>
<td>Mauritius 0.51, Seychelles 0.49, Kenya 0.35</td>
<td>Zambia</td>
</tr>
<tr>
<td>Central Africa</td>
<td>0.24</td>
<td>Angola 0.33, Gabon 0.32</td>
<td>Equatorial Guinea</td>
</tr>
<tr>
<td>West Africa</td>
<td>0.19</td>
<td>Cape Verde 0.41, Nigeria 0.31, Ghana 0.30</td>
<td>Liberia, Guinea-Bissau</td>
</tr>
<tr>
<td>World average</td>
<td>0.45</td>
<td>N American average</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Leaders to watch: Offshore Islands- Mauritius, Seychelles, Cape Verde
<table>
<thead>
<tr>
<th>Country</th>
<th>Global ranking, n=182</th>
<th>E-readiness index</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>61</td>
<td>0.51</td>
</tr>
<tr>
<td>Mauritius</td>
<td>63</td>
<td>0.51</td>
</tr>
<tr>
<td>Seychelles</td>
<td>69</td>
<td>0.49</td>
</tr>
<tr>
<td>Egypt</td>
<td>79</td>
<td>0.48</td>
</tr>
<tr>
<td>Cape Verde</td>
<td>104</td>
<td>0.42</td>
</tr>
<tr>
<td>Lesotho</td>
<td>114</td>
<td>0.38</td>
</tr>
<tr>
<td>Botswana</td>
<td>118</td>
<td>0.37</td>
</tr>
<tr>
<td>Libya</td>
<td>120</td>
<td>0.36</td>
</tr>
<tr>
<td>Algeria</td>
<td>121</td>
<td>0.35</td>
</tr>
<tr>
<td>Kenya</td>
<td>122</td>
<td>0.35</td>
</tr>
</tbody>
</table>
Bottom of the ladder (10 lowest in Africa)

<table>
<thead>
<tr>
<th>Country</th>
<th>% Web utilization possibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote d’Ivoire</td>
<td>6</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>6</td>
</tr>
<tr>
<td>Eritrea</td>
<td>6</td>
</tr>
<tr>
<td>Sudan</td>
<td>6</td>
</tr>
<tr>
<td>Mauritania</td>
<td>5</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>5</td>
</tr>
<tr>
<td>Comoros</td>
<td>2</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>2</td>
</tr>
<tr>
<td>Burundi</td>
<td>1</td>
</tr>
<tr>
<td>Chad</td>
<td>1</td>
</tr>
</tbody>
</table>

Still no online presence: Central African Republic, Somalia
African achievements 2008

- Mozambique, unique in Africa, enters top 35 countries in e-participation (no. #26), top 20 (#19) in e-information
- Botswana in top 25% of all countries on e-consultation
- Five African countries have open web forums to discuss topics
- Eight African countries have 10% of population online
ECA Technology in Government Award Winners (2007)

- To recognize innovation, excellence, and leadership in Africa’s public sector e-government development

- **Category 1: Public service delivery to citizens/communities**
  - Government Portal Project, Angola- one-stop shop for government public information and services for citizens
  - Fez Government Project, Morocco

- **Category 2: Improved health services through the use of ICTs**
  - RWANDA TRACnet- one-stop shop on case and treatment of AIDS

- **Category 3: Improved educational services through the use of ICTs**
  - Automation of Secondary School Placement and Online Exam Result Delivery, Kenya
  - Egyptian Education Initiative
ECA Technology Awards, cont’d.

- **Category 4: Public Private Partnership (PPP) in economic and financial eServices delivery**
  - ORBUS, Senegal
  - Electrogaz SMS Utility Payment System, Rwanda

- **Judges' Awards:**
  - Classes Rurales en Langues Nationales, Burkina Faso - distance learning, local languages
  - Integrated Revenue Management System, Ethiopia
  - Court Administration Reform, Ethiopia - to make legal redress more accessible to citizens
  - Instant Money Transfer Service, Ghana - enhancing remittances from abroad via telephone
  - Project des Demarches Administratives, Senegal
Some best practices

- Cape Verde-E-voting, allowing near-instant vote tallies, avoiding conflict about results
- Moves towards integrated information systems:
  - Databases of Environmental Information Network and Forest Research Institute linked in Ghana
  - Contributions Network Project in Mauritius connects firms for tax payments to various government departments
National e-government strategies developed since WSIS (Dec. 2005)

- Lesotho- National ICT Development Policy
  - Government to be a leader in the development of the ICT sector
- Namibia- National E-governance Policy and Strategies
  - Aim: to ensure citizen access to information, active citizen participation, transparent administration, simplified use of government services
  - Starting with e-government services to citizens
- South Africa: Information Society and Development Plan
  - e-government a priority focus
Critique of African e-government implementation

- Design-reality gap
- Project goals too ambitious given productive capacity
- NICIs are not necessarily G2C e-government plans
- Supporting instead of redesigning dysfunctional processes
- E-government agendas diverge from other sector government agendas
- Reliance on supply drivers
- Ignoring cultural elements
- Ignoring poor infrastructure and inequitable diffusion
Challenges in developing e-government in Africa
Challenges: prerequisites for e-government

- Minimum threshold level of technological infrastructure
- Human capital
- Internet access for all
- Legal frameworks/enabling environment
- Political will

- Source: 2003 United Nations Global e-Government Index
Challenges-cont’d

• Moving from fulfilling basic requirements (infrastructure, appropriate policies, capacity development, ICT applications and relevant content) to integration and transformation

• Surmounting people issues: public service culture, lack of skilled management, reaching minorities

• Public administration challenge: integration and redesign of government organization and processes
How Africa ranks on these (based on 2008 e-tables)

• It takes broadband
  ❖ In Africa overall 4/1000 have broadband access. In Sweden it’s 81/100.
  ❖ African broadband leaders: Mauritius, Seychelles, Morocco, Cape Verde, South Africa: ranging from 6/100 to 1/100
  ❖ Lagging behind: 33 countries without broadband at all; 5 others with 1/1000

• Internet access a minimum prerequisite
  ❖ African leaders: Seychelles, Mauritius, Morocco, Sao Tome, Tunisia, South Africa, Sudan: ranging from 10 to 40/100
  ❖ Lagging behind: Liberia, Ethiopia, Sierra Leone, DRC, Niger -- with 1/3 per 1000
Very different picture on cellphones

- Africa overall: 13/100 have cellphones
  - African leaders: Seychelles, South Africa, Tunisia, Libya, Mauritius, Botswana, Gabon: ranging from 37 to 57/100.
    - Relatively small difference between Africa and richest countries (70/100 in Sweden)
  - Lagging behind: Ethiopia, Eritrea, Comoros, Burundi, Sierra Leone, Guinea, ranging from 3-at best- to 9/1000
Next prerequisite: human capital

- Adult literacy
  - Africa overall: 62%
  - African leaders: 13 countries at 80% or higher adult literacy
  - Best: Seychelles (92%) and Zimbabwe (89%)
  - African laggards: (24 to 29%)
    - Burkina Faso
    - Mali
    - Chad
    - Niger
    - Guinea
Enrolment ratios (3 levels combined)

- Africa overall: 53.3%
- African leaders: 9 with 70% or more
- Top 5: Libya, Seychelles, South Africa, Egypt, Tunisia
- African laggards: (22 to 30%)
  - Niger
  - Djibouti
  - Angola
  - Burkina Faso
  - Central African Republic

- Developed country comparison: Sweden- 99% literacy; 95% enrolment
Some conclusions from data

- No figures available on computer literacy
  - Rapid increase of ICT in formal education will result in enrolment=computer literacy
- Conclusions from infrastructure and human capital data
  - Africa is relatively rich in human capital: gaps are much smaller in comparison to developed countries than in infrastructure
  - But aggregate figures mask internal divides (gender, age, rural vs urban, minorities, disabled)
- Infrastructure gap must be corrected to advance in e-government
- Future of e-government in Africa is in mobile interoperability
Other prerequisites

• **Legal frameworks/enabling environment:**
  - E-government usually results from or catalyses public sector reforms, directed to improvement of governance
  - Regulatory framework: needed for secure information exchanges, to create the economic conditions for accessible ICTs infrastructures, services and equipment

• **Political will, champions:**
  - Genuine commitment to good governance is required from government leaders, private sector and civil society to create and sustain this transformation
  - Strong political will is needed for the implied transformation process in government in
    - internal operations
    - with regard to its interaction with civil society.
People issues

- Cultural issues
  - Within administrations- resistance to change, adherence to hierarchy, guarding information
  - User preference for information from humans rather than machines, secrecy,
- Equity and accessibility: not just people and skills, but reaching all people
- Special attention needed to ensure access and participation of women, disabled, the aged, illiterates, rural dwellers
  - ECA work on promoting women’s access to e-government
- Other equity indicators to consider:
  - dispersion of public access facilities
  - mobile coverage areas
  - mobile and broadband affordability
Other people issues

• How to implement a technological system in an environment where it has no reality to most of those who live there?

• How to design systems where there is no critical mass of ICT users?

• How to implement a technology system when costs of technology exceed those of human employment and amid high unemployment?

• How can e-government be more transparent and accountable than the government it represents?
# SWOT analysis

<table>
<thead>
<tr>
<th>Strengths:</th>
<th>Weaknesses:</th>
</tr>
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<tbody>
<tr>
<td>• Late adopter advantages</td>
<td>• High illiteracy rates</td>
</tr>
<tr>
<td>• Ability to borrow solutions from others</td>
<td>• Poor telecommunication infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Lack of democratic governance</td>
</tr>
<tr>
<td></td>
<td>• Political instability</td>
</tr>
<tr>
<td></td>
<td>• Lack of IT-specialized human capital</td>
</tr>
<tr>
<td></td>
<td>• Paucity government resources</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities:</th>
<th>Threats:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase citizen participation (push democratic governance)</td>
<td>• Cyber security issues</td>
</tr>
<tr>
<td>• Reengineer admin for efficiency gains</td>
<td>• Citizen monitoring, repression</td>
</tr>
<tr>
<td>• Foster other ICT4D apps</td>
<td>• Increase urban/rural divides</td>
</tr>
<tr>
<td>• Stimulate ICT use --knowledge economy</td>
<td></td>
</tr>
<tr>
<td>• Promote transparency, reduce corruption</td>
<td></td>
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</tbody>
</table>
Lessons for building successful e-government projects

- Agency-centric or “silo” approaches rarely work
- Interoperability (technical) and cross-agency cooperation (administrative) vital
- If multiple donors involved, cooperation essential
- Recognize citizens as beneficiaries

Source: Ruth and Schware (2008)
Some low-cost or cost-saving technology strategies

- Include a search engine on websites to help citizens find information
- Include comments or feedback features
- Update sites regularly
- Improve website maintenance, particularly checking internal links
- Create regional e-government partnerships to pool resources, build infrastructure more efficiently
More tips for better e-gov websites

- Make efforts to secure top position on Google or Wikipedia
- Concentrate on simplifying information organization with user in mind
- Use an outline form on site navigation panel
- Make "Home" link prominent
- Group together/link services, with users in mind
- Offer online support, at least during business hours
- Try to minimize Government server timeouts
The road ahead

- More two-way information flows and citizen input
- Move from e-government toward integrated connected governance
- Interoperability with mobile devices
- Use of human intermediaries between citizen and digital infrastructure
- Greater awareness of social and cultural issues
- More contact with local research community to build local knowledge base
- Using Web 2.0 techniques for increased e-participation
Hopes for Africa through e-government

• More efficient government
• Public sector reform
• Improved public sector capacities
• Improved governance/strengthened democracy
  ❖ Increased government transparency
  ❖ Reduction in corruption
  ❖ High level of citizen participation
  ❖ Greater citizen trust in government
• Increase in ICT diffusion and literacy