ICT invading policy-making: taking advantage of new opportunities

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Policy-making characteristic

- Starts with societal problem, which is often hard to ‘define’
- Followed by a complex interactive process often having many iterations
- In which many stakeholders are involved having own ideas
- Addresses intractable problems from wide variety of topics that are
  - Rational bounded
  - Many directions are possible, often no ‘best’ alternatives
  - Need the making of trade-offs
  - Without clear evaluation criteria, and
  - Political ideology plays a role
Policy-making process*

- and many more diagrams
- Models made in BMPN
- Open for use by others
- Transparent
- Quality improvements

Policy-making cycle

1. Problem definition
2. Agenda setting
3. Policy development
4. Policy implementation
5. Policy enforcement
6. Policy evaluation
Policy-making cycle – ICT invasion

Problem definition

Agenda setting

Policy development

Policy implementation

Policy enforcement

Crowdsourcing

Opinion Mining and Sentiment Analysis

Serious Gaming and simulation

Open dashboards

Sensors everywhere
Open and big data

- Governments are releasing their data
- The Internet of Things (IoT) is a development contributing to the collection of large amounts of data
- Greater returns from the public investment in downstream use and creation of outputs
- Most value of data is created by combining data
- Open data enables citizens and others to be involved in the policy-making process
  - By providing access to data, this data can be used by anybody to analyze the data and make suggestions for policy-improvement
  - Open data can be analyzed and the results can be used to make informed arguments for embracing, rejecting or proposing new policies
  - Transfer of activities from inside the border of the government to the outside
Crowdsourcing

- Using open data citizens can become “democratic innovators” (Maier-Rabler & Huber, 2011)
- Utilizing everyday citizen expertise to solve government problems
- Sometimes awards and money are given to ensure involvement
- Mobile devices and the supporting applications (apps) make it possible to share information and collaborate anywhere at any time
- Citizens become co-producers becoming partners that effectively expands their role from passive to active problem solvers (Linders, 2012)
- This results not only in a transfer of data, but also in a transfer of idea generation from inside the border of the government to the outside
Visualization and gaming

- Traditionally used for city planning
- Lower the threshold for ordinary citizens to participate
- From ‘sending’ to ‘playing’
- Show the implications of policy actions
- “nudge” to direct behaviour
- Leveling the knowledge inside and outside the border of the government
Visualization and gaming

Four times as much nuclear power as today by 2050, comparable to building 13 large nuclear power stations.
## Impact on policy-making*

<table>
<thead>
<tr>
<th>Step</th>
<th>Policy developments</th>
<th>Impact on governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem definition and agenda setting</td>
<td>Collecting data by citizens/businesses (e.g., sensors) for agenda setting</td>
<td>Citizens identify the problems Petitions for agenda setting</td>
</tr>
<tr>
<td>Policy development</td>
<td>Simulation; Serious games; Crowdsourcing; co-creation</td>
<td>Citizens involvement as contributors; providing insight into policy options; being involved in selecting options</td>
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<tr>
<td>Policy implementation</td>
<td>Public-private sector collaboration</td>
<td>Co-creation between governments, citizen and businesses</td>
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<tr>
<td>Policy enforcement</td>
<td>Camera surveillance, use of smart phones, use of sensors</td>
<td>Citizens and businesses monitor using technology</td>
</tr>
<tr>
<td>Policy evaluation</td>
<td>Dashboards, online reports, ex-ante simulations</td>
<td>Citizens can evaluate and propose actions (agenda setting)</td>
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* M. Janssen & N. Helbig. Innovating and changing the policy-cycle: policy-makers be prepared! *Government Information Quarterly* (forthcoming)
Blurring boundaries

- More tasks are moving outside the public sector boundaries
- Call for open government
Blurring boundaries: regaining control

- More tasks are outside but they want to regain control

Public

$\times$

governments

$\times$
Example: Self-organization

- Earthquakes in the north of the Netherlands due to extracting natural gas
- Elected officials and policy-makers initially denied and then ignored the evidence about the impact
- Citizen sentiment turned to disappointment and unhappiness
- Citizen network to measure activity - seismometer and install it on a wall in their house
- Government focused on compensating the costs of damage, however, the ‘real’ concern is the fear of earthquakes and unfair treatment
Example: Self-organization
New capabilities and roles

- **Not** an isolated exercise anymore dominated by experts within the government
- Act within an ecosystem

Policy-makers should
- Facilitate and orchestrate the process
- Ensure quality of policy-making (checking calculations and complex simulations, falsify arguments, validating and verifying models)
- Aggregating and reporting the vast amounts of data

* M. Janssen & N. Helbig. Innovating and changing the policy-cycle: policy-makers be prepared! Government Information Quarterly (forthcoming)
Policy-makers should orchestrate

• Critical capability for government to act in a network consisting of diverse stakeholders
• Governments focus on realizing and warranting certain values
• Orchestrator has the responsibility to ensure consistency among tasks within an engagement process and to oversee whether the various stakeholders work in concert to contribute meaningful engagement
• Expertise is not dominated by government experts but influenced from many different directions outside of government
• Government plays a central role to shape the overall network behavior
What ties the government and public?*

platform-based governance
orchestration
infrastructure

Platforms – who controls?*

- Platforms are focal points where various types of actors engage in a common environment.
- People can create their own applications and can contribute with information about what is happening from multiple devices.

Taking advantage of new opportunities

- ICT influences the heart of policy-making
- Creation of transparency, openness and warranting public value
- Openness and blurring boundaries between public and government
- Citizens and businesses are used as a mean to put pressure on the public sector to improve and innovate. This is in sharp contrast to the hiring of expensive consultants and businesses to improve governments from the inside
- Feedback mechanisms and participation are essential ingredients
- New orchestration capability needs to be developed
- Deep situational knowledge is required
Questions