E government and urban research as applied in Amsterdam

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Abstract

The Dutch government tries to spread ideas about e government as a solution for the improvement of service to the citizen, strengthening of democracy, and reduction of the gap between the citizens as voters and the elected officials.

Municipalities play a central role in the development of e government because they implement policy on a local level, where the citizens live.
Most of the larger Dutch cities (more than 50,000 inhabitants) do have a Website on this moment.
Recent research learns that 94% of the Dutch municipalities are working on customer-driven government, where the needs of the customer are taken seriously. In the concept of customer-driven government ICT plays an important role.
The “One-window” for the citizen as a customer is the objective for most municipalities in these days. The changes in the frontoffice causes also fundamental changes in the backoffice of governmental organizations. This is a long term process, also for the city of Amsterdam.

ICT is for the city of Amsterdam an important tool for urban development. In the last 10 years the ICT sector is one of the fastest growing sectors in the Amsterdam business world.
For the citizen of the city ICT is of growing importance. Not only because the growing employment in this sector, but also since more and more citizens use internet at work and at home.

O+S, as the municipal Bureau for Research and Statistics supports these new developments through the introduction of new themes and new tools for urban research.
To support the municipality in improving the service to the local citizens O+S developed a general service-monitor. This monitor can be used by all the departments of the municipality. The monitor makes comparison in time possible, and it also allows benchmarking between departments.

A new tool which is used to investigate the opinion of citizens on a variety of issues is the online interviewing. It is a splendid ICT-addition to the well known interview techniques (at the door, by mail, through telephone).
Of course, the Website of O+S (www.onstat.amsterdam.nl) with all statistics and with the research results on the city also contributes also to an optimal information from the city to its citizens.
E government and urban research as applied in Amsterdam

1. INTRODUCTION

In this paper the influence of ICT upon urban research, as applied by the Amsterdam Bureau for Research and Statistics, O+S, is the central theme. Urban research for the city of Amsterdam supports the policy of the city. For that reason I first want to focus on e government and the way it is developed in the Netherlands.

Will e government be a solution for improvement of service, for strengthening of democracy and for reduction of the gap between voters and administration; that is the question.

I will inform you on the way the city of Amsterdam has taken the new challenge of making e government work.

In this new challenge the Amsterdam Bureau for Research and Statistics, O+S, plays a role to support the city of Amsterdam in the implementation of the new tasks combined with e government.

2. E GOVERNMENT IN THE NETHERLANDS

Will e government be a solution for improvement of service, strengthening of democracy and reduction of the gap between voters and administration?

Since the nineties the Dutch government promotes the idea of e government as a target of policy. Municipalities play a central role in the development of e government, because they implement policy on a local level, where the citizens live.

During the nineties the government made a shift in attention, from their internal organization to the external ‘customer’. Concepts as “customer-driven” or “citizen-driven” became rather popular.

The emphasis had to be changed from the internal organization to the needs of citizens and companies. Improvement of service got more and more priority.

Another important point of attention was the strengthening of the position of the citizen in the development of policy. With the fast advance of the internet at the end of the nineties, it is predictable that municipalities should also include this medium as an important tool in the implementation of their citizen-driven policy.

In reality e government does not yet exist in most cities. A real e strategy is based on four pillars:
E-government is applied in four fields:
1. Improvement of the service of municipalities to their citizens. Internet is used to optimize the service for citizens and enterprises. The relation between government and customer is a central one.
2. The enlargement of citizen involvement: this issue centers at the involvement of the citizen in the democratic process.
3. Improvement of the efficiency of the organization by means as electronic purchase (e-procurement), electronic files for data exchange between governmental institutions.
4. Stimulating ICT within the municipality by means of:
   - profiling the municipality as an ICT-city, in order to attract more businesses;
   - stimulating access to and use of ICT and internet for the citizens and schools;
   - using ICT as an instrument for knowledge and communication.

To summarize: a full e-strategy for real e-government includes a vision, including related activities in all four fields.

3. E GOVERNMENT IN FIGURES AND PRACTICE

When we look at the actual number of internet sites of Dutch municipalities, we can see a clear growth. While in 1996 only 30 municipalities had their own website, at the end of 2000 this number had grown to 244 (or 50% of the total number of Dutch cities).

In the table below this growth can be see:
Despite a further growth in the beginning of 2001, still less than 50% of the municipalities is online. 81% of the larger cities (more than 50,000 inhabitants) were in February 2000 online. From the municipalities with less than 50,000 inhabitants 27% had their website.

When we look at the functionality of the municipal internetsites, we can conclude that many sites are just a digital city-guide: 73% only gives information. In only 7% of the cases there is a possibility for interaction (to ask a form, to make an appointment, etc.). When we look for transactions, the percentage drops to 2%.

The conclusion is that, in 2001, less than half of the municipalities was online.

From the municipalities with an own website the internetsite offers mainly information, and only in a few cases possibilities for interaction or transaction.

Recent research learns that 94% of the municipalities is working on customer-driven government, where the needs of the customer are central.

One window for the customer, the citizen, is the objective for a lot of municipalities now.

In practice there are a number of obstacles for the growth of e government from a digital shopwindow to an effective distribution channel. Some of the obstacles are:

- The city has no explicit e-vision, does not know which objectives it wants to reach with the use of internet.
- The cohesion with other distribution channels (windows, telephone, fax, mail) is restricted.
- The wishes of the citizens are often unknown, since not investigated.
- The impact of the “digital shopwindow” at the internal organization is underestimated.

In short, for a successful application of e-government in the Netherlands many problems have to be solved.

Let us look at the state of affairs in the city of Amsterdam.
4. E GOVERNMENT IN THE CITY OF AMSTERDAM

To strike the balance of e government in the city of Amsterdam, I will inform you about the state of affairs in the four above mentioned fields of the e strategy.

a. ICT in the city

Amsterdam has succeeded to change its economic basis during the last 20 years from an industrial town to a financial and business center. The ICT-sector plays an important role in this development. Employment in this sector rose from 7% of total employment in 1995 to over 10% in 2001. The ICT sector was responsible for 20% of total employment growth the last year.

In the figure below the growth of the different sub sectors of the ICT sector is shown.

![Figure 3: Growth of ICT sector by sub sector](image.png)

An interesting point is the location of the ICT-business. All the ICT-subsectors have their own specific location demands. In the figure employment in the content-sector is shown.
As one can see the content business, mostly small and medium sized enterprises, are concentrated in and around the inner city. The employment in the software business (which is not shown on the map), is concentrated in businessparks along the major highways. In the northwestern (Sloterdijk) and the southeastern (Zuidoost) part of the city we find large concentrations of employment in the telecommunication sector. These parts of the city are close to the major internet exchanges. More than three quarters of the employment in this sector is found in the larger companies (more than 100 people employed).

At this moment 10.2% of the employment in Amsterdam is covered by ICT-businesses. Amsterdam is the most important ICT city in the Netherlands. The University of Amsterdam estimates that one out of five ICT jobs in the Netherlands is found in Amsterdam region.

Another important ICT development is the growth of the number of citizens, which use internet at home or at work.
In 2001 67% of the interviewed persons had access to internet, against 46% in 2000, an advance of 20%.
The following figure shows the access to internet according to ethnicity, age and education.
**Figure 5: access to internet by ethnicity, age and educational level in Amsterdam**
*(in percentages of people who have access to internet)*

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>49</td>
<td>69</td>
</tr>
<tr>
<td>Surinam</td>
<td>42</td>
<td>60</td>
</tr>
<tr>
<td>Antillian</td>
<td>54</td>
<td>47</td>
</tr>
<tr>
<td>Turkish</td>
<td>22</td>
<td>50</td>
</tr>
<tr>
<td>Maroccan</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td><strong>age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-24 years</td>
<td>66</td>
<td>82</td>
</tr>
<tr>
<td>25-34 years</td>
<td>60</td>
<td>84</td>
</tr>
<tr>
<td>35-44 years</td>
<td>54</td>
<td>70</td>
</tr>
<tr>
<td>45-54 years</td>
<td>46</td>
<td>75</td>
</tr>
<tr>
<td>55-64 years</td>
<td>30</td>
<td>47</td>
</tr>
<tr>
<td>65 and up</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td><strong>educational level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unskilled</td>
<td>17</td>
<td>36</td>
</tr>
<tr>
<td>lower level</td>
<td>28</td>
<td>39</td>
</tr>
<tr>
<td>medium level</td>
<td>58</td>
<td>73</td>
</tr>
<tr>
<td>high level</td>
<td>74</td>
<td>86</td>
</tr>
<tr>
<td><strong>all</strong></td>
<td><strong>46</strong></td>
<td><strong>67</strong></td>
</tr>
</tbody>
</table>

As the table shows the profile of the internet-user in Amsterdam is a highly educated person from Dutch or Surinam origin in the age of 25 – 35 years.

O+S follows the above mentioned ICT developments by a yearly employment monitor and a half yearly internet monitor. In this way the city-council can adapt their policy to these new developments.

In Amsterdam ICT can be seen as an important factor in urban development. Moreover the city has decided to start the “Knowledge Quarter” project CYBURG, a project in which in the quarter Zeeburg ICT as a tool for knowledge and communication widely will be introduced. Research will be done by O+S after the effects and social consequences of this ICT-impulse.

b. Citizen involvement:
Interactive policy through internet is just a new development. A new experiment has started in one of the district of Amsterdam in September 2001, by which inhabitants can participate in the digital debate (Stadi Online).
Officially acknowledged voters can discuss with each other on internet, and can vote about plans for the future of their neighbourhood. Topics as safety and re-arrangement of the neighbourhood are discussed. After each discussion is closed, people vote digital through their electronic identification. Each outcome of this voting-system is taken seriously by the board of the district as an advice.
c. Improvement of efficiency of the organization:

There are experiments with electronic files and archives and e-procurement. Of course the use of email is widely spread and makes the interaction between the 50 departments of the municipality much more efficient.

d. Customer-driven services:

In 2001 the city declared “service to the citizen” as a priority, and started the project “Customer-driven services”.
The project promotes one and the same approach for the 50 departments to integrate the different distribution channels for municipal services (telephone, letter/fax, email, window and website).
The huge budget for this project illustrates that Amsterdam really gives this project priority. O+S is asked to develop a service monitor, which can be used by all departments (see below).
At this moment electronic services differ from district to district in Amsterdam. Some districts have a digital window to ask for personal documents, certificates of birth and marriage, and allowances.
There is a digital window for municipal taxes, dog taxes, and tourist taxes. In the field of housing, there is a lot of information about new construction projects, building locations for enterprises and division of rented houses per district. You also can find the exact location of parking lots and garages on internet.
And one can also find genealogic information in the internet archives of the city of Amsterdam.

At one point the city of Amsterdam was one of the forerunners in the Netherlands: the website www.amsterdam.nl.
This highly elaborated website—which got different rewards during the last 10 years- is daily visited by a large number of persons. The site contains a lot of actual information, from minutes of the city council to information about road ups.
Citizens can subscribe themselves on Amsterdam mail; they choose themselves which kind of information they want to receive online, by composing a personal profile of their info-needs. Through email they receive the relevant information on the topics they have chosen.
It is also possible to contact the mayor and the higher management of the city by email.

5. ICT AND URBAN RESEARCH AS APPLIED BY O+S IN AMSTERDAM

For the city of Amsterdam it is important that e government will be developed further in the future.
O+S supports this development in different ways:
   a. monitoring employment in ICT
   b. monitoring internet use of citizens
   c. opinion research among citizens through online interviewing
   d. development of a service monitor
   e. development of a digital citymonitor
   f. a website with actual and relevant information about the Amsterdam region.
a. As mentioned above, O+S follows through its own research the ICT-developments in the city of Amsterdam. The yearly employment monitor shows also the development of the ICT-sector in Amsterdam.

In co-operation with Urban Facts in Helsinki a joint definition of the ICT sector is developed, in order to distinguish this new sector. In traditional registers of the Chamber of Commerce there does not exist a special category for ICT enterprises.

b. Two times a year O+S measures the number of internet users in the city. During the last years the use of internet in the city has grown substantially, as was shown in figure 3 above, 67% of the population.

c. Since years O+S has an own interview unit which conducts yearly ± 90 surveys among the inhabitants of city.

The interview methods are different:
- 50% of the interviews is done by phone;
- 5% of the interviews is done on a face-to-face base;
- 10% is done by a written questionnaire;
- and 35% of the interviews is done by a combination of phone, questionnaire and face-to-face interview.

This last variant becomes more and more important, since a lot of people, especially migrants and youngsters in Amsterdam do not have an old fashioned telephone connection, and can not be found in the phone-guide. Often they have a mobile phone, but it is difficult to trace their numbers.

During the last year O+S developed a method for online interviewing. The advantages of this new ICT method are:
- it can be done rather fast;
- after the initial costs it is cheaper than the traditional methods;
- persons can reply on the moment they choose.

The disadvantage of this method is the question of representativeness. Not all inhabitants of Amsterdam do have an internet connection; men and higher educated persons are over represented in these surveys. We try to solve this problem by creating a representative panel. This takes a lot of time, money and energy. Surveys among employees of our municipality are done by this new online method; they all have email numbers at their office, which are known.

d. To support the municipality in improving the service to the local citizens O+S developed a general service monitor. This monitor can be used by all departments of the municipality; it makes comparison in time possible and also benchmarking between different departments. The service monitor measures the satisfaction of the customer and intends to give an image of the quality of the service to inhabitants and entrepreneurs about counter contacts, telephone and email contacts.

In figure 6 is shown which parts are investigated in the monitor.
The judgment of the customer about the different ways of services are asked in a report mark. It is clear in the model that improvement of services, higher report marks of customers, mostly asks changes in the internal processes of the organization. This year O+S starts with the service monitor within six city departments as a pilot project.

e. A special use of ICT in urban research is the digital city monitor, where information about population, ethnicity, unemployment, education etc. can be shown in a GIS application, built in cooperation with the University of Amsterdam.

figure 6: aspects of judgment about service

figure 7: concentrations age group 25-54 (black) and 55+ (grey), 2000 in Amsterdam
f. Finally, since four years O+S has an elaborated and advanced website with new research results, statistics and comparative data of the four large cities in the Netherlands. By means of the website O+S offers citizens, businesses and institutions actual and relevant information about the Amsterdam region.

In what precedes I have shown that O+S makes information more accessible for citizens thanks to ICT. Moreover O+S facilitates the municipality in developing e-government. E-government can be an important instrument for strengthening democracy on a local level now and in the future.