International conference: “CONT_ACT RIGA 2013: E-Government CONTENT and ACTions – Effective Public Services”
21-23 November 2013, Riga, Latvia

**ICT-enabled public services and service innovation: trends and prospects**

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Context: crisis-ridden Europe

The current state of public administration and public services in a crisis-ridden Europe

- Dramatically increasing poverty, unemployment, worsening working conditions and strained social services

- Many other ‘wicked’ problems, like ageing society, climate change, resource scarcity, energy crunch, and governance deficits at all levels

- How can we continue to keep ‘social need’ and the European social model centre stage in order to find the best response despite these distractions?
Context: the three ages of government

1) Kafka’esque
- Arbitrary
- Random
- Disconnected
- Fragmented
- Coercive

2) Bureaucratic
- Rules-based
- Administrative
- Professional
- Top-down
- Gov-centric
- One-size-fits-all

3) Open, participative, caring and smart
- Open & transparent
- Collaborative
- Responsive & participatory
- Accountable and trust-worthy
- Outcome-based
- Both innovative & stable
- Both bottom-up & top-down
- User-centric & user-driven
- Both evidence- & values-based
- CARING: GETTING PERSONAL
- SMART: INNOVATIVE & INTELLIGENT
- All is enabled / driven by ICT
Caring government: Getting personal
UK “best in class” one-stop-shop, sophisticated navigation portal

Cost c. £60 million p.a., 2007 – 2012: www.direct.gov.uk
But not everybody thinks so……

Challenged by a small group of hackers (from 2009)

Directionlessgov.com is the result of a small effort by members of the Democracy.org.uk Collective.

We got so fed up with the general uselessness of the multi-million pound shambles otherwise known as the Direct.gov.uk portal, that we decided to build something better in under an hour. Sadly, we ran catastrophically behind schedule, but we still finished before lunch.

For free. Think of it as a gift. When it comes to searching for relevant UK Government resources, we think it beats Direct.gov.uk hands down. Don't believe us? Just compare the two.

http://www.directionlessgov.com
“Only a small minority of Directgov users come in through the home page (12%)....

.....the majority of visitors arrive from search (52%) or via an external link (43%) straight to one of the big transactions such as car tax, student loans or job search” (2010)

The government accepts the challenge ....the alpha version
but the hackers remain sceptical...

An early prototype of the official website to replace DirectionlessGov.com went live on May 10th, 2011.

Hopefully Government won't screw it up.

Enter a search term and optional postcode

Search

e.g. Recycling Manchester or Health SW2 1RW

3 random searches
- brown (direct.gov.uk)
- cavity wall insulation (direct.gov.uk)
- scotland travel (direct.gov.uk)

http://www.directionlessgov.com
So, the government employs some of the hackers….the beta version

Launched January 2012: http://www.gov.uk
Today, after full launch and winning the UK’s top design award originally set up for industrial product and service design (summer 2013)
Changes in user behaviour

From “pull” to “push”

• many stops
  ↓
• no wrong door
  ↓
• one stop – portal: WHERE MOST ARE TODAY
  ↓
• personalised push services in and from the cloud: e.g. UK’s Service Design Principles for 2014:
  — delivered direct to individual user
  — who ever, where ever, whenever they are
  — use of ”design-thinking” holistic principles where the ”government does the hard work to make it simple for users”:
    — matching personal needs
    — with service journeys
UK: "push" model

**For example: personal service profiles (UK)**

**Personal “push” dashboard: UK beta version mock-up**

Public Services (beta) – helping you, your family, your community

<table>
<thead>
<tr>
<th>Main menu</th>
<th>Welcome Bob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your favourite pages</td>
<td><strong>Happy Birthday Bob</strong></td>
</tr>
<tr>
<td>About Public Services</td>
<td></td>
</tr>
<tr>
<td>Contact Your MP, Councillor etc</td>
<td></td>
</tr>
<tr>
<td>Leave good or bad feedback on public services</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>My family</th>
<th>My community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johnny has a new school report</td>
<td>Dogs in Moseley Park – should they be on a lead? Is dog poo a problem? click to have your say</td>
</tr>
<tr>
<td>Sinead’s needs a regular vaccination (book)</td>
<td>Your recycling collection day changed to Thursday</td>
</tr>
<tr>
<td>Breakfast club next week – sign up here</td>
<td>Register to vote</td>
</tr>
<tr>
<td>Choose a school – click here for your preferences</td>
<td>New planning application on</td>
</tr>
<tr>
<td>My impact on environment</td>
<td>Quick Links</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Your car is due for a service</td>
<td>Most popular today</td>
</tr>
<tr>
<td>Bob click here for an easier, greener commute we have found for you</td>
<td>Directgov</td>
</tr>
<tr>
<td>Amazing thermal image of your house Bob – see how much heat gets out!</td>
<td>Weather – met office</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quick Links</th>
<th>My money</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most popular today</td>
<td><strong>DWP owes you £397 ! – click here to collect</strong></td>
</tr>
<tr>
<td>Directgov</td>
<td>Parking ticket outstanding</td>
</tr>
<tr>
<td>Weather – met office</td>
<td>Sorry there were problems with your electronic tax return - £5 rebate</td>
</tr>
<tr>
<td>War Graves Commission</td>
<td></td>
</tr>
<tr>
<td>Travel advice</td>
<td>My money</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>My Doctor</th>
<th>My money</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hey Bob, how’s the diet going? – you promised to be down to 100kg by Easter……</td>
<td><strong>DWP owes you £397 ! – click here to collect</strong></td>
</tr>
<tr>
<td>Please click to make an appointment for a diabetes check</td>
<td>Parking ticket outstanding</td>
</tr>
<tr>
<td>Cheating low fat pie recipe from Delia</td>
<td>Sorry there were problems with your electronic tax return - £5 rebate</td>
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Want to help improve local schools? School governors needed in Moseley

Why worry about crime? Click here to talk live to a local police officer
For example: personal proactive services (Taiwan)

From “pull” to “push”: “e-housekeeper” select from list of 203 services

Source: Dennis Linders + Ken Wang | Oct 24 @ ICEGOV 2013
From “pull” to “push” and back again to “pull”

For some services, for some people in some situations, “pull” is still best:

- Users are ‘expert’ in their own problems as only they possess the fine grained knowledge which professionals can easily miss.

Now in pilot testing:

- Exploits public service components in the cloud: e.g. simple drag-and drop.
- Users compose services from components provided by many actors as well as governments using automatic web-service discovery (e.g. electronic agents).
- Users can manage own interaction with the public sector through personal online dashboards (e.g. ‘MyPage’).
- Need secure authentication, ‘single-sign-on’ & ‘once-only’ using interoperable and mutually recognised authentication schemes.
Everyday, location-driven service personalisation

‘Everyday’ and location-based services (both “pull” and “push”)

- Based largely on mobile smart phones using GPS, although web-based services are also relevant.
- Offered or created depending on where users are, as well as who they are and what they are doing.
- Are also data-driven but largely in a local context where users are given a lot more choice & control.

E.g. local services related to health, education, care, transport, infrastructures, utilities, parking, accidents, clean and safe environments, congestion and pollution watch, culture, amenities, leisure, sports, security, crime watch, weather, participation, engagement, conflict resolution, etc.

Is much easier for users themselves or their intermediaries to participate in constructing and designing their own services at local level where knowledge and resources are often more relevant, closer to hand and more amenable.
Location-driven service personalisation in Taiwan

“Just in time” and “last mile” public services; also “delivered to your door” (e.g. by the postman!)

Carry government in your pocket; alerts you when it can be of service

Source: Dennis Linders + Ken Wang | CEGOV 2013
Joe Pine (1995)

Mass customisation: “fundamentally customers don’t want choice ….. – they just want exactly what they want”

Both ”pull” and ”push”

- Government as a personal assistant (and intelligent agent)
- Switching between ”pushing” services it ”knows” individuals want or need
- …and ”empowering users to ”pull” what they ”want”
Smart government: innovative and intelligent
Using data analytics for decision simulation and policy modelling

- Huge unexploited data reservoirs (‘BIG DATA’)
- Distributed data, seamless ‘cloud computing’
- Data mining, pattern recognition, visualisation, gaming
- Information, consultation, polling, voting, etc.
- Greater precision on policy choices and trade-offs
Public policy evaluation and experimentation for innovative government (1)

• Social policy experimentation **tests innovative solutions** at small scale with a view to disseminating them widely

• Collects evidence about their **real impact** and aims to bring innovative answers to social needs

• Are **small-scale probing interventions** to test impact, made in conditions where their impact can be measured

• Typically uses **randomised control groups** to evaluate the specific value added of the measures and considers what would have been the situation if the measure had not been implemented?
A powerful tool: Randomised Controlled Trials

- Randomised controlled trials (RCTs) are the best way of determining which policy option works best (and which don’t work!)
- Are used extensively in international development, medicine, and business to identify which policy, drug or sales method is most effective.
Ed Lee’s Office of Civic Innovation “walks in the steps of the worlds’ hottest startups by going lean”.

In January 2012, Mayor of San Francisco Edwin Lee appointed the city’s – and the world’s - first Chief Innovation Officer, to foster a culture of innovation across City Hall, and build stronger relationships with the local tech industry.” “I am a firm believer that the spirit of innovation drives economic growth, solves our toughest civic challenges, and creates a better San Francisco for all of our residents.”
Public sector innovation

Open Government and the ‘open governance framework’ are predicated on the recognition that:

• government does not have a monopoly on wisdom or assets
• .....government can produce a lot of ‘public value’ on its own
• .....but can do more in partnership with others and even facilitate others to do it on their own
• Government can become much more efficient and effective if it shares assets, resources and data internally and, even more, if it also does this EXTERNALLY
• ..... the potential for innovation increases dramatically

Source, J. Millard, 2013, partially based on David Tallon’s blog
**Supporting innovation across society:**

- .....a strategy which places the government as a platform for others to build upon
- .....an open environment and ecosystem which sees everyone, every community and every organisation potentially as a resource with assets to create public value
- .....unused assets equals **WASTE**

**For example, converting ‘waste’ into ‘resources’ through sharing**

- .....strong focus on identifying and deploying unused assets in communities and in society as a whole.
- .....these can include finance, people’s time and expertise, data, things, places, buildings, spaces, etc., where the goal is to use the matching, orchestrating and coordinating power of ICT to turn what would otherwise go to waste into public value resources.
Three pillars of government as a platform

1. **Provide tools for collaboration and co-creation:**
   - Mitigate the ‘burden’ on users to (co) create
   - Need guidelines, incentives, supports, advice, networks

2. **Manage assets:**
   Identify legitimate and available assets across society, and help to orchestrate and deploy them (often in collaboration with asset owners) to create public value

3. **Ensure sustainability and balanced public value**
   - ‘Good governance’: government should not become an actor like any other as it still needs to fulfill roles which others cannot, including taking responsibility for overall regulation, quality, accountability for services and performance, responsibility if things go wrong, and for data protection and security – government is the only actor with democratic accountability across whole of society.
   - Thus, the general sustainability, continuity and stability of the public governance system is important.
The changing role of government

In building open collaborative platforms

• Government’s role changes to one of orchestrator, coordinator, integrator, enabler, facilitator, arbiter, broker and regulator for the activities of others in delivering public value.

• Government as a platform facilitates public value creation in the most efficient and effective way possible by supporting an ecosystem of actors with changing roles and relationships. This would supplement the challenge of government having to do ‘more for less’ to being able to orchestrate doing ‘more with more’ as it pools and leverages the assets of others together with its own to solve the ‘wicked’ problems.

“Stop! Wait! Government’s no longer the problem, it’s the solution!”
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Paldies!!
SOME OTHER EXAMPLES

.....but only if time
Love Clean Streets cleans up!

Lewisham Council has won a prestigious Government Business Award for its Love Lewisham / Love Clean Streets project.

Lewisham Council’s website Love Lewisham, which has been running now for five years, and the recently launched London-wide Love Clean Streets, both help people to share information about their area to improve the environment.

The ‘environmental innovation award’ was handed out at a ceremony held at the Emirates stadium, home of Arsenal FC, last week.

Collecting the award Councillor Susan Wise, Cabinet Member for Customer Services, said: "This really is a fantastic accolade, a just reward for all the hard work that’s been invested in setting up the project.

"Encouraging local people to get involved and to report the problems they see not only helps improve the areas in which they live by reducing the amount of nuisance crime but at the same time helps build public support for the work done by councils generally. Using state of the art technology in this way is a cost effective way of helping to create cleaner, greener places."

Useful websites
- Love Lewisham
- Love Clean Streets
Crowdsourcing (2)

Love clean streets (UK): 2
Crowdsourcing (3)

Love clean streets (UK): 3

Total cost 2010-2012: £176,362

Benefits recorded late 2011:

- 87% reduction in staff time per case
- Staff overtime from £300k pa to zero
- 70% reduction in report handling costs (comparing telephone, website and mobile)
- 21% reduction in environmental case work
- £18k p.a. decrease in inspection costs
- 73% less graffiti
- Graffiti removal from 2.78 to 0.5 days
- Fly-tip removal time from 2.5 to <1.0 days
- Increased trad-waste income of £20,000
- Fourfold decrease in land at unacceptable standard
- 30% increase resident satisfaction

Purpose: Improve environmental quality through a social-networking hub, save money and improve citizen benefits
Map Kabira

Kibera in Nairobi, Kenya, is one of the largest slums in Africa and was a blank spot on the map until November 2009, when young Kiberans created the first free and open digital map of their own community using simple GPS devices and uploading data to OSM.

Three stages:

1. Basic data about the location of clinics, toilets, health, security, education, and water/sanitation, places of worship, etc.
2. A “storytelling” layer, capturing personal accounts, stories, and news of Kibera residents
3. Voice of Kibera website: an online news and information-sharing platform for the Kibera community.
Southwark Circle, UK: the neighbourly way to sort the everyday

- LA funded a social enterprise team to spend time with 250 elderly in their homes and networks (ethnographic research) to involve in own service design (‘DESIGN-THINKING’)

- Focus on elderly people (but little distinction in practice)

- Networks of users, helpers/carers, volunteers, entrepreneurs and the LA, to solve any problem

- Elderly no longer seen as a burden or group to do something to – but rather as a resource for their self/mutual help
Orchestrating unused assets (2)
Southwark Circle, UK: the neighbourly way to sort the everyday (2)

- £2.4m LA savings being achieved over 5 years: a threefold return on investment

- People are core, but enabled by ICT, e.g.:
  - website for information and matching needs with solutions/volunteers
  - club and other events
  - earning/buying and spending tokens
  - access to other services
  - mobile/SMS alerts, ICT training, etc.
  - coordination and data exchange between LA, NGO and volunteers
Mextal BV (Netherlands)

- Commercial company with €7m turnover pa, 25 employees
- Partnership with LAs, community groups, other companies and dealers (like Philips, Samsung, Ericsson)

Viedome Total Community Platform for older persons

Using ICT to embed services and activities in everyday life and community

Toolbox for personalising home care by user choice of technology and services across 8 pillars of support:
care, comfort, security, information, advice, communication, entertainment, commerce