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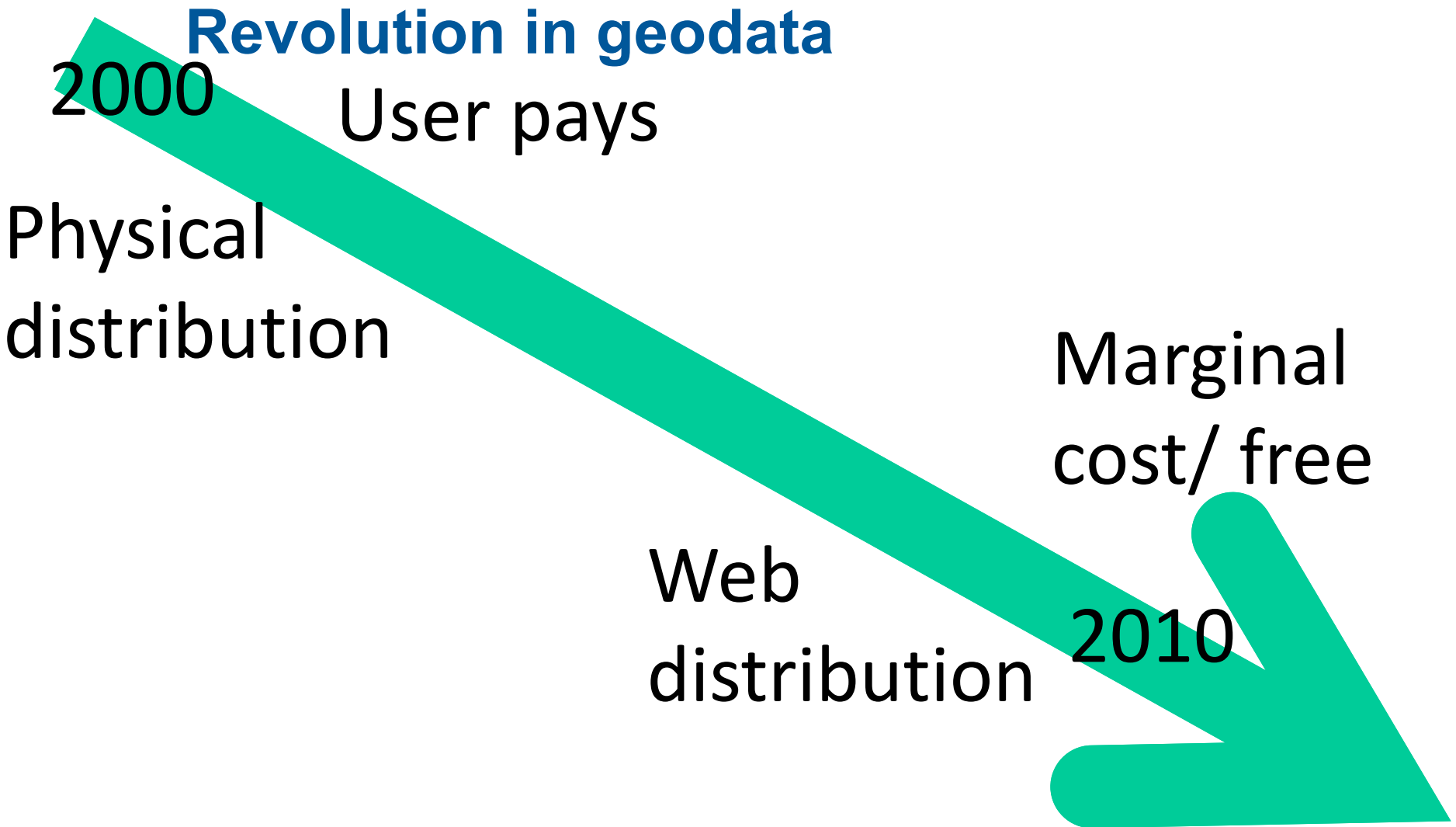


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Open Data: Policy, Platforms and Practice

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UK

Der Anlass wird unterstützt durch die Swisstopo
Veranstaltungspartner ist die Standortförderung des Kantons Zürich



How should government data policy adapt?

- Digitisation of content: new data distribution expectations
- Web application frameworks: APIs everywhere
- Smartphone revolution: digital consumption demands
- Apps and online stores: new channels for distribution
- Social media: rapid recommendation, viral campaigns

Problems of closed-ness

Futuresonic Urban Festival of Art, Music & Ideas Manchester UK

Climate Bubbles: Manchester

Environment 2.0
Participation Projects

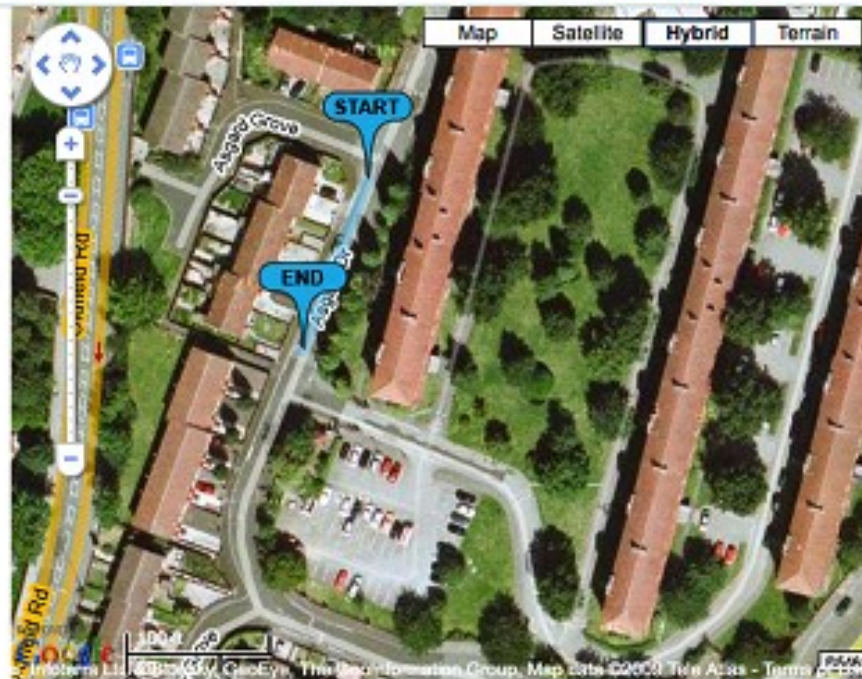
GO BACK

Step 2: End Point

Move the **END** marker on the map to show where you ended your Bubble Chase. Use the zoom controls to zoom in and position the marker as accurately as possible.

Once the marker is positioned, click the below button to continue to the next step.

GO TO STEP 3



Even with a simple application like this, created for the Met Office and Lancaster University, I cannot use the OpenSpace API. If I were to use OpenSpace, then Ordnance Survey claims derived data copyright over whatever data the public contributes. Now I cannot share this data, or use this data myself if I or the third party are not paying Ordnance Survey license fees. So much for the goals of "promoting innovation for economic benefit and social engagement" or "supporting the sharing of information across the whole of the public sector".

...government for the people...

- Government's public tasks
 - ▶ Keep order (police, defence...)
 - ▶ Act when market not best option (transport, health...)
 - ▶ Be the broker when no-one else can be (land register...)
- Leave the rest to the market, and regulate
- Raise tax to pay for the public tasks

Charging for government services

- Charge where there are usage costs for each user
 - ▶ Sports centre
 - ▶ Bus ticket
 - ▶ Medicine prescription
- Do not charge where marginal costs are low or zero
 - ▶ Museum
 - ▶ Policing
 - ▶ Parks
- Develop this latter principle for digital services?

Charging for government data

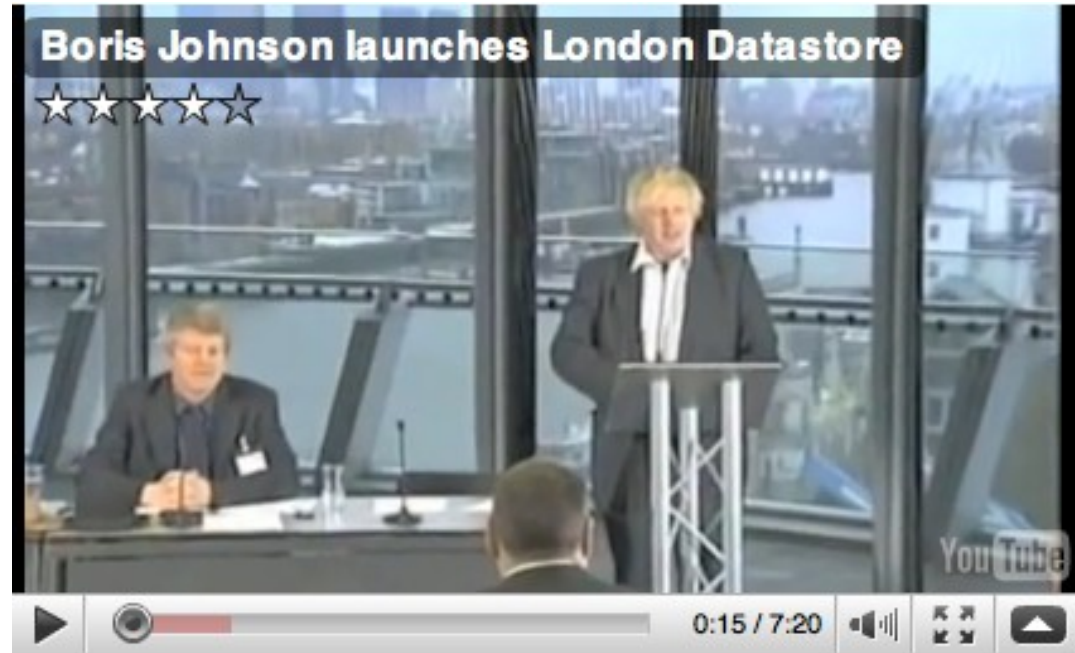
- Data has unusual economic properties
 - ▶ Fixed costs to produce, low or zero costs to distribute
- If government data is created as part of a public task then charging for a 2nd time is a tax
 - ▶ Charge the costs to the government 1st purchaser
 - ▶ Release all data from public task as open data
- Some government data is produced as digital infrastructure
 - ▶ Costs have to be distributed over many public tasks
 - ▶ Release the data from these public tasks as open data

How to release public task open data

- Static data can be distributed through datastores
- Dynamic data has use-dependent distribution cost
 - ▶ Extra public funding for new infrastructure needed, or
 - ▶ Sponsorship, or
 - ▶ Crowd serving distribution tree
- Licensing through Open Government or CC Licence
- Transitional arrangements for existing funding?
 - ▶ Release raw data, not processed data, to reduce costs
 - ▶ Eliminate business development within government
 - ▶ Regulate costs in state data monopolies

Implementing the vision

- Political support
- Release channel
- Change agent
- Inspirational uses
- Engagement plan
- Business models
- These issues raise questions of government culture



Open government reality



Web
2.0

Gov
1.1


London DataStore

GREATERLONDONAUTHORITY

london.gov.uk

london datastore

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 RSS feeds

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Datasets A-Z

Categories

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Inspirational Uses


Useful Links

Digital Advisory Board

TfL Live Traffic Cameras

[Home](#) > TfL Live Traffic Cameras

FEBRUARY 2010 | [Transport](#)

Average: 

Average: 4 (28 votes)

The live traffic camera feed provides images from 177 cameras at key sites across the Capital, showing what's happening on London's streets.

All images are TfL branded, have a location description, and date and time-stamp. They are refreshed at least every three minutes.

Individual feeds may be interrupted if there is a system fault or if a camera is being serviced.

Images are not captured when a camera is in use for managing traffic, when a camera is being maintained or in the event of a camera or system fault.

Some ideas for re-use include:

- Freight or delivery services could use the live feed to follow traffic traffic conditions and plan routes accordingly
- Radio stations could add a live camera feed to a traffic news page
- Organisations with staff intranets could add the traffic camera feed so people can plan their journeys home

Open data- what do we mean?

- Released with an open licence
- Updated at intervals, not single data dumps
- Free of explicit and implicit costs
- Based on publicly available specifications
- No proprietary dependencies
- Scalable distribution, not first come, first served
- Release is in the public interest (note: not necessarily in the data producer's interest)

What data should be opened?

- Any dataset with
 - ▶ a necessary public sector first purchaser
 - ▶ low marginal costs of distribution
 - ▶ no personal data content
 - ▶ no security implication
- Presumption of release... typical objections
 - ▶ What if we are blamed?
 - ▶ What if they use the data wrongly
 - ▶ What happens if our decisions are challenged
 - ▶ What if no one uses it

Plan for open data releases...

- ‘Let not the best be the enemy of the good’
- Start with actionable information: allow access that can make something useful to most people
- Follow on with datasets that drive transparency: build public support for the programme
- Then open the public sector “too difficult” box: let someone else try to develop data
- Medium term: reform the data holding agencies to develop government data distribution platforms

New services built on open data

- Independent performance statistics
- Improved access to pricing of services eg transport
- New visualisations of service opportunities
- Commentary on 'official' versions of events
 - ▶ Re-ordering of journey planner options
 - ▶ Advice when service breaks down
- New service compositions brokered by apps
 - ▶ Driving, tolls, parking
 - ▶ Bus, train, taxi

Critical issues

- Building the government data distribution platform at lowest cost eg <http://data.gov.uk>
- Ensuring the ‘affordability’ of open data releases by reducing costs or identifying sponsorship
- Ensuring that cost-benefit analysis of opening data is assessed over infrastructure timescales
- Disentangle public-private IPR where system integrator have roles in current system
- Stimulate the creation of new businesses around released data eg Technology Strategy Board

Open geodata apps



Public analytics



Social feedback



Report, view, or discuss local problems

(like graffiti, fly tipping, broken paving slabs, or street lighting)

Enter a nearby GB postcode, or street name and area:

Go

How to report a problem

1. Enter a nearby GB postcode, or street name and area:
2. Locate the problem on a map of the area
3. Enter details of the problem
4. We send it to the council on your behalf

FixMyStreet updates

1,179

reports in
past week

1,695

fixed in past
month

91,221

updates on
reports

Photos of recent reports



Recently reported problems

- [Football players leaving their water bottles on the field after use](#)
- [Toilets next to the bus stop is in horrible condition](#)
- [Fast cars](#)
- [Pond is a horrible green colour](#)
- [Loose Manhole cover bangs with every car driving over it](#)

Economic fundamentals for business models

- Open data has no scarcity
 - Everyone can get it: what gives you an advantage?
- Sale properties determined by licensing terms
 - Differences between OGL, CC-BY and public domain
- Distribution dependent on release platform
 - Static= download; dynamic data needs a platform
- Authority of data depends on creator validation
 - We are lacking standards to cover data validity
- Data creator set policies so you need to lobby them
 - Business development in politics...

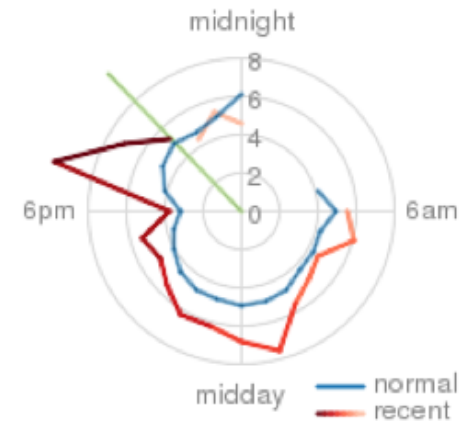
Define the value-add

- Processing skills
 - Data can be complex, high volume: needs expertise
- Packaging skills
 - Providing data 'as-a-service' with SLA
- Integration capabilities
 - Harmonising formats, aggregation
- Support
 - Take over CRM from data creator

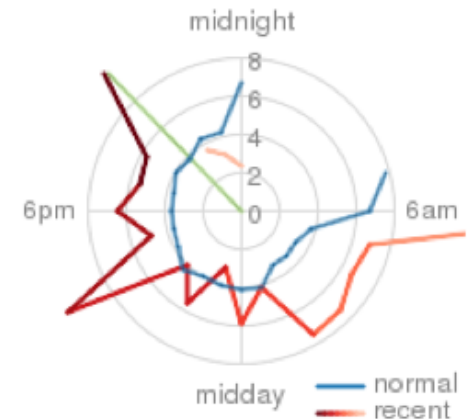
Canary Wharf Departures

Jubilee line

Westbound - Platform 1



Eastbound - Platform 2



Get access to the data

- Data release politics
 - Official and unofficial releases
- Data validation and QA
 - Clean and dirty data
- Data take-on for open data
 - Parsers, importers, database design... without help
- Aggregation challenges
 - Input feed integration, real-time challenges

The screenshot shows a mobile application interface for a bus stop. At the top, there's a navigation bar with icons for Cycle, Rail, HH, Farr, GDN, MetO, and JLSweb. Below the navigation bar, the location is set to Brighton, and it shows buses going Southwest. A link for 'Location map' is provided. The main section is titled 'Next buses from this stop:' and shows the current time as 17:29. It lists three routes: Route 25, Route 37B, and Route 42. Each route has a table of upcoming buses with their expected arrival times and destinations. At the bottom, there are two buttons: 'group by route' and 'by time'.

Location: Brighton
Buses going Southwest ✓

[Location map](#)

Next buses from this stop:

The time now is 17:29

Route: 25

17:06	Expected:17:30	to Palmeira Sq
16:46	Expected:17:31	to Palmeira Sq
17:16	Expected:17:35	to Palmeira Sq

Route: 37B

17:32	Expected:17:43	to Meadowview
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Route: 42

17:47		to Brighton, Old Steine north
18:17		to Brighton, Old Steine north
18:47		to Brighton, Old Steine north

Route: 44

18:39		to Brighton, Churchill Square
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Data from Traveline NextBus

[group by route](#) [by time](#)

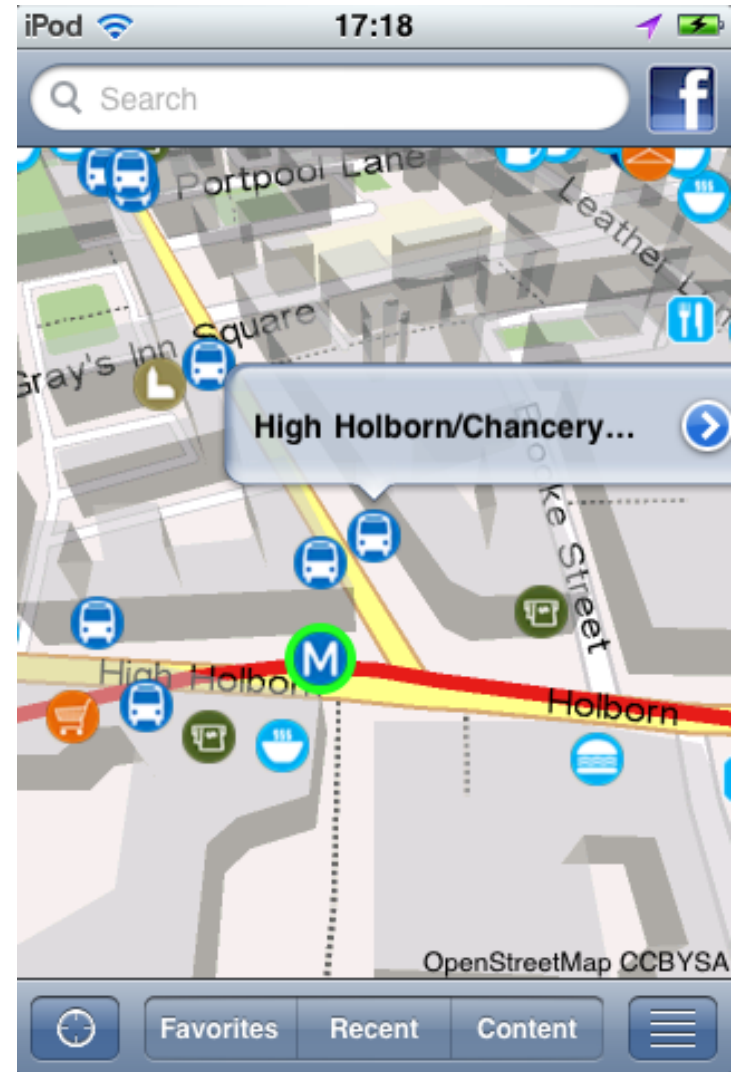
Build the right partnerships

- Partnership needed with
 - ▶ Data creators
 - ▶ Other open data users
 - ▶ Open data community
 - ▶ Open source community
- Partnership leads to market realignments
 - ▶ Competition falls for access, increases for service
 - ▶ New market roles e.g. data aggregation



Develop services

- Datastores
- Web publication
- Developer feeds
- Web apps
- Native apps
- White label solutions
- Consultancy
- Technical authoring



Package and price

- API hit
- Ad revenue
- App sales income
- Custom aggregation
- Software components
- SaaS/DaaS fees
- All of the above!



the know Londoners who want to see how their city is spending money can easily find out

INTELLIGENT CITIES

London: Turning Access into Apps.

Making data more freely available is creating a more manageable metro

MARK HALPER

"SUNDAY'S THE BEST DISINFECTANT." London Mayor Boris Johnson has proclaimed. And to make good on that declaration, he has opened the door to London's data vaults through a website called the London Datastore. Open information, Johnson said, gives rise to "a great army of unpaid scrutineers and investigators" who help keep city politicians aboveboard. But beyond helping watchdogs, the London Datastore has become the source for other websites that have created opportunities for business development and for reducing London's costs, improving its traffic and generally making life in the city more livable.

The Greater London Authority (GLA)—which directs cross-borough functions like transport, safety, economic development and tourism—operates the initiative. It gets London agencies, civil servants and other contributors to plow data into a public repository. Much of the data is not in a user-friendly format, but webizens quickly transform it into graphs, charts, maps and documents that viewers can understand and slice and dice on PCs and other gadgets. An organization called the Open Knowledge Foundation has created a site called WhereDoesMyMoneyGo.org, and another group, Pushrod Ltd., has built OpenlyLocal.com. Both draw from the Datastore and other sources.

One tangible result, according to OpenlyLocal founder Chris Taggart, is that municipal suppliers had to reduce prices after municipal governing bodies revealed data about contracts. "London is at the forefront of open data, and it seems determined to want to stay there and build a good relationship with its citizens," says Taggart, a digital adviser to the GLA. The open-data scene should get even more rigorous this month, after a U.K. mandate forces all local councils—including those that run London's boroughs—to open up.

Malcolm Barclay, a 35-year-old Web developer who used the Datastore to design and sell a popular bus and underground-rail iPhone app called Travel Deluxe, praises London's decision to release data. "Some authorities see developers as free-loading hackers, but not London," he says.



Train spotting A live map of London's Underground tracks subway movement

INTELLIGENT CITIES | GLOBAL BUSINESS

Intelligent Cities
For more, go to nbm.org/intelligentcities

Among groups releasing information to the Datastore is the London branch of the U.K.'s National Health Service. In December it started posting nonprivate information comparing the performance of London's hospitals in an effort to pressure the underachievers. "NHS London wants to become more open and transparent about how it performs. The aim is to drive up quality," says Dr. Andy Mitchell, NHS London's medical director.

A lot of the Datastore information consists of live updates on traffic congestion, tube operations and locations for London's new bicycle-hire scheme—a city-backed program in which commuters can pick up a bike in one location and drop it off at another. Emer Coleman, the GLA's director of digital projects, who is driving the open-data initiative and is credited by many for making it a success, would like to see the initiative expand to include more information about crime, aboveground trains and many other subjects. One challenge has been to get fearful civil servants to release data. "A lot of our work has been persuading people to become less risk-averse," Coleman says.

Jonathan Raper, CEO of the commercial software developer Placir, says government agencies can have other motives for withholding data, like protecting relationships and proprietary partners. Raper, an adviser to London and a visiting professor at London's City University, is battling to get data from the U.K.'s Association of Train Operating Companies (ATOC), the group that coordinates the many private aboveground-train lines that crisscross the country and often begin or end in London. Placir wants to build and sell a related app, but he says ATOC is resisting.

The Datastore initiative has also faced technical challenges. When GLA first opened live underground-train data last June, a wave of access requests crashed the system; the electronic information boards at tube stations blanked out.

Even hobbyists are building useful apps, effectively helping London tap into a free economy. Matthew Somerville, a 30-year-old Web developer who created an online tube map in a weekend last June and got 250,000 hits within a few days, says commercializing "sounds like too much hard work." Likewise, Ben Barker, a 28-year-old electronics engineer and cycling enthusiast, developed a bike map for "just a bit of fun." It's all a way for London to deliver more for less—by handing over data to people who can make things better and cheaper than those the city might deliver. ■

Placr services on open data



placr.mobi

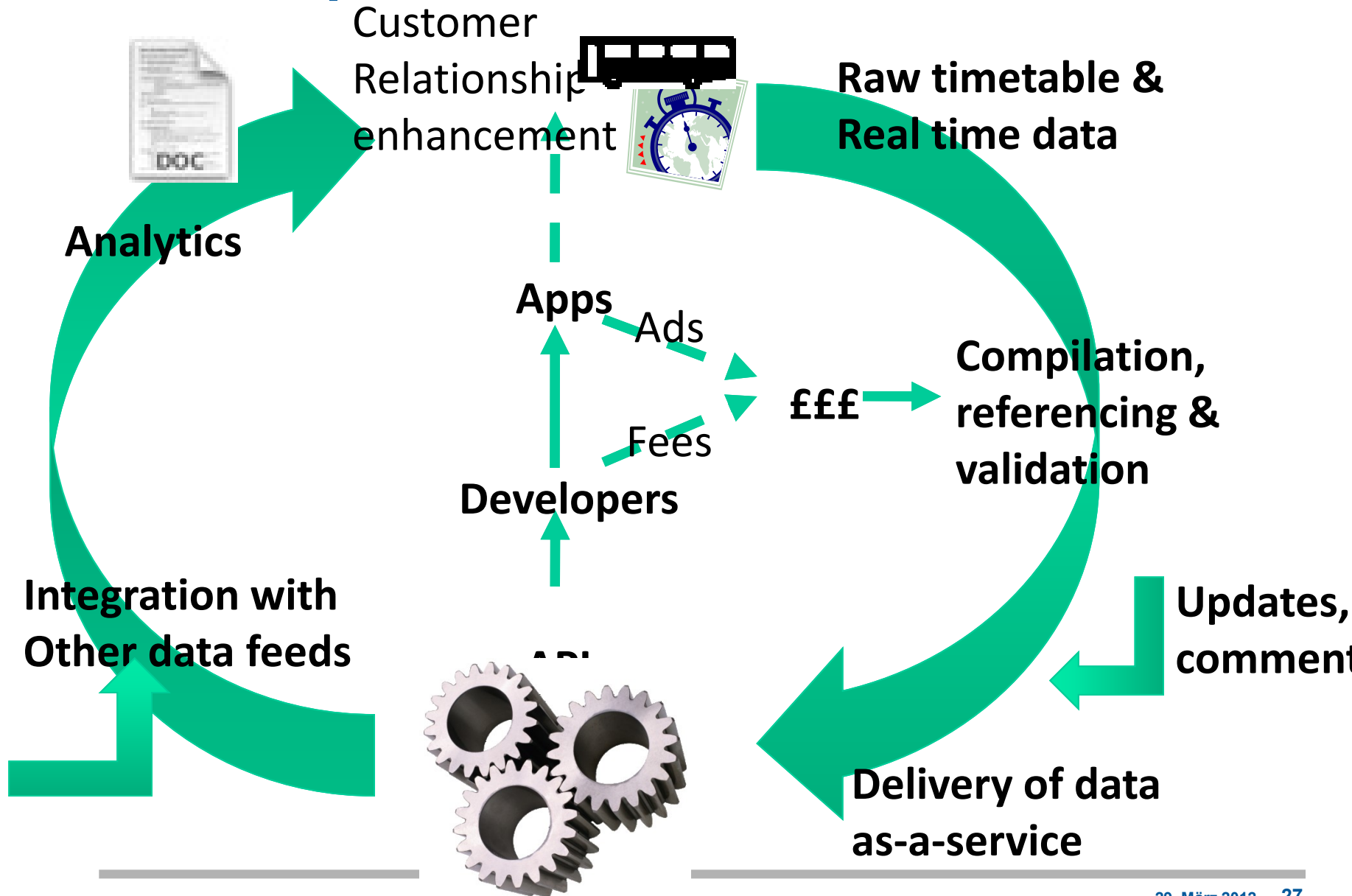
the transport app solution



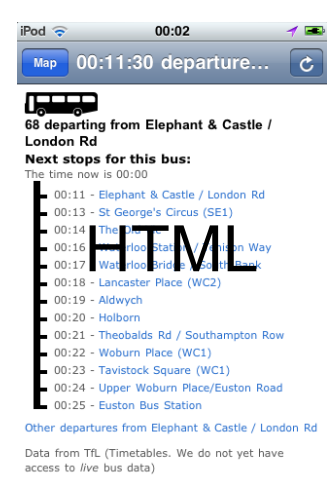
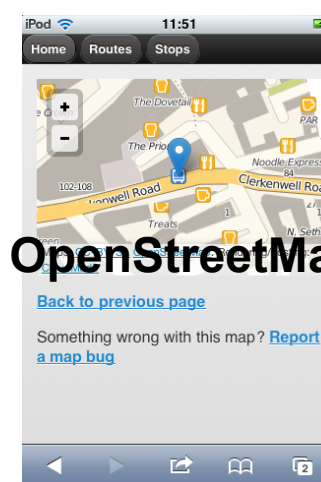
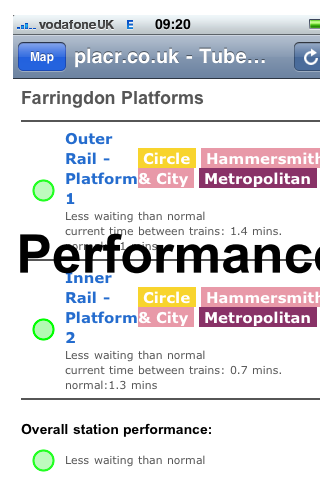
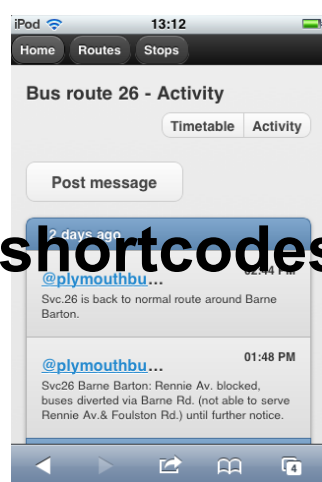
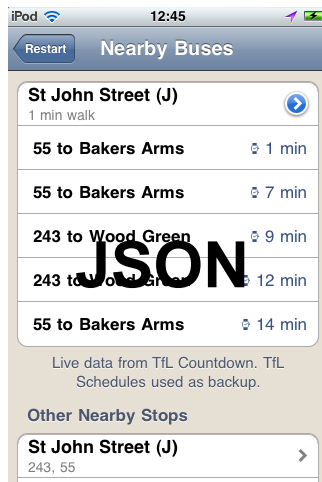
mobile web app for smartphones
clear interactive mapping
point of interest/route overlays
live and timetable transport information
available as customised hosted solution



placr.mobi open data business model



Placr transportapi.com



Open data landscape in UK

- data.gov.uk has >40,000 datasets available
- London DataStore has >500 datasets
- Prime Minister's letter on Open data June 2011
- Treasury Autumn Statement on data releases
- Every Ministry has a Transparency Board
- Budget 2012 Growth review
 - Open data is one of only 6 areas for growth investment
- Government merging all data agencies
 - Public Data Group/ Data Strategy Board

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