

# Reading, Open Data, Smart Cities and the Internet of Things. Why do we have to get out our Silo?

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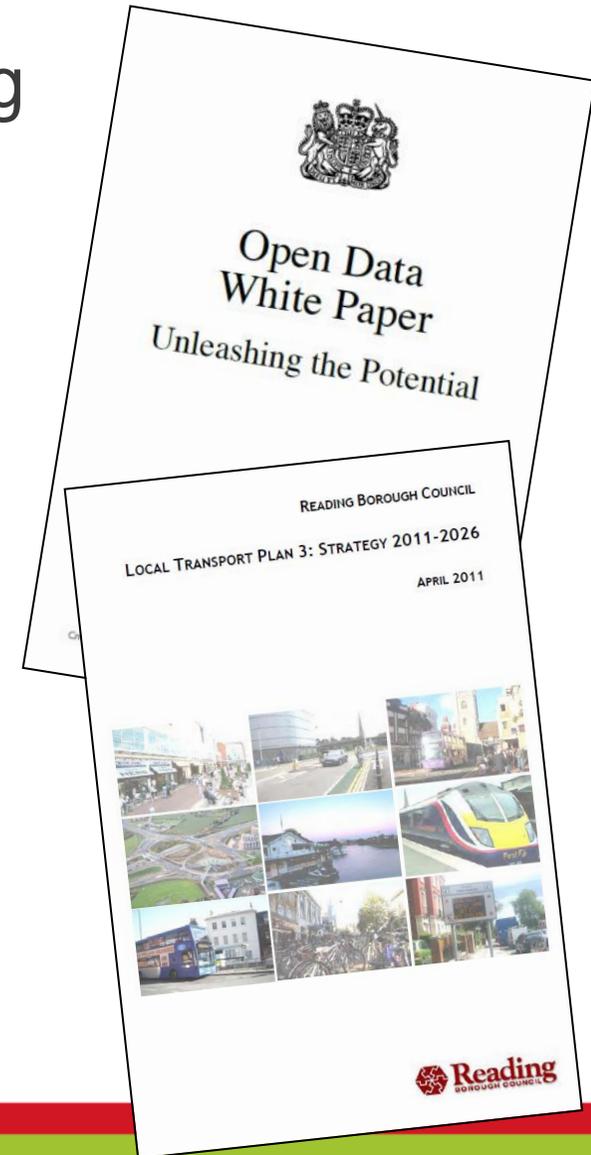






## Brief Description of Open Data in Reading

- *Reading Borough Council has a policy of opening up its transport data*
- *The Open Data feed includes static and live data feeds including:*
  - Bus timetable for all services and real time information for over 90% of bus services operating in Reading
  - Traffic data including network journey times based on a network of over 140 Bluetooth roadside monitors in and around Reading
  - Car Park data including capacity and live occupancy data
  - Notified Roadworks
  - Rail data is freely available from Network Rail's open data service





- Cost £60k to build
- Formally launched earlier this year.
- Cloud hosted service
- Free but users have to register and sign up to the Open Government Licence.
- Monitors status of data feeds to it and flags errors.
- Enables RBC to disable one or more feeds to one or more subscribers if necessary.

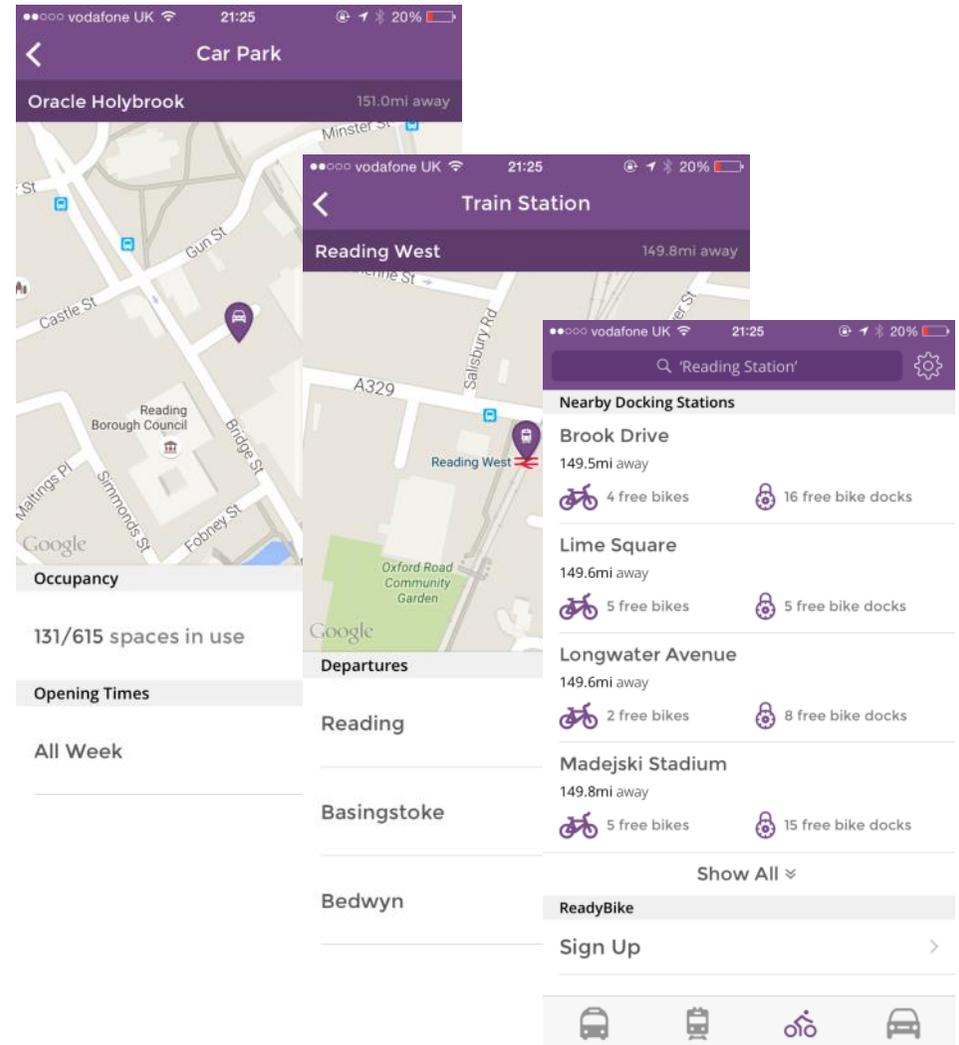
The screenshot shows the homepage of the Reading Borough Council's Real-Time Open Data Information System. The page features a navigation bar with the 'travel Reading live - Open Data' logo and links for 'MY PROFILE', 'REGISTER', 'CONTACT US', and 'LOG IN'. A green status bar indicates 'System Status: Good' and '12 / 12 feeds healthy'. The main heading reads 'Welcome to Reading Borough Council's Real-Time Open Data Information System'. Below this, a paragraph explains the system's purpose: to provide developers with access to data from across the region's transport network, enabling registration for an account and selection of data feeds. Another paragraph states that the council hopes this will inspire the development of high-quality applications that create better informed travellers and stimulate smarter choices. The 'Current Feeds' section is a table with two columns: 'Name' and 'Description'. The table lists several feeds, including 'Bus', 'Bus Stop Centric', 'Bus Services', 'Bus Service Centric', 'Bus Real Time', and 'Bus Calls', each with a brief description of the data it provides.

Name	Description
<b>Bus</b>	
Bus Stop Centric	Returns an XML file containing the ID, NaPTAN code, stop name, latitude, longitude and bus services which serve each stop
Bus Services	Returns an XML file containing the ID, NaPTAN code, stop name, latitude, longitude and bus services which serve each stop
Bus Service Centric	Returns an XML file containing the ID, stop reference and direction of a set of bus stops served by a service
Bus Real Time	Returns an XML file containing a list of services, operators and statuses
Bus Calls	Provides details of expected calls (arrivals/departures) at the requested locations. It



## 3rd Party App Development

- Open data has been available in Reading for the last few years as part of the RTPI system but with no formal interface or publicity.
- TrvIRDG was developed by a student at Reading Uni off the back of this.
- Good app providing access to the real time traffic and travel data and also includes cycle hire (scraped off the cycle hire website).
- But – no strong business case – now a basic free service with £5 for professional service.



# Open Data Challenge

- Run in June this year with ConnectTVT (a business incubator)
- A number of interesting ideas for presenting data but limited business cases presented.
- Winner was a team of 3, Rajneesh, Anuarg & Mohit
- The concept combined travel data with other retail / employment services. ie a wider business case



The screenshot shows a news article from a local news website. The article title is "Reading travel app wins challenge after council opens up live data". It is dated 16:00, 9 JULY 2015 and was updated at 17:44, 9 JULY 2015. The author is Linda Fort. The article text states: "Reading Borough Council announces the winning team who produced a travel app using the borough's live travel data". Below the text are social media sharing options for Facebook (23 Shares), Twitter, Google+, and LinkedIn. There is also a newsletter sign-up form with a "Subscribe" button. To the right of the article is a Currys PC World advertisement with the text "WE START WITH YOU" and a "Shop now" button. Below the advertisement is a "Most Read in News" section with two items: 1. "READING CROWN COURT: Man who stole from Earley Co-op and threatened staff with knife jailed" and 2. "EDUCATION: Eight Reading primary schools expanded".

news/reading-travel-app-wins-challenge-9619925

g reading ... P Used Vo... C Future ... D Careers ... MSF

g News Local News Traffic and Travel

## Reading travel app wins challenge after council opens up live data

16:00, 9 JULY 2015 | UPDATED 17:44, 9 JULY 2015 | BY LINDA FORT

Reading Borough Council announces the winning team who produced a travel app using the borough's live travel data

23 Shares f Share t Tweet g+ +1 in LinkedIn

Enter your e-mail for our daily newsletter



The winning team - Rajneesh Gautam, Anurag Paliwal and Mohit Sharma

**Currys PC World**  
WE START WITH YOU

### Most Read in News

- READING CROWN COURT**  
Man who stole from Earley Co-op and threatened staff with knife jailed
- EDUCATION**  
Eight Reading primary schools expanded



## Barriers to Delivery / Success

- *Data quality and reliability*
  - What is acceptable for internal use for a local authority is not necessarily acceptable for a 3rd party service. Existing systems can need investment before data can be shared.
- *Size of Market*
  - Experience from TrvIRDG has shown that getting sufficient numbers of users to make a travel on app's maintenance financially worth while can be difficult in a town of 270,000. – hobby not a business.
- *Standardisation*
  - Lack of standardisation means that it is difficult for app developers to provide services which can be cost effectively transferred between cities



# What is the transferability potential

- *Why easy to transfer*
  - Data manipulation and publishing - cost effective
  - Can be applied to a wide range of systems and data types
  - Effective in encouraging data usage in large cities.
- *Limitations on transferability*
  - Data ownership – not an issue in Reading but can be a major barrier
  - Availability of systems to provide the data.
  - Sufficient data needs to be available to make it worth while for 3rd parties to produce services.
  - For smaller towns and cities there may not be any uptake of the data without some form of encouragement



## Future Potential of Open Data

- From Reading's experience to date you might say that it would have been cheaper for them to just build an app.
- However, we expect to see a rapid growth in products and services around big data and these will be able to include transport data.
- It is early days in a big data revolution which may come very quickly.





## Going beyond our Transport Silo.

- Smart energy meters in homes are very effective in enabling people to actively manage their energy use.
- However, most people rapidly become disinterested and stop using them in a relatively short space of time.
- Combining other data into a smart metering app, giving the user many more reasons to open it up means that they continue to actively manage their energy use.
- Transport data can be part of this service.
- IoT, Smart Cities, MaaS etc are the future and this means much more effective cross working.



Thank you for your attention!



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