

## 5. Impact and Benefits

This approach enabled the BBC to support greater breadth and scale, which was previously impossible using a static CMS and associated static publishing chain. The DSP system has now evolved into a set of RESTful APIs and a Triple Store storing more than 37 million triples, managed by our Nexus A&C team. The Linked Data is managed through these APIs and various tools to allow the user to create new “Tags” and to link content.

The most noticeable thing about this work is the scale of the approach of Linked Data at the BBC. Main stakeholders include BBC News, BBC Sport and BBC Worldwide.

The adoption of Linked Data has freed time for journalists, has made opening data possible, enabled quick implementation of large sites, such as the London Olympics.

## 6. Next Steps

The next step the BBC is currently taking is developing the project called myBBC.myBBC is an innovation programme that will deliver the tools, services and capabilities the BBC needs to make the best use of data to deliver more personalised experiences for its audiences. The two key sections of the project are called Profile and Personalisation.

Profile will provide a destination that joins up all of an audience member’s BBC experiences and data and will enable a truly cross-platform, cross-product experience. It will put the audience in control of their data and personalisation, allow them to discover new products and let them share their experiences with other audience members.

The Personalisation proposition allows the BBC to gain a deeper understanding of its audience by offering product teams a set of services that enable audiences to tailor their BBC experience.

The myBBC team and the Linked Data team (Nexus A&C) are going to be working closely with each other to use linked data technologies to their full potential to deliver a product that will allow the audiences to find and consume content in the way that they specify across all BBC products and services, “placing the BBC back in the audiences’ hands.”

## 6) MAISH NICHANI

### Design methodology for a context aware mobile search based application, using diverse data sources

#### 1. About the Case Organization

The organisation is a government agency that carries out regular household surveys.

#### 2. About the Challenge

Our client carries out household surveys. They recruit freelancers to do the job. They wanted to help them better optimise the time taken and success rate of the surveys.

A key challenge was to plan the sequence of the houses to visit. It turns out that the default list given to the surveyors was not optimised. The sequence of houses to visit depends on many contextual factors such as distance to a bus stop, rain and age of the residents, which governs when they are usually at home.

The challenge: how might we build a mobile app to help the surveyors better optimise their household visits route for a day?

#### 3. What We Did

We first went on a field study with the surveyors. We followed them on their daily visits and noted down their strategies for the challenges they encountered. Eg some of them used color codes to highlight household preferences to do the survey online, by phone or by a visit.

We made a list of the factors that affected the visit route. There were many. Location, distance, climate, bus and taxi routes and even the age of the residents. We got data from different sources:

- Location - Google
- Distance - Google
- Directions - Google

- Climate - National Environment Agency
- Bus, Taxi - Land Transport Authority
- Age of residents - Client organisation

We then created a mobile app prototype that used the findings along with data provided by the phone to create an experience that felt more like a guide-on-the-side.

The route listing changes depending on several factors:

- Starting location - from home or at a bus stop
- Ending point - at home or at a food court
- Public transport - shortest distance by bus or train
- Climate - depending if its going to rain or not

Age of residents - elderly prefer mornings, while those working prefer evenings.

#### 4. Challenges and Lessons Learned

It is amazing what is available on the Internet, usually free to use. The challenge is to know what is required and how to use it correctly.

The field study helped us discover that climate data is important to surveyors - the route changes when it rains. Now that we know we can offer a better experience with climate data, the challenge was to know where to get it from. Luckily, National Environment Agency provides such data. But now we had to learn how to incorporate it using their API.

APIs can be a problem. Each provider will have their own API format. This makes integration harder. We hope that this will change in the near future when linked data becomes more prevalent.

We then discovered that using all this data increases the mobile data usage. Will surveyors pay for the extra data use? Or will the client pay a fixed amount for extra mobile data use? Our clients are thinking of offering some kind of reimbursement.

Finally we discovered that we have to use a service mindset. It is not just about the app but the entire experience - from the time they set out in the morning to the time they return in the evening.

During the field study we found that the surveyors were fumbling with the papers they were carrying. As part of the solution we decided to design a bag that could fit the phone and all the papers and stationery they had to carry.

#### 5. Impact and Benefits

We tested the prototype with the surveyors. They felt that the app could help speed up their work. This was more for those new to the survey process. The app helped take away the planning work and gave more time for the surveyors to focus on the survey.

For the client, they realised that there is data available that can enrich their own data to offer a compelling experience to the surveyors.

The client also got instant updates on what is happening on the field. Without the app they would only know about the day in the evening, when the surveyors would log their day using an online app.

Lastly, the app analytics could be used to shed light on how the surveyors do their job: from the type of transport they choose to how they plan their routes. This info can be then used to improve the entire process.

#### 6. Next Steps

The first version of the app is getting built. The client wants to take a phased approach to build the full app. There were concerns on the interaction, data use, stability and security of the app. The first version is to evaluate these issues.

# Designing a context aware search-based mobile app

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# The challenge

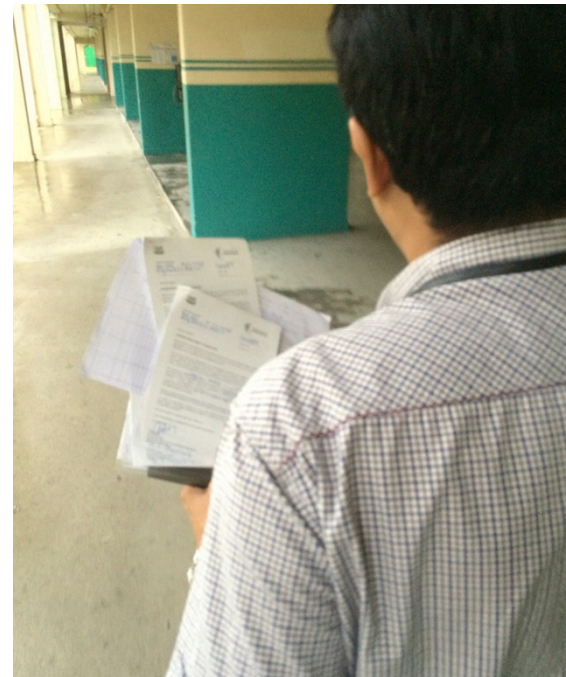
How might we help field officers carry out household surveys in a more productive way?

# The instinct

Design a mobile app that focused on the rational need to get the survey done.

# The big win

Let's do some field  
research first



Real life was different



# Problems were real

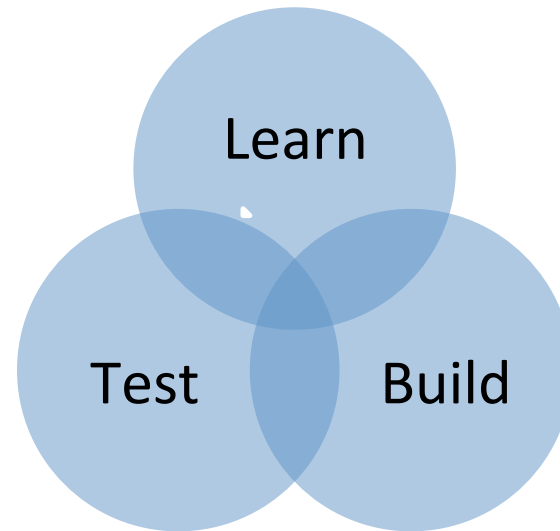




# Situations mattered



# The approach



# Map the experience



# Use info provided by others

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## Data

Location

Public transport routes

Weather

## Source

Google

Land Transport Authority

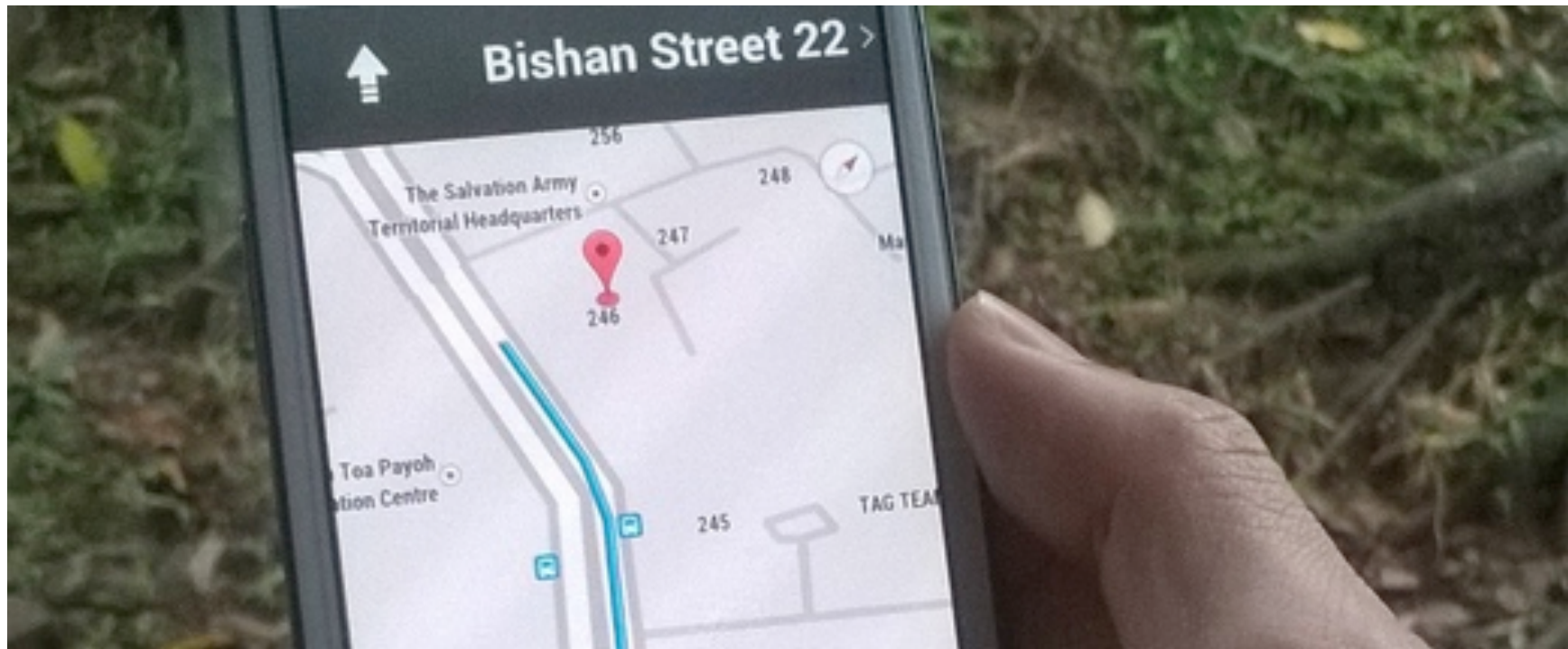
National Environment Agency

Build to measure





Test often



# Join me

Join me to learn what we did, the challenges we faced and what we could have done differently.