Project Baird

What, why and how?

projectbaird.com

@projectbaird

What is Project Baird?

The one (long) liner:

A project to pull together specifications, prototypes and documentation for next-generation hybrid TV (and radio) applications.

What is Project Baird?

- Open to all interested parties

  No direct affiliations.

- A collaborative effort

  Code, specifications, and even the website itself are on GitHub — anybody can fork and submit patches.

- An effort to collate, not reinvent the wheel

  We use and build upon existing specifications wherever possible.

Why?

- Hybrid devices are exciting
- There's a whole world of potential applications
- "Next-generation" isn't very far away!

How?

Identifying areas of technology:

- …which are shared between the broadcasting and Internet communities
- …which exist in one world but can benefit the other

Questions we're answering

- How can a second screen device find out what's playing currently?
- What's the canonical URL for this programme?
- What are the subjects of this programme?
- How can applications be *automatically* presented for a given programme?

What's happening now?

- Hybrid devices today are supporting interactive applications built with Web technologies (HTML, CSS, JavaScript)
- This means Web applications (and "widgets") are being built which need to work with broadcast technologies
- W3C is launching the "Web and TV" working group to explore applications

Where does DVB fit into all of this?

- DVB provides a rich infrastructure for broadcast environments
- History of providing support for iTV applications
- Lots of useful information is broadcast over-the-air, and can be relayed to apps and other devices on a LAN

The DVB URI scheme

- Provides means to identify platforms, networks, multiplexes, events, and resources with a well-defined syntax, defined by DVB

The DVB URI scheme

- Traditionally only used within “the broadcasting world”, such as interactive TV applications

The DVB URI scheme

- Hybrid devices and second-screen applications are changing that

The DVB URI scheme

- Provisionally registered at IANA
  - Current registration is by Project Baird, by way of an Internet Draft citing the DVB specification document published by ETSI.
  - http://tools.ietf.org/html/draft-mcroberts-uri-dvb-04
  - Exploring ways to move forward so that everybody wins.
  - Aim is for a permanent registration in the not-too-distant future, as collaboration between DVB and the Internet community.

Why register?

Just as with any other registration-based system (for example, DVB `original_network_id`), URI schemes used in the real world are meant to be registered with IANA.

- To prevent competing registrations
- So that other specifications (e.g., W3C, IETF) can cite it in confidence
- If it's not registered at IANA, technically it doesn't exist

The good news

- Registration is straightforward
- It only costs some time & effort
- A well-written draft will make DVB (particularly in a hybrid setting) more accessible to Internet-focussed developers

The bad news

- Somebody needs to do it!
- It should probably be coordinated by DVB, as it's a DVB specification
- Historical decisions and technical architecture will probably need explaining to those unfamiliar with DVB

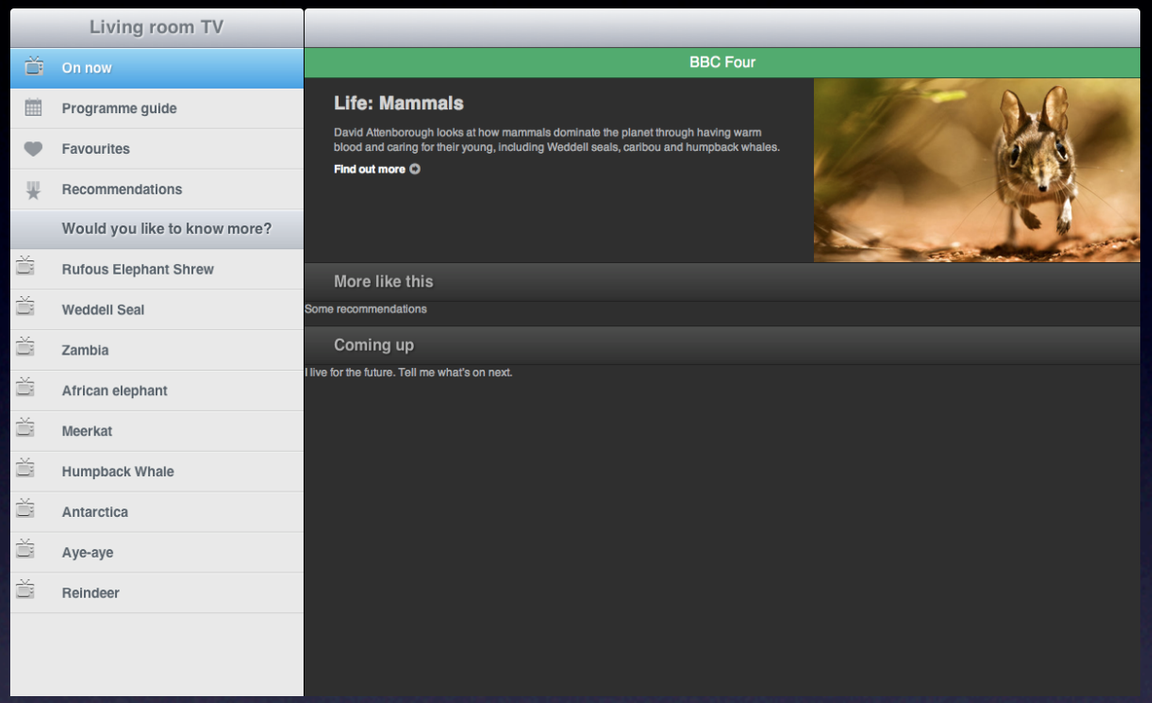
Some examples

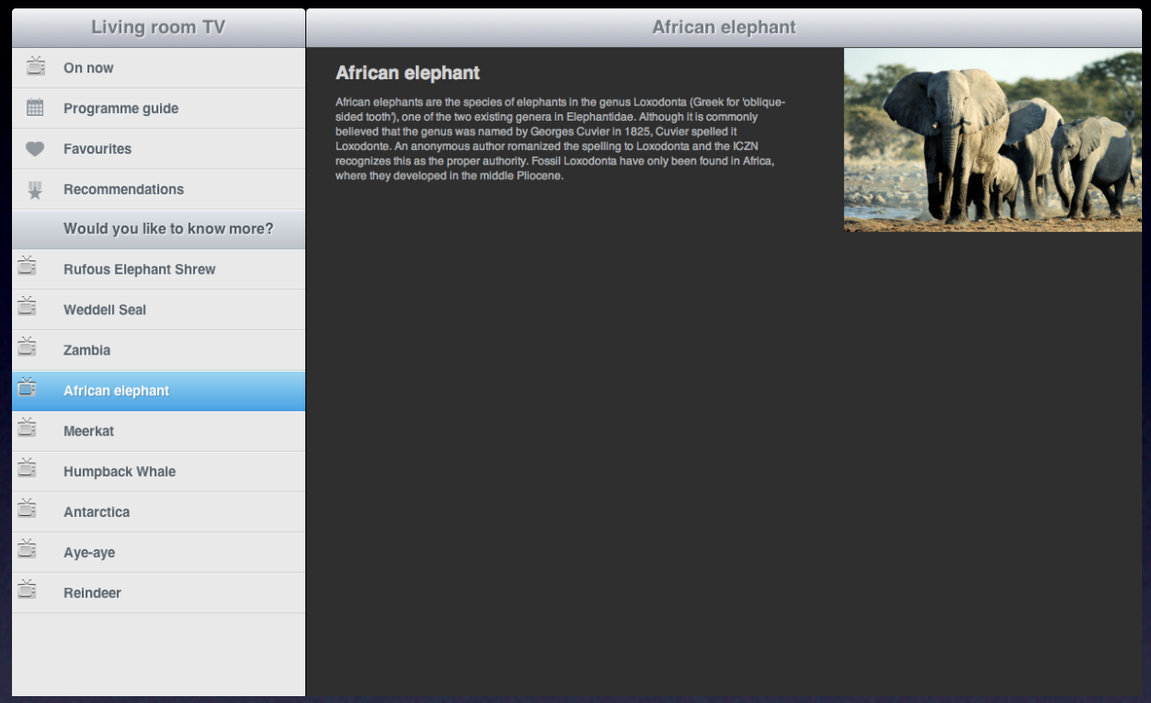
- Ask a hybrid receiver what it's playing:
  - http://toys.projectbaird.com/now-playing/
- Perform service discovery (using RadioDNS) to find a resolver service
  - http://toys.projectbaird.com/lookup/
- Find a canonical URL for the programme
  - For example: http://www.bbc.co.uk/programmes/b00ty6b0

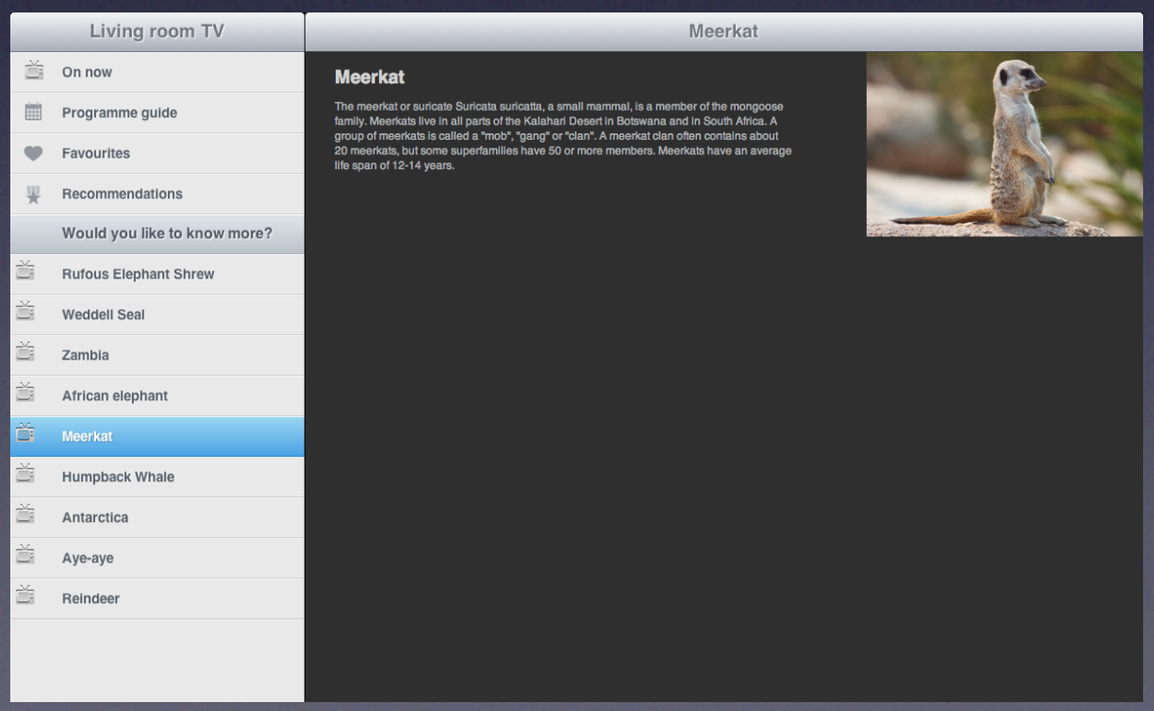
Some examples (continued)

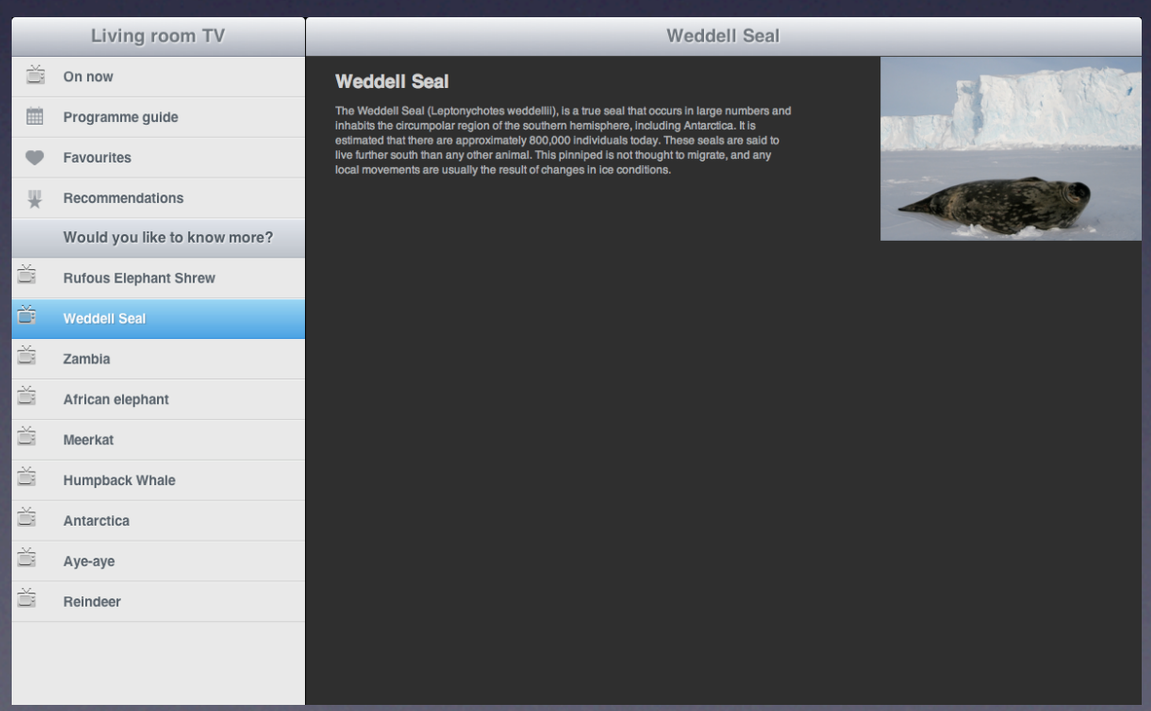
- Fetch RDF/XML from that URL, and summarise it
  - http://toys.projectbaird.com/summarise/
- Discover subject URIs
  - http://toys.projectbaird.com/delve/
- Match subject URIs to applications & present
  - http://toys.projectbaird.com/tablet/
  - (needs WebKit, uses live experimental endpoints — YMMV)

What does it look like?









Of course…

…this is just the start.

There are lots of ideas and applications in development and on the drawing-board.

None of this would be possible without some help

- NoTube — http://www.notube.tv
  An EU-funded project exploring social and semantic television applications, with collaborators including the BBC, IRT, VU Amsterdam, and Ontotext.

- RadioDNS — http://radiodns.org
  An independent project providing a means to map a set of broadcast identifiers/parameters to a DNS domain name, supported by a number of (predominantly UK-based) broadcasters.

- DVB
  …for creating the environment upon which these kinds of applications can be built.

This is Project Baird.

If you'd like to find out more, please don't hesitate to get in touch.

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