



[bbc.co.uk/labuk](http://bbc.co.uk/labuk)


*what is it & how does it work*

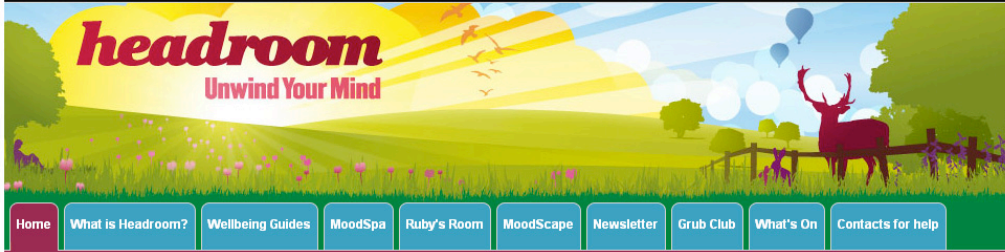
Matt Chadburn, Technical Lead, FM&T Vision, Aug-2009

# What is Lab UK

- It's a product **brand**
- “Deliver **scientifically-valid, ethically** approved, and **secure** surveying of the BBC audience. Data kept in **perpetuity** against a BBC UID.”
- ... so, Lab UK = Science **experiments** on [bbc.co.uk](http://bbc.co.uk)
- Lab UK = Software platform for running experiments, delivering that data to scientists, and visualising the results.

# bbc.co.uk/labuk/experiments/stress

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**THE BIG STRESS EXPERIMENT**

1 of 9


About me

Your progress

Powered by  

Welcome

Introduction



## Feeling the pressure?

Is stress just triggered by your lifestyle? Or by your work load? Or is your level of stress determined by your genes?

Scientists hope to carry out the biggest ever investigation into the causes of stress. They need as many people to take part as possible - whether they worry about stress or not.

Start the experiment

Start now

Why do I have to sign in to the BBC?  
Tell me more about the Lab UK project

**In this experiment you will find out:**

- A quick snapshot of your overall stress level
- How you can change your behaviour to cope better with stress
- Why scientists want to learn more about the causes of stress
- Personalised tips for improving your mental well being

# bbc.co.uk/labuk/experiments/braintestbritain

The screenshot shows the BBC Brain Test Britain website. At the top is the BBC logo with links for 'Text only' and 'Help', a search bar, and an 'Explore the BBC' button. On the right of the header are links for 'Settings' and 'Log out labuka2'. Below the header is a banner for 'bang goes the theory' with the tagline 'Get ready to put science to the test' and a photo of four people. To the right of the banner is a 'Powered by BBC lab uk' logo. The main heading is 'Brain Test Britain' with a user status 'Not labuka2? - Please log out'. The page is divided into three main sections. The left section, titled 'Hello labuka2 - this is your training homepage', contains a 'Start benchmarking' button, instructions to sit some tests to assess performance (taking about ten minutes), and a list of games: 'Circle and square', 'Star finder', 'Numbers', and 'Watch the windows'. The middle section, titled 'My results', shows 'My last session score' and 'My average score' both at 0, and a list of scores: 'Best session score' (0), 'Total sessions score' (0), and 'Sessions completed' (0). The right section, titled 'Do your training:', lists three steps: '1 10 minutes a day', '2 3 times a week', and '3 For at least 6 weeks', accompanied by an image of a man sitting on a blue sofa.

BBC Text only Help Search Explore the BBC Settings Log out labuka2

bang goes the theory  
Get ready to put science to the test

Powered by BBC lab uk

Brain Test Britain Not labuka2? - Please log out

Hello labuka2 - this is your training homepage

It's time for benchmarking

→ Start benchmarking

Before you start Brain Training you'll need to sit some tests to assess your current performance.

This will take about ten minutes.

Circle and square

Star finder

Numbers

Watch the windows

My results

My last session score 0

My average score 0

Best session score 0

Total sessions score 0

Sessions completed 0

Do your training:

- 1 10 minutes a day
- 2 3 times a week
- 3 For at least 6 weeks

# collect some data ...

BBC

Text only

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lab uk

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For scientists

THE BIG STRESS EXPERIMENT

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About me

Section 1: Page 1

Section Overview

User Questions

How we react to stress varies between men and women and depends on where we live, our age, occupation and how much we earn - a combination of demographic factors.

Page instructions here

Age in years

?

Gender

☐ Male

☐ Female

Ethnic group

- Make a choice from the list -

Where I live

Country

- Make a choice from the list -

Post code (UK users only)

Occupation

- Make a choice from the list -

... undertake some tasks

BBC Text only Help Search Explore the BBC Settings Log out sdgrdydtdfgfg

lab uk Home Take a test Experiment results About Lab UK For scientists

**THE BIG STRESS EXPERIMENT**  
4 of 9  
What's in my genes?  
Your progress

Powered by BBC lab uk


**What's in my genes? - Image matching test** Section 4: Page 1 2 3

Section Overview User Questions

This section is testing whether you have a genetic risk of inheriting stress related problems. By asking questions about your relatives and family members, we can test whether these factors affect your stress level.

Some people might find this test tricky, would you like to skip it? SKIP >

Now select the image that matches the one you have just seen

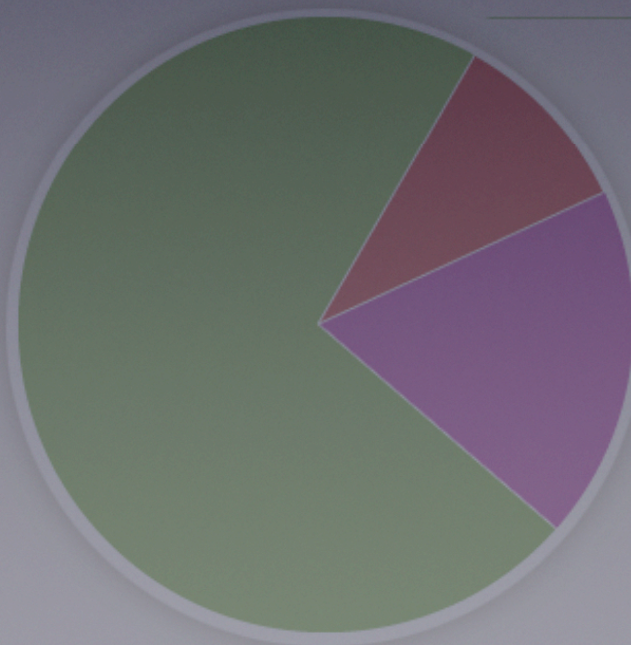


Section 4: Page 1 2 3

# Reward – Feedback

- How we value ourselves can cloud how accurately we decide whom to blame for unfortunate events. At the same time, the way we explain what causes unfortunate events can affect how we feel about ourselves and the people and life in general.
- Your scores suggest that when tricky situations happened and you thought about whose fault it was, you tended to:

Blame things or circumstances out of your control



**66%**  
Blame others

**8%**  
Blame yourself

**26%**  
Blame things or circumstances  
out of your control

- **Why do I feel st**
- **Personalised vic**

## Concerned ab

We have a links to a that can help you imr concerns about your

➤ **Find out where to**

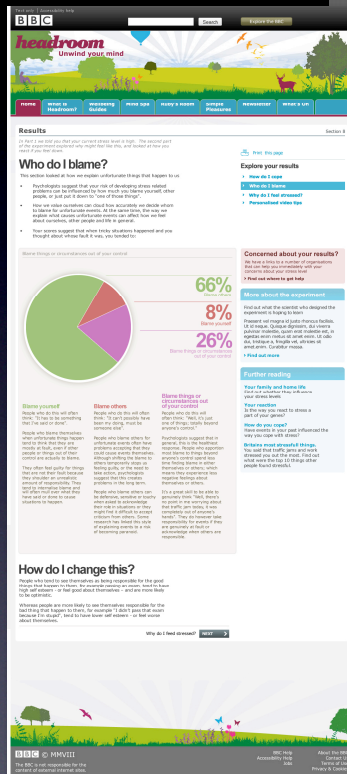
## More about th

Find out what the so experiment is hoping

Praesent vel magna Ut id neque. Quisque pulvinar molestie, qu egestas enim metus dui, tristique a, fringi amet.enim. Curabitur

➤ **Find out more**

## Further readin



# Data Delivered to Scientists

13	26f7241790510e838db4a1384ae1279d	19	GB	RP					
14	ed519c02f134f2cdd836cba387b6a3c8	46	GB	RH		2	AZ	a1	bla
15	0b96d81f0414f154f07aea293e315f	55	GB	W			5		a2
16	f50c7035e532c49a0f6993d988e2e843	26	GB	SE					
17	435d6ab1ba16ba7e05e09d9728bc36ca	42	GB	RG		5		a5	ch
18	151de84cca69258b17375e2f44239191	18	GB	W			0		a7
19	9704a4fc48ae88598dcbdcdf57f3fdef	37	GB	W			2		a2
20	bb1443cc31d7396bf73e7858cea114e1	18	GB	W			1		a2
21	4db73860ecb5533b5a6c710341d5bbec	19	GB	YO	Array	0		a4	wh
22	f4f0edb08c97567ce6b0475a63bf7000	36	GB	W			0		a2
23	87784eca6b0dea1dff92478fb786b401	95	GB	KT		2		a2	bla
24	05b0afd266cc205432b8dad3f3413c28	24	GB	W					
25	c344336196d5ec19bd54fd14befdde87	29	GB	RH		1		a3	ea
26	20ef119e812e178ecb44efa448b57ebc	33	GB	BS					

Experiments

=

Acquisition of data about the world

=

New **knowledge**

# What makes the UK stressed?



May, 2009

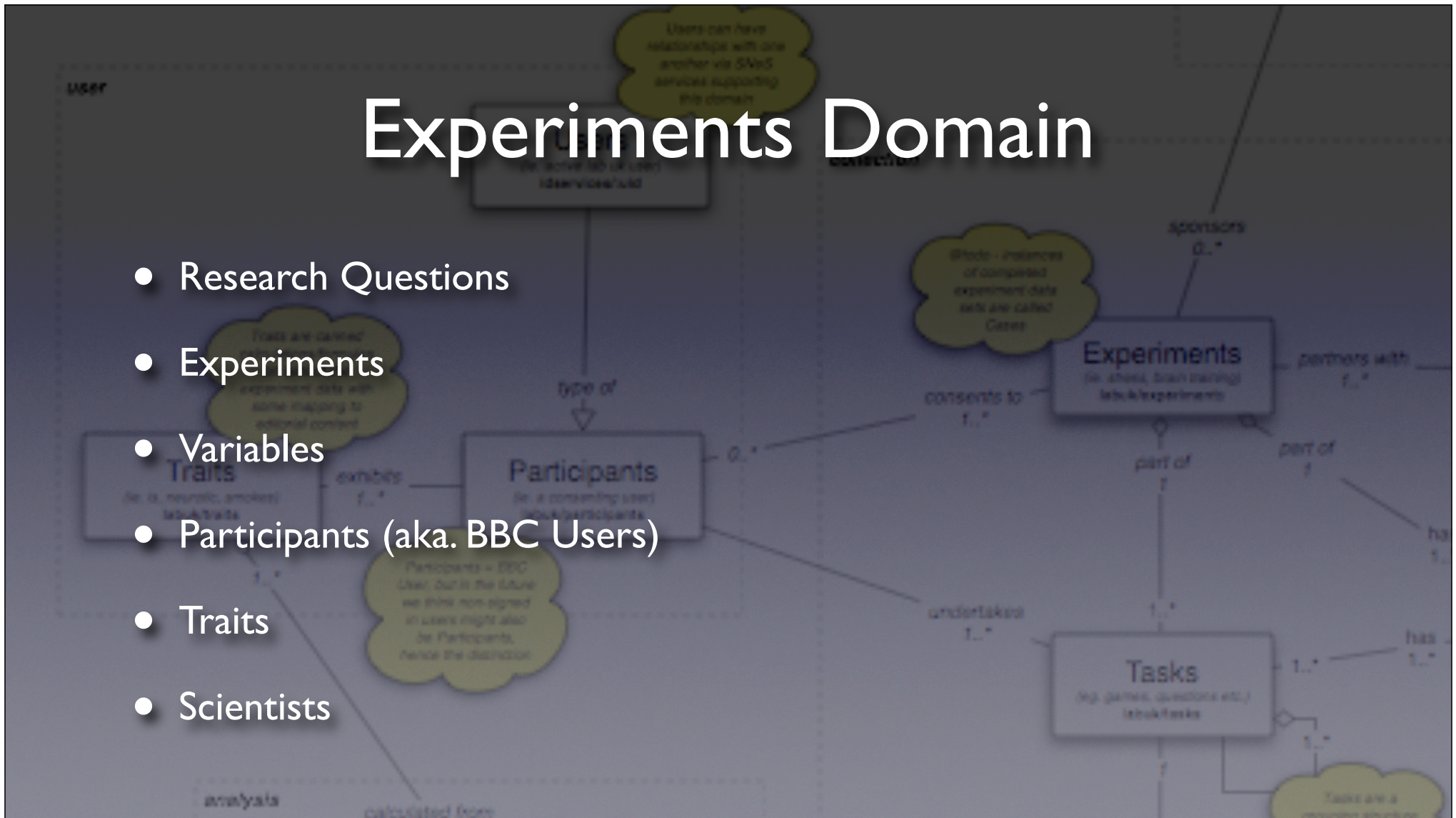
# *Most depressed places in the UK\**



\*not really

# Experiments Domain

- Research Questions
- Experiments
- Variables
- Participants (aka. BBC Users)
- Traits
- Scientists

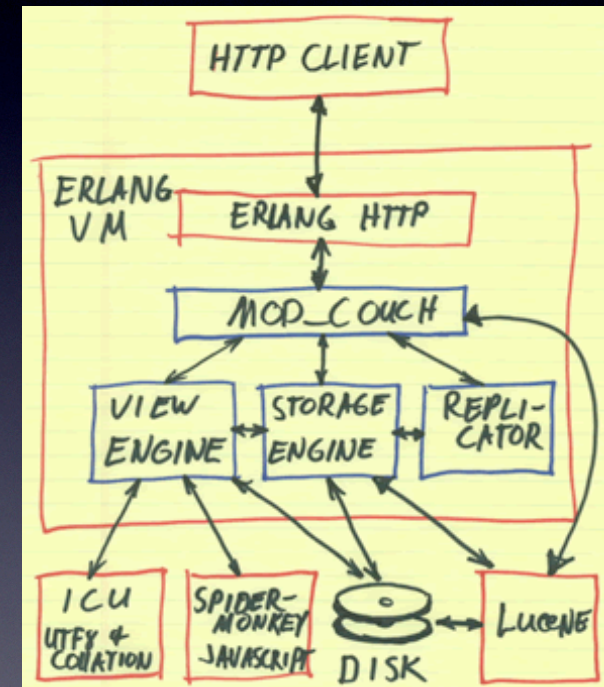


# Web Services

- KV Store (aka. CouchDB)
- Experiments Web Service (the one we built)
- Identity
- FLIP + old stack for Editorial stuff

# Scale

- CouchDB
- Memcached
- PHP + HTTPS (arrrrrgh)
- Infrastructure (arrrrrgh x 10)
- Profiling - avalanche, xhprof
- 30k participants in 10 mins peak



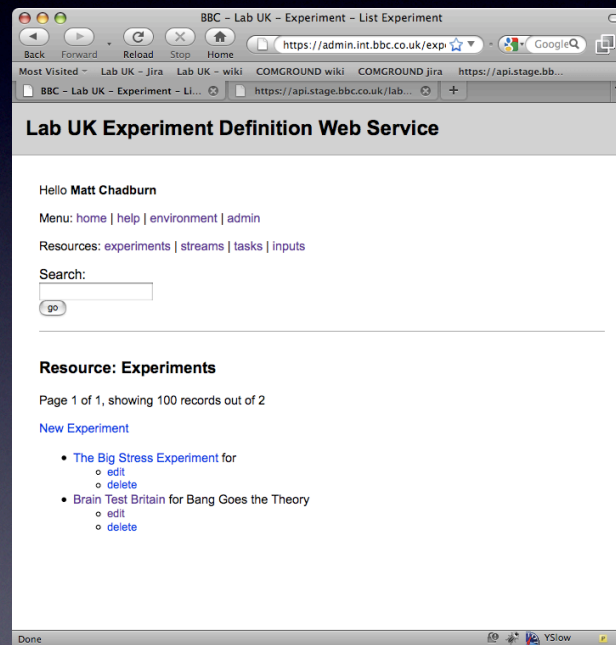
# HTTP APIs

- GET /experiments/:tasks
- PUT /experiments/:id/consent
- POST /experiments/:id/tasks/:id/?var1=foo&var2=foo
- DELETE

# PHP/Java API (Models)

```
$p = new Participant('67812');  
if ( $p.isDepressed() ||  
    $p.hasHighIQ() ||  
    $p.hasIncome(">50k") ||  
    $p.smokes() ||  
    $p.likesCrosswords()) {  
    // do something  
}
```

# admin.bbc.co.uk/experiments



# @todo - 3 months

- Feedback is a rubbish ATM, so rework
- Spaces + Lab UK = social experiments
- Flagpoles for outages etc.
- More expressive service layer API
- CouchDB replication & views for stat's

# @todo - 12 months

- Performance - 1000's sim users p/sec
- Nicer default experiment experience - layout, forms etc.
- Mobile, bbc-modules etc.
- Visualisations, SEO navigable results

End.  
Thanks!