

# INTRODUCTION: DIGITAL SERVICES

@abhinemani | CAPP 30130 | University of Chicago

#### CIVIC TECH: KEYS TO SUCCESS

#### Empathy

- Build with, not for
- ➤ Talk to users
- Understand behavior
- ➤ Learn what's out there

#### Lean

- ➤ It's more than just a technical process
- Expect failure
- Only build what's necessary
- Test, test, test

#### Data

- Data "lives"everywhere
- Be ready to scrape
- Open data is your friend
- ➤ ETLs are your best friend

#### Users

- If you build it they will come
- ➤ Listen and learn
- Define metrics
- Find partners

#### Sustainability

- Consider your
   options: startup,
   open source, non profit, academic,
   etc
- ➤ Tech -> Policy
- Expect to train everyone
- Document everything

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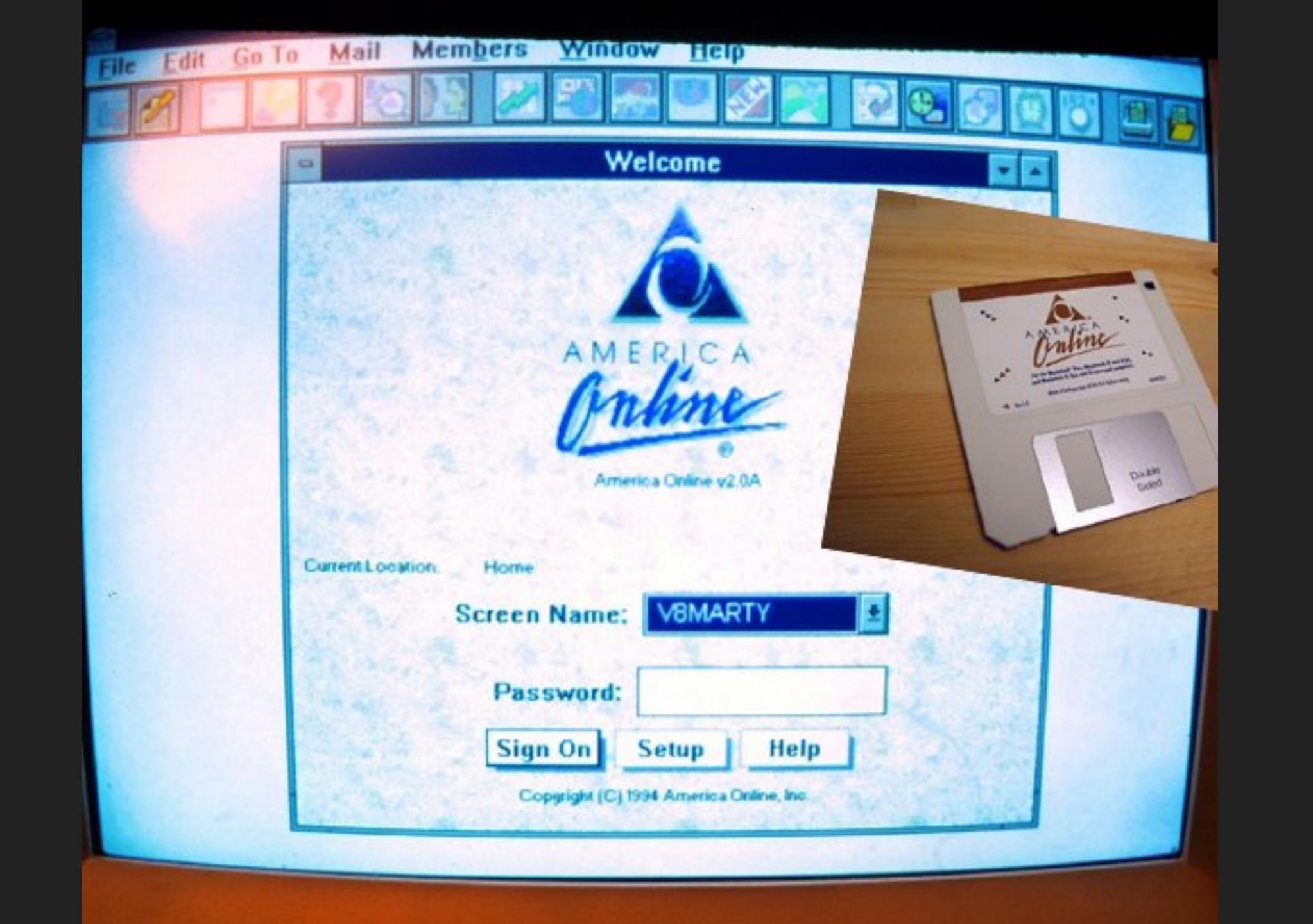
#### Sustainability

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   options: startup,
   open source, non profit, academic,
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#### **AGENDA**

- ➤ Background
- ➤ Case Study: gov.uk
  - > Digital optimization
  - > Digital transformation
  - Digital Experiments
- > Centralized v decentralized
  - ➤ US Government's approach
  - > City government examples



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- Events (64) [new]
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- Health (548) [new]
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- Law (221) [new]
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- Politics (184) [new]
- Reference (495) [new]
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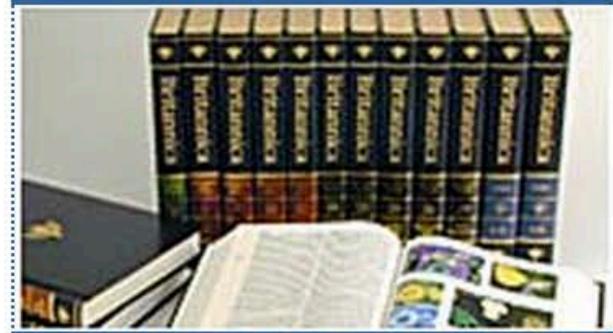
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washingtonpost.com

#### Top News

- Talks on Elian's Transfer Fail
- Spending, Tax Cuts Collide
   With Social Security

#### World

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- Bloglines.com
- eHow.com
- ET.tv.yahoo.com
- Factcheck.org
- Fedstats.gov
- News.google.com
- PBS.org/pov/borders
- SEC.gov
- SSA.gov/OACT/babynames

3 out of 10 =
Government
Websites

# TIME'S 2003 BEST WEBSITES



# THEN THINGS CHANGED...



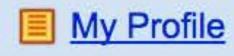
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laguna: mochida: vasek:

drum: entretencion: beach:

diablo1: larsson: CM: wood:

music:

rtooom ragor

See More Videos



#### **Basketball Stunts**

Some crazy basketball stunts. I wouldn't want to play these guys; they could all beat me blindfolded.

Tags // funny : basketball : hoops : stunts :

Added: August 3, 2005 by marvel

Views: 257 | Comments: 1



#### Gangsta Rap Music Video

Done for one of my fans, he wanted to be in a music video with me. random again...!!!!

Tags // Funny: Rap: Freestyle: Lucas: BatakProductions: Cool: Crazy:

Funny: Stupid: celebrity: celbrities:

Added: August 2, 2005 by BaTakProductions

Views: 356 | Comments: 0

See More Tags

#### [thefacebook]

login register about feq



Welcome to Thefacebook!

#### [ Welcome to Thefacebook ]

Thefacebook is an online directory that connects people through social networks at colleges.

We have recently opened up Thefacebook at the following schools:

Alabama A&M • Alabama Huntsville • Aquinas • Art Chicago

Beliarmine • Belmont Abbey • Bethel KS • Bethune Cookman

Brevard • Brookdale • Caldwell • Catawba • Cedar Crest • Central College

Clarke • COE College • Concord • Concordia MN • Concordia NY

CSU East Bay • CSU Mont. Bay • CUNY Lehman • Delaware State

Delaware Valley • Detroit Mercy • Dowling • Erskine • Evergreen

Fayetteville • FL Southern • Fort Hays • Francis Marion

Franklin • Franklin CH • Franklin Pierce • Full Sail • Georgian Court

Houston Baptist • Incarnate Word • Johnson CC • Julliard

Juniata • LA Monroe • Lander • Lasell • Lawrence Tech • Lesley

Lincoln MO • Lincoln PA • Marietta • Maryland Art • Maryland Eastern

Marywood • McKendree • Mesa State • Mills College • Monroe

Mount Ida • Muskingum • N.E. Illinois • Nebraska Kearney

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Welcome to Wikipedia! We are building an open-content encyclopedia in many languages. In the English version, started in January 2001, we are now working on 304614 articles. Learn how to edit pages, experiment in the sandbox, and visit our Community Portal to find out how you can participate in the development of Wikipedia.

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#### Today's featured article



Eire is the name given in Article 4 of the 1937 Irish constitution to the twenty-six county Irish state that was created under the 1921 Anglo-Irish Treaty and which had been known between 1922 and 1937 as the Irish Free State. The name Eire is the dative form in modern Irish Gaelic of the name for the

goddess Eriu, a mythical figure who aided the Gaels conquer Ireland as described in the Book of Invasions. Since 1949, the term Republic of Ireland has generally been used in preference to Eire, to clarify that the state rather than the whole island is under discussion.

Recently featured: Vampire - City status in the United Kingdom -Saxophone

More featured articles...

#### Selected anniversaries

#### In the news

 Montenegro adopts new state symbols including a new red flag bearing King Nikola's coat of arms without his initials "NI"



- Pedro Santana Lopes becomes the prime minister of Portugal.
- The Philippines announces the withdrawal of its forces from Iraq.
- The International Court of Justice rules that the Israeli West Bank barrier violates international law and should be demolished.
- Ahmed Nazif is appointed the new Prime Minister of Egypt, replacing Atef Obeid.

#### TOP WEBSITES IN U.S.

- 2003
- 1. Yahoo
- 2. Aol
- 3. MSN
- 4. Microsoft
- 5. Ebay

- 6. Google
- 7. Go
- 8. Netscape
- 9. Windows Media
- 10. Weather

- 2013
- 1. Google

- 6. Wikipedia
- 2. Facebook
- 7. <u>Linkedin</u>

3. Youtube

8. <u>Twitter</u>

4. Yahoo

9. Ebay

5. Amazon

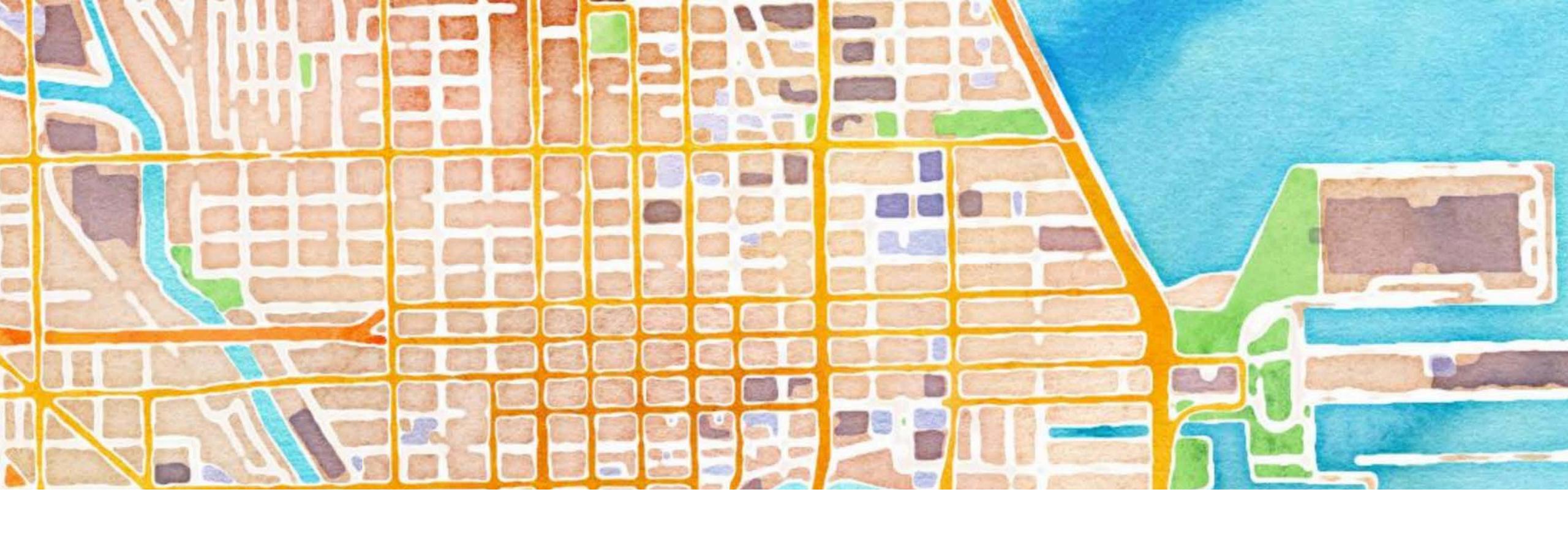
10. Craigslist

# PASSIVE -> ACTIVE

#### "WHAT IS WEB 2.0?" — @TIMOREILLY

Web 1.0		Web 2.0
DoubleClick	>	Google AdSense
Ofoto	>	Flickr
Akamai	>	BitTorrent
mp3.com	>	Napster
Britannica Online	>	Wikipedia
personal websites	>	blogging
evite	>	upcoming.org and EVDB
domain name speculation	>	search engine optimization
page views	>	cost per click
screen scraping	>	web services
publishing	>	participation
content management systems	>	wikis
directories (taxonomy)	>	tagging ("folksonomy")
stickiness	>	syndication

## ARCHITECTURE OF PARTICIPATION



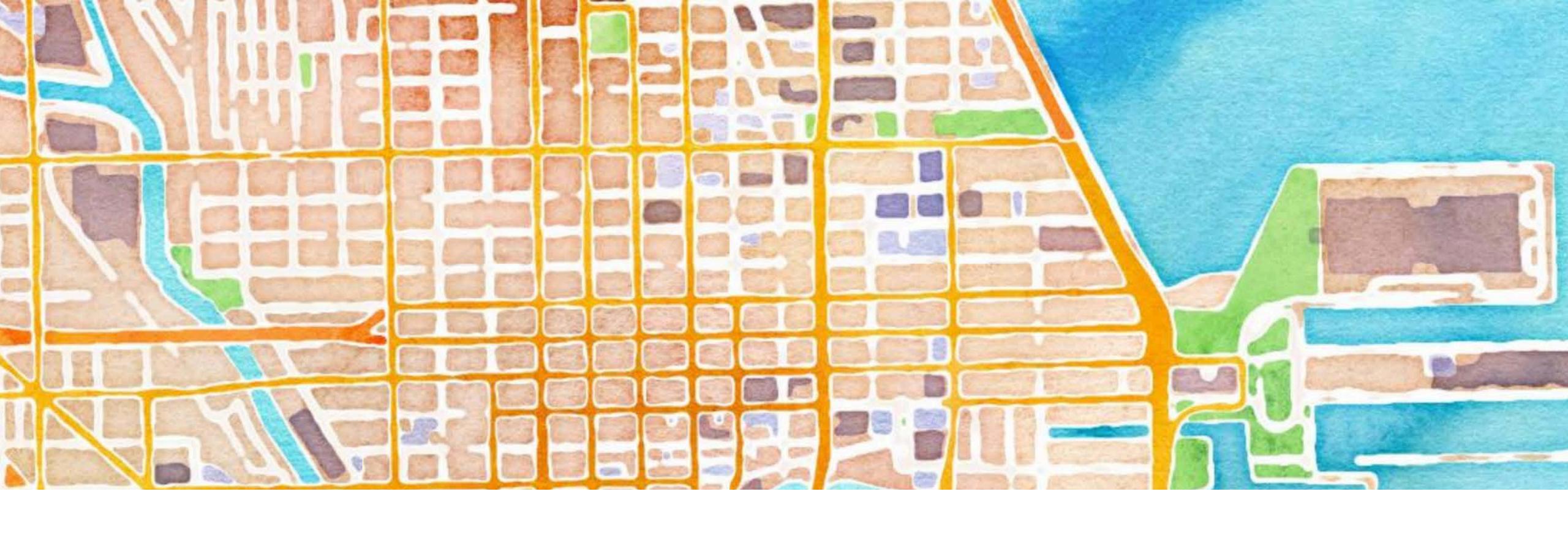
# BRITISH ARCHITECTURE

The UK set the standard



#### THE APPROACH

- ➤ Digital optimization
  - ➤ Introducing user-centered design into digital experiences
- ➤ Digital transformation
  - ➤ Redesigning serive delivery to a digital, mobile-first strategy
- ➤ Digital experiments
  - ➤ Taking advantage of digital systems for continuous improvements



# OPTIMIZATION: GOV.UK

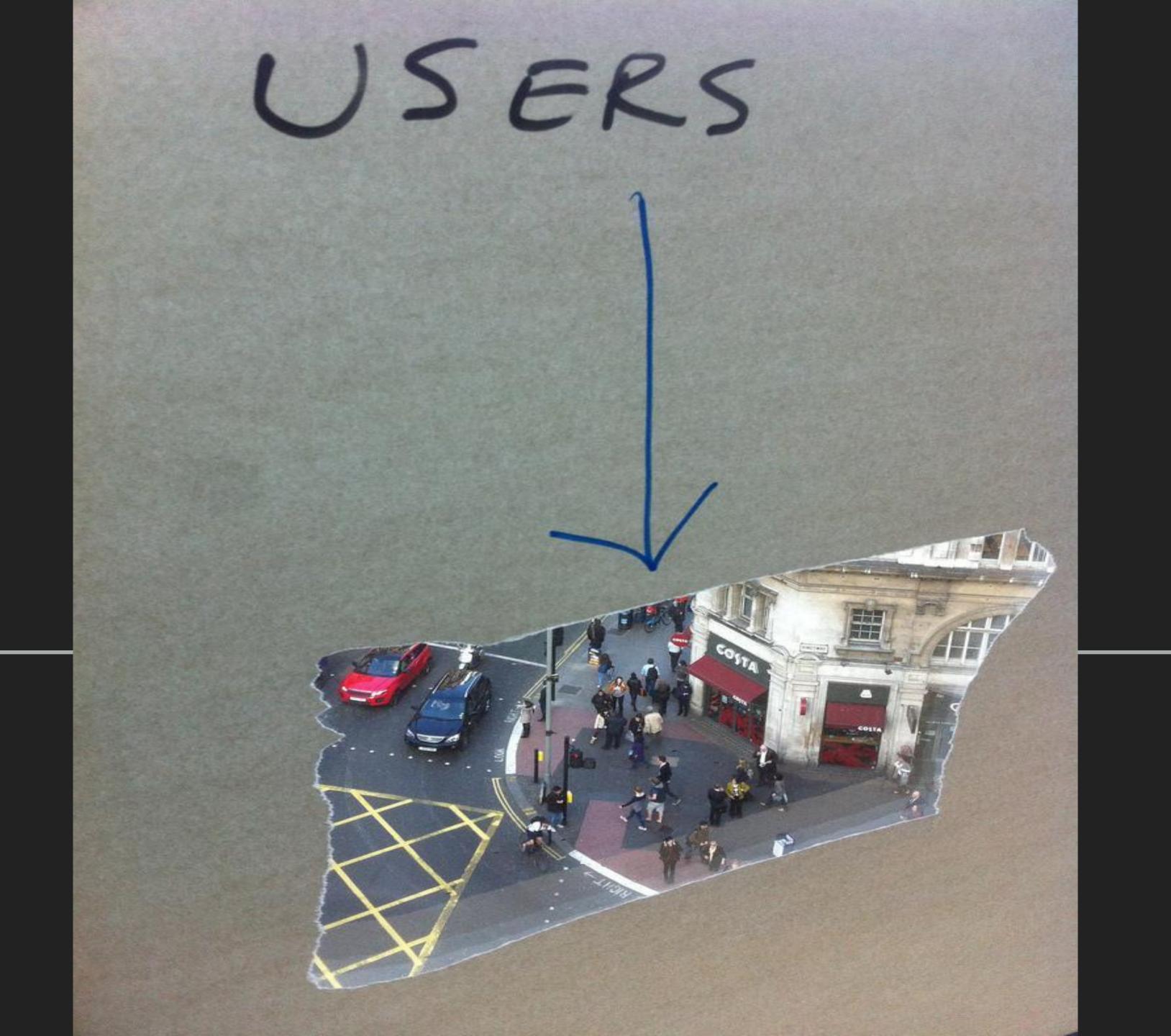
The original model for digital delivery

"We had thousands of websites. And the only thing that was consistent was there was not a single consistent thing across any of them. It's quite a feat of human ingenuity to spend so much money on coming up with something that never looks the same." -Mike Bracken

# Start with needs\*

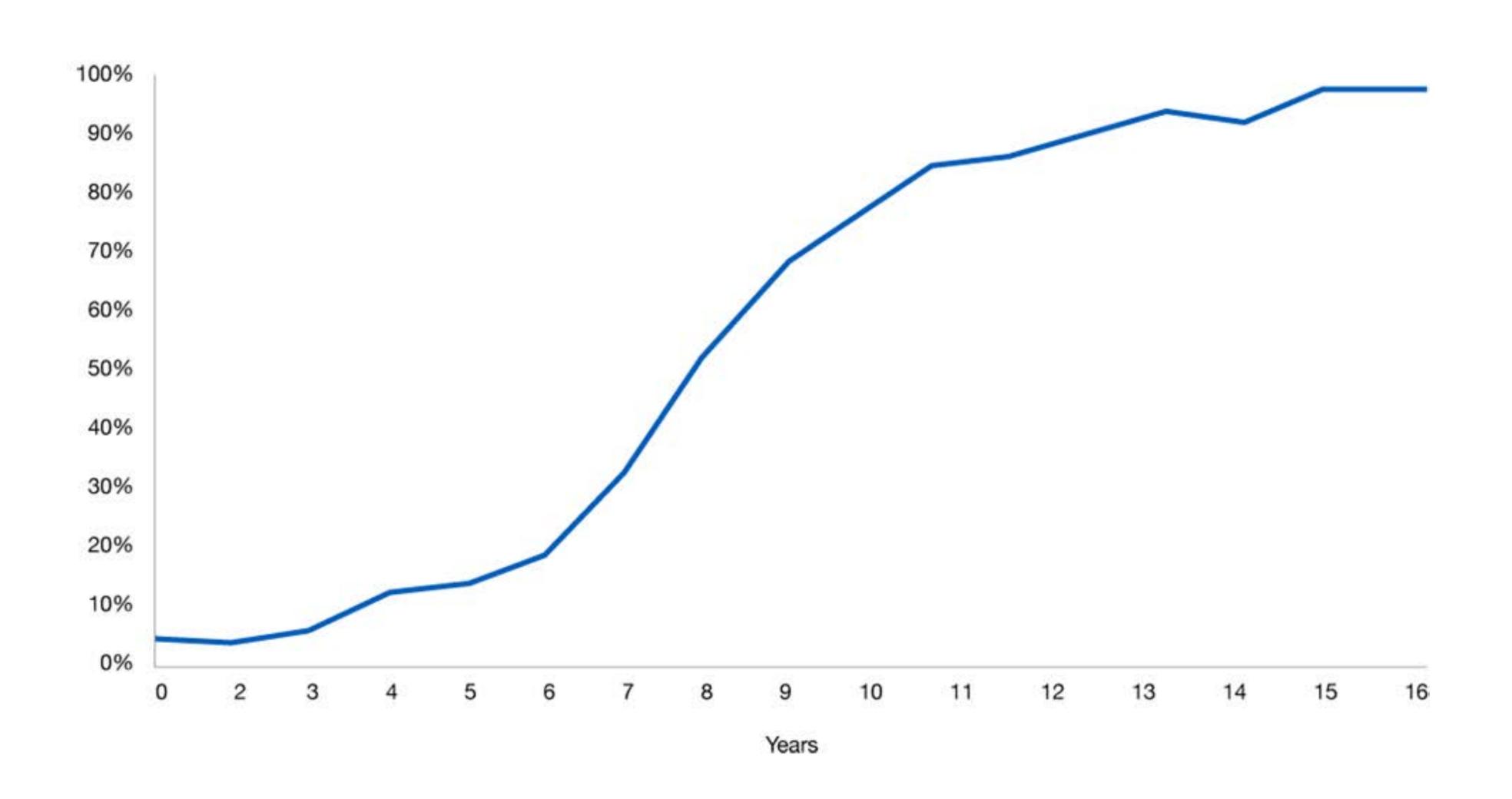
\*USER NEEDS NOT GOVERNMENT NEEDS

The design process must start with thinking about real user needs. We thinking about real user needs.





#### DIGITAL TAKE-UP "S-CURVE"







#### Where are you?

If we know your location we can give you details of services local to you.

Set location

I'm looking for... a g. Bank holidays. Lost passaport or Department for Education Olympic venues begin to open to the public



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The best place to find government services and information Simpler, clearer, faster

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Services and information

Departments and policy

More on GOV.UK

#### Services and information

#### **Driving and transport**

Includes car tax, MOT and driving licences

#### **Employing people**

Includes pay, contracts and hiring

#### Working, jobs and pensions

Includes holidays and finding a job

#### Benefits

Includes tax credits, eligibility and appeals

#### Passports, travel and living abroad

Includes renewing passports and travel advice by country

#### Housing and local services

Owning or renting and council services

This website replaces





#### Businesses and self-employed

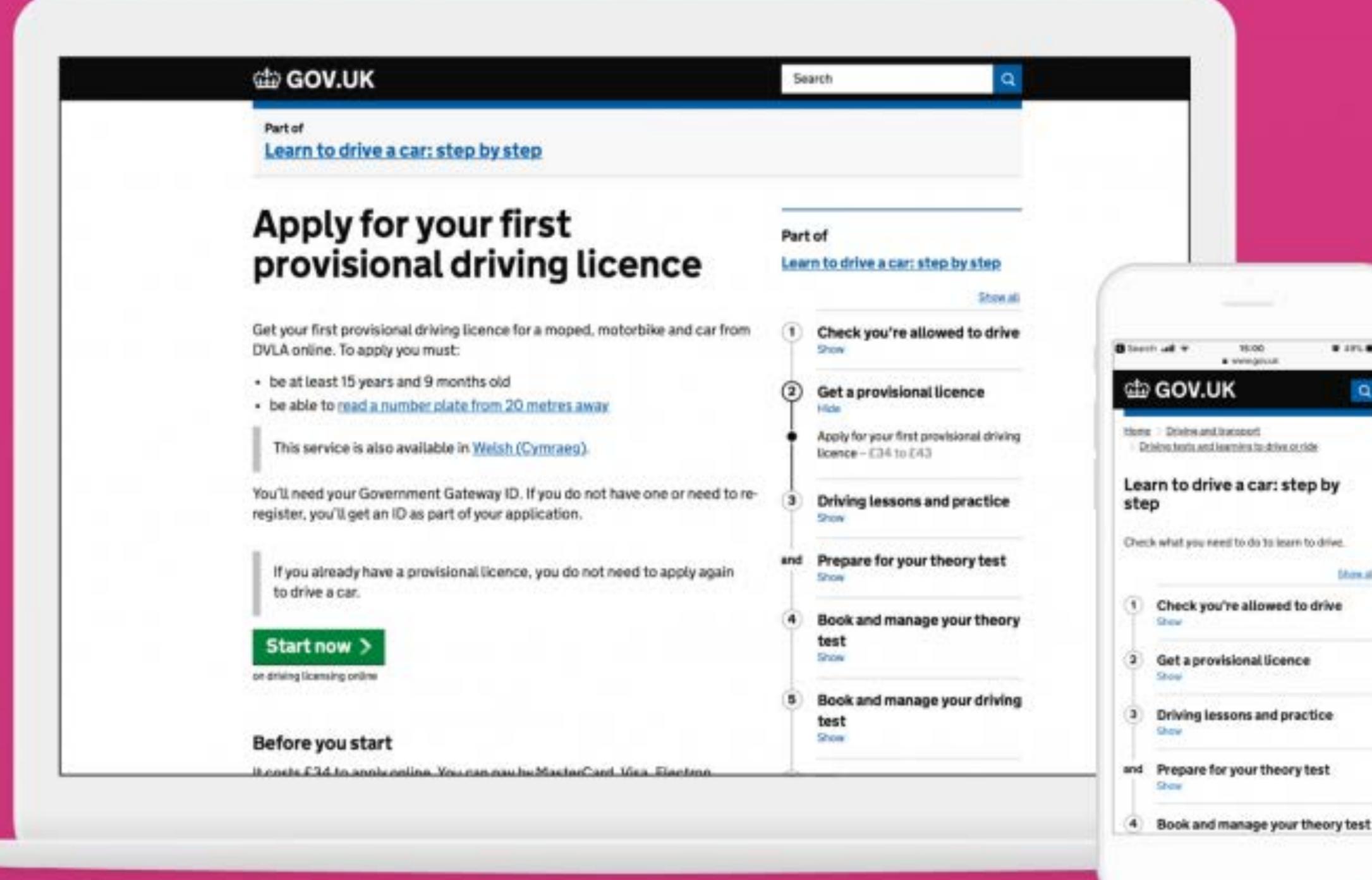
Tools and guidance for businesses

#### **Education and learning**

Includes student loans and admissions

#### Crime, justice and the law

Legal processes, courts and the police



# 48% #

More all

19:00



The strategy is delivery.

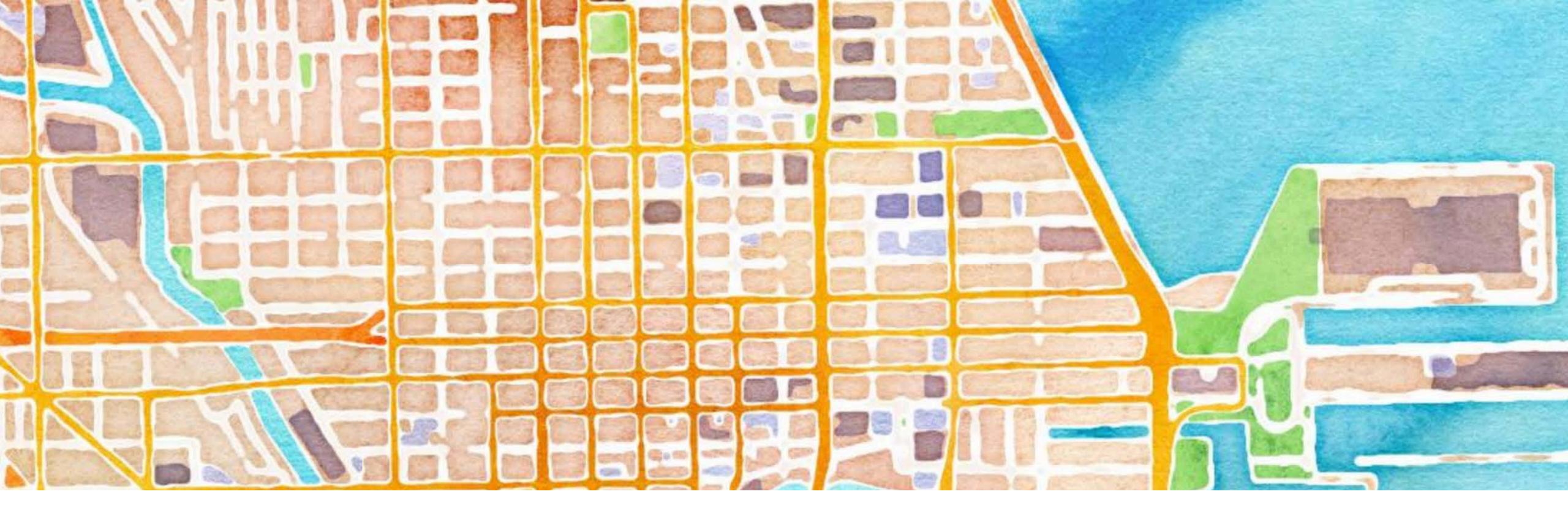
- Mike Bracken





"We argued about everything. We argued about time, we argued about money, we argued about approach. And I think towards the end of those debates we got to places that actually we both found pretty exciting."

- Lin Homer



# TRANSFORMATION: GDS

21st century service delivery

# Civil servants are users too

The challenge is service transformation

Not website redesign

That's why we're making technology better for everyone

dia GOV.UK



**Home** 

### Digital Transformation

Digital services so good people prefer to use them

Discovery

7

**Alpha** 

Beta

Live

5

Finding out what the users need, what to measure and what the constraints are Learn more about the discovery phase Building a prototype,
testing it with users and
learning from it
Learn more about the alpha
phase

Scaling up and going public

Learn more about the beta

phase

Learning how to continuously improve the live service

Learn more about the live phase



#### AGILE IN ACTION

- Discovery
  - ➤ Identify user needs, prioritize services
- ➤ Alpha
  - ➤ Build a prototype, test internally
- ➤ Beta
  - ➤ Go public, instrument everything, learn. Iterate.
- ➤ Live
  - ➤ Continuous development & testing

## BETTER, IMMEDIATE FEEDBACK

Is this page useful? Yes No

Is there anything wrong with this page?



# Good services are verbs

# Bad services are nouns

**⊞** GOV.UK



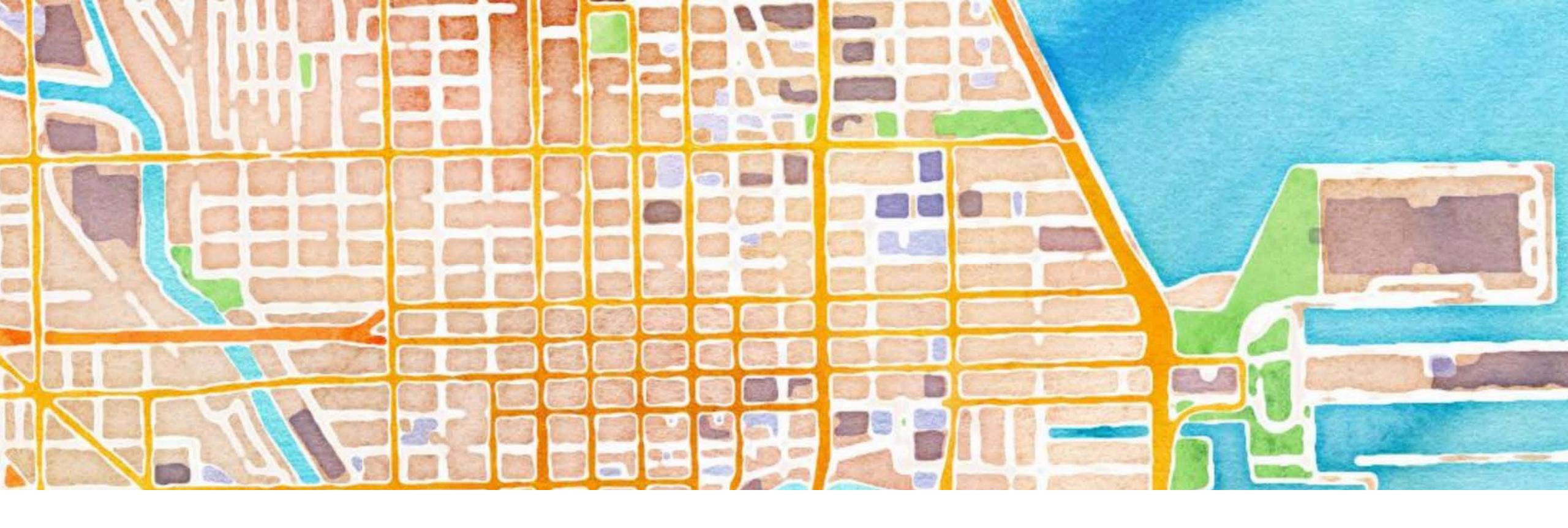
By going digital by default, the government could save between £1.7 and £1.8 billion each year.

-Francis Maude, Minister for the Cabinet Office

Digital by default services are more efficient and more convenient for users. Our initial testing comparing GOV.UK to the previous Directgov and Businesslink.gov.uk sites shows a more positive rating on both ease of use (93% v. 75%) and speed (80 seconds v. 120 seconds).



Government will save money if demand for higher cost channels decreases. A 2012 SOCITM study across 120 local councils estimated that the cost of contact for face to face transactions averages £8.62, for phone £2.83, but for web only 15 pence



# EXPERIMENTS

Getting creative with digital systems

Home > Driving and transport > Tax discs, car tax and SORN

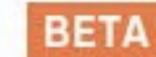
# Renew a tax disc

Make a SORN declaration

Apply for an HGV vehicle tax disc

Calculate vehicle tax rates

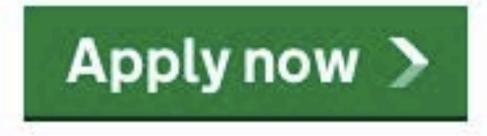
#### Apply using the new service



This is a 'beta' service - find out what this means for you.

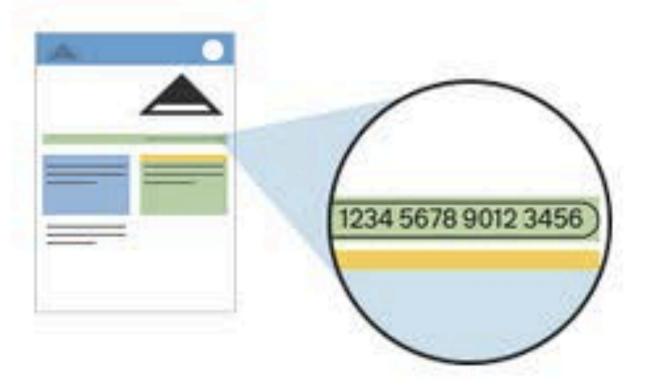
To apply online you'll need either:

- the 16 digit reference number from your tax disc renewal letter (V11)
- the 11 digit reference number from your log book (V5C)



#### You will need

Tax disc renewal letter (V11)





Home

#### Service

# Thank you

Please join the NHS Organ Donor Register.

If you needed an organ transplant would you have one? If so please help others.

Join

or Find out more

Apply for a online

Apply for a - form V85

Book your

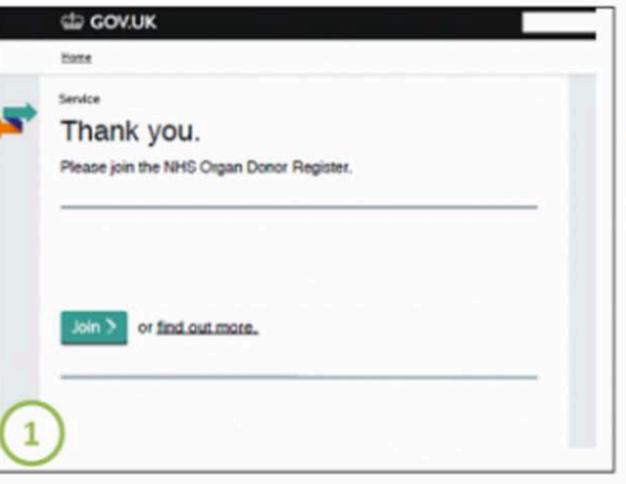
Book your

Car tax: ge

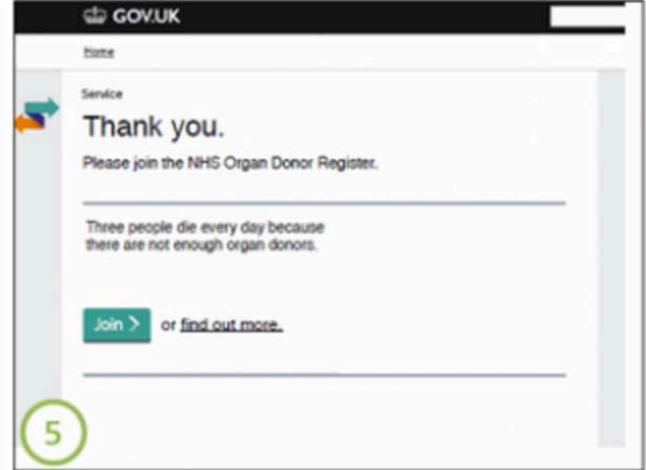
Make a SO Notificatio

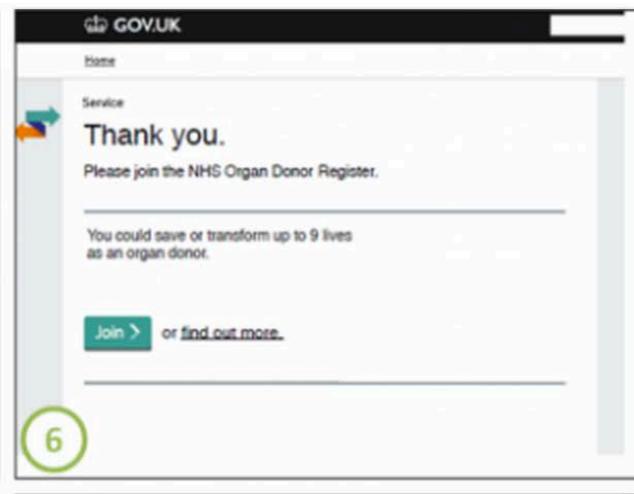
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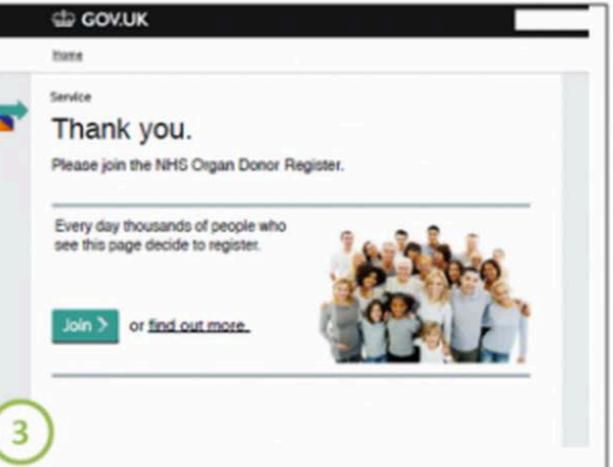
### A/B TESTING



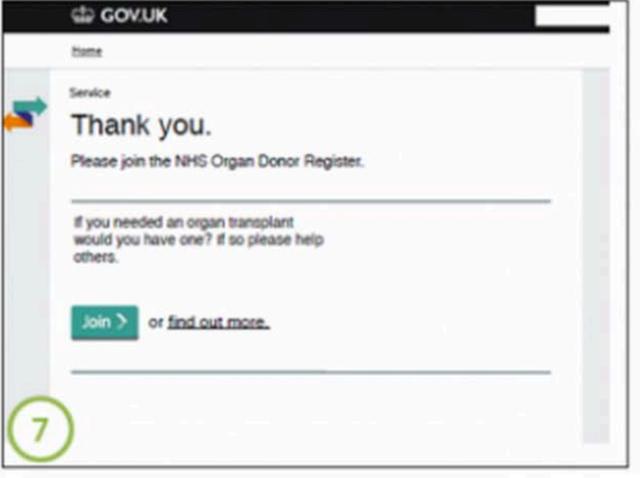


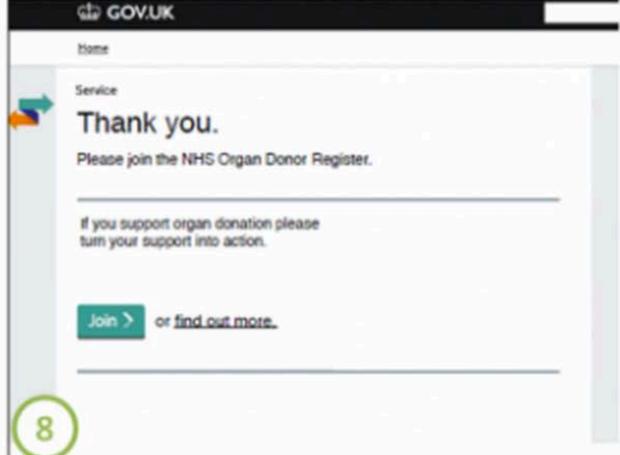














### Blog

# Government Digital Service

Organisations: Government Digital Service, Cabinet Office

# One link on GOV.UK – 350,000 more organ donors

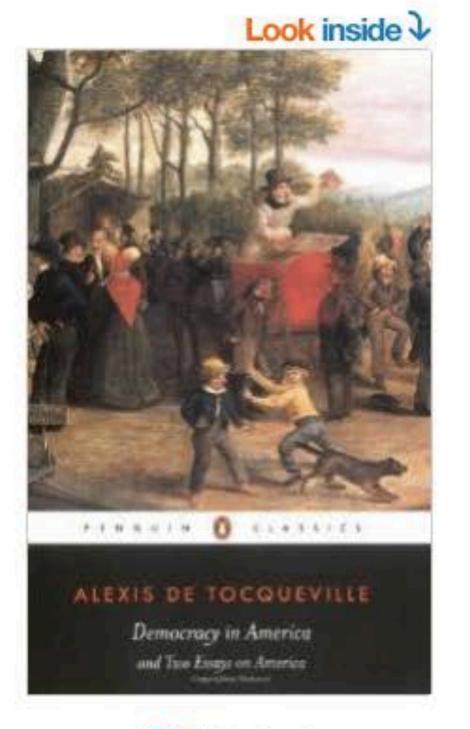
Tom Loosemore, 18 March 2014 — GOV.UK, Measurement and analytics

Search blog



#### Government Digital Service

The Government Digital Service (GDS) is leading the digital transformation of government. Find out more.









See all 2 images

#### Democracy in America (Penguin Classics) Paperback - July 1, 2003

by Alexis de Tocqueville (Author), Isaac Kramnick (Editor, Introduction), Gerald Bevan (Translator)

\*\* \* \* \* 56 customer reviews

ISBN-13: 004-2516142645 ISBN-10: 0140447601

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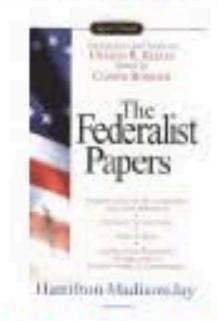
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In 1831 Alexis de Tocqueville, a young French aristocrat and ambitious civil servant, made a nine-month journey throughout America. The result was Democracy in America, a monumental study of the life and institutions of the evolving nation. Tocqueville looked to the flourishing democratic system in America as a possible model for post-revolutionary France, believing that the egalitarian ideals it enshrined reflected the spirit of the age and even divine will. His insightful work has become one of the most influential



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The Federalist Papers (Signet Classics)

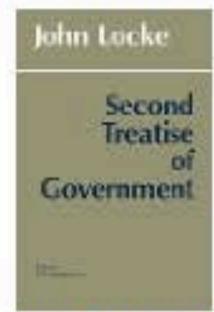
by Alexander Hamilton Mass Market Paperback

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Second Treatise of Government

by John Locke

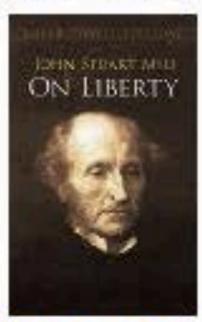
Paperback

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Paperback

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The Federalist Papers (Penguin Classics)

by Alexander Hamilton

Paperback

\*\*\* \* \* 280

\$16.00 \$11.79

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#### TAKEAWAYS / CHALLENGES WITH THE UK MODEL

- ➤ Centralized structure
  - ➤ Not as feasible in US
    - ➤ Neither at the federal or local levels
- ➤ Talent / Budget
  - ➤ GDS was built through Civil Service Reform
  - ➤ Difficult to do in US, particularly at all levels of government
- > Sustainability is a question
  - > Difficult to maintain relationships with departments

Last year, Computer Weekly reported that senior civil servants wanted to break up GDS and return most of its responsibility for digital strategy to departments. GDS supporters have highlighted the relaxation of spend controls as a further diminishing of its central remit.

-Johnny Appleseed

# LECTURE 11 ASSIGNMENT (ASSIGNED 5/6)

- Reading
  - ➤ UK Digital Government Strategy
  - > Strategy is delivery (video) by Mike Bracken
- ➤ Project Work
  - ➤ Create interactive map (due 5/8): https://docs.mapbox.com/help/tutorials/tilequery-healthy-food-finder/
  - ➤ Code samples for reference: mapbox-searchable-map: <a href="https://github.com/">https://github.com/</a> abhinemani/mapbox-searchable-map