

It's a great time to be a geek!

Paul Russell



Agenda



- Data, data everywhere
- But what does it all mean?
- What about credit risk?
- Hold your horses!



Data – the new oil





Structured or unstructured





Access to data is a public good

BBC Sign in News Sport Weather iPlayer TV Rad

NEWS TECHNOLOGY

Home World UK England N. Ireland Scotland Wales Business Politics Health Education Sci/Envir

22 August 2012 Last updated at 10:53

Share f t e p

Midata project plan customer data

Companies could be made to give the public greater access to customer data, after a mixed response to government plans for them to do so voluntarily.

The Midata project asks utilities, web firms and shops to provide "machine-readable" records of transactions.

Cookies on the ODI Website This website uses cookies to provide you with the best experience. [Continue](#)
[Find out more](#)

ODI open data institute Knowledge for everyone

About Our Community Training Library Culture News Contact

ODI-based company reveals global corporate networks with open data images
OpenCorporates has released open data visualisations showing the networks of millions of businesses [Read more](#)



More pieces of the puzzle

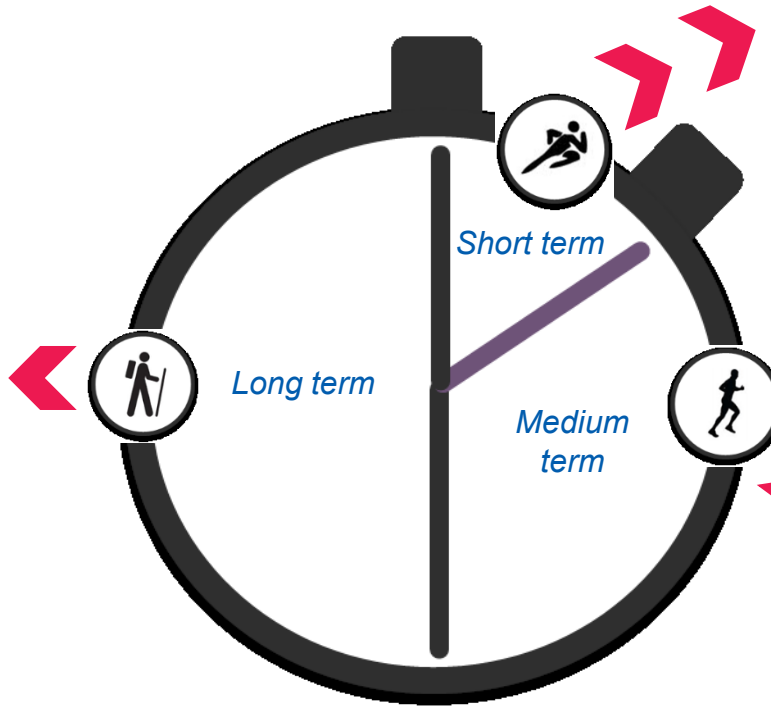


- How many pieces?
- Where is the picture?
- Some parts are sharper than others?



It's not all about social media

- CAIS- Media
- Government
- Health debt files
- Public Sector CAIS
- Property – Rental data
- Revenue & customs
- Savings & investments
- Social Media



- CAIS – Energy & Water
- Property – Land Reg
- Property – Rightmove
- Liability orders
- Comms data
- Income - CATO
- Rental Exchange
- Real time PD Loan
- Guarantees
- CAIS - Insurance
- Employment
- Education
- Shares
- Credit Card transactions



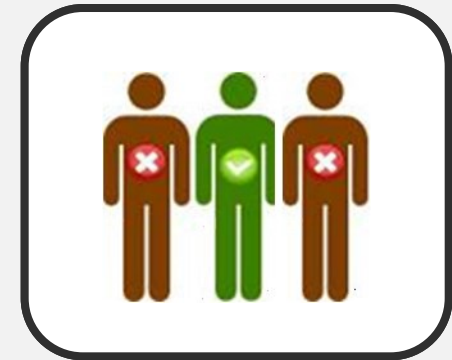
Linking it together is the hard part



Person centric database



Links all data about an individual to one person.....



Create a single view of the person...



Increase Revenue
Cross Sell
Identify correct products



Cut Costs
Communication
Processing



Be compliant
Treat customers fairly



Reduce Losses
Understand exposure
Understand behaviour



Understand the effect of data
Adding new data



Improve quality
Address standardisation
and evergreening

Agenda



- Data, data everywhere
- But what does it all mean?
- What about credit risk?
- Hold your horses!

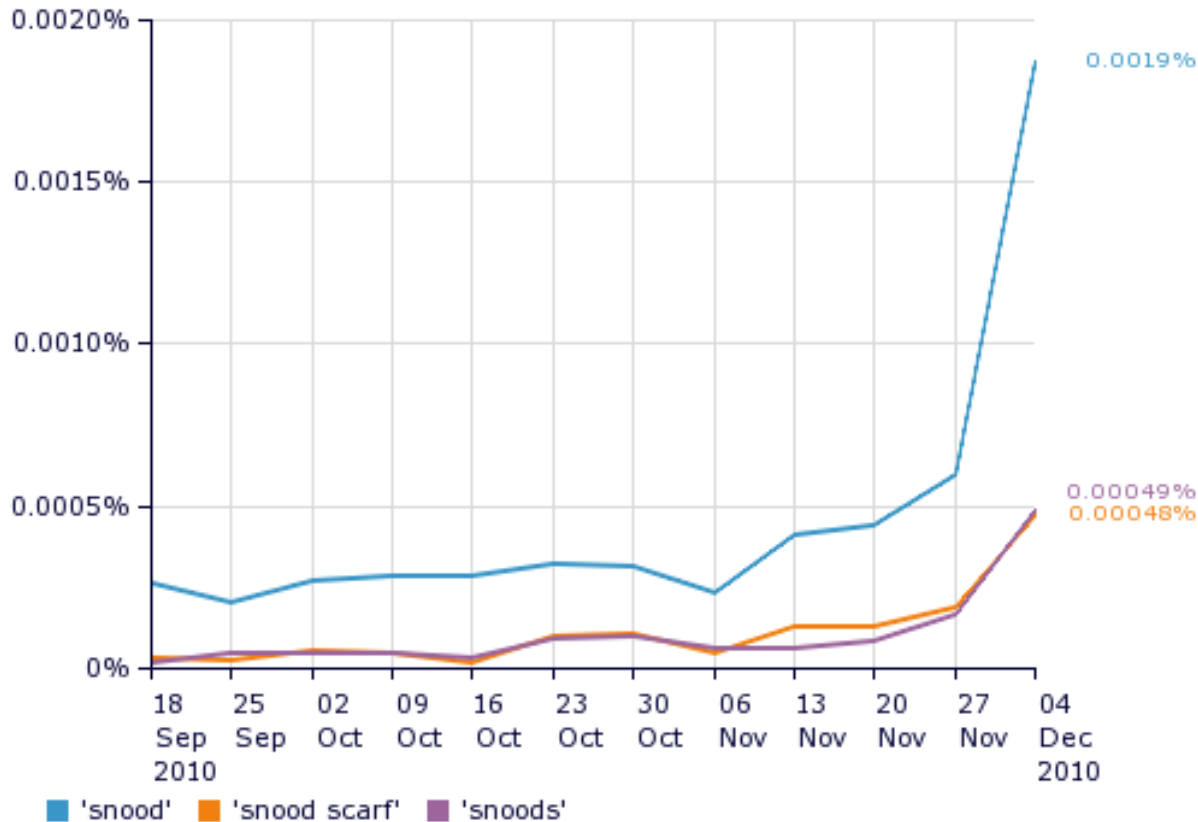
Heavy snow caused people to search for safer cars

Searches for 4x4s vs Weather visits



Snood searches increased 150%

Searches for Snoods online



Weekly search term share of traffic to 'All Categories', based on UK usage.

Created: 10/12/2010. © Copyright 1996-2010 Hitwise Pty. Ltd. Source: Experian Hitwise UK



Everywhere Paul goes his phone goes too...



Knowing where Paul goes, when and how matters...

What can we learn?

- How does Paul commute?
- What route does Paul take?
- Where does Paul go?
- Does Paul use his phone on the move?
- Has Paul crashed his car.
- Does Paul travel abroad for work?

Paul has a job...who with and where?

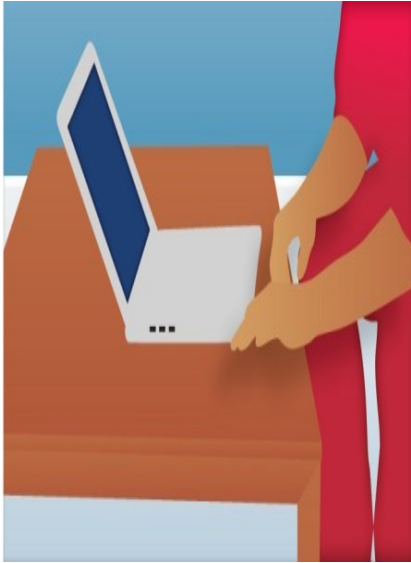


Knowing where Paul's office is matters...

What can we learn?

- Where does Paul work?
- What hours does Paul work?
- Who does Paul work for?
- Are they stable?

Paul is back home and applying for a mortgage



Knowing if Paul is applying for credit matters.....

What can we learn?

- Paul owes money and is an absconding debtor – how can the creditor trace him?
- Is Paul applying from the property we see him at most often
- Is Paul linked to known fraudsters or a ‘questionable’ network.
- Can Paul’s ‘thin credit’ file be improved because of his links?



Customer Behaviors for Usage Stimulation & Cross-Sell

Date Driven Segmentation using Credit Card Spend

Customer Segment	Nuclear Family	Food & Gas	White Collar City	Wired
% of Customers	W%	X%	Y%	Z%
Spending characteristics (relative to population average)	<ul style="list-style-type: none">• 5X Child & Infantwear• 3X Women's wear• 3X Family Clothing• 3X Childcare• 0.4X Nightclubs/Bars	<ul style="list-style-type: none">• 3X Grocery• 4X Wholesale Clubs• 2X Gas• 0.3X Restaurant• Grocery/Gas = 72% of Total Spend	<ul style="list-style-type: none">• 4X Taxis/Limos• 3X High End Restaurant• 3X Golf Courses• 3X Dry Cleaners• 2X Airlines• 0.4X Discount Stores	<ul style="list-style-type: none">• 6X Record Store (iTunes)• 6X Books (Amazon)• 5X Direct Mktg (Online Shopping)• 5X Pro Services (Paypal)• 5X Video Arcade (Online gaming)• 0.3X Grocery



Count & average rating of reviews where the word occurs

Word1	Word2	Cnt
,	and	1852
,	but	1549
this	place	1349
it	was	1243
it	"s"	1228
,	i	1159
of	the	1132
carne	asada	1130
and	the	1080
in	the	1061
on	the	877
and	i	811
i	"ve"	800
do	"nt"	780
the	food	779
i	was	774
i	"m"	764
if	you	761
	the	761
the	best	725

Word1	Word2	Rating	Cnt
best	burger	4.91	11
ever	since	4.91	11
casanova	fish	4.91	11
fresh	fish	4.91	11
always	fresh	4.89	19
die	for	4.87	39
to	buy	4.87	15
absolutely	delicious	4.85	13
,	limes	4.83	12
all	kinds	4.83	12
oh	my	4.82	22
so	friendly	4.82	11
first	place	4.82	11
down	with	4.81	16
authentic	.	4.8	15
farmer	"s"	4.79	14
to	die	4.78	37
diego	!	4.78	27
so	fresh	4.78	23
soup	while	4.77	13

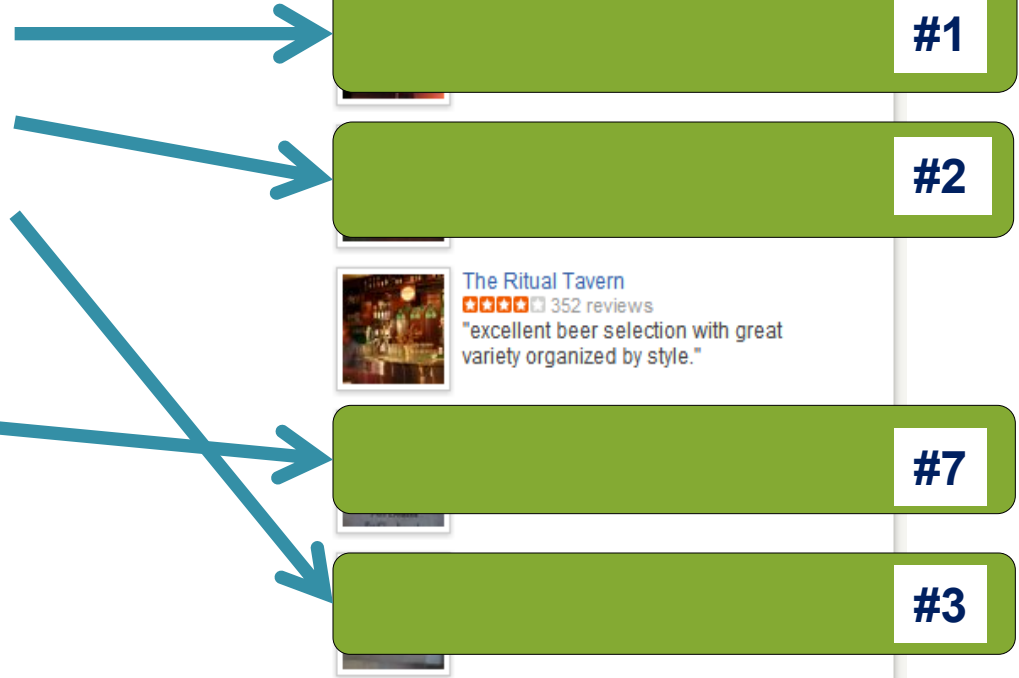
Word1	Word2	Rating	Cnt
for	chips	2.55	11
not	recommend	2.54	13
"nt"	understand	2.53	15
the	manager	2.5	18
told	the	2.5	12
1	star	2.5	12
no	flavor	2.45	11
,	way	2.42	12
bland	,	2.42	12
money	and	2.36	11
was	dry	2.32	19
really	?	2.31	16
not	good	2.31	13
disappointing	.	2.27	15
my	time	2.27	11
not	worth	2.21	19
elsewhere	.	2.13	15
the	worst	1.96	25
food	poisoning	1.92	13
never	again	1.42	12



Consumer spend preference driven by bank card transaction data

Similarity	SIC code	Merchant Name
1.0000	5812	TIGER TIGER
0.3260	5812	BLIND LADY ALE HOUSE
0.2697	5812	TORONADO
0.2661	5812	SMALL BAR
0.2633	5812	HAMILTON'S TAVERN
0.2169	5812	URBN PIZZA
0.2153	5812	OBRIENS
0.2144	5812	MONKEY PAW
0.2128	5813	STATION TAVERN
0.2093	5813	BOTTLECRAFT
0.2091	5999	STONE BREWING CO STORE

People Who Viewed This Also Viewed...

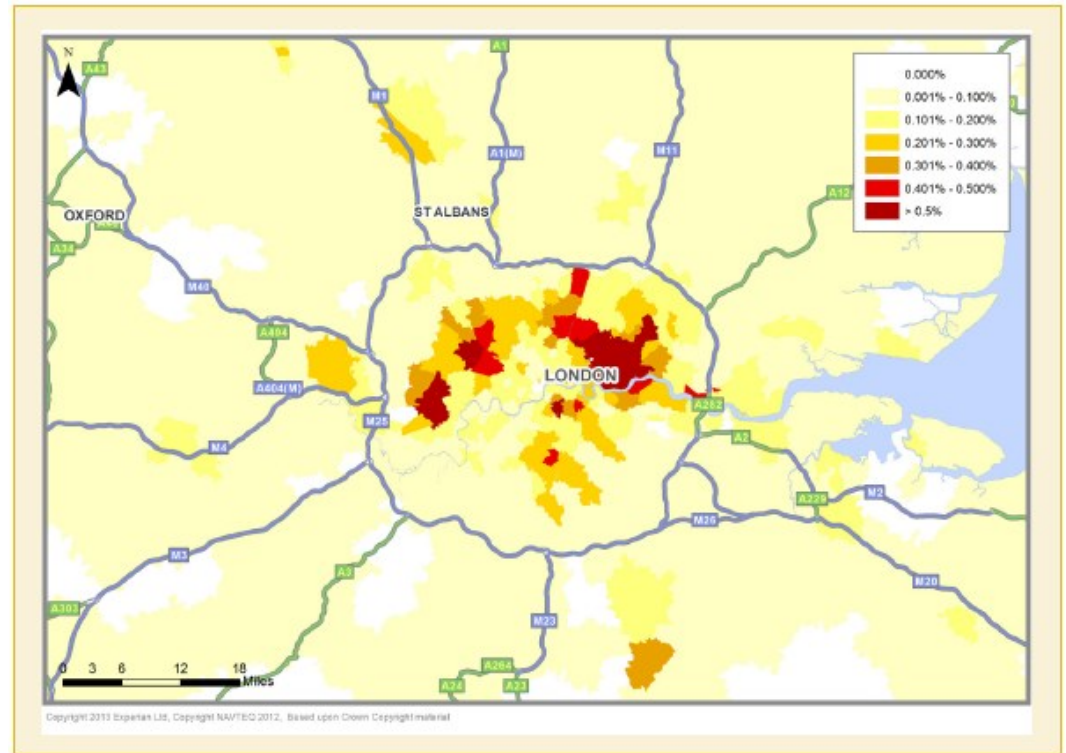
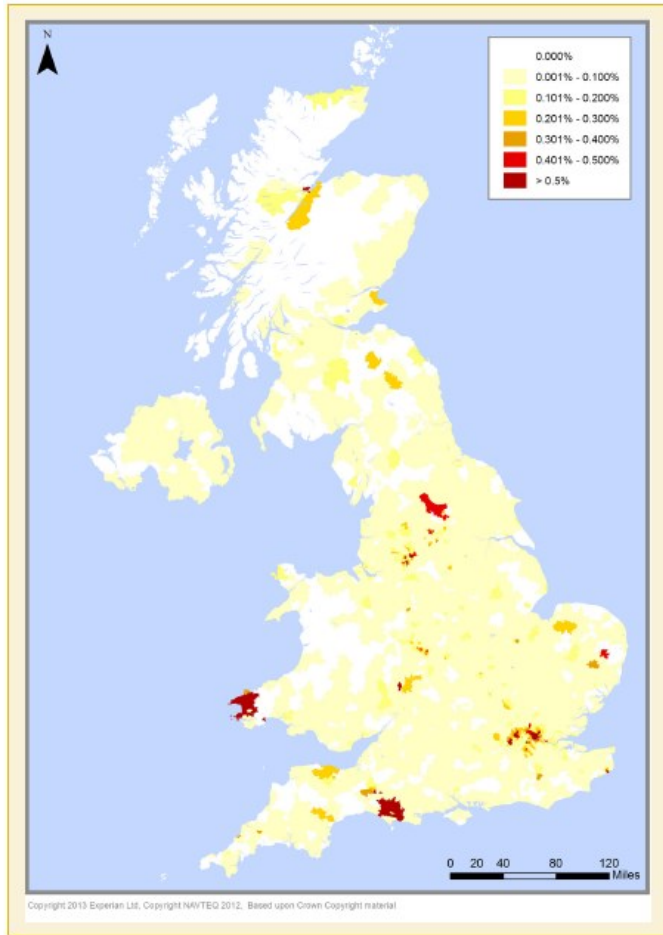


Agenda



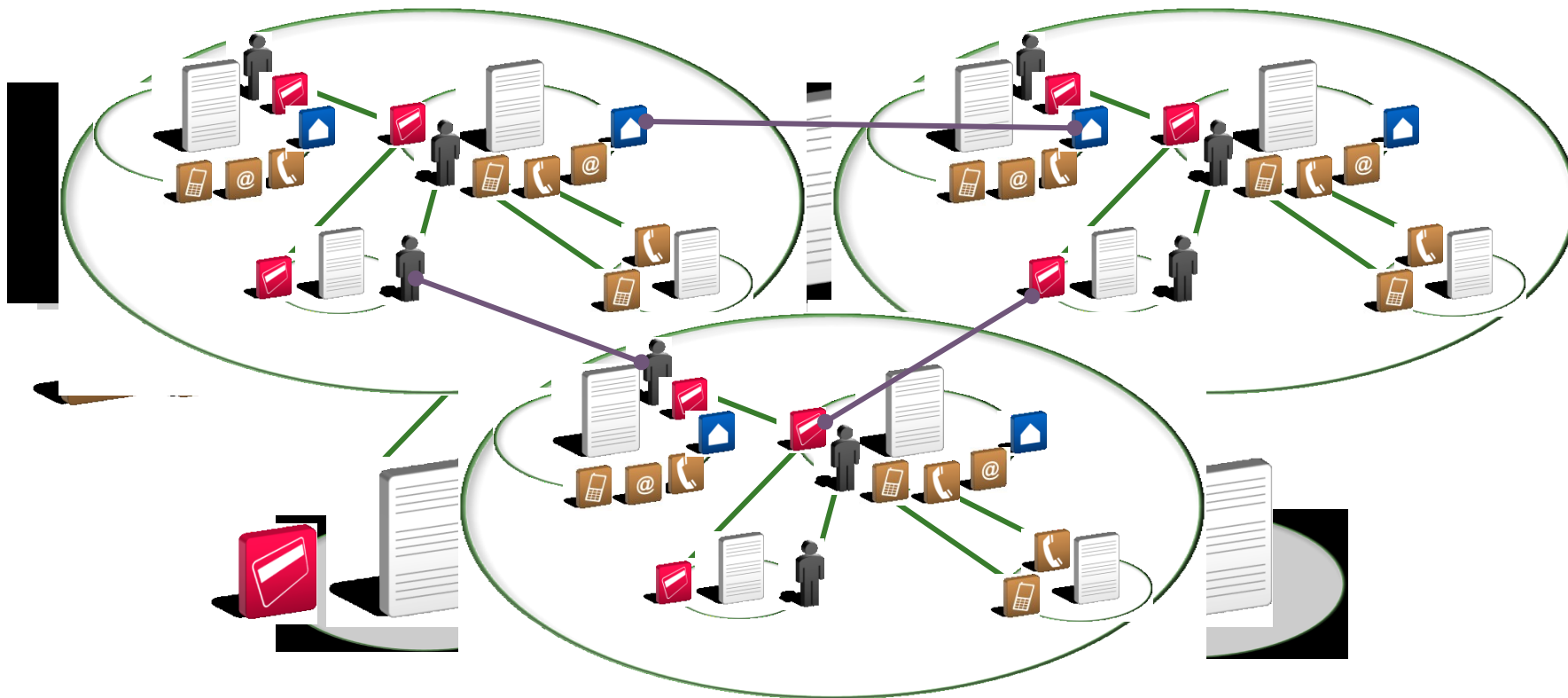
- Data, data everywhere
- But what does it all mean?
- What about credit risk?
- Hold your horses!

Recorded First Party Fraud



Source: National Hunter

How Fraud Networks Evolve



 Bank Details

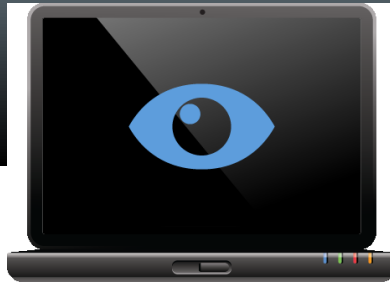
 Address Details

 Email

 Mobile

 Landline

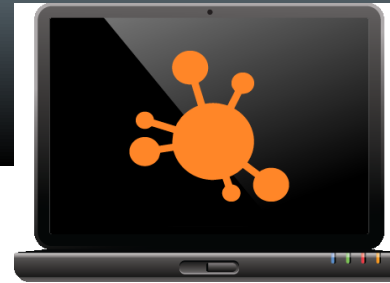
Global device recognition and reputation



Has anyone seen this device before?



Has anyone had a bad experience?



Is it related to known bad devices?



Have anomalies been detected?



This round-trip takes about 500 milliseconds!



Meeting the new regulatory requirements

Firms will be expected to assess a customer's suitability for products across -



Existing customers on existing products




Existing customers taking out new products



New to bank customers

 Suitability

 Credit risk

 AML

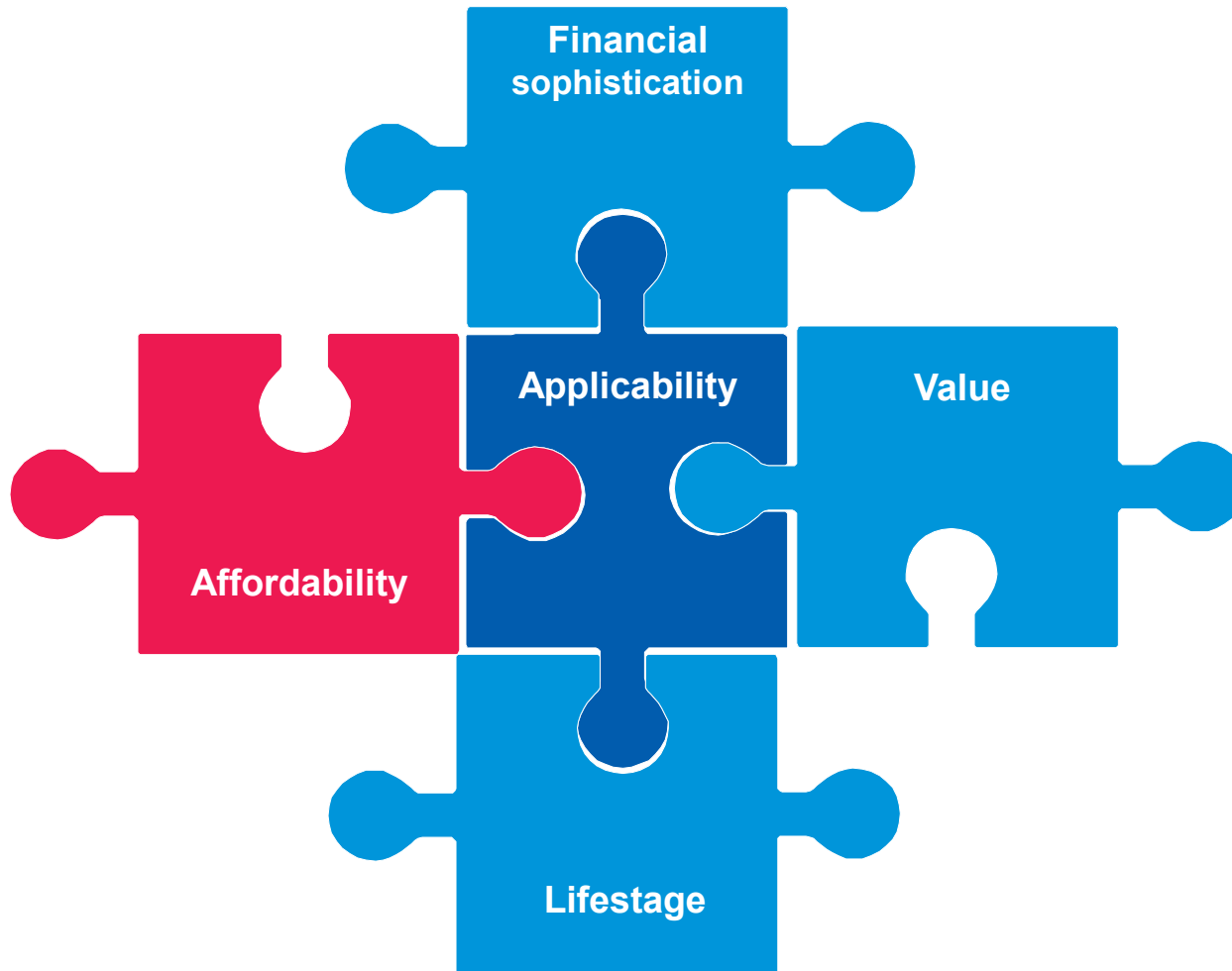
 Fraud

A new risk check

Suitability assessment

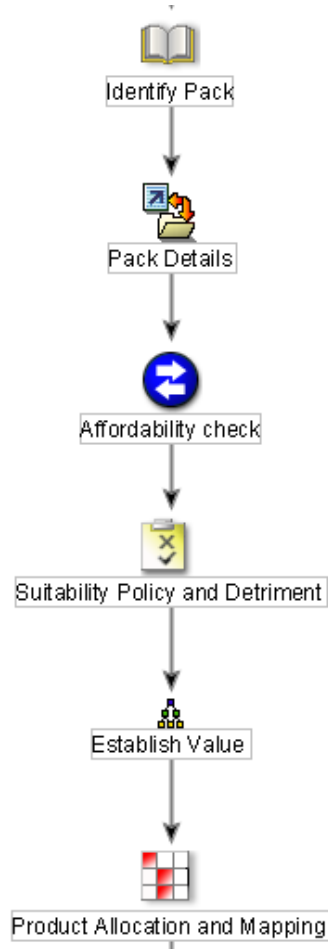


What do we mean by suitability?





Suitability assessment - a packaged current account



1 Establish the product being reviewed

2 Determine the features of that product

3 Calculate disposable income

4 Assess lifestage relevance and product features usability – returns flags to confirm which elements are not usable

5 Establish the value of usable features

6 Allocate products that are suitable and flag if the current product is not listed

Product design criteria



Individual customer assessment

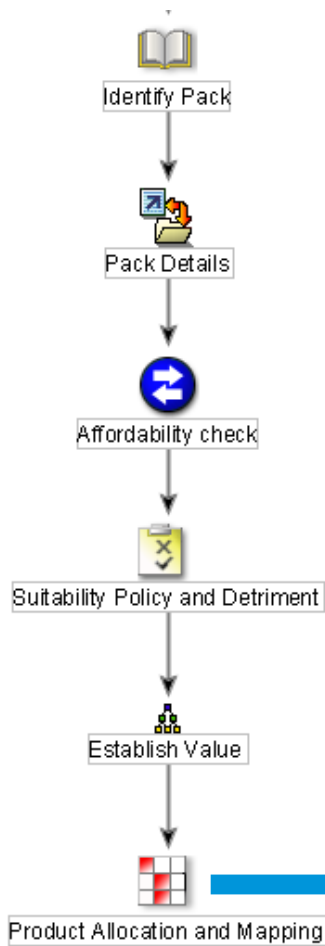


Suitability decision

Suitability assessment



Suitability policy and detriment - Affordability and sophistication matrix



Temporary.New Lifestyle.Financial Sophistication assigned

	0-19	20 - 39	40-69	70+	Others
less or equ...	Basic	Basic	Basic	Basic	Basic
1-25	Standard	Standard	Standard	Simple Pack...	Standard
26-50	Standard	Standard	Simple Pack...	Complex Pa...	Standard
51-100	Standard	Simple Pack...	Complex Pa...	High Value	Standard
101-150	Standard	Simple Pack...	Complex Pa...	High Value	Standard
150+	Standard	Complex Pa...	High Value	High Value	Standard

Results.Afford.Net Residual Lending Capacity

Financial Sophistication Index (FSI) is a generic model to assess an individual's financial understanding

Net Residual Income calculated previously in the decision flow

Minimum **affordability** required for each packaged account

Suitability assessment

Agenda



- Data, data everywhere
- But what does it all mean?
- What about credit risk?
- Hold your horses!

The Telegraph

Home News World Sport Finance Comment Blogs Culture Travel Life Women
Politics | Obits | Education | Earth | Science | Defence | Health | Scotland | Royal | Celebrities

HOME » NEWS » UK NEWS

How Big Brother watches your every move

In our ever-growing surveillance society, the average Briton is being recorded 3,000 times a week. Richard Gray reports.



In many cases information is kept by companies such as banks and shops, but in certain circumstances they can be asked to hand it over to a range of legal authorities. Photo: [unreadable]

Print this article

Share 118

Facebook 118

Twitter 0

Email

LinkedIn 0

+1 0

UK News
News »

In Politics

- Consent
- Informed?
- Ipsos-Mori
- Google



Permissions



Regulation



- Data Protection Directive
- Right to be forgotten
- Limited scoring
- Right to object

Conclusion



- More data is better
- Linking is important
- Demand for skills
- We have to take the public with us