
Identity Management (Broad Scan)

Workshop Report
13th November 2006

Ipsos MORI

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insights from the outside

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Executive Summary

The aim of this project is to bring together a cross-section of public and private sector perspectives in tandem with consumer and other expert views to inform the development of a framework for the Identity Management PPF. To this end a one-day workshop was held on 13th November.

The aim was to investigate the broad context of future identity management and the impact on the four cross-cutting Key Themes of particular interest to the PPF: how *consumers* can best be encouraged to play their part in safeguarding their identity and the scope for creating common processes and standards for repairing compromised identity records; identifying the key steps in any programme of *convergence* of identity management between the public and private sectors; analysing the nature of any *legislative barriers* to public-private partnership on identity management; and reviewing *international best practice* on identity management, particularly in those countries who have successfully achieved a public-private partnership.

Specifically the workshop looked at the broad, key drivers behind identity management, and the uncertainties around these, before going on to assess their impact on the need for identity management, and how they shape management within the context of the PPF's four Key Themes.

Main conclusions in key drivers/themes

The main conclusions for each driver/theme are summarised below. Participants ranked these in terms of their impact on IDM, on a straightforward, High, Medium and Low scale.

High Impact

Information and Extracting Value: Bringing identity information together does not mean bringing transaction data in

Engaging with Individuals: Individuals must believe, "it works for me"

Exclusion and Inequalities: Reduction of exclusion has to be part of the strategy

Role of Government: It's about citizen trust and benefit delivery

Role of Business: Business is important because identity management is something which is done with or done to business. They are potential suppliers, users and therefore shapers of identity management

Privacy: Governance/privacy is not an either/or issue: there are grey areas. We cannot rely on legal protection; it has to be in the mindset at source

Agency: There is a need for aware consumers; and governance is crucial

Ownership and Identity: It is very complicated to manage for average user. How can the agent help? There should be control of what companies could ask you to provide

Trust: People develop an instinctive radar for trust through use and experience. How do we manage when this breaks down?

High/Medium Impact

Culture: There is a need to help citizens understand value in their identity and to manage

Medium Impact

Environment: ID management is important for responses to environmental issues. There are some saleable consumer benefits

Attitudes to Risk: Different perceptions of risk between government and other parties means that there is a risk that consumers won't adopt

Demographics: ID is a global issue: With the international movement of people there is a need for an international framework

Criminality: On the downside the impact on criminality has been overstated. On the upside identity management is a real opportunity to close the loopholes for low level criminals; e.g. benefit fraud

Internet: It is difficult to control the internet over any planning time-period. You cannot legislate for all

Low Impact

Biometrics: Not the answer: Government wants a limousine but we have only just invented the wheel. There are many things necessary for an identity management system of which biometrics is but one

Introduction

The workshop was attended by a cross-section of Government departments and participants from the private sector. It was facilitated by Outsights-MORI, the Partnership working with the Office of Science and Innovation's Horizon Scanning Centre (HSC) to build a quality database of future drivers of change, and to apply these to complex and cross cutting policy challenges. (See Appendix One for participants)

This report records the output of that workshop – Identity Management (Broad Scan). It is presented in four main sections:

- Section 1:** Key questions and issues for identity management
- Section 2:** Drivers of change brainstorming
- Section 3:** Key questions and issues for identity management
- Section 4:** Final plenary session
- Appendices:** Participants
Presentations

Section 1: Key questions and issues for identity management

The day started with an introduction to the project by Jon Parke, followed by an outline of the day by Richard O'Brien. Participants then had the opportunity to suggest the key questions and issues around which they would like to get further clarity. These are summarised below:

- Where does convergence of bottom-up (companies, etc.) and national initiatives meet?
- The need for a global scope to identity management
- Trust and associated issues of data protection
- What are we waiting for? We already have secure identity management in e-commerce
- How do we maximise use of the system?
- How do we get buy-in from consumers?
- Trust: is there a disconnect between political/consumer interests?
- How do we get two camps – efficient interlinked government and other interested parties – together?
- Strong identity can lead to weakness
- How does the provider accept liability arising from identity systems?
- How does mass information sharing square with data protection?
- Problems of identity theft and the issue of libel against victims
- How does the UK inter-operate with overseas systems?
- How to communicate securely with industry?
- How do we repair the theft of biometrical identity?
- How does the technical-side control perceptions of liability?
- How, and where, can we join-up public and private? Where to start?
- Confidence of consumers – both in input and in coping with what goes wrong
- What is the correct level of scrutiny? What are the limits?
- How will a public-private partnership work?
- Will identity management be at least European wide?
- How can 3rd-party audit schemes be used?
- How will identity management impact on people's lives?
- How do we educate the public?
- What will the unintended consequences be (function creep)?
- We will create less security as points of attack increase
- What will the impact be on fraud and how will this be prevented?
- How do we make identity management efficient?
- How do we get alienated sections of societies to use identity management systems?
- How do we turn identity management into a social good?
- How will it impact on the concept of Britishness?
- The conflict between convergence and consumer concerns
- What will identity management look like?
- How do we balance consumers needs with providers needs?

Section 2: Drivers of change brainstorming

The Outsights-MORI Drivers of Change presentation, based on a scan of the Horizon Scanning Centre's Sigma Scan database and other sources, was used to stimulate thinking on the important external drivers. Five groups then brainstormed the key drivers using the "STEEP" framework. The results of this were then grouped under the headings below:

Privacy

- Privacy as a right
- Large numbers who want total privacy (of identity)
- What is privacy worth?

Environmental Needs

- Link between personal consumption and the environment
- Personalised carbon saving ideas
- Changing use of resources and sustainability
- IT infrastructure and usage and ownership – resource demands
- Waste management (and the content of the bins)
- E-retail – green delivery. Packaging. Local sourcing. Volume/stock management
- Increasing environmental responsibility – by people, businesses...
- Desire to be able to show environmental responsibility (or not)
- Data → information to manage behaviour – road tolling, bins!
- Systems to make better environmental choices

Trust: Who do we trust?

- Declining trust in the state – new relationship to fill the void?
- Trust built by experience
- Distinction % trust → eBay model. Confidence → enrolment/access. Liability
- Need to delegate trust to others
- Trust in system
- Trust proxy
- Different grades of technology for different levels of trust
- Risk-based approach
- Reflect true consumer utilities on trust and risk (people are inherently trusting)
- Using data and information to meet government targets – personal involvement
- Identity bill of rights
- Who is trusted to be the public's guardian of identity → Scientists, technologies, frontline public servants, professionals

Internet

- Level to which technology can deliver political goals
- Growth of on-line shopping
- Internet of things
- Internet as enabler
- Ability to tag and identify material through RFID - clear and personal ownership
- Identity for economic use e.g. retail
- Value from richness in databases
- Silo nature of government and multiple databases

Biometrics and other technologies

- Industry/retail → convergence drivers? → increase competition
- Biometrics? Tool for convergence. Exceptions?
- Biometrics → system convergence
- Biometrics change – can't be taken as absolute forever
- Need for large scale testing of systems

Ownership of identity

- Responsibility for identity
- Ownership of one's pin number – landscape of empowerment
- Identity belongs to? Individual
- Improved risk management driving convergence
- Economic benefits (industry takes costs)
- Individual responsibility → builds trust

Engaging with individual/consumer

- Identifying benefits for individuals
- Need for public involvement from the start – engagement and public advisory
- Need to engage public and convince of needs
- Make clear the benefits to the consumer especially socially excluded
- Use interaction with consumer

Role of government as manager

- Who leads on new technology?
- Change behaviour through technology not conviction/consensus
- Leading minds in identity don't claim to understand all the issues – government thinking driven by "old school" ideas about identity
- Who is responsible to prove/check identity
- Idea that data sharing good
- Power of government over information

- Government desire to be gatekeeper
- Government action implies imposition of liability → backed up by coercion → flies in face of arguments
- What is needed to change behaviours?
- Who established legal infrastructure?

Attitudes to risk

- Information heroism
- Transfer of liability and risk
- How information is used e.g. to appear to be heroic
- Legislation by media
- Adversarial politics impact on consensus on ID management
- Management and control models change across the commercial landscape; what about politics?
- Extent to which cost-benefit analysis is part of public debate
- Politicisation of risk
- Fear. Uncertainty. Doubt. → stronger state
- Perceived external threats e.g. terror increases acceptability of IDM

Role of Business

- Need for businesses to identify people
- Level of democracy (shaping attitudes etc.)
- Scalability of proposals; audit role
- Powers to revoke identification
- Identity standard nationwide
- Commercial entities taking on national standards (US experience)

Agency

- People more willing to subsume identities as long as there are mechanisms for control
- Need for agency and flexibility to help people live their lives – too rigid = worse outcome for disadvantaged
- Need for flexibility
- Need to define a single/unique identity beneath the plethora of “virtual identities”
- Identity should be cradle to grave but need flexibility to tailor it to context

Cultural Change

- Religious sensitivities at odds with core “biological” identity?

Exclusion and inequalities

- Change in welfare systems

- Accessibility challenges
- Does IDM lock-in social inequality – lack of obvious benefits to socially excluded
- Exclusion driven by progress
- How to cover the excluded?
- Society and technology policy - driven by minority issues

Criminality

- New criminal behaviours triggered by IDM
 - Violence
 - Tech enabled bio-manipulation
 - Weak points

Constitutional Reform

- International jurisdictions and boundaries will be tested e.g. UN
- New form of governance – consultation enabled by technology
- Constitutional reform
 - State nor custodian
 - New institution e.g. if lose identity

Demographics – Migration/ageing

- ID control of economic migrants e.g. Hong Kong
- Dynamic movements of population – unstable
- Ageing population – digital generation come of age

Need to define identity

- Top down savings efficiency government/business
- Fraud costs
- Increasing need for identity in goods and services
- Demand for services requiring identity
- Integrating of processes in economy
- Behind (e.g. Hong Kong) → UK competition → opportunities?
- Information value and provenance of information versus “democratisation” of information
- Provenance linked to value given to information
- Closing supply chains – e.g. copper as example
- Proportionality – cost, risk
- Hold ourselves and others accountable for recognising vested interest
- Constant change, constant tension
 - Liability
 - State benefit
 - Privacy

- Security
- Citizen benefit
- Trust between citizens state business
- Proportional
 - Cost
 - Risk
 - Convenience

Miscellaneous

- Articulate the dimensions of change
- Politicisation of technology
- Efficiency; consumer; simplification; interface
- Shift to services from manufacturing
- ID cards: failure of version 1 – everywhere
- Benefits of use of existing tech (proven)
- More than just deploying technology
- Technology – how to stop people using it as competitive tool?

Summary of drivers discussion

A number of observations emerged from the drivers of change brainstorm which follows:

- There is a noteworthy difference between confidence in a system and trust in a person
- We build trust through experience. Whilst people don't believe systems are inherently trustworthy they are prepared to take some personal liability
- When trust is eroded – e.g. with Enron – we see the emergence of third parties in trust – as happened with the Sarbanes-Oxley legislation
- Australia is looking to implement an “access” card. This represents a move to a trust and empowerment model. The card and their identity belong to the individual rather than the Crown – this is symbolically important
- People are already used to the idea of identity management through online retail. Over the last five years online retailing has expanded its market share from 1% to 10%; now approximately 50% of people use the internet to purchase things
- Exclusion is a major issue which can only be dealt through intermediaries. An associated question is who will the excluded be in the future?
- “In the future I will need to empower my fridge to go and bid for something on my behalf in Second Life”. This illustrates the point that we need to delegate trust and facilitate social inclusion
- In this country we have a basic welfare safety-net: if I break my leg, I can go to A&E and have it fixed. From an identity management perspective, all I have to do is prove my uniqueness rather than prove my identity i.e. I am not claiming benefit from elsewhere

Section 3: key questions and issues for identity management

From the drivers brainstorming session sixteen key themes were identified. These were divided between four groups, with subjects randomly distributed and participants choosing their groups:

Group 1

- Environment
- Ownership of information and extracting value
- Engaging with the individual
- Exclusion and inequalities

Group 2

- Role of government
- Attitudes to risk
- Demographics (migration and ageing)
- Role of business

Group 3

- Criminality
- Privacy
- Agency
- Biometrics

Group 4

- Internet
- Ownership of identity
- Trust
- Cultural change

The groups recorded the uncertainty around each driver/theme. They then went on to assess the impact (high, medium, low) of the drivers/themes on shaping *the need for identity management* (the “what”) and in *shaping the management of identity* (the “how”) in the context of the PPFI’s Key Themes. The output from this activity is captured as it appeared in the workshop in the matrices that follow.

Drivers of Change and their impacts on IDM

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management									
	Shaping need					Shaping management				
Driver: Environment <ul style="list-style-type: none"> ▪ Emissions targeted ▪ Resource trading ▪ Major disrupter (communities) disasters ▪ Lifecycles of goods ▪ Global standards of audit ▪ Global issue 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Global standards of traceability - with local effect ▪ Anti-competitiveness 				H				
	Consumer	<ul style="list-style-type: none"> ▪ Responsible consumption ▪ Marketable benefit ▪ Protection in disaster 								
	Legislative									
	International	<ul style="list-style-type: none"> ▪ Handling of disasters – who is where? 								
Headline message:	ID management is important for responses to environmental issues. Some saleable consumer benefits									

Medium Impact

- It is a medium impact issue as it is a potential disrupter
- Identity of things and their lifecycles; e.g. tracking a component in a TV which goes to South East Asia to be recycled and comes back to Europe again. This is a process which is not as environmentally friendly as at first anticipated.
- Identity management is important for responses; e.g. with recycling targets from the EU
- Using identity management after a natural disaster; e.g. after the Tsunami the Swedes were able to identify their citizens very quickly
- What is the credibility of using identity management for individual carbon taxes/credits?
- Identity management has been used for some time in conservation; e.g. in the tracking of endangered species

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management												
	Shaping need					Shaping management							
						H	M	L			H	M	L
Driver: Ownership of Information and Extracting Value	Convergence & common standards	<ul style="list-style-type: none"> Who owns any control ID register? 	H										
<ul style="list-style-type: none"> Tesco Individual ownership 	Consumer	<ul style="list-style-type: none"> Extraction of value is a threat Convergence needn't mean greater transparency of transaction data Ownership → empowerment Choice 	H										
	Legislative		H										
	International	<ul style="list-style-type: none"> Australian experience 	H										
Headline message:	Bringing identity info together doesn't mean bringing transaction data in												

High Impact

- Central ID register needs to keep transactional data separate

DRIVERS	TASK ONE:	TASK TWO: Impact on Identity Management																				
	Key dimensions of the driver	Shaping need						Shaping management														
		H			M			L			H			M			L					
Driver: Engaging with the Individual	Convergence & common standards				H																	
<ul style="list-style-type: none"> ▪ Transformational government ▪ Hassle reduction 	Consumer				H																	
<ul style="list-style-type: none"> ▪ Collaborative government – bye bye big brother ▪ What’s good for some may be bad for others 	Legislative	EU Impact				H																
<ul style="list-style-type: none"> ▪ Costly, time consuming 	International	Immigration workforce – labour markets				H																
Headline message:	Individuals must believe - it works for me!																					

High Impact

- Identity management won't happen if individuals don't believe in it

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management											
	Shaping need						Shaping management					
Driver: Exclusion and Inequalities	Convergence & common standards		H	M	L							
<ul style="list-style-type: none"> ▪ Access to technology ▪ Complexity of systems ▪ Immigration 	Consumer	<ul style="list-style-type: none"> ▪ Identify and claimed benefits 				<ul style="list-style-type: none"> ▪ Timely pay out 						
	Legislative											
	International											
Headline message:	It's complex; reduction of exclusion has to be part of the strategy											

High Impact

- Critical and subset of engagement with individual
- Could reduce exclusion e.g. matching claimants up to their benefits
- Big debate on what to regulate
- There could be unintended consequences on exclusion from introducing identity management
- Reduction of exclusion has to be part of policy
- DWP and social security policy making could benefit from mining the data that identity management would make available. However, this would lead to a decline in trust; therefore is there a need for an independent arbiter?
- Identity management can lead to greater individual choice in the provision of public services and is therefore empowering

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management											
	Shaping need					Shaping management						
						H	M	L		H	M	L
Driver: Role of Government <ul style="list-style-type: none"> ▪ Less deferential ▪ Efficiency ▪ Accountability ▪ Big vs. little government ▪ Supra-national government & devolution 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Efficiency: sharing infrastructure within and outside 				H						
	Consumer	<ul style="list-style-type: none"> ▪ “One-stop shop” streamlined interface 				H			<ul style="list-style-type: none"> ▪ Has to be acceptable to all 		H	
	Legislative	<ul style="list-style-type: none"> ▪ Access to tax and benefits 				H			<ul style="list-style-type: none"> ▪ Liability (underwriting) 		H	
	International	<ul style="list-style-type: none"> ▪ Need for international harmony 				H						
Headline message:		It's about citizen trust & benefit delivery										

High Impact

- Important because where accountability sits
- Big vs. little government – deliverer or enabler
- Role in streamlining the interface
- Plays an important role in gaining citizens trust and consumer delivery

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management											
	Shaping need					Shaping management						
						H M L			H M L			
Driver: Attitudes to Risk <ul style="list-style-type: none"> ▪ Security ▪ Different perceptions ▪ Shaped by bolt from the blue events ▪ Volatile ▪ Different risks: individual vs. collective 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Multiple processes ▪ Subjective ▪ Choose wrong standard 	H			<ul style="list-style-type: none"> ▪ Need for standardisation 				H		
	Consumer	<ul style="list-style-type: none"> ▪ Adoption ▪ Choose wrong system 	H			<ul style="list-style-type: none"> ▪ No tech lock in → needs to be flexible ▪ Make useful consumer engagement 				H		
	Legislative	<ul style="list-style-type: none"> ▪ Need to update data protect law to encourage consent driven data sharing 			M	<ul style="list-style-type: none"> ▪ Baseline ▪ Strategic over tactical 						M
	International	<ul style="list-style-type: none"> ▪ Different international attitudes forcing UK to adopt system which not beneficial 			M							
Headline message:	“Different perceptions of risk between government and other parties means that there is a risk consumer won’t adopt”											

Medium Impact

- There are different perceptions of risk between countries – e.g. in security, there are different attitudes to border control in the US vs. the UK and the EU – and between institutions – what the citizen sees as a high risk vs. what the government sees as a high risk
- The need to manage risk: don’t want silos and don’t want it done to you

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management												
	Shaping need					Shaping management							
Driver: Demographics (migration & ageing) <ul style="list-style-type: none"> ▪ Ever increasing ▪ Ever more complex ▪ Ageing population ▪ Multi-nationalities 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Need for international standards ▪ Better handle on who's where 							<ul style="list-style-type: none"> ▪ Reliability of biometric, with ageing and diversity ▪ Harder to manage 				
		Consumer	<ul style="list-style-type: none"> ▪ What are UK nationals entitled to abroad 							<ul style="list-style-type: none"> ▪ More accepting 			
		Legislative	<ul style="list-style-type: none"> ▪ Interoperability and jurisdiction over foreign nationals ▪ Need to make complementary systems 										
		International	<ul style="list-style-type: none"> ▪ Reciprocity ▪ Data sharing 										
Headline message:	ID is a global issue: International movement of people therefore need for international framework												

Medium Impact

- How do we manage demographic change, as it will happen?
- More diversity and migration means it will be more difficult to create an identity framework
- On the one hand, the younger population are more likely to accept identity management but on the other hand, they are also more empowered – which way will this play out?

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management											
	Shaping need					Shaping management						
				H	M	L				H	M	L
Driver: Role of Business Uncertainty around: <ul style="list-style-type: none"> ▪ Users ▪ Suppliers ▪ Shapers ▪ Nature of transactions may change 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Business has infrastructure e.g. chip and pin 		H			<ul style="list-style-type: none"> ▪ Gate-keeping ▪ Reciprocity ▪ Necessary condition for success 				M	
	Consumer	<ul style="list-style-type: none"> ▪ Business as user: efficiency ▪ Lose competitive advantage ▪ New business models 		H		L	<ul style="list-style-type: none"> ▪ Customer experience 				M	
	Legislative	<ul style="list-style-type: none"> ▪ Is business a citizen/legal entity? Therefore need for consent. 		H			<ul style="list-style-type: none"> ▪ Liability 			H		
	International	<ul style="list-style-type: none"> ▪ Multiple applications e.g. global oyster card 		H			<ul style="list-style-type: none"> ▪ Which companies? ▪ Federal nature of business, therefore how do you manage employees' ID management in different geographies ▪ Need for consumer brands 			H		M
Headline message: Business buy-in is critical for success												

High Impact

- Important because done with or done to: potential suppliers, users and therefore shapers of identity management
- If consumers are to buy-in, there has to be buy-in from the commercial side

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management									
	Shaping need					Shaping management				
			H	M	L		H	M	L	
Driver: Criminality <ul style="list-style-type: none"> ▪ Already happening – organised crime across Eastern Europe – increase in sophistication. Hiring ex-government employees (sophisticated) ▪ Incidence? Rare perhaps but impacts potentially large ▪ Attacks increased exponentially → overwhelm capacity of banks to cope ▪ Increase in paedophile grooming targets ▪ Shift away from presumption of innocence – pervasive surveillance and anticipating criminal behaviour – blurring. E.g. DNA only for recordable offences – scope creep e.g. increase in fingerprinting to populate database – overseas identity checking. BUT robust IM allows for prevention of crime? ▪ Retrospective conviction using DNA data - v. emotive individual case worrying public acceptance of low-level DNA data gathering ▪ Blurring of mission creep and function creep ▪ Defining criminality – only very small proportion of crimes related to identity ▪ Claimed extent of identity theft given disproportionate attention BUT potential impacts ▪ Would it stop a terrorist attack? ▪ Could resource expenditure on system and pervasive surveillance take funds/resources away from frontline surveillance and behaviour monitoring ▪ Cost/benefit analysis → increase tech surveillance vs. trad methods ▪ Easy ways around it ▪ Always leads to profiting 	Convergence & common standards <ul style="list-style-type: none"> ▪ Supplies and providers being ripped off by providers ▪ Employers knowing their employees are who they say they are ▪ Public and private 		H			<ul style="list-style-type: none"> ▪ Systems need to cross reference data e.g. cartel benefit fraud – should be automated – NICs, loophole 				
	Consumer <ul style="list-style-type: none"> ▪ Private consumers getting valid identity for businesses e.g. electricity board ▪ Track and trace combination with IM ▪ Blame/liability for fraud should be on financial institutions not consumer e.g. to repair identity ▪ Often with the least well off 									
	Legislative <ul style="list-style-type: none"> ▪ X less laws, better practices implemented ▪ Laws not forced with IM in mind → if legislation is the way it should be changed ▪ E.g. cyber crime 					<ul style="list-style-type: none"> ▪ Data breach legislation – requirement to notify authority when your identity has been breached ▪ Give Data Commissioner “teeth” ▪ Data Protection enforcement 				
	International <ul style="list-style-type: none"> ▪ Large numbers of people globally with technical expertise e.g. Russians 					<ul style="list-style-type: none"> ▪ Better evidential tests to assess the validity of claims ▪ International cooperation of best practice ▪ Nordics, NZ, Australians – pitched the “need” to citizens ▪ Local registration laws around EU – simple and reliable 				
Headline message: Has been overstated/closing loophole for low level criminals										

Medium Impact

- There is a feeling that criminality may be overheated/given excessive emphasis in the debate
- Is identity management the silver bullet for organised crime and terrorism?
- Is it a real opportunity to close the small loopholes; e.g. benefit fraud?
- What does criminality mean? The idea of criminality is blurred and is beginning to extend into minor transgressions – function/mission creep. In the future “everyone is going to be criminal for 15 minutes”

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management								
	Shaping need			Shaping management					
			H	M	L		H	M	L
Driver: Privacy <ul style="list-style-type: none"> ▪ Enforceable in theory but not done in practice e.g. Naomi Campbell ▪ Needs much more attention to raise awareness of privacy rights ▪ Generally taken for granted – only know it when you feel it ▪ Will loss of privacy outweigh trade for benefits? ONLY work if I, as an individual, can control identity ▪ Privacy not binary – lots of grey areas ▪ Data mining retrospectively – where do we cross the line ▪ Data is neutral; it's the use or motivation for use which is difficult ▪ Non-consensual vs. consensual – informed; revocable ▪ Verification on – not asking for more – acceptable for privacy ▪ Do people really worry about their privacy e.g. M&S, Nectar card ▪ The central issue – middle class – identity cards – big brother 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Governance of the system public – private ▪ Much easier to merge data sets (e.g. RFID) 				<ul style="list-style-type: none"> ▪ Functional separation of data and functions 			
	Consumer	<ul style="list-style-type: none"> ▪ Consumers not that worried about privacy e.g. Nectar card ▪ Lack of knowledge about how this is used ▪ Awareness that we all do things we shouldn't ▪ Need social consensus 				<ul style="list-style-type: none"> ▪ Is this informed consumer? ▪ Must be careful not to share data – much more sophisticated in future e.g. alcohol – your history e.g. car license plate registration 			
	Legislative	<ul style="list-style-type: none"> ▪ Need updated and modern data protection laws and FOI but EU restrictions? 				<ul style="list-style-type: none"> ▪ Need to increase openness and accountability if public are going to accept this 			
	International	<ul style="list-style-type: none"> ▪ Difference % common low framework and codified legal system 							
Headline message:	Governance/privacy not either/or - grey areas. Can't rely on legal protection. has to be in mindset at source								

High Impact

- Governance is key to managing the issue
- Privacy is not an either/or binary concept
- It is hard to ring fence and define
- People need to be more aware
- Privacy cannot be just legislated

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management										
	Shaping need					Shaping management					
Driver: Agency <ul style="list-style-type: none"> ▪ Human dignity, autonomy and the respect for rights ▪ Trusted 3rd parties essential (standards) ▪ Ability to compartmentalise your life ▪ Ability to set the terms on the interactive with institutions and the limits of disclosure ▪ What constitutes intrusions ▪ Redemption – the ability to redeem yourself if you have transgressed e.g. credit rating e.g. fraud, Frank Abignale Jr. Auditing – only as useful as the info held on system. 	Convergence & common standards	<ul style="list-style-type: none"> ▪ Building on what's already being delivered 									
	Consumer	<ul style="list-style-type: none"> ▪ People not aware of the consequences of sharing things on Google e.g. potential employer 									
	Legislative	<ul style="list-style-type: none"> ▪ Should we continue to assume that data you give to websites e.g. Flickr should be theirs? ▪ E.g. paedophiles 					<ul style="list-style-type: none"> • Super data-comissioner 				
	International	<ul style="list-style-type: none"> ▪ International nature of trade e.g. buying booze in France without paying VAT 									
Headline message:	Need aware consumers/governance is crucial										

High Impact

- Give people more scope to control system
- Need the ability to change things
- Governance is critical

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management										
	Shaping need					Shaping management					
	H M L					H M L					
Driver: Biometrics <ul style="list-style-type: none"> ▪ Everything! ▪ All biometrics can be used ▪ Biometrics – iris – can be done covertly ▪ Have to have contact free sensors ▪ Recognition with cameras ▪ RFID extended – every card – puts people off 	Convergence & common standards					<ul style="list-style-type: none"> ▪ Fingerprints – needs sufficiently light resolution ▪ Failure rates v. high ▪ Depends on quality of system 					
	Consumer					<ul style="list-style-type: none"> ▪ Costs phenomenal of implementing ▪ Who pays? Poll tax? 					
	Legislative										
	International										
Headline message:	Don't hold your breath! Not the answer. Government wants limo but only just has invented the wheel										

Low impact

- Not the, but an answer
- Governments shouldn't think too far ahead
- Uniqueness or authentication, need to distinguish
- Arguments for uniqueness: availability and affordability
- Is there a binding physical self?

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management											
	Shaping need						Shaping management					
Driver: Internet <ul style="list-style-type: none"> ▪ Trust in the information on the net ▪ New domain we have to work with ▪ Don't have cultural cues to interpret? 	Convergence & common standards		H									
	Consumer	<ul style="list-style-type: none"> ▪ Ebb and flow of communities 	H									
	Legislative	<ul style="list-style-type: none"> ▪ Can use existing laws for trust and the net 	H									L
	International		H									
Headline message:	<p>Can't legislate for all. Distinguish closed as open [citizen and consumer and net] communities [work on the parts] [easier to manage and build trust] e.g. the Co-Op</p> <p>Connect up ownership and identity, trust, internet, culture</p>											

Medium Impact

- Can't legislate for all
- Difficult to control the internet over any planning time-period; e.g. with respect to online gambling regulation in the US "you would have thought that they would have learnt from their experience with prohibition"
- It is about adapting to progress

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management													
	Shaping need					Shaping management								
						H	M	L				H	M	L
Driver: Ownership and Identity <ul style="list-style-type: none"> ▪ Responsibility for identity ▪ Control ▪ Responsibility ▪ Loss of ownership of virtual identities ▪ Children have an instinctively different approach ▪ Next generation having different understanding of value in identities ▪ Can it be owned – a function of control and responsibilities ▪ “Need to know” controls ▪ Identity theft raises sense of ownership ▪ Connecting spaces ▪ Understanding value exchanges ▪ Intimate relationship between people and information ▪ Separate identity from service provider 	Convergence & common standards				L									L
	Consumer	▪ Multiple identities to manage		H			▪ Verification of information				H			
	Legislative	▪ Need to regulate the future explosion of data		H			▪ Identity recovery ▪ Recognition of multiple identity providers				H			
	International	▪ How to own cross border - interoperability					▪ Mutual recognition approach – control of scope							
Headline message:	<p>Very complicated to manage for average user. How can agent help? There should be control of what companies could ask you to provide</p> <p>Connect up ownership and identity, trust, internet, culture</p>													

High Impact

- Very complicated to manage for the average user
- How can the agent help manage?
- There should be control of what companies could ask you to provide i.e. legislation to stop you gathering information not necessary for the transaction

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management											
	Shaping need						Shaping management					
Driver: Trust <ul style="list-style-type: none"> ▪ Need for healthy critical relationship between individual and state ▪ Radar for trust more sophisticated than thought ▪ Generational changes in expectations ▪ Trust involves taking a risk – unfounded trust = reliance ▪ Consistency of behaviour on the net ▪ People take huge risks for disproportionate small rewards Hard vs soft trust	Convergence & common standards	<ul style="list-style-type: none"> ▪ Many up trust levels to create assurance 	H				<ul style="list-style-type: none"> ▪ Give cheaper, better access (by government) learn from business ▪ Trusted standards 					
	Consumer	<ul style="list-style-type: none"> ▪ Trust accuracy, data being right; minimal disclosure, access rights 	H				<ul style="list-style-type: none"> ▪ Closed trust communities on the net ▪ Need to protect those who cannot look after themselves 					
	Legislative	<ul style="list-style-type: none"> ▪ Applying the hard side of trust Freedom of Information etc 	H				<ul style="list-style-type: none"> ▪ Duty to disclose breaches of data 	H				
	International	<ul style="list-style-type: none"> ▪ Taxonomy of privacy (Washington University) [recommended research paper] 	H									
Headline message:	<p>People develop instinctive radar for trust through use and experience. How do we manage when this breaks down?</p> <p>Connect up ownership and identity, trust, internet, culture</p>											

High Impact

- How do we articulate our response when trust goes wrong?

TASK ONE: Key dimensions of the driver	TASK TWO: Impact on Identity Management												
	Shaping need					Shaping management							
						H	M	L		H	M	L	
Driver: Culture ▪ Semiotics – business and legislative ▪ How to interpret cultural differences	Convergence & common standards	▪ Need is high (evolves)				M			▪ Fragmented				L
		Consumer	▪ Assertive citizens (culture) ▪ Identity Education			H					H		
		Legislative											L
		International											
Headline message:	Help citizens understand value in their identity and to manage Connect up ownership and identity, trust, internet, culture												

High/Medium Impact

- Create an assertive yet responsible citizen: Help citizens understand value in their identity and to manage
- Semiotics and interpretations of meaning are very important
- Culture of trust would evolve as people recognised what they needed to do; the eBay model is a good example of this
- If people recognise that you are creating a closed community – like eBay – then you are solving a complicated, rather than complex, problem

Section 4: Final Plenary Session

To conclude the day, participants reviewed the output of each working group and discussed some of the issues in plenary. The comments made in discussion (in addition to the points made in presenting the working group output, which can be found in the Executive Summary) are summarised below:

Biometrics was one of the issues ranked Medium in importance (rather than the High ranking given to the majority). This led to some discussion on why it was ranked lower:

- Biometrics is not the be all and end all and the technology is not there yet. But it should be noted that technology changes very quickly
- There is a definite role for biometrics but the idea that members of society will need to gaze into an iris scanner every time they want to buy a Mars Bar devalues them
- Until biometrics are 100% provable, and affordable, then we should prefer to use PIN on a day-to-day basis
- There is a misunderstanding around biometrics as a form of authentication. Good verification and binding to logical credentials is an implied term when we use the word biometrics but there is a need for all kinds of systemic things to get there, of which biometrics is only a small part
- The technology behind biometrics is getting more expensive as we need to do more things to make it sufficiently robust
- Biometrics is time consuming at the moment; e.g. a school introduced a biometric identity management system for school dinners. This had the advantage that there was no need for a voucher, no bullying for dinner money and they could create data on what food was being eaten by individual students. However, for the system to be practicable they needed to get twelve students per minute through the scanner but they only managed five
- Biometrics often fails, you need a back-up mechanism leading to multiple ID checks
- Biometrics is a very small piece of a very big problem. I am amazed how we always get onto it after five minutes when talking about identity management

The empowerment of the individual also generated debate:

- ID management could empower individuals. In the same way that ID management has empowered individuals on the internet – e.g. social networking – then it could also empower individuals as citizens and encourage voting. ID management could increase the assertiveness of individuals rather than lead to a decline in trust
- Will the government get kicked around by empowered individuals? People may be less deferential but have more outlets (they could take their business elsewhere). This could be a healthy thing for democratic society
- People may start affiliating to different ties. If all critical life events are tied to Tesco – life insurance, pensions etc. – what need is there for government? Other European governments want to manage the fact that people's allegiances lie elsewhere

Some discussion on welfare provision:

- From our work we have found that there are two models of welfare provision in the public's mind: big-tent government encapsulating the post-war settlement contrasted with a club-card model of welfare benefits. In this second world, ID cards may be easier to sell

And on branding:

- When selling the idea of identity management to the citizen we should think carefully about the issue of brands. People are more likely to trust Waitrose than HMG! E.g. the DfT are looking to have their road pricing schemes branded by providers – such as, Vodafone – which people already trust

Appendix One: Participants

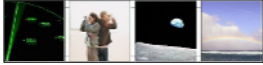
Name	Organisation
Iain Bourne (Group 4)	Information Commissioner's Office
Spencer Chapman (Group 2)	Identity and Passport Services
Sir James Crosby (Group 1)	PPFI Chair
Gareth Crossman (Group 3)	Liberty
Simon Davies (Group 3)	London School of Economics
James Dowle (Group 1)	Identity and Passport Services
Alison Dunstan (Group 4)	Ministry of Defence
Bill Guy	HMTreasury
Duncan Hine (Group 3)	Qinetiq
Michael Keegan (Group 2)	Fujitsu Services
Alasdair Keith (Group 2)	Outsights-MORI
Rupert Lewis (Group 1)	Horizon Scanning Centre, OSI
John Madelin (Group 4)	BT Group
Kevin McNulty	Identity and Passport Services
Barbara Muston (Group 1)	Outsights-MORI
Richard O'Brien (Group 4)	Outsights-MORI
Mick O'Neill (Group 2)	CIFAS
Jon Parke	Horizon Scanning Centre, OSI
Colin Robbins (Group 4)	Siemens Enterprise Communications Limited
Norman Rose (Group 1)	Business Services Association
James Roper (Group 3)	Interactive Media in Retail Group
Angela Sasse (Group 3)	University College London
Geoff Smith (Group 3)	Department of Trade and Industry
Toby Stevens (Group 2)	Enterprise Privacy Group
Phil Stradling (Group 4)	Microsoft
Julian Thompson (Group 3)	Outsights-MORI
Richard Trevorah (Group 4)	tScheme Limited
Lord Whitty	National Consumer Council

Appendix Two: Workshop Introduction Presentation

Foresight: Horizon Scanning Centre
Office of Science & Innovation

Identity Management Workshop

Mary Ward House
13th November 2006



1

Foresight: Horizon Scanning Centre
Office of Science & Innovation

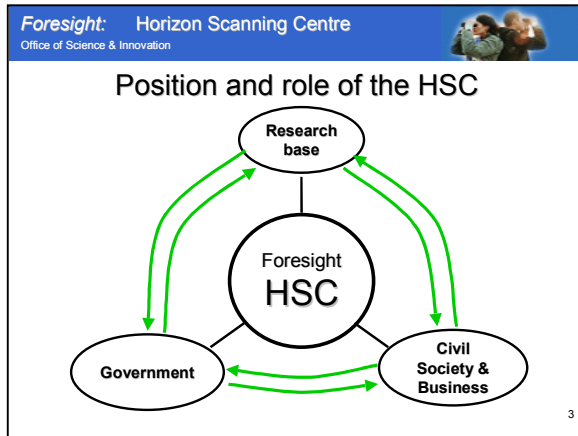
Overview

Purpose of the workshop:

- Explore the diverse views of the IDM stakeholder community in order to inform the work of the Public-Private Forum on Identity (PPFI).

NB - Chatham House rules

2

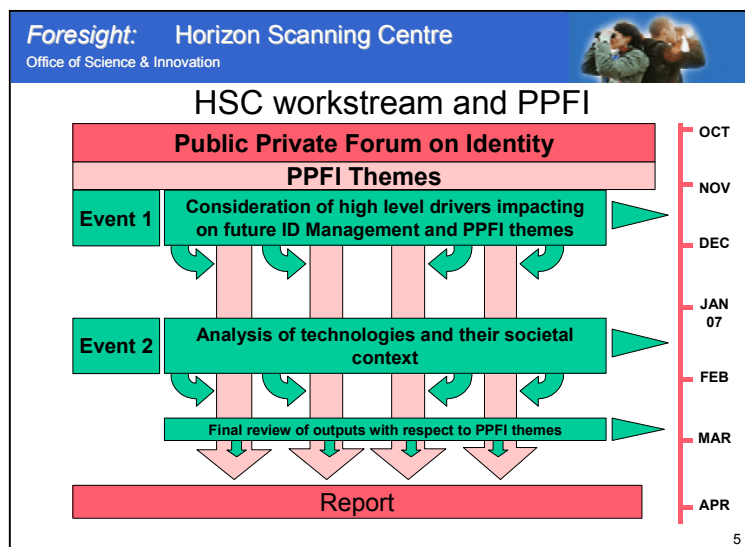


Foresight: Horizon Scanning Centre
Office of Science & Innovation

Workshop objectives

To Explore:

- High-level factors which will have an impact on future ID Management in its broadest sense
- Associated risks, opportunities, and key uncertainties
- Impacts on areas of particular interest to PPFI



Appendix Three: Drivers of Change Presentation

<p style="text-align: right; font-size: small;">Identity Management</p> <p>IMS: four main dimensions</p> <hr/> <ol style="list-style-type: none"> 1. Legal: Compliance with national and international law 2. Social: public trust 3. Technical: variety of technical/technological infrastructures 4. Policy: multifaceted and complex <p>Ipsos MORI 8 </p>	<p style="text-align: right; font-size: small;">Drivers of change</p> <p>Drivers of change</p> <hr/> <ol style="list-style-type: none"> 1. Crime 2. Economics and business 3. Governance 4. Society 5. Technology 6. Environment 7. Information Sources <p>Ipsos MORI 9 </p>
<p style="text-align: right; font-size: small;">1. Crime</p> <p>Crime New dangers in a globalised world</p> <hr/> <ul style="list-style-type: none"> • Globalisation: new types of crime and dangers • New criminal structure: across-country operations and decentralisation but globalised of power <p>Ipsos MORI 10 </p>	<p style="text-align: right; font-size: small;">1. Crime</p> <p>Crime New technologies to cope</p> <hr/> <ul style="list-style-type: none"> • New technologies enhance our ability to cope with these new kind of crimes • From biometric data to suspicious behaviours <p>Ipsos MORI 11 </p>
<p style="text-align: right; font-size: small;">1. Crime</p> <p>Crime Specifically: air travel security</p> <hr/> <ul style="list-style-type: none"> • Increased fear of attacks and political pressures • Less human screeners, more automatic technologies • Reliability of technology drives airport security systems <p>Ipsos MORI 12 </p>	<p style="text-align: right; font-size: small;">1. Crime</p> <p>...and its costs & consequences</p> <hr/> <ul style="list-style-type: none"> • Increasing security costs and intrusive checks on passengers • Resistance from the industry and public aversion to limits of travel • More land or sea travels, considered more environmentally friendly <p>Ipsos MORI 13 </p>
<p style="text-align: right; font-size: small;">1. Crime</p> <p>Crime Specifically: Identity Theft</p> <hr/> <ul style="list-style-type: none"> • Increasing in identity theft/fraud • Increased danger in a cashless society • Black market for forged/stolen identities sold to criminals, terrorists and illegal immigrants <p>Ipsos MORI 14 </p>	<p style="text-align: right; font-size: small;">1. Crime</p> <p>Crime Challenges for new technologies</p> <hr/> <ul style="list-style-type: none"> • Ever increasing integration of technologies and crossing efforts between deputed bodies and institutions • The “leapfrog” issue: a cycle of criminals undermining security and new security systems <p>Ipsos MORI 15 </p>

2. The economy and business

From goods to data economy

- Information economy: fundamental evolution of capitalism
- Increasing, technology-based, capability to capture, process, transmit and store data
- The open source model: increasing exchange of knowledge for enhanced problem solving solutions
- Government as potential facilitator for collaborations between firms

Ipsos MORI

16

outsights
insights from the outside

2. The economy and business

Cashless economy?

- Cashless economy (cheaper)
- Costs and risks of it can be alleviated by technology improvements (RFIDs; Oyster cards to be used widely)

Ipsos MORI

17

outsights
insights from the outside

2. The economy and business

Business identities “Are you Google? I’m Windowsian...”

- Increased prominence of multinational corporations and international businesses
- Therefore people may identify more with their firm (and less with their State)
- Demand for more “socio-economic” goals and investments in local issues

Ipsos MORI

18

outsights
insights from the outside

2. The economy and business

Financial regulation

- Impact of financial scandals on the international financial system:
 1. General shaking of investors’ confidence
 2. Expansion of responsibilities for international regulatory bodies
 3. Increasing controls and regulation

Ipsos MORI

19

outsights
insights from the outside

3. Governance

Wither the State?

- The State loses ground: national identity and capability (democracy) called into question
- MNCs, NGOs and private firms increase their relevance and influence over citizens’ lives
- More privatisations in vital public sectors

Ipsos MORI

20

outsights
insights from the outside

3. Governance

...or more State

- Public dissatisfaction with global finance and MNCs
- Government re-nationalising vital public services
- More taxes and more control: national identification increases

Ipsos MORI

21

outsights
insights from the outside

3. Governance

Shrinking State...

- Global economy and general political trends bring an overall shrinking of State activities
- Privatisation of many state activities: the state may lose its “legitimate monopoly of violence” outsourcing it to private security firms

Ipsos MORI

22

outsights
insights from the outside

3. Governance

...or next realm of influence?

- The management of identity could soon become the State’s next big realm of influence
- Personal data including biometric details will be made available to a variety of different public and/or private bodies in a compulsory network of databases
- Personal information has already become a valuable commodity: authentication of identity is vital

Ipsos MORI


23

outsights
insights from the outside

4. Society

Social identity


- Multiplication of the “self”: adoption of multiple personas and a more fluid ideas of personal identity
- Capability of nations to reinvent their sense of identity in a global world (new citizenship?)
- Virtual communities: new meeting points for new communities?

Ipsos MORI 24 

4. Society

An (under)class resurgence?


- Need of high-skilled workers: private sector to sponsor academies and universities (those who can)
- Formation of an “underclass” (those left outside); possible mass unemployment, perhaps linked to age

Ipsos MORI 25 

4. Society

Migration


- “Pull” and “Push” factors: complex patterns of migration
- Government as manager (facilitator/controller) of specific fluxes of migration
- New developed/developing economies work balance

Ipsos MORI 26 

4. Society

Migration: identity problems?


- In a world with fast circulation of expertise, the UK needs more skilled foreign workers...
- ... which may clash with state efforts to increase border security (ID issues and controls) and ensure more jobs for home-grown workers
- Huge metropolitan areas with large populations
- Increasing ethnic diversity in developed countries: influence for their sense of identity and culture

Ipsos MORI 27 

5. Technology

Keeping up with IT


- Technology progresses faster than Government's response
- Government needs to privatize IT security; it becomes more “reactive” than “active”

Ipsos MORI 28 

6. Environment

Environmental data needs


- Future identity cards could include personal data on:
 1. Individual consumption of greenhouse gases (average over last 5 years)
 2. Individual production of waste
 3. Individual consumption of water

Ipsos MORI 29 

7. Information

The power of information

- Power will be the ability of individuals, companies and Government to use and manage an ever larger amount of data
- Huge and increasing amount of information to be stored: importance of technology advancements
- Data mining: great potential for tailoring policies and great dangers for privacy

Ipsos MORI 30 

Sources

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- 50, “Does money make the world go round? State power and global capital flows”
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- 74, “Supercriminal: the rise and rise of global criminal elites”
- 94, “Joining the dots: knowledge networks cooperate in R&D”
- 114, “Swipe it! Scan it! The end of the cash economy”
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Ipsos MORI 31 