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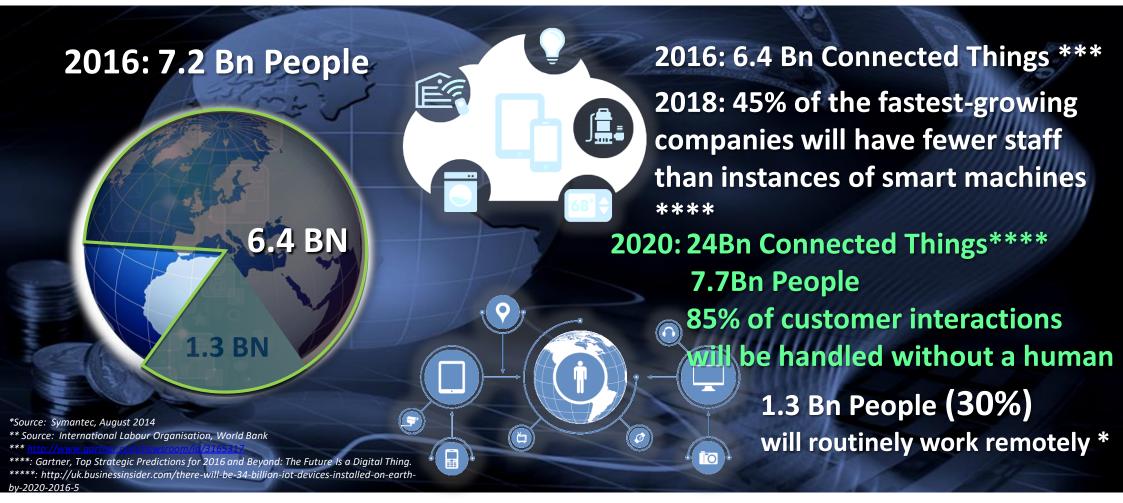








OUR DIGITAL LIVES







THE DRIVERS FOR CONSUMER BEHAVIOUR

Hyper-connected consumers are spoilt for choice and consequently demand more... SOCIAL MEDIA IoT: WEARABLES, CONNECTED HOME, CONNECTED CAR, ETC... **INSTANT FULFILMENT UBIQUITY**





ARE WE IN CHARGE OR OUR DATA?...

Hyper-connected consumers are spoilt for choice and consequently demand more...

DATA IS THE NEW COAL OIL MONEY

MORE AND MORE DATA, EVERYWHERE

MORE CONNECTIVITY

MORE AND MORE TECHNOLOGIES

MORE COMPUTING POWER

MORE COMPLEX ANALYTICS, MORE INSIGHTS

EXTENDED SUPPLY CHAIN

MORE WAYS TO COMMERCIALISE & MONETISE

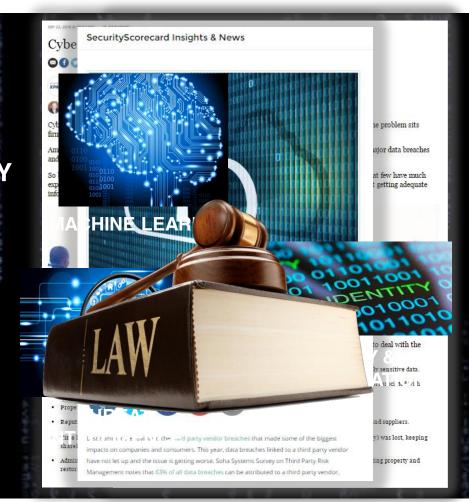
IT ALSO INTRODUCES MORE RISK...





MANAGING RISK IS CRUCIAL

FIGHTING FRAUD AND CYBERCRIME
BEING SERIOUS ABOUT INFORMATION SECURITY
MANAGING THE EXTENDED SUPPLY CHAIN
UNDERSTANDING HOW NEW TECHNOLOGIES
CAN STREAMLINE OPERATIONS
UNDERSTANDING REGULATIONS







MANAGING RISK IS CRUCIAL

Cybersecurity: It's Now the Board's Problem





Cybercrime is no longer just a "tech" issue for companies. It's not even just for top management. Today, the problem sits firmly on the laps of the company's board.

Among other things, investors and regulators want board members to provide more transparency about major data breaches and their impact on the company's business.

So boards and audit committees are now putting the issue near the top of their agenda. The problem is that few have much experience with cyber theft or related cyber issues or disruption. Even more alarming, most say they aren't getting adequate information about it from their company



The stakes are enormous. Whether there's accidental data leakage or deliberate attacks, boards now have to deal with the consequences. They include:

- · Intellectual property losses including patented information and trademarked material, client lists and commercially sensitive data.
- · Legal expenses including damages for data privacy breaches/compensation for delays, regulatory fines and the cost associated with
- · Property losses of stock or information leading to delays or failure to deliver.
- · Reputational loss, which may lead to a decline in market value, and loss of goodwill and confidence by customers and suppliers.
- . Time lost and distraction to the business due to investigating how the breach occurred and what information (if any) was lost, keeping shareholders advised and explaining what occurred to regulatory authorities.
- · Administrative cost to correct the impact such as restoring client confidence, communications to authorities, replacing property and restoring the organization's business to its previous levels.



JAN 17, 2016 @ 11:01 AM 21,807 VIEWS

Cyber Crime Costs Projected To Reach \$2 Trillion by 2019













Steve Morgan, CONTRIBUTOR I write about the business of cybersecurity. FULL BIO \vee



Photographer: Ken Cedeno/Bloomberg News.

'Crime wave' is an understatement when you consider the costs that businesses are suffering as a result of cyber crime. 'Epidemic' is more like it. IBM Corp.'s Chairman, CEO and President, Ginni Rometty, recently said that cyber crime may be the greatest threat to every company in the world.





MANAGING RISK IS CRUCIAL













THERE ARE MANY...



MANY REGULATIONS INTER-MINGLE, OVERLAP, & SOMETIMES CONFLICT...





MANY SILOS

SECURITY & PRIVACY REGULATIONS

GDPR. Comes into force May 2018.

NIS Directive. Came into force August 2016.

e-Privacy Directive. Will come into force May 2018.

Trade Secrets Directive

EU-US Privacy Shield. Came into force July 2016.

PCI DSS. This standard has been in force since 2004.

INDUSTRY EXAMPLE: FINANCIAL REGULATIONS

Payment Services Directive (PSD2). Will come into force in January 2018.

EBA Strong Customer Authentication (with PSD2).

4th Anti-Money Laundering Directive (4AMLD). will come into force in June 2017.





DATA PROTECTION – DATA PRIVACY

GENERAL DATA PROTECTION REGULATION (GDPR)

Comes into force May 2018. Applies to data "Controllers" and "Processors".

Applies to processing carried out by organisations operating within the EU & outside the EU when offering goods or services to individuals in the EU.

Extends the definition of "Personal Data" and defines "Sensitive Personal Data" and makes specific provisions for Children.

Stringent requirements on "Consent" & "Explicit Consent"

New rights for individuals (e.g. Data Portability, Profiling, Erasure, Access free of charge)

Privacy Notices

Data Protection Officer

Accountability, transparency & governance





DATA PRIVACY

e-PRIVACY DIRECTIVE

Will come into force in May 2018 for EU member states, aligns with the GDPR.

Includes social messaging (e.g. Skype, Whatsapp, Facebook Messenger)

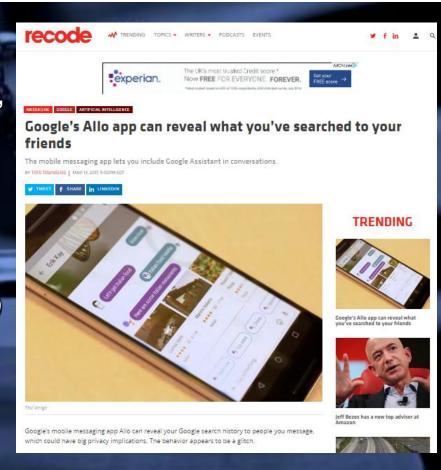
One single set of rules for people & businesses in the EU.

Direct Marketing implications for consent (B2B or B2C)

Simpler rules on cookies.

Protection against spam.

More effective enforcement.







INTELLECTUAL PROPERTY

TRADE SECRETS DIRECTIVE

Directive on the Protection of Undisclosed Know-How and Business Information. Will be implemented throughout the European Union during 2018, aligns with the GDPR.

Harmonises the definition of a trade secret which must meet all of the following requirements:

- **is secret** in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- has commercial value because it is secret;
- has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Focus on cybercrime and the requirement for businesses to take greater steps to protect what they regard as their trade secrets.





RADE SECRET

DATA TRANSFERS

EU-US PRIVACY SHIELD

Came into force in June 2016.

Protects the fundamental rights of anyone in the EU whose personal data is transferred to the United States as well as bringing legal clarity for businesses relying on transatlantic data transfers.

Strong obligations on companies handling data.

Clear safeguards and transparency obligations on US government access.

Effective protection of individual rights.

Annual joint review mechanism.





CARDHOLDER INFORMATION SECURITY

PAYMENT CARD INDUSTRY DATA SECURITY STANDARD (PCI DSS)

This standard has been in force since 2004.

Whilst it is not law in the EU, Card Schemes mandate it as part of their operating regulations.

Its fundamental aim is to protect cardholder information.

The PCI Security Standards Council defines the PCI Standards and the Card Schemes enforce it through mandates.

Card Schemes levy penalties for breach of mandates.

PCI DSS compliant service providers can be found at:

https://www.visaeurope.com/receiving-payments/security/downloads-and-resources

https://www.mastercard.us/en-us/merchants/safety-security/security-recommendations/service-providers-need-to-know.html





NETWORK & INFORMATION SECURITY

DIRECTIVE ON SECURITY OF NETWORK & INFORMATION SYSTEMS (NIS)

Came into force in July 2016 for EU member states (deadline May 2018).

Promotes a culture of security across sectors which are vital for our economy and society and rely heavily on IT, such as energy, transport, water, banking, financial market infrastructures, healthcare and digital infrastructure.

Businesses in these sectors that are identified by the Member States as operators of essential services must take appropriate security measures and must notify serious incidents to the relevant national authority (sometimes double-whammy).

Key digital service providers (search engines, cloud computing services and online marketplaces) must comply with the security and notification requirements under the new Directive.





FINANCIAL SERVICES SECURITY

PAYMENT SERVICES DIRECTIVE

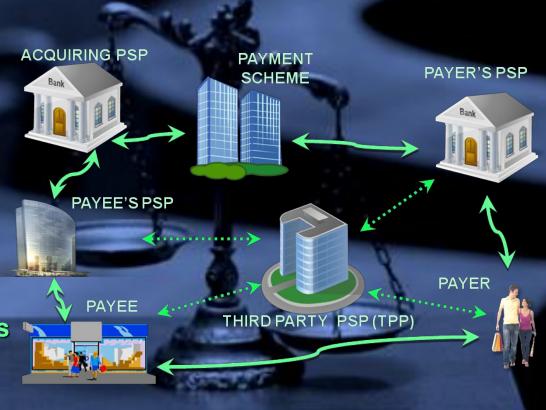
The EU's 2nd Payment Services Directive will come into force in January 2018.

Focus on Security & Incident Reporting.
Also refers to the NIS Directive.

Strong Customer Authentication requirements have been published by the European Banking Authority (EBA).

Extended coverage to Third Party Providers (TPPs), putting focus on the supply chain.

Promotes Open Access & Competition







FINANCIAL CRIME

4th ANTI-MONEY LAUNDERING

Comes into force in June 2017.

New requirements for financial institutions to include data protection policies within their AML policies and procedures for customer information sharing.

KYC: Customer Due Diligence, Beneficial Ownership, etc. Collecting more data (5 years retention unless relating to an "identified or identifiable natural person" where it must be deleted, unless provided for by national law).

Business & Personal Accountability: fines of at least €5M or 10% of the total annual turnover (and at least €5M for a natural person).

Risk Assessment & Governance



Home

Closed consultation

Transposition of the **Fourth Money** Laundering Directive

From:

HM Treasury

First published:

15 September 2016

Last updated:

2 November 2016, see all updates





NAVIGATING THE MAZE

REGULATIONS & STANDARDS ARE NUMEROUS IN ALL INDUSTRIES.

THIS CAN BE OVERWHELMING AND A HOLISTIC APPROACH IS RECOMMENDED.

AUTOMATION HAS BECOME NECESSARY AND THIS HAS CREATED A NEW INDUSTRY: REGTECH

RAVN launches GDPR Robot

Added on the 10th Mar 2017 at 3:23 pm



net

and







Compliance with The General Data Protection Regulation (GDPR) is top of most 2017 legal agendas and RAVN Systems last night (9 March) unveiled an astutely timed GDPR Robot powered by its Applied Cognitive Engine (RAVN ACE).

The GDPR Robot allows users to quickly search, retrieve, flag, classify and report on data considered to be sensitive and personal under GDPR. Users have the ability to identify so personal data from documents, view feeds on the latest personal data that requires attention and provide reports on the data suggested to be deleted or secured.

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Organisations are currently having to ensure that they have internal data protection policies and procedures in place, in preparation for GDPR's onerous obligations on data controllers and processors, greater fines, and enhanced rights for individuals

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It is envisaged that RAVN Extract will enable firms to further analyse contracts and agreements to ensure privacy policy clauses and other relevant obligations meet the new regulatory standards under GDPR.





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NAVIGATING THE MAZE

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Pelican applies AI to fight Swift and wire transfer fraud

01 February 2017 | 5324 views | 0 Source: Pelican

Pelican, a global provider of payments and compliance solutions for banks and corporates, today unveiled its PelicanSecure Fraud Prevention solution.

Harnessing artificial intelligence technology the PelicanSecure Fraud Prevention solution actively and intelligently monitors, analyses, detects and prevents attempted fraud breaches - going far beyond existing static 'check-box' compliance systems.

With seemingly daily revelations of cyber hacks and security breaches, fraud prevention and detection should be a top priority in correspondent banking networks. Recent breaches across the SWIFT network further highlight the ever-increasing fraud threats and the particular vulnerabilities facing SWIFT, Real-Time Gross Settlement and wire payments.



RY AND





REGULATORY AUTOMATION: REGTECH CAN HELP



Source: Deloitte RegTech Universe, January 2017 https://www2.deloitte.com/lu/en/pages/technology/articles/regtech-universe.html





REMEMBER! PUTTING THINGS IN CONTEXT...







PRO TIP: PRIORITISE MANAGING INSIDER THREATS





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Insider Misuse of Computers: No Big Deal? It Could be a Data Breach, ask Boeing

March 12, 2017 | Laws, Policy, Regulations

•

A Boeing employee emailed his spouse an internal company document containing personally identifiable information to get help with formatting the document. Because the sensitive data left Boeing's "control" when it passed from an employee to a non-employee, it triggered a data breach. When insiders exceed the boundaries that have been placed upon them about using data in a manner that is unauthorized by the



company, it may result in a data breach. Determining whether a breach has occurred will depend on the breach notification laws for the particular jurisdiction where the company does business. The Texas breach notification law, Breach of Security of Computerized Data requires any company to disclose any breach of system security. The law has a fairly detailed definition of SPI that should be read carefully: 1) Information made lawfully available is not personal information; 2) Personal information includes all personal details; 3) Information about the persons health and healthcare.





PRO TIP: PRIORITISE SUPPLY CHAIN GOVERNANCE

Establish a supply chain review programme:

Procurement processes

Contracts

Data location and transfers





PRO TIP: PRIORITISE SUPPLY CHAIN GOVERNANCE









PRO TIP: THIS IS NOT NEW...

Policies/ Procedures/ Procurement/ Governance Process Control/ DevOps/ Workflow Management Disposal/ Decommissioning PEOPLE PROCESS Data Classification DPO, CDO, CISO, **Education / Enablement** CRO, HR, LEGAL, **User Behaviour Monitoring** PR, COMMS **Incident Response Continuous Improvement Endpoint security Behavioural analytics** Server/ Network/ Application Security & Monitoring **Email security** TECHNOLOGY CISO, CIO **Encryption/Tokenisation Access management** Multi-factor Authentication/ Privilege Account management Patch All The Things!!! **Threat Intelligence/ Data Leakage Prevention**









CHILDREN AT RISK

The GDPR makes new provisions in Article 8: children's consent for:

- "Information Society Services" offered directly to children (other than preventive or counselling services) and you want to rely on consent rather than another lawful basis for processing, parental consent must be obtained for children under 16 – although the UK may choose to lower this, to a minimum age of 13.
- If you choose to rely on children's consent, you will need to implement age-verification measures, and make "reasonable efforts" to verify parental responsibility for those under the relevant age.
- For other types of processing, the general rule in the UK is that you should consider whether the individual child has the competence to understand and consent for themselves (the "Gillick competence test")







CHILDREN AT RISK

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Manufacturers of IoT devices are in focus of data privacy regulators.

Privacy Notices are becoming increasingly important

Even more sensitive personal dat may be at risk...

Big Data, AI & Profiling..

GIZMODO

SENSITIVE PERSONAL DATA

ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, genetic data, biometric data, data concerning health or data concerning a natural person's sex life or sexual orientation.





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SENSITIVE PERSONAL DATA

Data consisting of racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, genetic data, biometric data, data concerning health or data concerning a natural person's sex life or sexual orientation.

GIZMODO

Smart Sex Toy Maker Agrees to Pay Customers \$10k Each For Violating Privacy

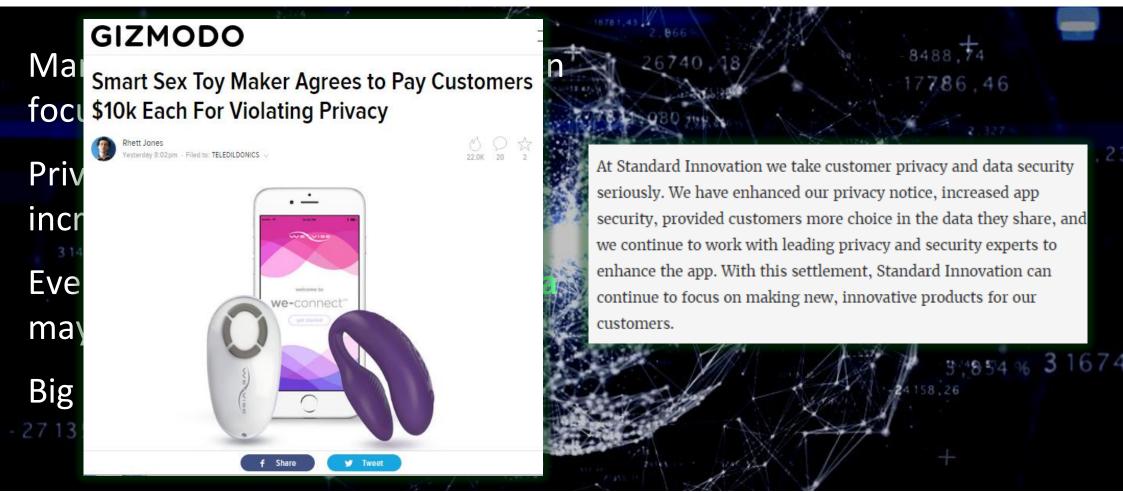


At Standard Innovation we take customer privacy and data security seriously. We have enhanced our privacy notice, increased app security, provided customers more choice in the data they share, and we continue to work with leading privacy and security experts to enhance the app. With this settlement, Standard Innovation can continue to focus on making new, innovative products for our customers.













Manufacturers of IoT focus of data privacy

Privacy Notices are be ransom: Criminals could steal pictures, videos and sensitive information to blackmail users

Even more **sensitive** positive positive

Big Data, AI & Profilin



How cyber hackers could use our Fitbits and other gadgets to hold us to ransom: Criminals could steal pictures, videos and sensitive information to blackmail users

- Fitness trackers, smartphones and voice-activated gadgets are a gift to hackers
- Cyber crooks could steal sensitive information and hold people to random
- Findings were highlighted in a report by the NCSC and the National Crime Agency

By CHRIS GREENWOOD, CHIEF CRIME CORRESPONDENT FOR THE DAILY MAIL



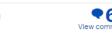












The soaring popularity of gadgets which chronicle every moment of our lives leaves us wide open to blackmail and fraud, security chiefs warned last night.

Fitness trackers, smartphones and voice-activated gadgets are recording swathes of intimate information which is a gift for hackers.

Experts suggested it is almost inevitable that sophisticated criminal gangs operating online will move from targeting big businesses to individuals.







27 135, 17

BIG DATA & ARTIFICIAL INTELLIGENCE

Big Data, analytics & Al are increasingly used for **Profiling**

More opportunities to personalise the customer experience

Privacy Notices, Fair Processing, Minimisation, Portability, Purpose Limitation, Consent, etc.



May 2016

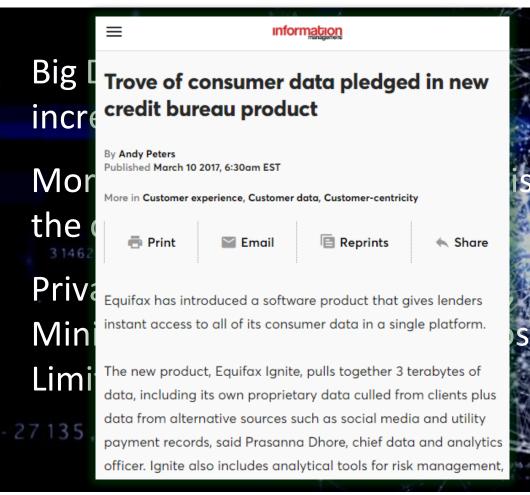
Viacom & Amex help advertisers
"forecast commercial intent
before it has formed" and target
the right moment in time to reach
people.





27 135, 17

BIG DATA & ARTIFICIAL INTELLIGENCE



Grow Your Business » Sales & Marketing

Retailers Turn to AI to Integrate Marketing Channels

By Karina Fabian, 828 Writer | March 12, 2017 08:37 am EST

Want to see better marketing results? You might want to jump on the artificial intelligence bandwagon.

A February 2017 study of 200 businesses showed that retailers plan on expanding their marketing, particularly social media and mobile marketing, and incorporating artificial



Credit: Milles Studio/Shutterstock

intelligence to better personalize the customer's journey as well as analyze results.

The study was conducted by Sailthru, a cross-channel management platform company. When discussing what marketing channels best met marketing goals, 56 percent of businesses surveyed said their websites generate the most online revenue, with email marketing and mobile coming in next at 18 percent and 7 percent. Social media trailed at 4 percent.





BIG DATA & ARTIFICIAL INTELLIGENCE

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Privacy Notices, Fair Processing, Minimisation, Portability, Purpose Limitation, Consent, etc.

Viacom taps AmEx transaction data to help advertisers target TV viewers

17 May 2016 | 3501 views | 0 📮



US media behemoth Viacom is to start using American Express transaction data to help firms better target their television adverts.

The two firms are launching a tool, called Vantage Intent, that promises to help advertisers "forecast commercial intent before it has formed and target the right moment in time to reach people," says Kern Schireson, EVP, data strategy and consumer intelligence, Viacom.





27 135, 17

BIG DATA & ARTIFICIAL INTELLIGENCE

Big Data, analytics & Al are increasingly used for Profiling Big data, artificial intelligence, machine More opportunities to personalise learning and data the customer experience protection Privacy Notices, Fair Processing, Minimisation, Portability, Purpose Limitation, Consent, etc. 27 135, 17





DATA QUALITY

91.4% of organisations are plagued with data quality issues (Source: Royal Mail Data Services)

Data management is often shared across multiple functions without consistent collection processes.

65% of organisations cleanse their customer data only once a year, have no cleansing processes in place at all, or simply don't know how often their data is cleansed.

Unless organisations act now to improve the quality of their customer data, they will face a **shortfall** in usable, permissioned customer information in May 2018.

Consent, erasure, rectification







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Consent, erasure, rectification

Information Commissioner's Office

Consultation:

GDPR consent guidance

Start date: 2 March 2017 End date: 31 March 2017













CONSENT

Consent gives individuals choice about how you use their data and ensures that you are accountable and transparent when it comes to data processing.

Consent is not appropriate if

- You would do it anyway
- You made it a pre-condition of accessing services (and therefore not freely given)
- You are in a position of power

(a) Consent

(b) Contractual Obligation

(c) Legal Obligation

(d) Protect a person

(e) In the public interest

(f) Legitimate interests of the controller





GDPR Lawful Processing

(Article 6, section 1)







RECITALS

Recitals are essential to your understanding of how the Regulation will be interpreted by the Data Protection Authorities.

Both the Court of Justice of the European Union (CJEU) and the European Data Protection Board (EDPB) will use them to ensure the Regulation is consistently applied across Europe.

As an EDPB decision on interpretation is binding as far as the UK is concerned, the EDPB will use the Recitals to come to its conclusions (and as the Recital refer to identification "by any other person", the ICO interpretation will be overturned).

Suppose the UK's Information Commissioner (ICO) interprets the definition of "personal data" in a similar way as in the current Data Protection Act (e.g. identifiability of the data subject has to be by the data controller) whereas the rest of Europe includes the impact of **Recital 23** in the Regulation (i.e. identifiability of the data subject has to take account of all the means reasonably likely to be used ...either by the controller or by any other person to identify the individual directly or indirectly"").











EU GDPR: THE DATA PROTECTION OFFICER



- Must be appointed for at least 4 years (employee) or 2 years (contractor).
- Must the appropriate experience & expertise.
- Controller must maintain the DPO skills.

A DPO MUST AT A MINIMUM:

- advise colleagues and monitor their organisation's GDPR/privacy law/policy compliance
- conduct training and awareness raising
- run audits
- advise regarding Privacy Impact Assessments & Privacy Notices
- cooperate with supervisory authorities.

DPOs must have adequate resources to be able to meet their GDPR obligations.

DPOs should report directly to the highest level of management.

DPOs must be able to operate independently of instruction and must not dismissed or penalised for performing their task.

DPOs must publish their contact details for supervisory authorities and data subjects.





EU GDPR: THE DATA PROTECTION OFFICER



IN SUMMARY, THE DPO

- is responsible for application of policies,
- assignment of responsibilities,
- staff training & audit,
- liaising with Competent Authorities and data subjects,
- must have a good understanding of information/cyber security, data protection and data privacy,
- must have a good understanding of the applicable laws (e.g. GDPR obviously, but also DPA, e-Privacy, NIS, EU-US Privacy Shield, Trade Secrets, and for Financial Services, PSD2/AML would be good etc.),
- must have a good understanding of the supply chain in their sector and
- should also understand contract law, and
- be an extremely good communicator/negotiator.





EU GDPR: THE DATA PROTECTION OFFICER



Study: At least 28,000 **DPOs** needed to meet **GDPR** requirements



Rita Heimes, CIPP/US



The Privacy Advisor | Apr 19, 2016















PRO TIP: START HERE

FAMILIAR YOURSELF WITH ALL REGULATIONS IN YOUR SECTOR

A holistic approach and cooperation is required to avoid overlap and inconsistencies Avoid regulatory silos

APPOINT A DPO

Full or part-time

DPO to establish a Staff Data Protection Programme to address insider threats

DPO to establish a Supply Chain Review Programme

DPO to establish cross-disciplinary working group to address all regulations

CLASSIFY YOUR DATA

Decide which processing basis will apply to each category (e.g. consent or otherwise)

Examine impact of Big Data, IoT, AI, etc, for fair processing

Start working on Impact Assessments and Privacy Notices

IF YOU ALREADY COMPLY WITH THE DPA & HAVE GOOD INFORMATION SECURITY PRACTICES, YOU SHOULD BE A LONG WAY THERE...





THE FUTURE OF CYBER SECURITY EUROPE BRINGS YOU UP TO DATE WITH THE LATEST ISSUES





Neira Jones FBCS, MSc Independent Advisor, Payments, Risk, Cybercrime, & Digital Innovation

Non-Executive Director, Cognosec

- me http://about.me/neirajones
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- @neirajones
- neirajones.blogspot.co.uk
 - http://paper.li/neirajones/1369506964