e-Commerce

Computer Science Tripos Part II

International Perspectives on Internet Legislation

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These lecture notes were specially prepared for the Cambridge University Computer Science "e-Commerce" course, Lent Term 2018.

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Outline

- Data Protection & Privacy
  - EU Data Protection
  - US Privacy Laws
  - security breach disclosure
- E-Commerce
  - copyright infringement
  - deep linking
  - framing
  - brands and other web-page issues
- Crime and policing
  - international policing
  - extra-territoriality &c

The slides give the broad outline of the lectures and the notes ensure that the details are properly recorded, lest they be skipped over on the day. However, it is at least arguable that it will be far more interesting to take notice of what I say off-the-cuff rather than relying on this document as an accurate rendition of what the lecture was really about!

Also, please note that "IANAL" (I am not a lawyer). Consult a professional if you wish to receive accurate advice about the law!

Further Reading

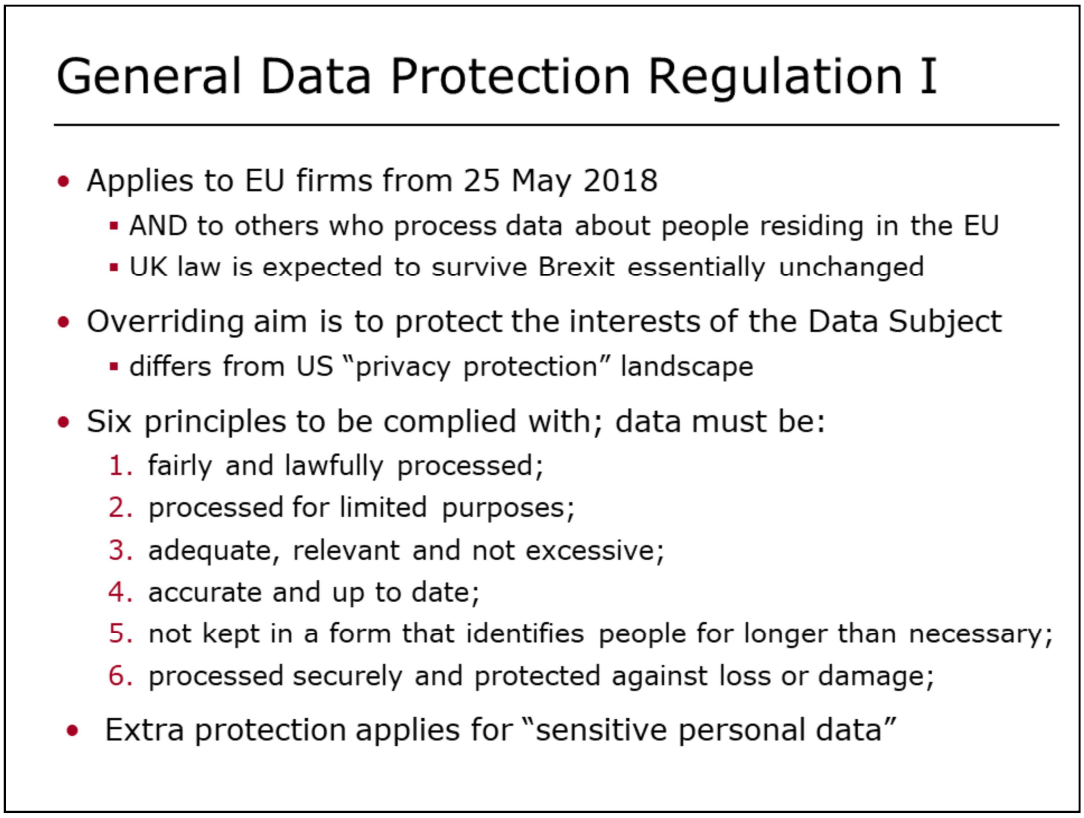
- Most of the relevant statutes available online
  - many court judgments now also appearing online
  - reading Acts of Parliament is relatively straightforward (judgments vary in clarity!)
  - however, law is somewhat flexible in practice, and careful textual analysis may disappoint
- Wealth of explanatory websites
  - often solicitors (and expert witnesses) seeking to show their expertise
- IANAL! (although I am sometimes an expert)

The text of all relevant UK statutes are published at:

http://www.legislation.gov.uk

On the website you will find most statutes – starting with five that predate Magna Carta – with complete coverage from 1988 onwards. Consolidated versions of statutes (albeit with some complex exceptions and limited application of the most recent changes) are also available, along with an indication as to which sections are currently in force.

The site also holds the text of statutory instruments, with partial coverage from 1948 and a complete set from 1987.



✶ GDPR is a "Regulation" so immediately applies across the whole of the European Union on 2018-05-25

✶ English text of GDPR

`http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%205853%202012%20INIT`

✶ Lots of fine advice on the Information Commissioner's page

`https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/`

✶ The GDPR applies to 'controllers' **and** 'processors'. The controller says how and why personal data is processed and the processor acts on the controller's behalf. A processor has specific legal obligations (eg maintaining records of the processing). A controller is obliged to ensure that contracts with processors conform to GDPR.

✶ See Article 5 for the full text of the six principles and note that 5(2) says: "the controller shall be responsible for, and be able to demonstrate, compliance with the principles."

✶ A risk-based approach is required in determining what measures are appropriate for principle 6:

> Management and organisational measures are as important as technical ones
> Pay attention to data over its entire lifetime

General Data Protection Regulation II

- Requirement to keep internal records of your databases
  - who you are, the type of data and who provided it
  - retention schedules
  - security arrangements (technical & organisational)
  - details of transfers (especially when involves third countries)
- Essential to identify why processing is allowed
  - consent: for each purpose must be freely given, specific, informed & unambiguous; can no longer use pre-ticked boxes or infer it
  - contract
  - legal compliance
  - then there's "vital interest of a human (life or death)", "public interest", "legitimate interest (complex!)", "member state specific reasons", "crime & justice", and "new purposes".
- Must get permission from parents for children under 16 (or 13)

You must:

- Implement appropriate technical and organisational measures that ensure and demonstrate that you comply with GDPR. This may include internal data protection policies such as staff training, internal audits of processing activities, and reviews of internal HR policies.
- Maintain relevant documentation on processing activities.
- Where appropriate, appoint a data protection officer.
- Implement measures that meet the principles of data protection by design and data protection by default. Measures could include:
  - Data minimisation;
  - Pseudonymisation;
  - Transparency;
  - Allowing individuals to monitor processing; and
  - Creating and improving security features on an ongoing basis.
- Use data protection impact assessments where appropriate.

General Data Protection Regulation III

- GDPR provides the following rights for individuals:
  - The right to be informed
    - need to have a privacy notice that explains your processing
  - The right of access
    - systems need to be designed for this right to be exercisable
  - The right to rectification
    - errors need to be corrected (and passed on if data was passed on)
  - The right to erasure
    - "right to be forgotten": when no compelling reason to keep the data
  - The right to restrict processing
    - you can keep data, but not otherwise process it (unless you have to)
  - The right to data portability
  - The right to object
  - Rights in relation to automated decision making and profiling

The privacy notice will need to specify:

- The identity and contact details of the controller (and where applicable, the controller's representative) and the data protection officer
- Purpose of the processing and the lawful basis for the processing
- The legitimate interests of the controller or third party, where applicable
- Categories of personal data
- Any recipient or categories of recipients of the personal data
- Details of transfers to third country and safeguards
- Retention period or criteria used to determine the retention period
- The existence of each of data subject's rights
- The right to withdraw consent at any time, where relevant
- The right to lodge a complaint with a supervisory authority
- The source the personal data originates from and whether it came from publicly accessible sources
- Whether the provision of personal data part of a statutory or contractual requirement or obligation and possible consequences of failing to provide the personal data
- The existence of automated decision making, including profiling and information about how decisions are made, the significance and the consequences

General Data Protection Regulation IV

- New systems must have data protection designed in
  - AND you may have to do an impact assessment
- Data breaches must be reported to regulator within 72 hours
  - PLUS a requirement to notify data subjects (if data is high risk)
- Fines can now be much bigger
- Firms processing data at scale (& public authorities) **must** appoint a Data Protection Officer
  - can be a contractor
  - must be capable of advising on GDPR obligations
  - must monitor compliance with GDPR
  - must report to the board and not be fired for doing their job!
- DPO optional for other firms, but they must have sufficient staff & skills to discharge their duties under the GDPR

✶ Fines can be up to 20m Euro or 4% of global turnover (whichever is greater)
But that's the maximum !

Privacy Shield

- EU Data Protection regime requires that data can only be transferred to other jurisdictions if it remains under the same sort of protective framework
- Three ways of achieving this
  - recognition that another jurisdiction has equivalent law
  - by appropriate contractual provisions
  - by an umbrella agreement such as "Safe Harbor" for EU/US flows
- However in the *Schrems* case the EU Court of Justice held that Safe Harbour could not be seen as acceptable
- So "Privacy Shield" has been negotiated to replace it
  - but, many commentators believe that the changes to US Law to protect data do not go far enough and this will also be struck down as inadequate in due course!

- ICO guidance (under current regime):

  https://ico.org.uk/for-organisations/guide-to-data-protection/principle-8-international/

- For details on Model Contract Clauses

  https://ico.org.uk/media/for-organisations/documents/1571/model_contract_clauses_international_transfers_of_personal_data.pdf

- For details on Binding Corporate Rules

  https://ico.org.uk/for-organisations/guide-to-data-protection/binding-corporate-rules/

- For a fairly general introduction to Privacy Shield (and links to more detailed info):

  https://iconewsblog.wordpress.com/2016/08/04/the-what-why-and-how-of-transferring-data-to-the-usa/

US Privacy

- US approach is sector specific (and often driven by specific cases) For example:
  - privacy of mail (1782, 1825, 1877)
  - privacy of telegrams (state laws in the 1880s)
  - privacy of Census (1919)
  - Bank Secrecy Act 1970 (requires records kept!)
  - Privacy Act 1974 (regulates the Government)
  - Cable Communications Policy Act 1984 (viewing data)
  - Video Privacy Protection Act 1988 (purchase/rentals)
  - Telephone Consumer Protection Act 1991 (DNC in 2003)
  - Driver's Privacy Protection Act 1994 (license data)
- Specific rules for phone calls & email
  - CAN-SPAM & Do-Not-Call (2003)
  - may be joined by "do not track" ?

✶ The US does not have the same idea of Data Protection as does Europe, but it does have a formal notion of privacy, and a patchwork of Acts addressing disclosure of personal information in specific sectors.

✶ The Privacy Act applies many of the Data Protection principles to the Federal Government (but not to private industry, and there are significant exceptions).

✶ The Video Privacy Protection Act was passed following Judge Robert Bork's video rental records being released when he was being considered for appointment to the Supreme Court.

✶ There is an overview of all the various statutes at:

https://cdt.org/insight/existing-federal-privacy-laws/

HIPAA

- US Federal Law (Health Insurance Portability and Accountability Act 1996)
- Sets standards for privacy and security
  - Personal Health Information (medical & financial) must be disclosed to individual upon request, and when required by law or for treatment, payments etc (but info must be minimized where appropriate)
  - all disclosures must be recorded
  - must record, eg, that patients to be called at work
  - security implies admin, physical & technical safeguards
- Requires use of a universal (10digit) identifier

✶ At the heart of HIPAA is a "Privacy Rule" that it takes a 25 page PDF to summarise!

http://www.hhs.gov/sites/default/files/privacysummary.pdf

✶ The official site explaining HIPAA is at:

http://www.hhs.gov/hipaa/index.html

Sarbanes-Oxley

- US Federal Law (Public Company Accounting Reform and Investor Protection Act of 2002)
  - introduced after Enron/WorldCom/etc scandals
- Public companies have to evaluate and disclose the effectiveness of their internal controls as they relate to financial reporting
- Auditors required to understand & evaluate the company controls
- Companies now have to pay much more attention to data retention and data retrieval

✶ Sarbanes Oxley (SOX) is a complex collection of provisions, that are intended to restore confidence in corporate America following some very high profile scandals that cost investors billions.

✶ Drawing on analysis on why those scandals occurred, there are now specific rules about conflict of interest for auditors and security analysts.

✶ Senior executives in public corporations must take individual responsibility for the accuracy and completeness of financial reports and they have new requirements to report personal stock transactions.

✶ The requirements on effective internal controls have been implemented through the Public Company Accounting Oversight Board (PCAOB), and in essence through the major accounting firms. Where existing accounting systems were chaotic, manual or decentralised, costs have been high, which has led to considerable criticism.

✶ There is some evidence of smaller firms avoiding stock market listings in New York to reduce their costs, and the SOX regime is regularly being tinkered with to try and avoid excess expense.

✶ For the text of the law see:

http://www.gpo.gov/fdsys/pkg/PLAW-107publ204/content-detail.html

Security Breach Disclosure

- California State Law SB1386 (2002) updated by AB1950 (2004)
  - must protect personal data
  - if disclosed then must tell individuals involved
- Now taken up by 47 (of 50) states & ongoing talk of a Federal Law (for harmonisation)
  - early on had a dramatic impact, now (100 million disclosures later) becoming part of the landscape
  - no central reporting (so hard to track numbers)
  - some disclosures look like junk mail!
- EU already has sector-specific provision for telcos/ISPs and will extend this to all data controllers in the upcoming Regulation
- Can voluntarily file a "Form 8-K", to inform investors of breach

✶ For a list of all the various state laws (there is similar language in all of them, but all sorts of complex differences) see the NCSL website:

http://www.ncsl.org/research/telecommunications-and-information-technology/security-breach-notification-laws.aspx

✶ The EU included a security breach disclosure requirement in the reworking of the Telecoms Directives. It applies to telcos and ISPs (but NOT to "information service providers") where there is a security breach affecting information held for "the provision of electronic communication services".

✶ For the UK transposition of this regime see "The Privacy and Electronic Communications (EC Directive) (Amendment) Regulations 2011", SI 2011/1208:

http://www.legislation.gov.uk/uksi/2011/1208/made

Note that if you lose personal data you have to tell your national authority (in the UK the ICO). If you think it adversely affects the personal data or privacy of a user of subscriber then you must tell them. If you don't the regulator can force you to do so. Note that you have to report a breach even if the data was encrypted and hence there wasn't really a breach at all !

✶ Listed firms may have an obligation (to the exchange (eg NASDAQ or to the regulator (eg SEC)) to reveal material events to their shareholders:

http://www.insideprivacy.com/data-security/cybersecurity/when-are-public-companies-required-to-disclose-that-they-have-experienced-a-material-data-security-b/

Copyright Material

- US has the DMCA "safe harbor" so that hoster is immune until notified then must remove; but user may "put back"
  - DMCA is very prescriptive about take-down
  - but if you follow the rules then removal is straightforward
  - put-back timescale is not immediate (idea is to allow complainant to move dispute to the court system)
- EU has eCommerce Directive and a "hosting" immunity
  - hoster immune until they have "actual knowledge"
  - related immunities are "mere conduit" and "cacheing"
- User Generated Content might qualify for hosting immunity
  - or it might not!
- L'Oreal v eBay – ECJ ruling May 2011
  - only affects "commercial" use of trademarks
  - eBay (who bought AdWords) can be pursued for infringing sales

✶ The Digital Millennium Copyright Act (1998) criminalises production or shipping of digital rights management (DRM) circumvention devices. It also sets up a scheme for dealing with copyright infringement on the Internet. ISPs are immune until notified, via a specific address that they must publish, and then they must remove infringing material. When there is a dispute the poster can have the material replaced, but must submit to the jurisdiction of a court who will decide the case. Note that infringement notices must meet specific requirements and be made "under penalty of perjury".

https://www.gpo.gov/fdsys/pkg/PLAW-105publ304/pdf/PLAW-105publ304.pdf

Deep Linking

- Deep Linking is the term for pointing at specific pages on another website rather than the top level.
- Courts generally rule against this when "passing off"
  - 1996 Shetland Times v Shetland News (UK) settled
  - 1997 TicketMaster v Microsoft (US) settled
  - 2000 TicketMaster v tickets.com (US) allowed [since clear]
  - 2006 naukri.com v bixee.com (India) injunction
  - 2006 HOME v OFiR (Denmark) allowed [not a database]
  - 2006 SFX motor sports v supercrosslive (Texas) injunction
- Google News is a popular target (their policy is to quit, not pay)
  - 2007 BE Copiepresse Press v Google
    - Google lost, then appealed, but settled out of court in 2012
  - 2014 DE payment law applied: publishers caved after 2 weeks
  - 2015 ES payments mandated: cost to publishers > €10m

✶ Shetland News had headlines that pointed to stories within Shetland Times site. There was an interim injunction forbidding this (because the headlines were copied verbatim), but it settled before trial with the News agreeing to cease their previous practice.

http://www.netlitigation.com/netlitigation/cases/shetland.htm

✶ Microsoft's "Sidewalk" site linked direct to events on Ticketmaster's site. They settled out of court and the deep links were removed.

http://www2.selu.edu/Academics/FacultyExcellence/Pattie/DeepLinking/cases.html

✶ Tickets.com were linking into TicketMaster when they didn't handle an event, and the judge said it wasn't a copyright breach because there was no copying.

http://www.politechbot.com/docs/ticketmaster-tickets-2000-03-27.txt

✶ The aggregator bixee was enjoined from linking deep into the naukri jobs site (they were essentially presenting classified of their own).

http://indiablawg.blogspot.co.uk/2006/01/deep-linking-naukri-v-bixe_113673979592321141.html

✶ Real estate site bolig.ofir.dk was linking into a database of houses for sale at Home. Court concluded that search engines by "ordinary practice" provided deep links into websites.

http://history.edri.org/edrigram/number4.5/deeplinking

✶ Supercrosslive linked to a live audio webcast at SFX. This was seen as copyright infringement. Worth noting that supercrosslive was a litigant in person.

http://cyberlaw.stanford.edu/packet/200702/providing-unauthorized-link-live-audio-webcast-likely-constitutes-copy

✶ Belgian newspapers objected to Google News who provided headlines and small snippets of their stories; a German law allowed charges, Google stopped linking & after 2 weeks Springer caved in. In Spain, the publishers could not opt out and it's cost them > 10m Euro.

http://ipkitten.blogspot.co.uk/2012/12/google-and-belgian-newspaper-publishers.html
http://www.reuters.com/article/2014/11/05/us-google-axel-sprngr-idUSKBN0IP1YT20141105
http://arstechnica.com/tech-policy/2015/07/new-study-shows-spains-google-tax-has-been-a-disaster-for-publishers/

Framing, Inlining & Linking

- Framing is being permitted for search engines
  - Kelly v Ariba (US) : thumbnails of Kelly's photos in Ariba's search engine were "fair use", and full-size "inlined" or "framed" copies were also OK
  - but don't do your own design of a Dilbert page!
- Linking is much less of a problem
  - even from disparaging site (US) Ford Motor Co case
  - but linking to bad things generally bad
- In general, framing causes problems
  - Hard Rock Café v Morton (US) "single visual presentation"
  - Washington Post v Total News (US) settled
  - BUT in EU framing is allowed (Svensson v Retriever)
- Search engines have data protection obligations (Google Spain)

✶ Kelly was a photographer whose site was indexed by Ariba (an early image search engine). The court held that the thumbnails were allowed under US copyright law's "Fair Use" provisions. The appeal court initially held that when they framed images that were clicked on then this infringed, but revised their opinion and later said that was OK as well.

http://www.eff.org/cases/kelly-v-arriba-soft

✶ United Media get upset if you create your own page (with a better layout) and incorporate Dilbert strips within that. **http://www.cs.rice.edu/~dwallach/dilbert/**

✶ Ford failed to get an injunction to prohibit a link from the disparaging website "fuckgeneralmotors.com" **http://www.2600.com/news/122201-files/ford-dec.html**

✶ Morton sold his interest in the Hard Rock Café, except for the Hard Rock Casinos and Hotel. However, he also built a website that sold Hard Rock items, and that sold CDs via a framed copy of the Tunes website. The court held that since it looked like a Hard Rock Hotel site, and since selling CDs was a right Morton had sold, he was in breach of agreements.

http://www.internetlibrary.com/cases/lib_case192.cfm

✶ Total News linked to various news websites, presenting their content within a frame (full of their logo and their adverts). They settled out of court – with Total News getting a license to link to the sites, but without a frame. Since settled, this doesn't settle anything!

https://web.archive.org/web/20121224003719/http://legal.web.aol.com/decisions/dlip/wash.html

✶ Retriever Sverige AB ruling: A website may, without the authorisation of the copyright holders, link to material available on a freely accessible basis on another site: even if the impression is that the work is appearing on the site that contains the link.

http://curia.europa.eu/jcms/upload/docs/application/pdf/2014-02/cp140020en.pdf

✶ Google Spain ruling "an internet search engine operator is responsible for the processing that it carries out of personal data which appear on web pages published by third parties"

http://curia.europa.eu/jcms/upload/docs/application/pdf/2014-05/cp140070en.pdf

Brand Names

- Significant protection for brands in domain names
  - Uniform Dispute Resolution Protocol for brand owners
  - mikerowesoft.com settled, microsuck.com survived…
  - US: 1999: Anticybersquatting Consumer Protection Act
  - US: 2003: Truth in Domain Names Act
- Using other people's brand names in meta-tags doesn't usually survive legal challenge
- US law on "adwords" now settled: if you just buy keyword then you may well be OK, but problems can occur if use trademarks in ad copy, or on landing page & there is "confusion"
  - NB Google has its own rules as well
- ECJ has followed the US approach, as has Australia, which should harmonise things

✶ Most top level domains provide a dispute resolution protocol for settling domain name disputes, in particular the ICANN sponsored names have a uniform system: **http://www.icann.org/en/udrp/udrp.htm**

Trademark owners have little choice but to defend their IP, which put them in an awkward situation when a 17-year-old used their real name:

http://ensign.ftlcomm.com/ensign2/mcintyre/pickofday/2004/january/jan019_04/mikerowesoft.html

✶ The US has specific legislation on Cybersquatting (in the UK the "One in a Million" judgment has been sufficient) and the US also criminalises "misleading" domain names for "porn" websites.

https://web.archive.org/web/20110721231226/http://www.nominet.org.uk/disputes/caselaw/index/million/millionjudge/

http://www.law.cornell.edu/uscode/html/uscode15/usc_sec_15_00001125----000-.html
uscode15/usc_sec_15_00008131----000-.html
uscode18/usc_sec_18_00002252---B000-.html

✶ Rescuecom Corporation v. Google, Inc. settled US issue of "use of trademarks", but it needs to be used "in commerce" to be a problem and create "consumer confusion". I , ECJ ruling in March 2010 found similar position, and gave substantial immunity to Google, albeit rather less to the advertiser. There have been similar judgments elsewhere, eg in Australia.

International Policing

- Foreign police priorities differ (as do laws)
  - specialist advice is wise before attempting to engage them
- Police do not usually operate across borders
  - Interpol mainly a fax distribution centre
  - although we now have the European Arrest Warrant
- Convention on Cybercrime
  - aka Budapest Convention
  - Russia & others have objected to cross-border aspects
  - a "Commonwealth Cybercrime Initiative" fizzled out
- Problem for searches of remote/cloud systems
  - once police become aware must use MLAT
  - MLAT allows the diplomats to consider the issues
  - but it often makes glaciers look quick

✶ There are attempts to harmonise cyber legislation, such as the 2001 Convention on Cybercrime

http://conventions.coe.int/treaty/en/treaties/html/185.htm

This also sets out a framework for cooperation with 24x7 contact points, but it does not provide any mechanisms for aligning strategic objectives, let alone allowing police to operate across jurisdictional borders.

Extradition

- Gary McKinnon
  - accused of hacking 97 US military/NASA computers (2001-2002)
  - took until 2012 before extradition ruled out
- Richard O'Dwyer
  - student at Sheffield Hallam University
  - ran TVshack.net (and then TVshack.cc), hosted in Sweden
  - accused of copyright offences in New York state
  - faced extradition, but initial judgment was appealed
  - in Nov 2012 agreed to a deferred prosecution arrangement
- Gambling, non-banks &c => no US holidays!
  - extradition can be slow, but grabbing you at a US airport is not
  - some spammers have been caught using an Interpol "Red Notice"
  - being a backroom boffin supporting serious crime can be a serious offence (see the UK's Fraud Act 2006 & Serious Crime Act 2007)

- Gary McKinnon

  http://spectrum.ieee.org/geek-life/profiles/the-autistic-hacker/

- Richard O'Dwyer

  http://www.theguardian.com/uk/2012/dec/06/richard-o-dwyer-avoids-us-extradition

- Current cause celebre: Lauri Love

  https://freelauri.com/

- David Carruthers was arrested at Dallas Fort Worth airport whilst changing planes on a flight from the UK to Costa Rica. He was CEO of an online gambling firm (illegal in the US) and after several years of house arrest was sentenced to 33 months in January 2010.

  http://news.bbc.co.uk/1/hi/business/5204176.stm

  http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/6963081/Betting-executive-jailed-for-racketeering.html

Review

- Important to understand the difference between the European Data Protection regime & US privacy laws
  - however, much common ground and ideas like security breach notification gaining traction worldwide
- Much still to be finally settled on the web, but the broad outlines are quite apparent and there is case law (albeit perhaps still being appealed, so pay attention to dates on articles) for a great many situations, so a search engine will assist you in understanding what to ask a lawyer…
- Governments now grok computers and the Internet and are getting into data retention, traffic analysis &c in a major way so there may be local rules to follow on encryption, keeping records of usage or keeping data within the jurisdiction

Ignorance of the law excuses no man;
not that all men know the law;
but because 'tis an excuse every man will plead,
and no man can tell how to confute him.

John Selden (1584-1654)