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State-of-the-art report for legal, social and business aspects of re-use of legal information

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Executive Summary

This Deliverable specifies the main existing stakeholders involved in legal publication for the BOLD2020 vision, and their working practices with regards to the consumption, creation, use and exploitation of legal data. Workstream 1 involves the identification of the problem through a Soft Systems Methodology approach (Annex 1), the mapping of stakeholders and the identification of their understanding of the problem domain, the activities they are engaged in, and the key use cases for the re-use and consumption of legal data. It also maps the flows of data as a result of the legal, social and market limitations and identifies potential flows of value in the same context. Together with country case studies Deliverables 1.2.d1-5 (four reports based on protocol D1.2.d1), this report will feed into Workstream 2 activities 2.3-2.4, and the "White paper on the OpenLaws.eu open innovation community" (finalized in M24) to provide an updated set of recommendations based on the overall findings of the OpenLaws.eu project.

The report analyses using the standard subtitles for the BOLD2020 vision: big data, open data and legal data. In Big Data, it explains the term, its impacting by digitalisation, mash-ups, machine-readability, interoperability. Open Data is explored for the use of standards, licences, and the impact of reuse of Public Sector Information (PSI) as well as generating of open data by users. Free Data within open data is explored via the Free/Open Source Software movement, the reuse and enhancement of law as a public goods via the history of the Free Access to Law Movement (FALM). Legal Data is analysed within sectors of users including law firms, universities, citizens. The typology of judgements, legislation, regulations, soft law, legal literature is used. We examine consumption patterns, stakeholders, users, and 'prosumers'. Prosumerism and the law is finally explored, which introduces the concept of the lawyer creating their own sources of law via both authorship and stewardship of online resources.

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1. Big Data

'Big data' is a meaningless buzz-phrase without context, and in this start-of-the-art paper for the BOLD2020 vision we provide some context. Big data is taken to refer to data which is machine-readable, interoperable and often non-proprietary (shared), as well as having some minimum size (its 'bigness') in terms of objects or files. Laney in 2001 defined data growth challenges and opportunities as being three-dimensional: increasing volume (amount of data), velocity (speed of data in and out), and variety (range of data types and sources). His company continue to use this '3Vs' model for describing big data, and updated its definition as follows: "Big data is high volume, high velocity, and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization."[1] The European Commission has taken this definition and added adaptations with further 'V's for Veracity and Value (McKinsey having estimated a potential European market of €250billion)[2].

The dynamic development of Information and Communications Technologies (ICTs) has the potential to lower information, and hence transaction, costs. Couldry and Powell state: "it is digital infrastructures of collection, transmission, analysis and presentation that have made possible continuous data-mining. Compared to representative sampling, such new approaches to data collection are totalising; they are also characterised by the aggregation of multiple data sets through the use of calculation algorithms."[3] The key to the transformative effect of these productivity gains is that networks increase the productivity effect with each new addition to the network (this is known as Metcalfe's Law), thus creating a 'bandwaggoning' growth in data transfer and processing.

Table 1: Technological Laws and Their Effect

Technical Process	Component	Cost-Efficiency Effect
Moore's Law	**Microprocessor**	Doubles every 18 months e.g. from 2GHz to 4GHz
Metcalfe's Law	**Network**	Increases potential value of network by square of number of nodes – any new user is both receiver and sender of information e.g. e-mail
Disc Law[4]	**Storage – hard disk**	Doubles storage cost-efficiency each year
Data Packet Transfer	**Data Compression**	Increases: boosted by improved codecs e.g. DivX, H.260, MPEG4

[1] Laney, Douglas (2001) File 949 "3D Data Management: Controlling Data Volume, Velocity and Variety". Gartner 6 February at http://blogs.gartner.com/doug-laney/files/2012/01/ad949-3D-Data-Management-Controlling-Data-Volume-Velocity-and-Variety.pdf Laney, Douglas (2012) "The Importance of 'Big Data': A Definition" Gartner at http://www.gartner.com/document/2057415

[2] See European Commission (2014) Big Data: Futurium at http://ec.europa.eu/digital-agenda/futurium/en/content/big-data See further COM/2014/0442 final Towards a thriving data-driven economy.

[3] Couldry, Nick and Alison Powell (July 1, 2014) *Big Data from the bottom up*, Big Data & Society July-December 2014 vol. 1 no. 2 2053951714539277 doi: 10.1177/2053951714539277

[4] See further, Seeley Brown, John (2002) The Social Life of Innovation in the Digital Age, 15 July presentation at http://www.ruschlikon.net/INTERNET/rschwebp.nsf/(ID)/6C5A73B4FEBA95A9C1256C13002820A2/$FILE/JSB-speech-.pdf

Gilder's Law[5]	**Transmission Equipment**	Potential bandwidth increases three times faster than microprocessor power – Moore's Law x3 – every 6 months
Fibre Law	Transmission Network	Total capacity doubles every 9 months

All these laws of the network and device have 'network effects' on the others – high processing speed (Moore's Law) and storage (Disc Law) are needed to process and store the highly compressed (Compression) data files sent via switchers (Gilder's Law) and optical fibre (Fibre Law) over the network (Metcalfe's Law)[6]. This combination of ultra-powerful ubiquitous computing and even stronger network effects creates the dynamic for an extraordinary growth in 'bandwidth' transfer and data storage: the capacity of the Internet community to communicate. The move from grid computing to network computing to cloud computing in the 21st century has seen the deployment of larger shared programming tasks between federated and even semi-autonomous machines[7]. While a single super-computer might have been the necessary basis for what was then considered 'big data' in the 1980s, by the 21st century it was clear that federated computing structures are necessary for larger tasks.

An example of big data processing from the early consumer broadband Internet experience would be the distributed computing shared-resource programme for SETI@home (Search for Extra Terrestrial Intelligence) launched in 1999, which had 145,000 active computers in the system (1.4 million total) in 233 countries, as of 23 June 2013, with the ability to compute over 722 teraFLOPS (approximately 60 times greater than the world's most powerful super-computer)[8].

Based on earlier analyses of use of Big Data, we define data sharing and re-use as: "The active cooperation of two or more bodies to exchange or compare data." We define data federation as: "The merging of that data to produce new forms, services or applications of data, whether for private (controlled) or public (open) use." Finally, we define 'data mashing' (whether for Public Sector Information or other data) as: A particular type of data sharing based on common use of published and accepted Asynchronous JavaScript and XML (AJAX) software family data standards. Figure 1 shows the schematic for the definitions of PSI re-use that we have used.

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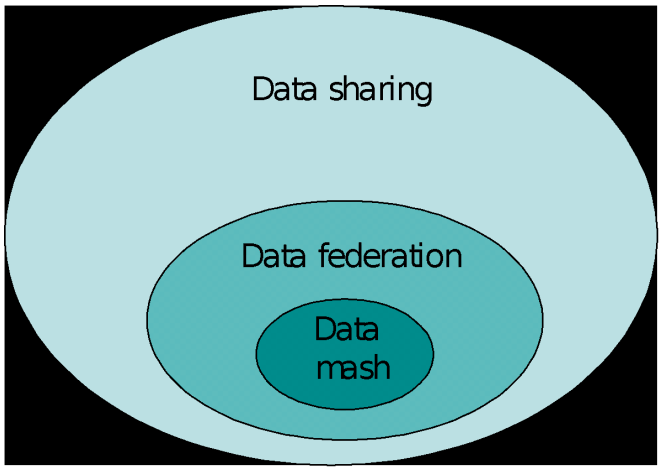
[5] See Gilder, G. (1993) Metcalfe's Law and Legacy, Forbes ASAP 13 September at http://www.seas.upenn.edu/~gaj1/metgg.html

[6] Total global technological capacity to store information has roughly doubled every 40 months since the 1980s; as of 2012, every day 2.5Exabytes (2.5×1018) of data were created. Two 'laws', of terminals and networks, create the dynamism of the Internet. Together, they create the law of the microcosm' Moore's Law, coined by Gordon Moore of Intel in the 1960s, estimated future microprocessor efficiency doubling every year, and then every two years in the following decade (some aggregated this as every eighteen months). Metcalfe's Law applies to networks, especially real networks of users, as in telephony, railways, telegraphs, highways, telephones. It holds that an additional user on the network exponentially increases its usage, as both new user's outward communications with the rest of the network, and those existing users with the new user, are increased. An excellent source of information on the pioneers is the 'Nobel prize of communications', the Marconi Foundation's Marconi Prize: see http://www.marconifoundation.org/pages/news_room/index.htm

[7] See Winshuttle (2014 undated) Big Data Timeline for an excellent visual summary: http://www.winshuttle.com/big-data-timeline/

[8] Tianhe-2, the world's fastest supercomputer, was able to compute 33.86 petaFLOPS in 2013, see http://www.top500.org/lists/2014/06/ See http://boincstats.com/en/stats/0/project/detail for latest SETI@home data.

Figure 1: Data Sharing, Federation and mashing – A Schematic Representation



Data mashing has become associated with overblown claims as to its potential and current value through the use by proponents of 'Web2.0' services and applications. O'Reilly states:

> "The potential of the web to deliver full scale applications didn't hit the mainstream till Google introduced Gmail, quickly followed by Google Maps, web based applications with rich user interfaces and PC-equivalent interactivity."[9]

More prominently, Apple advertised its iTunes service as offering consumers the ability to "Rip. Mix. Burn" in 2006[10]. This report uses the term 'data mashing' to describe any Internet-based federation of two or more data types using existing tools to remove technical standardisation as a barrier to service delivery. The public are important re-users or 'prosumers' as well as consumers of data. The user is able to 'pull' content and adapt and mix content into a user's own 'mash-up'. A mash-up is a combination of existing media reworked into a potentially innovative type.

It is a practical application of Big Data capability[11] to create the public good of access to law. There is a tension between the possibilities offered by legal information re-use and the barriers to implementing (or even conceiving) this via open data, which is explored in the following section.

2. Open Data

The European Commission generally states "Open data refers to the idea that certain data should be freely available for use and re-use"[12]. The UK government defines Open Data as "Data which can be used, re-used and re-distributed freely by anyone – subject only at most to the requirement to attribute and share-alike. There may be some charge, usually no more than the cost of reproduction"[13]. Open data has recently

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[9] O'Reilly, Tim (2007) *What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*. Communications & Strategies, No. 1, p. 17. Available at SSRN: http://ssrn.com/abstract=1008839

[10] See http://www.criticalcommons.org/Members/ccManager/clips/apple-ad-rip.-mix.-burn

[11] 'Big Data' is a cliché capable of many definitions – see for instance leading scientists' Challenges and Opportunities with Big Data (undated 2012) building on Lazer, et al (2009). For provocations based on the role of inter-disciplinary analysis of Big Data, see Haddadi, et al (2013).

[12] https://ec.europa.eu/digital-agenda/en/open-data-0

[13] Source: APPSI Glossary http://www.nationalarchives.gov.uk/appsi/appsi-glossary-a-z.htm

been defined by the Open Data Advisory Council as "principles that define openness in relation to data and content," with a license which permits anyone to "freely access, use, modify, and share that content, for any purpose, subject, at most, to requirements that preserve provenance and openness."[14]

Open data is meaningful in terms of Openlaws.eu only with the creation of machine-readable 'mashable' data[15]. Without the Internet and WWW, there would be much less open digital data sharing possible of any scale, which makes open data young in this sense. The World Wide Web was designed for open data standards, and its creator Tim Berners Lee is co-founder of the UK Open Data Institute. The European Commission has funded the ODI and Berners Lee to set up the Open Data Incubator for Europe (http://opendataincubator.eu/) as part of its open data initiatives [16]. The WWW was created at CERN (Centre Europeene pour la Recherche Nucleaire), home to the Large Hadron Collider, whose sub-atomic experiments gather 500 exabytes of data per day in raw form (a multiple of 200 of all the data actually created and stored in the entire world each day)[17].

Access to knowledge is now recognized as a key driver of social, cultural and economic development, with tangible economic advantages to be gained by sharing[18]. The 'all rights reserved' model of traditional copyright law, with its legal concepts and requirement for permission for all uses, does not fit well with an environment which enables sharing and reuse of content by users. In the analogue environment the ability to produce, reproduce, distribute, share and promote creative works was relatively restricted, due primarily to geographic, economic and technological limitations. The emergence of consumer digital technologies such as CDs and the internet in the 1990s allowed for increasing levels of functionality, particularly in relation to interactivity as Benkler indicated in 2006. More recent production and communication technologies – mobile phone cameras, mp3 encoding for music, rich media applications, video streaming and peer-to-peer networking provide simple ways for users to collaborate, communicate and create material, including 'mashing up' existing material into new and innovative media. Pam states:

> "With the advent of the Internet, a global network providing the capability to the general public for peer-to-peer transfer of digital media, it no longer makes sense for the media industry to use the existing producer/publisher/distributor/consumer one-way pipeline business model since a larger proportion of the public are capable, willing and interested to act as producers, publishers and distributors."[19]

The risk in such an environment is that copyright law will become a barrier to the realization of the full potential of these technologies. A significant legal response to such a challenge has been the development of new licensing systems to open up

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[14] Open Definition Version 2.0 which allows for identification of rights in works as well as licences: see http://opendefinition.org/ and Vollmer, Timothy (2014) Open Definition 2.0 released, Creative Commons Public Policy October 7th, at http://creativecommons.org/weblog/entry/43812

[15] Kimpton, P. (2013) Obama to Berners-Lee, Snow to Domesday: a history of open data, Guardian 25 October at http://www.theguardian.com/news/datablog/2013/oct/25/barack-obama-tim-berners-lee-open-data

[16] Also funding the European Data Science Academy (EDSA): see Gibbs, Samuel (2014) EU commits €14.4m to support open data across Europe, The Guardian 4 November, at http://www.theguardian.com/technology/2014/nov/04/eu-commits-144m-to-support-open-data-across-europe

[17] Brumfiel, Geoff (2011) "High-energy physics: Down the petabyte highway" Nature 19 January v.469. pp. 282–83. doi:10.1038/469282a

18 See a robustly optimistic assessment and for policy makers of great importance, Weiss, Peter N. (2002) Borders in Cyberspace: Conflicting Public Sector Information Policies and their Economic Impacts, US Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, http://www.weather.gov/sp/Borders_report.pdf

19 Pam, A. (2002) "Hyperdistribution" Serious Cybernetics at http://www.sericyb.com.au/hyperdistribution.html

access to and use of protected material. Access to and re-use of materials produced by government and other publicly funded bodies has also emerged as an important issue in recent years. Historically it has been cumbersome and expensive to provide access to government information. However digital technologies have now removed many traditional barriers to widespread distribution of material to the public. As a result, consumer demand for access to, and reuse of, government information has risen exponentially, driven in part by the emergence of Web 2.0 functionality.

G8 nations signed an Open Data Charter in 2013 which contains five principles for re-use of Public Sector Information[20]. Open data principles are normative claims of activists presented as descriptors; the principles are about what should be, and to some degree governments agree.The Sebastopol Principles of December 2007 (see Annex 2) are particularly designed for government data, and are not fully transferrable to all legal data, for instance licensing (particularly copyright) is favoured by many official as well as private legal sources, breaching Principle 8[21]. Note also the 'Five-star' approach to open data used by the World Wide Web Foundation, designed by Tim Berners Lee "in order to encourage people -- especially government data owners -- along the road to good linked data"[22].

Table: Sebastopol Principles 2007, https://public.resource.org/8_principles.html

1	Complete	All public data is made available. Public data is data that is not subject to valid privacy, security or privilege limitations.
2	Primary	Data is as collected at the source, with the highest possible level of granularity, not in aggregate or modified forms
3	Timely	Data is made available as quickly as necessary to preserve the value of the data.
4	Accessible	Data is available to widest range of users for the widest range of purposes.
5	Machine processable	Data is reasonably structured to allow automated processing
6	Non-discriminatory	Data is available to anyone, with no requirement of registration
7	Non-proprietary	Data is available in a format over which no entity has exclusive control.
8	License-free	Data is not subject to any copyright, patent, trademark or trade secret regulation. Reasonable privacy, security and privilege restrictions may be allowed

In the broadest sense, openness in the context of access to information is defined by the Open Knowledge Foundation (OKFN) as being able to freely access, use, modify, and share such information for any purpose.[23] In the specific case of open data, this would translate into data that is released using an open licence, which is a document that has to fulfil several requirements to meet the definition. This licence will allow users to perform the following actions:

Open licences must (amongst other requirements):

[20] G8 (2013) Open Data Charter, 18 June, at https://www.gov.uk/government/publications/open-data-charter/g8-open-data-charter-and-technical-annex

[21] Chignard, Simon (2013) A brief history of Open Data, Paris Tech Review March 29, at http://www.paristechreview.com/2013/03/29/brief-history-open-data/

[22] Berners Lee, Tim (2006 amended 2010) Linked Open Data, at http://www.w3.org/DesignIssues/LinkedData.html See further for its implementation

[23] Open Knowledge Foundation. (2014) *Open Definition*, http://opendefinition.org/od/.

- allow free use of the licensed work;
- allow redistribution of the licensed work, including sale, whether on its own or as part of a collection made from works from different sources;
- allow the creation of derivatives of the licensed work;
- allow any part of the work to be freely used, distributed, or modified separately from any other part of the work or from any collection of works in which it was originally distributed;
- allow the licensed work to be distributed along with other distinct works without placing restrictions on these other works;
- must not impose any fee arrangement, royalty, or other compensation or monetary remuneration as part of its conditions.[24]

Open data is not a business model per se. Data is only a resource in a business model. Open data means at the first level that it is open, though not even necessarily also free (discussions in the Free and Open Source Software environment discuss this in depth). Open data can be used as the basis for different business models, for example, in combination with value-added, proprietary features or as part of a pricing strategy to attract users to premium content and services (eg. loss leader or freemium pricing strategies) etc
. According to Fred Wilson, the freemium hybrid was named by "Jarid Lukin of the Flatiron portfolio company Alacra"[25]. Freemium models suggest that open data is provided as a 'loss leader' by commercial firms in order to attract interested consumers to their premium offerings, and is now ubiquitous in commercial legal publishing sites. This is also an argument made to promote Creative Commons (and less so: FLOSS), to release some works for free under a CC license to promote other work, which helps to commercialize subsequent works. While it is a hybrid meaning that one cannot refer to commercial paid publishing sites' free content as open, nevertheless a significant part of commercial content is now 'freemium'.

Open data is important not only because it offers the possibility for citizens to read public sector data (whether research or not) but also because it affords the citizen the ability to 'prosume' – to recombine the data with other data sets into new innovative uses for that data[26]. However, the funding argument is controversial for a number of domains. It assumes all information production by public sector is funded through general taxation rather than also via user pays / specific levies/ taxes but such models (e.g. for companies registries, land ownership registries) were introduced to make the public service producer work more efficiently (price as mechanism to determine demand/market need & to allocate costs where benefit arises). There is substantial tension with the "open data for free" model because they cannot be maintained simultaneously. We consider this in more detail in future reports on the BOLD2020 Vision.

Open access is not open data. It is in essence a funding model whereby the producer/author of information pays to have it published and the reader/consumer gets free access. The European Commission has recently published several papers, a Communication[27], Recommendation and Expert Report encouraging the use of open

[24] Ibid.
[25] Wilson, F. The Freemium Business Model (2006) March 23 at http://avc.com/2006/03/the_freemium_bu/
[26] Coughlan, S. ed. (2014) Research On Open Innovation, Openforum Academy Publication at http://openforumacademy.org/research/research-on-open-innovation especially Adams, A. (2014) The Open versus Closed Debate, Chapter 10 pp.161-198 and Katz, A. (2014) Blurring the Line between Creator and Consumer pp.199-217 in Coughlan (ed).
[27] COM(2012) 401 final Towards better access to scientific information: Boosting the benefits of public investments in research. See for follow-up actions

access[28] in its funded science research, in government data and procurement[29], as well as funding pilot Open Access projects in its FP7 and Horizon2020 research programmes[30]. Alongside law-specific developments is the wider development of the 'science commons', led by reform of access terms to scientific data. Dulong de Rosnay and Martin document this development in the European context[31].

Discussion of PSI comes from EU policy in 1989 to stimulate re-use of public sector data resources by private sectors[32], leading eventually to the 2003 PSI Directive[33]. The link between Big Data (as described above mainly in terms of technological drivers) and PSI is obvious in that the largest publicly accessible datasets have been made available by government. Re-use policy is about extracting more value from public sector data beyond public task. But data sharing, federating and mashing are valuable to increase public sector task efficiency. The evolution of new PSI re-uses faces specific technological, socio-institutional, economic and legal hurdles. The barriers are gradually being tested and – in some cases – overcome through public and private initiatives.

3. Legal Data

Legal data encompasses a three-part categorisation: legislation, case law, literature. There are several sub-fields which encompass the various regulatory and soft law documents that occupy the gaps between these three main categorisations. Legislation is collated by the government, case law has a less structured pattern of publication, and literature or commentary is found in learned journals and books, speeches by judges, online resources and the guidance issued by various bodies, notably Law Commissions, Law Societies/Bar Associations (LS/BAs), ministries and prosecutors, and other authoritative sources (authority claims combine expertise, organisation and venue of publication).

Big data for legal informatics predates the consumer Internet, with the Free Access to Law Movement (FALM) dating to the early 1990s when only corporations, governments and universities had high bandwidth networks capable of sharing such larger data sets. Much of the historic pre-Internet discussion of legal informatics relates to the effect of digital information retrieval on the work of lawyers and courts. Bing explained that the origins of legal informatics effects in access to law date from the 1970s in pioneering academic-professional collaborations[34]. Biegel lays out the

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http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1301&lang=1

[28] IP/12/790: Scientific data: open access to research results will boost Europe's innovation capacity of 17/07/2012 at http://europa.eu/rapid/press-release_IP-12-790_en.htm

[29] Buhr, Carl-Christian (2012) Open Access in Europe. On the Road to 2020, Nov 23, 2012 at http://www.slideshare.net/ccbuhr/open-access-in-europe-on-the-road-to-2020?related=1

[30] EC (undated) Open Access in FP7, at http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1300&lang=1

[31] Dulong De Rosnay, M., & De Martin, J. C. (2012). The Digital Public Domain: Foundations for an Open Culture, at p135, 'Open Access Content'. Available at http://www.communia-association.org/wp-content/uploads/the_digital_public_domain.pdf

[32] Commission of the European Communities (1989) Guidelines for Improving the Synergy Between the Public and Private Sectors in the Information Market, ISBN 92-825-9237-5 Catalogue number: CD-54-88-126-EN-C at http://ec.europa.eu/digital-agenda/en/news/guidelines-improving-synergy-between-public-and-private-sectors-information-market

[33] See Janssen, Kathleen and Dumortier, Jos (2003) Towards a European Framework for the Re-use of Public Sector Information: A long and winding road, International Journal of Law and Information Technology Vol. 11 No. 2. See more at: http://www.epsiplatform.eu/content/eu-psi-directive-200398ec#sthash.vyxI6fiY.dpuf

[34] See Bing, J. in Paliwala, Abdul (2010) [ed] A History of Legal Informatics, Prensas Universitarias de Zaragosa, Spain

effects of the Internet on the usefulness of traditional enforcement techniques across several branches of the law, following the pioneering work of Berring[35]. Katsch's pre-Internet but very Internet-aware critique of print media and transformative effect of digital information on the law, states: "The process of legal readjustment that will be necessary in the future may prove painful to those who idealize the current model of law, who mistakenly associate the rules of law with the rule of law, or who do not understand that what we have now is not perfect and has never been static."[36] Susskind provides an updated provocation on the possible future effect of informatics on lawyers, including legal publishing[37].

Many have previously reflected on legal information in the wider setting of copyrighted public sector information (PSI) and the challenges of freeing such information (Ubaldi 2013)[38]. Many of the early tested ideas have flowered into the wider government #OpenData movement[39] and work pioneered by the European Union 1989 Guidelines (Eechoud 2013), OECD[40] and Gore-Clinton 'National Partnership for Reinventing Government' (1993).

The latest financial estimates for legal information and services are most accurate for the United States market, unsurprisingly given that the US is a single market that is still valued more highly than the entire rest of the world including the EU[41]. According to Reed Elsevier, the second largest private legal information provider, the US market is 53% of the entire global legal services market of $625billion, with the whole of Europe at 30%. The market is growing at about 5% per annum. The same source (slide 10) suggests that the US market accounts for 57% of the entire legal information solutions market of US$18billion, with Europe 30% or $5.4billion in 2011. This market typically accounts for c.3% of the global legal services market, which includes law firm revenue and internal corporation and government spend. Glassmeyer and Smith state that "it is nearly impossible to find, cite or read the law in the United States without someone paying a for-profit corporation for the ability to do so"[42]. At an exchange rate in 2012 of approximately €1=$1.30, that values the European market as a whole at €4.15billion in 2012.

Note the dominant use of search engines to find publicly indexed law sources, notably

[35] See Biegel, Stuart, Beyond Our Control? Confronting the Limits of Our Legal System in the Age of Cyberspace, MIT Press (2001) building on Berring, Robert C. Legal Research and Legal Concepts: Where Form Molds Substance, 75 Cal. L. Rev. 15, 17 (1987). Berring, R. C. (1995) "The current state of networked information in the United States and why you should care about it." Law Librarian. 26 (1), 246-248. Bruce, T. R. (2000) "Tears shed over Peer Gynt's onion: some thoughts on the constitution of public legal information providers." Journal of Information, Law & Technology. 2, Internet

[36] Katsh, Ethan, The Electronic Media and the Transformation of the Law, Oxford University Press (1989)

[37] Susskind, Richard (2008) The End of Lawyers? Rethinking the Role of Legal Services, Oxford University Press continues his thesis that lawyers need to focus on added-value advocacy skills as much lower-value work is automated and can be outsourced to lower cost locations.

[38] Marsden, et al (2006). For the UK Cabinet Office (2006), the Government Data Mashing project was located in the field of public sector reform and deals with one specific instrument that was high on the agenda for the Cabinet Office "Data Grand Challenge" in the UK: data mashing. The policy analysis was based on law and economics literature (especially on new institutional economics) to analyse barriers to adoption of data mashing. The analysis included that of the type of new institution necessary to overcome existing data sharing barriers. The analysis concluded by identifying outstanding issue areas and need for exploration of further research possibilities, especially including pricing (and 'pay-or-play') models and legal (e.g. copyright) reforms necessary to ensure further data sharing capability.

[39] See for instance http://data.gov.uk/about-us

[40] See http://www.oecd.org/sti/ieconomy/workshoponaccesstopublicsectorinformationandcontent.htm

[41] Reed Elsevier (2012) Investor Seminar, 11 October 2012, LexisNexis Legal & Professional

[42] Glassmeyer, Sarah and Smith, Peter (2014) *Open law: technology in service of the rule of law*, Legal Information Management, 14(3) at p6 in draft: http://shura.shu.ac.uk/view/types/article.html#group_G

Google. The Openlaws.eu 2014 user survey showed that Google remains more used than Lexis-Nexis or any other database. While this is a generic search engine rather than a legal-specific database, its powerful search ability means that it is the largest legal source index in the world, and its advertising-funded business model further distinguishes itself from subscription databases[43].

1.1 Legal Texts and the Public Good

Legal texts are basic information of all democratic states. The Aristotlean argument is that everyone is presumed to know the law (*Ignorantia juris non excusat* when translated into Roman law or "ignorance of the law is no excuse"). Legal information must be accessible to all members of society to the widest possible extent, to aid inclusiveness and enable participation in public decision-making. A section of this report explains the European situation with regard to reuse of public sector materials more generally.

In recognition of the public good in access to legal information, the EU and its Member States work to make laws, court decisions, etc. publicly available on line. Much has been achieved locally already. However, the sheer mass of legal norms, instruments and interpretations in courts decisions, commentaries and other sources makes it increasingly difficult for citizens, civil society, businesses and all involved in legal practices to locate the relevant law.

The challenge for the future is to link local legal information and have in place structures to enrich it through aggregation and mass customization. The technological possibilities to achieve this are there. This contributes to better access to legal information and ultimately to better governance, both of which support higher social welfare goals.

Much legal information remains published and administered by a limited number of organizations, typically in closed structures in public authorities and public private partnerships. This includes the management of legal metadata, which is the basis for automated processing. Legal scholars and practitioners publish mainly through traditional highly specialized commercial publishing or isolated websites. Return channels and interactivity with users are limited, and there is little space for contributions from wider communities. Fully automated processing of legal data is not yet possible. Strikingly, whereas in many domains such as spatial information (see INSPIRE[44]) and life sciences research data, open information infrastructures are rapidly developing, this is not the case for legal information.

Open legal data is of relatively recent vintage. The Free Access to Law Movement (FALM) dates to pioneering efforts by Legal Information Institutes in the United States at Cornell[45], in Australia[46], in the United Kingdom[47], and elsewhere,

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[43] Hunter, I. (2013) "Free legal and official information on the web: is it time to stop Google-bashing?" Legal Information Management. 13(4), 256-259.

[44] Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE), OJ L 108, 25.4.2007, p. 1–14, entered into force 15 May 2007

[45] See from a US perspective Danner, Richard A. (2012) 'Open Access to Legal Scholarship: Dropping the Barriers to Discourse and Dialogue' 7(1) JICLT 65, 65. Cornell University Law School Legal Information Institute <http://www.law.cornell.edu> accessed 1 June 2013. Carroll, Michael W. (2006) 'The Movement for Open Access Law' 10 Lewis & Clark L. Rev. 74; Brady Kevin P. and Bathon, Justin M. (2012) 'Education Law in a Digital Age: The Growing Impact of the Open Access legal Movement' 277 Ed Law Rep 589.

[46] Greenleaf, G. (1995) ""Public legal information" via Internet: AustLII's first six months." Law Technology

documented on a continual basis in the Law via the Internet (LVI) annual conferences [48], whose twentieth anniversary will occur in 2015. Greenleaf et al. identify six historic attempts to achieve FALM:

> "(i) the example set by the LII (Cornell) and LexuM in the early 90s;
>
> (ii) AustLII's 1995 formulation of the obligations of official publishers;
>
> (iii) the 2002 Declaration on Free Access to Law;
>
> (iv) the 'Guiding Principles' for States formulated by a 2008 expert meeting convened by the Hague Conference on Private International Law;
>
> (v) the 'Law.Gov principles' developed by Public Resources.org in 2010; and
>
> (vi) the draft Uniform Electronic Legal Materials Act recommended in 2011 by the US National Conference of Commissioners of Uniform State Laws."[49]

We document individual FALM efforts and LIIs in the country case studies. A brief summary is that the effect of LIIs has been strongest in common law jurisdictions notably Australia led by pioneer Graham Greenleaf[50], most profound in Canada[51] where CANLII and LexuM is supported by the professional bar[52], and of variable impact elsewhere[53]. Sustainability and professional adoption remain challenges[54].

Journal. 4(2), 5-10 West-Knights, L. J. (1997) "The AustLII paradigm." Journal of Information, Law & Technology. 3. Kendrick, R. (1999) "Australia Free(law) for all. Solicitors Journal. 143(48), 1204 Allen, R. (2000) "With a wysh and a prayer: an experiment in cooperative development of legal knowledge bases." Journal of Information, Law & Technology. 2, Internet Australian Legal Information Institute (AustLII) experiment in collaborative construction of legal knowledge bases over Web Baski, C. (2005) "News - Infotech: Commonwealth legal breakthrough" The Law Society Gazette. 29 Sept, 10 (1) briefly outlines the establishment and ethos of CommonLII.

[47] See Brooke, Sir Henry and Nick Holmes (2011) Judgment Day for BAILII, interview with retiring chairman of the BAILII trust, at http://www.scl.org/site.aspx?i=ed22972. See Fellows, Cynthia, Philip Leith and Joe Ury (2012) 'Assessing BAILII 2012' 12(3) LIM 148. See also Philip Leith and Cynthia Fellows, 'Enabling Free Online Access To UK Law Reports: The Copyright Problem' (2010) 18 IJLIT 72. Whittle, Steven (2012) 'Amicus Curiae Pro Bono Publico: Open Access Online Publication at the Institute of Advanced Legal Studies' 12(3) LIM 189.

[48] See for instance Jersey edition in 2013: http://www.jerseylvi2013.org/

[49] Greenleaf et al (2012) supra.

[50] See Greenleaf, Graham (2010) 'The Global Development of Free Access to Legal Information' pp53-82 in Abdul Paliwala (ed), A History Of Legal Informatics (Prensas Universitarias de Zaragoza) Greenleaf, Graham, Philip Chung and Mowbray, Andrew (2005) 'Emerging Global Networks for Free Access to Law' WorldLII's Strategies' 1(1) J of Electronic Resources in L Lib <http://ssrn.com/abstract= 975614> Graham Greenleaf, Andrew Mowbray and Philip Chung (2011), 'AustLII: Thinking Locally, Acting Globally', (2011) 19(2) Australian Law Librarian 101, 101-115.

[51] Poullin, D. (2004) "CanLII: how law societies and academia can make free access to the law a reality." Journal of Information, Law & Technology. 1, Miller, J. (2008) "The Canadian Legal Information Institute - a model for success" Legal Information Management

[52] Daniel Poulin, 'Free Access to Law in Canada' (2012) 12(3) LIM 165-172 sketching the principles supporting free access and also trying to make the business case for establishing it; discussing also the creation of CanLII. On academic interest see Wilner, Josh (2008) 'Editor's Note – Open Access to Legal Publishing' 2 McGill J L & Health 1

[53] See Greenleaf, G., Mowbray, A. and Chung, P (2004) "A new home online for Commonwealth law: a proposal for CommonLII." Journal of Information, Law & Technology. 2, Internet. Greenleaf, G., Mowbray, A. and Chung, P. (2010) "Building a commons for the common law: the Commonwealth Legal Information Institute (CommonLII) four years on." Commonwealth Law Bulletin. 36(1), 127-134. Greenleaf, G., Vivekanandan, V. C., Chung, P., Singh, R. and Mowbray, A. (2011) "Challenges for free access to law in a multi-jurisdictional developing country: building the Legal Information Institute of India." SCRIPT-ed. 8(3), Internet. Greenleaf, G., Chung, P. and Mowbray, A. (2007) "Emerging global networks for free access to law: WorldLII's strategies 2002-2005" SCRIPT-ed. 4(4), Internet. Greenleaf, G. (2005) "Global legal research: WorldLII and the future." Internet Newsletter for Lawyers. 2005 Jan/Feb, 1-3. Greenleaf, G (2007) "Networking LIIs: how free access to law fits together". Internet Newsletter for Lawyers. Mar/Apr 2007, 3-5. Onwonga, D. A. (2003) "LawNet initiative: a case for the East African Legal Information Institute." Journal of Information, Law & Technology. Volume 1.

[54] See Marsden et al (1998) IJCLP Editors' Statement: http://ijclp.net/old_website/1_1998/editors_statement.html

1.2 Legislation

Legislation is in general not subject to copyright and can be freely reused – though there are exceptions such as the United Kingdom. Australia reformed its copyright for legislation very recently, permitting reuse and the creation of the AustLII database[55]. A relatively comprehensive European source is Eur-LEX, detailed in the EU case study. Comparative studies of European legislation show widely divergent practices in publication[56], as do studies of common-law (Anglo-American) legal systems[57].

In addition to national and European legislation, there is a growing body of subsidiary legislation, from that devolved to nations and regions (for instance autonomous regions such as Comunidad Valenciana or the nation of Scotland), as well as a body of secondary or enabling legislation/regulation that is in many countries much larger than primary (i.e. fully deliberated) legislation. In the UK, there are 3300 Statutory Instruments per year, a substantial rise since the 1980s. All instruments since 1987 are available in a much-used public database, legislation.gov.uk[58].

Database rights and updating procedures vary widely across member states, and the statutory databases may not be up to date at any one time given the restrained resources available to national records offices. As a result commercial offerings may be more reliable indicators of current legislation as updated, such as *Halsbury's Laws of England*, published since 1929 and now owned by Lexis-Nexis[59].

Diagram: Acts of UK Parliament and Statutory Instruments, Source Joint Committee[60]

[55] Rubacki Michael (2013) Free access online legislation in a federation: Achievements of Australian Governments and issues remaining, Presented at the AustLII Research Seminar, 7 May 2013, Australasian Legal Information Institute (AustLII), Sydney, reproduced in 2 Journal of Open Access to Law 1 (2014) at http://ojs.law.cornell.edu/index.php/joal/article/view/9

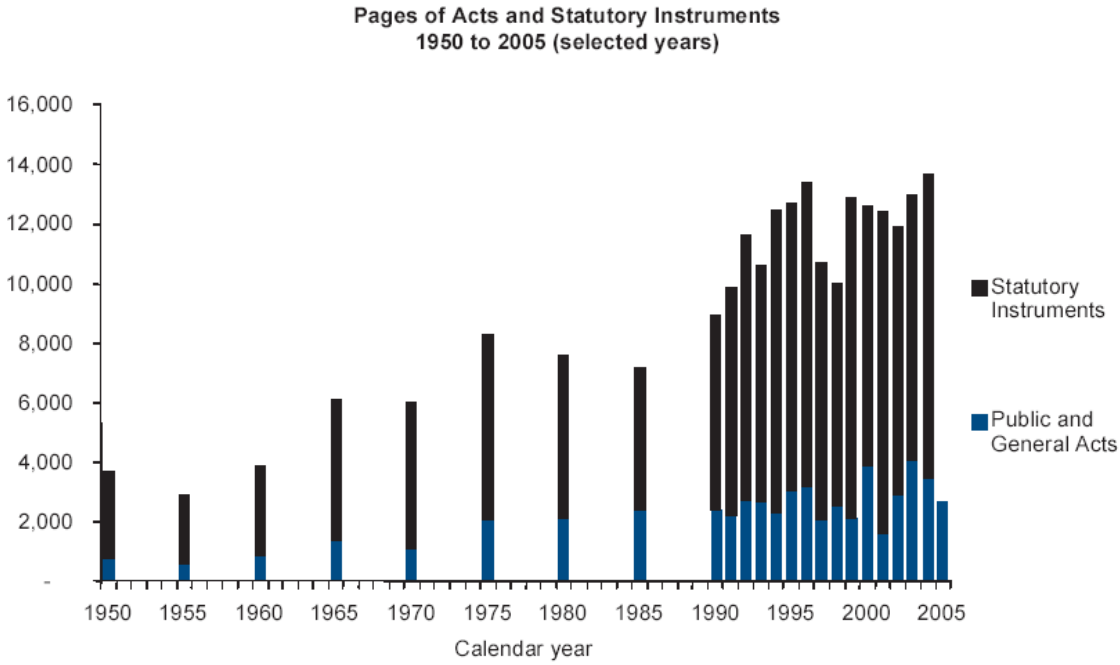
[56] See Donelan, E. (2009) "European Approaches to Improve Access to and Managing the Stock of Legislation" Statute Law Review. 30(3), 147

[57] Cox, N. (2006) "Copyright in Statutes, Regulations, and Judicial Decisions in Common Law Jurisdictions: Public Ownership or Commercial Enterprise?" Statute Law Review. 27(3), 185

[58] See http://www.legislation.gov.uk/uksi

[59] See Hetherington, Simon (2007) *Halsbury's Laws of England: centenary essays*, LexisNexis Butterworths.

[60] See Joint Committee on Statutory Instruments (2005/6) Report, at http://www.publications.parliament.uk/pa/jt200506/jtselect/jtstatin/230/23001.gif



The format and clarity of legislation is an important element in its presentation to the legal community and public. If legislation is presented in proprietary formats or in a manner which prevents effective linking (for instance with insufficient XML mark-up to individual sections), that can significantly compromise its usability. The use of common identifiers is essential to allowing re-use of legislative material, and may other good practices have been identified by Poulin[61]. As he explains, better access to legislation is of most use to that section of the public most engaged with legislative interpretation: professional lawyers.

Legislation is not merely consumed by citizens. Experiments are taking place in 'crowd-sourcing' legislative proposals via the Internet, but citizen-inspired petitions for law-making date to the earliest civilizations. Experiments with using Internet-based discussion to initiate law include the European Citizens' Initiative introduced under the Lisbon Treaty 2009[62].The most well-known recent examples are the proposed though non-enacted Icelandic constitution of 2011-12[63], the many 'federal popular initiatives' in Switzerland where direct democracy has an extensive unbroken history and which actually mandate legislators to enact legislation approved by referendum within a year[64], and in California and other members of the United States, where the Fifth Amendment to the Constitution permits constitutional amendments subject to ratification by three-quarters of states or of State Ratifying Conventions.

61 Poulin, Daniel (2014) Meaningful public access to legislation, presentation to Nudging Regulations conference, Canadian Institute for the Administration of Justice in Ottawa, September 9th, at https://lexum.com/en/publications/meaningful-public-access-legislation

62 See Regulation (EU) No. 211/2011 of 16 February 2011 on the citizens' initiative, and http://ec.europa.eu/citizens-initiative/public/initiatives/finalised/answered?lg=en

63 Wasserman, Todd (2011) *Iceland Unveils Crowdsourced Constitution*, Mashable, 29 July at http://mashable.com/2011/07/29/iceland-crowdsourced-constitution/

64 For instance, the Executive Pay Law of 2013: http://en.wikipedia.org/wiki/Swiss_executive_pay_referendum,_2013

1.3 Secondary Material: Explanatory Notes and 'Soft law'

Alongside primary legal materials, there has been huge growth in secondary material which explains and aids interpretation of that primary material. This may include digitised parliamentary records, which now includes minutes of evidence to parliamentary committees and drafts of reports made available via parliamentary websites. There is also a large amount of material made available for parliamentarians to aid their debates which is then made public via the libraries of parliament[65], for instance detailing Impact Assessment methods used and the intention and debate which led to legislative initiatives[66]. This secondary evidence is vital to the courts and lawyers assessing test cases under new legislation.

In many jurisdictions, the decision to open up parliamentary records/documents in legislative processes was informed by potential of digital technology and shift to digital within administrations/legislatures. Freedom of information (FoI) law has had a transformative effect on the amount of such material placed in the public domain, as has digitisation. Because of *trias politica*, FOI traditionally do not also cover documents from parliaments, courts (see e.g. Netherlands). The amount of material released through executive agencies at arms' length from ministries has also grown enormously, with for instance the websites of the communications regulators containing a huge amount of regulatory orders (e.g. Body of European Regulators of Electronic Communications). The appeals processes and tribunal data from these agencies has also substantially increased as the regulatory agencies' work has evolved, such that competition lawyers are often more concerned with decisions of the national competition agencies than the courts.

Furthermore, legislatures increasingly pay close attention to, or delegate detailed legislative research work to, statutory Law Commissions, which investigate areas of the law in need of reform. Added to such legal reform work is that of Parliamentary Commissions of Inquiry, often judge-led into particular incidents. Such inquiries can be enormously valuable but also enormously comprehensive, and were extremely difficult to research in the pre-digital era. However, recent advances in digital evidence submission have resulted in easy searching of for instance the Leveson Inquiry Part I, whose report alone amounted to 2500 pages[67]. Often these inquiries and commissions have their own website to establish their independence, which leads to problems in archiving the material available.

1.4 Case Law Reports

Case law is an area of legal information publishing which has very significant challenges in different jurisdictions. Recently the 7th Framework Programme EUCases project has completed a state-of-the-art report in this area[68]. In some countries, case law of at least the constitutional or Supreme Court is published by government, with

[65] See e.g. European Parliament Research Service (2014, 25 March) Net neutrality in Europe, 140773REV2.

[66] For instance, the recent detailed evidence in PE514.071 (2013, October) "Initial appraisal of a European Commission Impact Assessment (SWD (2013) 331, SWD (2013) 332(summary) of a Commission proposal for a Regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, and amending Directives 2002/20/EC, 2002/21/EC and 2002/22/EC and Regulations (EC)

[67] Leveson LJ (2012) *An Inquiry Into The Culture, Practices And Ethics Of The Press*. The full report is only 2500 pages, the evidence into the report is closer to 100,000 pages or 5,000,000 words.

[68] EUCases (2014) *Deliverable 1.1: Report on state-of-the-art and user needs* at : http://eucases.eu/d1_1/ summarised at http://eucases.eu/fileadmin/EUCases/documents/Presentations/Torino2014/APIS_LOD_State-of-the-art.pdf

private publication of High Court or superior court proceedings, and no reporting except in unusual circumstances of lower court proceedings. Other countries have a far more comprehensive approach, with publication of judgements in even employment, immigration and other tribunal cases, and family court disputes. The latter categories involve sensitive personal information which on balance judges and court officials may not wish to see published, though interpretation of the transparency of justice requirement balanced against the protection of sensitive personal data varies substantially, driven in part by different traditions of transparency in publication.

We can therefore identify officially published, unofficially commercially published, and unreported cases. These vary so much by territory that they are dealt with in depth in country case studies for England and Wales, Netherlands and Austria. Historically, such materials were made available privately, with legal historians documenting both trial reports and customary law declarations by judges and monarchs dating to the early mediaeval period, in for instance Flanders, Germany and England[69]. Much legal information also survives from the Roman period, which proved vital to formative pre-modern European conceptions of justice. Organised records of case law remained fragmentary until the eighteenth century in England, and in nations with less need of precedent-setting court reporting, this was even more the case. Therefore, the modern era of court reporting typically began with commercial publication on behalf of professional lawyers in the capital city, reporting on the higher courts. Customers were both lawyers and judges, but particularly the libraries of legal societies such as the Inner Temple in London. Edmund Coke's "Institutes of the Lawes of England" dates to 1628-44 and forms an early example of such works.

An indication of the enormous volume of material which can be made available as judges adopt digital authorship of their judgements is available from Canada. Crown Court relationships were established for the province of Quebec in 1982/83 to make law available publicly[70]. There are now 80,000 Quebec decisions published each year, not counting anonymised family law cases (A v. B etc). As a result, 55% of CANLII decisions are from Quebec, which shows the potential for overwhelming numbers of published decisions were all Canadian provinces – or European Union member states – to do so. Quebec has only 15% of the Canadian population, which could mean over 500,000 cases reported each year were all provinces as diligent as Quebec.

Privacy issues arise in particular connection with family law cases, particularly for individuals whose only significant Internet indexing is to a family law dispute which they would prefer to be forgotten. A 2003 decision was made by CANLII to prevent Google scraping the index of such cases, in order that financing of the system could continue. Whether to publish lower court family decisions can be very difficult to decide. The CANLII policy is to publish on a Notice and Take Down basis: if the judge decides in each case that confidentiality is maintained, the case is taken down. Checks are made with clerks of courts, a time consuming but responsible process. Registrars of courts in some provinces can make the decision on privacy grounds to publish only in subscription-based commercial services such as Lexis, rather than

[69] See generally Musson, Anthony and Chantal Stebbings Eds. (2012) Making Legal History: Approaches and Methodologies, Cambridge University Press. Also see D. Heirbaut (2001) The Belgian legal tradition: does it exist?, in: H. Bocken and W. De Bond teds. Introduction to Belgian law. Mechelen pp 1-22. Brand, P. (1996) The Earliest English Law Reports, Voumes I and II, London: Selden Society.

[70] The system is known as *Soquij* – see http://www.caij.qc.ca/en/library/libraries

with open data repositories such as CANLII[71]. A Romanian citizen/'entrepreneur' has scraped CANLII database, displaying divorce and custody cases amongst others, with the result that family law disputants have paid him via Paypal to remove their Google search result. His website, Globe24h.com, has very strong Google metrics[72].

Lower US court decisions are now also very widely available, financed by credit rating agencies which have strong interests in ensuring transparent access to data on personal insolvency and debt judgments[73]. The US system is fragmented, partly due to the lack of a common citation system until the late nineteenth century when adopted by the founder of what became Westlaw. Similarly, English court cases relied on competition between private reporters to provide case summaries and judgements until the twentieth century. Even in the twenty-first century, there is fragmentation below the appeal court level[74].

Note the development of online case law by Legal Information Institutes as part of the Free Access to Law movement (FALM)[75], such as BAILII in the UK[76]. BAILII is particularly well documented over its history[77], including in its foundation[78], establishment, reform and funding difficulties[79]. This will be examined in the United

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[71] Information courtesy of Openlaws interview with Colin Lachance of CANLII, 18 August 2014 Ottawa.

[72] Lachance, Colin (2014) 26 May: *Google, Gonzalez and Globe24h* http://www.slaw.ca/2014/05/26/google-gonzalez-and-globe24h/

[73] See https://www.pacer.gov/psco/cgi-bin/links.pl

[74] To take an example, Bailey Solutions Ltd provided the technical solution for Legal Online Research Databases (LORD) – a BIALL project designed to remove fragmentation of English law reports, by pooling metadata for titles. The problem remains unresolved due to lack of resources. Source: Openlaws interview with Penny Bailey, 28 May 2014.

[75] See Greenleaf, Graham , Mowbray, Andrew and Chung, Philip, The Meaning of 'Free Access to Legal Information': A Twenty Year Evolution (2012). Law via Internet Conference, 2012. Available at SSRN: http://ssrn.com/abstract=2158868 or http://dx.doi.org/10.2139/ssrn.2158868 See further Greenleaf, Graham , Free Access to Legal Information, LIIs, and the Free Access to Law Movement (2011). *Iall International Handbook Of Legal Information Management*, R. Danner and J. Winterton, eds., Ashgate, 2011; UNSW Law Research Paper No. 2011-40. Available at SSRN: http://ssrn.com/abstract=1960867

[76] The British and Irish Legal Information Institute (BAILII) provides access to the most comprehensive set of British and Irish primary legal materials that are available for free and in one place on the internet. In August 2012, BAILII included 90 databases covering 7 jurisdictions. The system contains around 36 gigabytes of legal materials and around 297,513 searchable documents. BAILII is legally constituted in the UK as a company limited by guarantee (No 4131252) and as a charitable trust (registered charity no 1084803): http://www.bailii.org/bailii/ See Brooke, Sir Henry and Nick Holmes (2011) *Judgment Day for BAILII*, interview with retiring chairman of the BAILII trust, at http://www.scl.org/site.aspx?i=ed22972

[77] Ury, J. (2011) "Ten years of BAILII." Internet Newsletter for Lawyers. 2011 May/Jun, 11-12. Ury, J. (2004) "British and Irish Legal Information Institute (BAILII) - where we are now." Internet Newsletter for Lawyers. 2004 Sep/Oct, 3-4.

[78] Eastham, L. (1999/00) "Free the law - inspiration and motivation." Computers & Law. 10(5), 3-5 Leith, P (2000) "Owning legal information." European Intellectual Property Review. 22(8), 359-365 Holmes, N. (2000) "A page on the web." Solicitors Journal. 144(11), 227 West-Knights, L. J. (2000) "The law online: we are getting there" Judicial Studies Board Journal. 10, 17-18

[79] Butcher, D. (2002) "Electronic sources of UK legislation: BIALL & SCOOP Joint Seminar Report." Legal Information Management. 2(3), 48-50 Furlong, J. (2003) "Free and easy? The development of Internet access to Irish legal materials." Legal Information Management. 3(2), 95-98Brooke, H. (2004) "BAILII looks for help..." Journal of the Law Society of Scotland. 49(9), 35. Leith, P. (2007) "BAILII - towards a national law library?" Legal Information Institute. 7(1), 42-45 Freedman, C. and Ury, J. (2008) "BAILII's continuing expansion." Computers & Law. 19(3), 5-6 Brooke, H. (2008) "Judgments for all." European Lawyer. 78, 3. Holmes, N. (2010) "Free case law - an overview." Internet Newsletter for Lawyers. 2010 Jul/Aug, 1-3 Holmes, N. (2011) "Is Free Law Good Enough?" Internet Newsletter for Lawyers. Nov/Dec 2011, 1-2 Miller, J (2011) "Funding BAILII" New Law Journal. 161, 824(2) Phillips, J. (2011) "But who will pay?" Journal of Intellectual Property Law & Practice. 6(9), 589.Harris, J (2011) "Bailii - minimum cost for maximum benefit." Lawyer. 25(25), 6. Fellows, C., Leith, P. and Ury, J. (2012) "Assessing BAILII 2012." Legal Information Management. 12(3), 148-164 Leith, P. and Fellows, C .(2013) "BAILII, legal education and open access to law." European Journal of Law and Technology. 4(1)

Kingdom case study (D1.2.d3).

1.5 Literature: Journals and Commercial Analyses of Law

The primary source of legal analysis is the law journal or review. Commercial legal newspapers have much larger circulations than academic reviews, and may provide a hybrid of tertiary legal commentary and secondary case reports. The oldest US journal is a prime example. The *New York Law Journal*, founded in 1888, has a daily circulation of approximately 11,500 print and 3500 Internet subscriptions[80]. Its reports on the New York City Civil Court are reported only in the *Law Journal*, and often cited as case law authority. It is also regularly used to serve process by publication, as official gazettes so do in many countries. Three English journals regularly published in the early Victorian period, the *Legal Observer*, *The Jurist*, and *The Law Times*[81]. *The Legal Observer* was founded in 1830, became the *Solicitors Journal* in 1856 and continues to the present time, which makes it the longest continuously published law journal[82]. German journals are of an earlier period, dating to at least 1815 (pre-Napoleonic invasion records are patchy) and the *Zeitschift fur geschichtliche Rechtswsenschaft*. Most European states had a law journal of record which often combined case reports with the status of a gazette by the mid-nineteenth century. The oldest law journal in Netherlands was *'De regtsleerde in spectatoriale vertogen'* (1767-1772), and the longest continuously published is *RM Themis* since 1839[83]. These remain very authoritative, with the London *Times Law Reports* reporting cases since 1785, along with commentary[84].

The oldest European academic examples pre-date the first United States review of 1852, the *American Law Register*[85]. In common with many reviews beginning with the *Albany Law Review* in 1875, this journal became a student-run university-based non-profit journal in the late 1800s. There is an unusual position in that the most-cited and highest impact law reviews[86] in the world are thus non-profit student-run journals, including *Harvard Law Review* and *Yale Law Journal*[87]. This model has not been reproduced in Europe, where university law journals are run by staff and of much later vintage, for instance *Cambridge Law Journal* is the longest published UK university journal dating to 1921 and the highest impact is the *Modern Law Review* dating to 1937[88]. This is in part due to the United States law schools' greater size, wealth and postgraduate student body seeking prestigious varsity experience compared to European law schools. Note that while citation can be measured, readership cannot. The difficulty in gauging overall readership for online law review journals readership is insurmountable, considering each access point keeps different

[80] http://www.newyorklawjournal.com/?slreturn=20141012135009
[81] Vogenauer (2009) Law journals in nineteenth century England. Edinburgh Law Review 12, pp.26-50, at p. 35
[82] http://www.solicitorsjournal.com/solicitors-journal See Polden, P. in Musgrove and Stebbings (2012) at p60.
[83] See http://repository.ubn.ru.nl/bitstream/handle/2066/77780/Rechtsgeleerd%20Magazijn%20Themis.pdf?sequence=1
[84] https://www.justis.com/data-coverage/times-law-reports.aspx
[85] See http://www.jstor.org/stable/3307146
[86] On impact factor (largely a measure of citation to articles in particular journals, which tends to be self-referential) see http://lawlib.wlu.edu/LJ/index.aspx
[87] See 'official' rankings, such as Thomson-Reuters Science Direct http://archive.sciencewatch.com/dr/sci/08/sep28-08_2/ and by Google at http://scholar.google.com/citations?view_op=top_venues&hl=en&vq=soc_law. See critique in for instance http://witnesseth.typepad.com/blog/2013/02/thats-right-yet-another-post-on-law-review-rankings.html
[88] See http://www.modernlawreview.co.uk/about.asp

statistics[89].

The largest database of Anglo-American journals accessed via HeinOnline, a subscription service founded in 2000 that provides access to 2,000 law journals and 100,000,000 pages of 'legal history'[90]. Most electronic databases, for example WestLaw, contain only online versions of articles from 1986 onwards. Electronic journals date to the 1980s. Free access to content in such journals has been pursued since 1995, with First Monday an early pioneer in social sciences[91], and the Web Journal of Current Legal Studies a legal pioneer in university-led peer reviewed journal publishing, together with the Electronic Law Journals project at Warwick University[92]. New York Law School's Mendik Law Library maintains an online database of 150 law journals freely accessible in whole or part, though not all offer the body of all articles freely ("at minimum their current article" is freely available)[93].

Traditional European law journals have either adopted a mixed model with commercial legal publisher and university-based staff, or an expert niche approach with commercial publisher and editor. *Law Quarterly Review* has been published since 1887 using this model[94]. Very few journals pay a fee for any contribution, which means they almost all rely on the voluntary advertising plus 'freemium' approach whereby authors provide content free of charge in order to advertise their services and thereby further their commercial or academic or both careers[95]. The academic promotion system has been output driven with focus on publishing in peer reviewed journal articles whatever their access conditions. Nonetheless, the mix of commercial and student-run journals appears to sustain competition in terms of impact, at least for international law journals (a lesser preoccupation of US academia and legal business)[96]. Siems suggests that raw ranking simply reproduces the massive readership and citation by US law schools and therefore offers a grading rather than ranking[97].

1.6 Literature: Academic and other Non-Profit Analyses of Law

Lawyers, both academic and professional, produce blogs and other materials, as do law firms on their own websites. Justia lists and categorises 5,500 law blogs (or 'blawgs') maintained to provide legal information, and a list of law Twitter users[98].

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[89] To take examples from publicly available statistics: SSRN stats are based on downloads – not even opening the PDF; Hein stats are based on accessing documents, not downloads. Proprietary stats: Lexis and Westlaw collect, but do not share, access/download stats. Repository manager-based stats: Many, but not all repository collections, use the bePress platform, which allows the owning school to get detailed stats on downloads per journal, per article, or landing page stats. Journal-based stats: Each online journal with a website can also collect granular stats if they use Google Analytics or a similar data analysis tool to see time on page (for full text articles) or downloads. This is not even touching other access points, like JSTOR and other databases used by those outside of law to access law review articles. Information courtesy of US law professors, notably Raizel Liebler and Ted Sichelman, via email.

[90] See HeinOnline (2014 undated) What is Hein Online? At http://home.heinonline.org.ezproxy.sussex.ac.uk/about/what-is-hein-online/ (pay-walled)

[91] See http://firstmonday.org/ojs/index.php/fm/about/editorialPolicies#custom-0

[92] See http://webjcli.org/ and http://www2.warwick.ac.uk/fac/soc/law/elj/about/ respectively.

[93] See http://www.nyls.edu/library/research_tools_and_sources/law_reviews_with_online_content/

[94] See http://www.sweetandmaxwell.co.uk/Catalogue/ProductDetails.aspx?recordid=473&productid=7116

[95] See Shaw, T. (2007) "Free v free: drivers and barriers to the use of free and paid-for legal information resources." Legal Information Management. 7(1), 23-30. Shea, A. (2011) "No-cost and low-cost US legal research." Legal Information Management. 11(4), 241-246

[96] See http://opiniojuris.org/2013/03/20/google-rankings-of-the-most-cited-international-law-journals/

[97] See http://siemslegal.blogspot.co.uk/2011/03/world-law-journal-ranking-2011.html and Siems, M. (2012) The Problem with Law Journal Rankings, Siemslegal at http://siemslegal.blogspot.co.uk/2012/06/problems-with-law-journal-rankings.html

[98] http://blawgsearch.justia.com/blogs

Different publication styles and their characteristics exist, from sole to group to team blogs, and entries can vary from reposting of relevant items found online, to full essays of several thousand words, while frequencies can vary from hourly to monthly and any point in between. Blogs may be edited, reviewed or authored and published by a single individual.

The American Bar Association has a Hall of Fame of bloggers[99]. Perhaps the best-known and established European material is that provided by law firm Pinsent Masons, known as out-law. This is a free service provided since May 2000, with 11,000 web pages of legal information[100]. A similarly effective blog is the UK Human Rights Blog by Adam Wagner and others at 1 Crown Office Row barristers' chambers with 2million hits in its first four years[101], as is the Twitter feed of barrister David Allen Green with 54,000 followers[102] and academic Gary Slapper with 12,500 followers. Blogs have several varieties from single-author to multi-author, the latter – as with UK universities blog 'TheConversation' or US law professor blog 'The Volokh Conspiracy' – approaching journal quality in professionalism and sophistication.

US law professor, best-selling legal author and legal commentator Lawrence Lessig has over 300,000 Twitter followers and Michael Geist in Canada has 50,000, demonstrating the potential audience for legal information. While these accounts do not in themselves amount to an organised challenge to traditional means of engaging a legal audience, they demonstrate some leading indicators of the potential of social media for legal information.

Lawyers in academia were instrumental in the creation of Creative Commons licensing in 2002, also known as copy-left licensing, which typically permits reuse on non-commercial terms and has had some headway in changing the terms of commercial legal publishing of academic articles[103]. The use of Creative Commons is detailed in the recent *CreatE* paper by Frosio which provides a voluminous overview of open access publishing[104].

Books remain an important part of academic output, but a minority product. Most academic legal books continue to be published in hardback format, with prices often in excess of €100. Practitioner books can be even more expensive. The use of e-books is only slowly emerging alongside hardback physical products. Creative Commons types of book output do exist, with all Lessig's post-2001 production in CC-licensed works, for instance, but the only academic publishers using this method at scale have been MIT books (in the early 2000s) and Bloomsbury Academic (from 2009), both supported by more commercial streams of output. Lessig noted that: "People who decide not to buy a book because it's free online represent the cannibalization rate. The conversion rate reflects the number of people who hear about a book because it's online, but decide to buy the hardcover because it's easier to read than the

[99] http://www.abajournal.com/magazine/article/2013_blawg_100_hall_of_fame

[100] See http://www.out-law.com/en/about-us/history/ and awards list at http://www.out-law.com/en/about-us/awards/

[101] See http://ukhumanrightsblog.com/about/

[102] 'Jack of Kent' at https://twitter.com/JackofKent

[103] Lessig, Lawrence, The Future of Ideas: the fate of the commons in a connected world, Random House (2001) also in Creative Commons download at http://www.the-future-of-ideas.com/download/

[104] See Frosio, Giancarlo F. (2014) *Open Access Publishing: A Literature Review*, CREATe-Working-Paper-2014-01, at http://www.create.ac.uk/publications/000011 particularly at pp70-75.

downloaded version. If the conversion rate is greater than the cannibalization rate, then you sell more books"[105]. Most academic publishers appear to fear the cannibal more than expecting the convert.

Cannibalisation of hardback revenues is also claimed by traditional publishers and other critics of the Google Books project, notably through its combination with Google Scholar. While Google Books originally claimed to scan entire copies only of books out of copyright, in fact this practice appears to have been more widespread, including academic and other books out of print but not out of copyright[106]. Google claims fair use in this practice, and previews exclude certain copyrighted material. Some of the European limits to distribution of books via computing in academic libraries were recently examined by the European Court in *Eugen Ulmer* (2014)[107]. At Paragraph 58, the Court held that Article 5(3)(n) of Directive 2001/29 must be interpreted to mean that it does not:

1. "…preclude Member States from granting to publicly accessible libraries covered by those provisions the right to digitise the works contained in their collections, if such act of reproduction is necessary for the purpose of making those works available to users, by means of dedicated terminals, within those establishments.
2. "…extend to acts such as the printing out of works on paper or their storage on a USB stick, carried out by users from dedicated terminals installed in publicly accessible libraries covered by that provision. However, such acts may, if appropriate, be authorised under national legislation..."

It is important to note that academic lawyers typically publish in journals, with books a much smaller output. This reflected in citation indices, which show that journal articles account for almost 60% of all academic citation in law, with all book 'products' (sole authored, edited and chapters in others' books) accounting for only 24% of citations. Journals remain the pre-dominant method of distribution, though 'gold' and 'green' open access now operate in the United Kingdom, requiring all high-ranked academic research to be available freely in a university repository even if also published in a copyrighted journal[108].

1.7 Commercial Publishers

Commercial publishers remain the largest resource for legal professionals wishing to access the widest range of law materials. They provide integrated legal information services, combining legislation, case law, academic and professional commentary into services tailored for certain domains (e.g. labour law, tax law). Their funding model can be a mixture of pay per download/pay per view/pay per institutional by size, etc. These include Lexis-Nexis (Reed Elsevier), Westlaw (Thomson Reuters), CCH/Kluwer Law (Wolters Kluwer) and others. Their model dominates the legal

[105] Stanford Alumi Magazine (2004) *Give It Away and They'll Buy It*, at http://alumni.stanford.edu/get/page/magazine/article/?article_id=35425

[106] See for instance http://books.google.com/books?id=tn9IuHhiFb4C&printsec=frontcover&dq=inauthor:%22Christopher+T.+Marsden%22&hl=en&sa=X&ei=ppBXVJqGIMTbsAT0xIKQDA&ved=0CB8Q6AEwAA#v=onepage&q&f=false

[107] Case C-117/13, *Technische Universität Darmstadt v. Eugen Ulmer KG*: REQUEST for a preliminary ruling under Article 267 TFEU from the Bundesgerichtshof (Germany) of 11 September 2014, at http://curia.europa.eu/juris/document/document.jsf?text=&docid=157511&pageIndex=0&doclang=EN&mode=req&dir=&occ=first&part=1&cid=269343

[108] See Research Councils UK (2011) RCUK announces block grants for universities to aid drives to open access to research outputs, and Research Councils UK (2014, undated) Open Access Policy, at http://www.rcuk.ac.uk/research/openaccess/policy/

professional use of information resources, and is a €multi-billion business. As detailed earlier, they divide their business sectors of users into large, small, public and private, as well as academic libraries.

A side-effect of larger law firms choosing to subscribe to services such as Lexis, is that they have run down or entirely removed their own librarian services, instead adopting an entirely online model supplemented by partners' own private publishing stock. As a result, many medium sized law firms have no expert information professional, instead relying on whatever tutoring they have to use the Lexis database. As university libraries increase training of students in Lexis use, this very large training gap may reduce over time.

It has been strongly argued that commercial publishers have no business model for the general public to access legal information, with a 'Spotify-type' service needed that would enable the public to access legal information as part of a wider 'freemium' type of service. The next section which considers library services in part explains what services citizens can access without electronic resources from commercial publishers, and is expanded on in Workstream 2 deliverables.

1.8 Public Repositories Including Libraries

Libraries are the basic source of legal information, for lawyers, law students, and the general public. Public libraries provide for the latter, university and college libraries for students, and both bar association and law firm libraries for professional lawyers. Public libraries have the widest readership of all law libraries, and in many countries the government provides a legal analysis resource for the general public.

Other member states may have similar institutions to provide charitable support in legal education for the citizen, and this will be explored in Workstream 1 case studies. For instance, Dutch public libraries have joint online catalogues, and university libraries also list their collection there. Finding is relatively easy, but access depends on whether the reader has membership of right group (e.g. a university student can access materials through interlibrary lending from all university libraries nationally; public libraries have similar systems). Online access to materials depends on contracts libraries have with Elsevier, Wolters Kluwer etc. This is usually only paid access for registered university students and staff, plus through on-site terminals.

Law libraries in universities are facing significant resource challenges in tertiary publication purchasing, notably journals, even while legislation and much secondary material is becoming available online in open data format. Zittrain, director of the world's most complete academic law library at Harvard, argues that:

> "Law will be a particularly interesting area in which to experiment, if the public domain cases on which much scholarship is based can themselves be digitally freed for all to study. That's because [US] legal journals are not only non-profit, but also run by law students….And we can re-imagine textbooks starting with legal casebooks, which cost hundreds of dollars each today, even though they comprise mostly public domain material: judicial opinions. Libraries can not only help produce standard course texts at low or no cost, but more important, make them remixable, so that the courses themselves can

evolve as students and professors adopt and adapt others' syllabi."[109]

He also argues that libraries can contribute to curating the Internet to create permanent repositories of legal information, a particular concern as web-based resources are alarmingly transient as of 2013: "Half of the links in U.S. Supreme Court opinions were dead" and almost 75% of Harvard Law Review article links.[110] The list of digital resources available to well-resourced libraries is very extensive, though expensive to maintain alongside traditional printed literature. As one would expect, librarians have been well organised in explaining the resource and budget squeeze associated with maintaining a digital library alongside the print analog, and challenges are growing in attempting to provide both types of service to users[111]. Legal Information Institutes are a partial answer to the challenge as they provide a free access repository that can supplement – if not replace- commercial databases.

Libraries also extend to both court buildings and Bar Associations. These may be prodigiously well equipped, with for instance four libraries attached to the Supreme Court of Alberta and a total of 51 libraries in its various regional courts. London has libraries attached to each 'Inn of Court' for barristers, with the Inner Temple Library dating to before 1500, though many ancient legal texts were lost as "security was a constant problem, which even chaining the books apparently did not solve"[112]. These libraries provide services to local lawyers, and visiting specialists, and remain a vital part of the legal research needs of the English law profession, though they are generally closed to non-qualified lawyers. Unsurprisingly legal professionals are nervous about citizen access to formal (i.e. peer/professional reviewed) and informal (blogs etc.) information – as is the medical profession given the number of erroneous self-diagnoses using online resources.

Finally note that many professional non-legal associations do provide legal education to members, for instance the UK Federation of Small Businesses and others have membership models with legal information publishing as a bonus of membership. The Charities Commission also provides a legal education model with an online library of charity law sources[113]. The UK television regulator ran a library that opened to the public, especially students and researchers into mass media law and regulation, now housed by the British Film Institute[114]. There are therefore many less formal legal

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[109] Zittrain, J. (2014) Why Libraries [Still] Matter, at https://medium.com/biblio/why-libraries-still-matter-3df27e7522cb

[110] Zittrain, J. et al (2014) Perma Scoping and Addressing the Problem of Link and Reference Rot in Legal Citations, Harvard Law Review Issue 3 at http://www.harvardlawreview.org/2014/03/perma-scoping-and-addressing-the-problem-of-link-and-reference-rot-in-legal-citations/

[111] There is a very extensive English-language literature, notably through the journal *Legal Information Management*. See Whittle, S. (2012) "Amicus curiae pro bono publico: open access online publication at the Institute of Advanced Legal Studies." Legal Information Management. 12(3), 189-197. Whittle, S. (2010) "Filling the frame: the role of practical metadata in online resources at the IALS." Legal Information Management. 10,(3), 191-20. Browne, G. (2010) "Indexing of free, web-based electronic resources." Legal Information Management. 10(1), 28-33. Bonello, C. (2012) "Discovering the digitised law library of heritage collections: a collaborative achievement between French libraries" Legal Information Management. 12(4), pp297-304. Norman, P. (2006) "Gateways, portals and zugange: a survey of some European national legal resources on the internet." Legal Information Management. 6(1), 34-37. Widdinson, R. (2002) "New Perspectives in Legal Information Retrieval" International Journal of Law and IT. 10(1), 41. Jackson, C. (2002) "SPTL/BIALL academic law library survey 2000/2001." Legal Information Management. 2(2), 38-49.
Jannetta, V. (2003) "What's new in legal information" Legal Information Management. 3(1), 6-9

[112] See http://www.innertemplelibrary.org.uk/library-history/library-history.htm

[113] See in part https://www.gov.uk/running-charity

[114] See http://bufvc.ac.uk/archives/index.php/collection/246

libraries and repositories in operation in addition to institutions that formally meet the definition of a 'law library'.

There is therefore a patchwork of library services for both professionals and citizens, though coordination is somewhat limited within national legal systems, as well as across jurisdictions.

4. Legal Information User Profiles

There are many different user groups who have an interest in legal information. The ultimate 'end users' are citizens and businesses, who have certain rights and obligations. Between such end users and the legal system, there are certain legal experts who serve as intermediaries or gatekeepers.[115] These intermediaries are necessary because access to law is often complicated. First, there is a huge amount of information and it is hard to find all legal information that potentially applies to a certain user or case. Second, it is usually hard to interpret the legal text in order to reveal the true meaning of the legal information (which is typically provided in text form). Therefore, legal professionals like lawyers or judges are not simply users. Internet surfers are not entirely passive consumers (Marsden 2010) of material broadcast to them. It is inadequate to simply address experts as 'users' or 'consumers' or even the ugly 'netizens', though they are at various points all three, especially with the ubiquity of advertising-supported content online. Because legal professional use legal information and often also create legal information (such as journal papers, blogs, case summaries, etc.), legal professionals are often 'prosumers', producers as well as consumers. There is a community of legal professionals within the legal system, even tough such community is currently mainly existing in the 'real world' and not so much online. Even though more technologically advanced experts have many freely developed applications to use and are already staring to use such systems for their daily work with legal information and with peers.

Lexis Nexis estimates that its market share is 14%, with leader Thomson-Reuters at 19%, Wolters-Kluwer at 11% and no other firm with more than 2%, showing the market to be fragmented outside the United States[116]. Lexis Nexis classifies five major customers for legal data, as shown in their slide 17 below:

[115] See also Susskind (2013) introduction to Access to Justice; reference is made to Kafka, Franz: Der Prozess (the Trial)

[116] For accusations of commercial duopoly threatened by open access, see Hall, David (2012) 'Google, Westlaw, LexisNexis and Open Access: How the Demand for Free Legal Research will Change the Legal Profession' 26 Syracuse Sci. & Tech. L. Rep. 53.

Figure 2: Slide 17, supra n.33 figure.1. Lexis Nexis customer base

We will analyse these five key markets: large and small firms, in-house counsel, government officials of all types (from policemen to bailiffs via judges) and academia. It is also notable that Lexis Nexis draws about 70% of its revenues from subscription rather than one-off payments, consultancy or advertising, in a similar manner to news journals, where print subscription is gradually being replaced by digital[117].

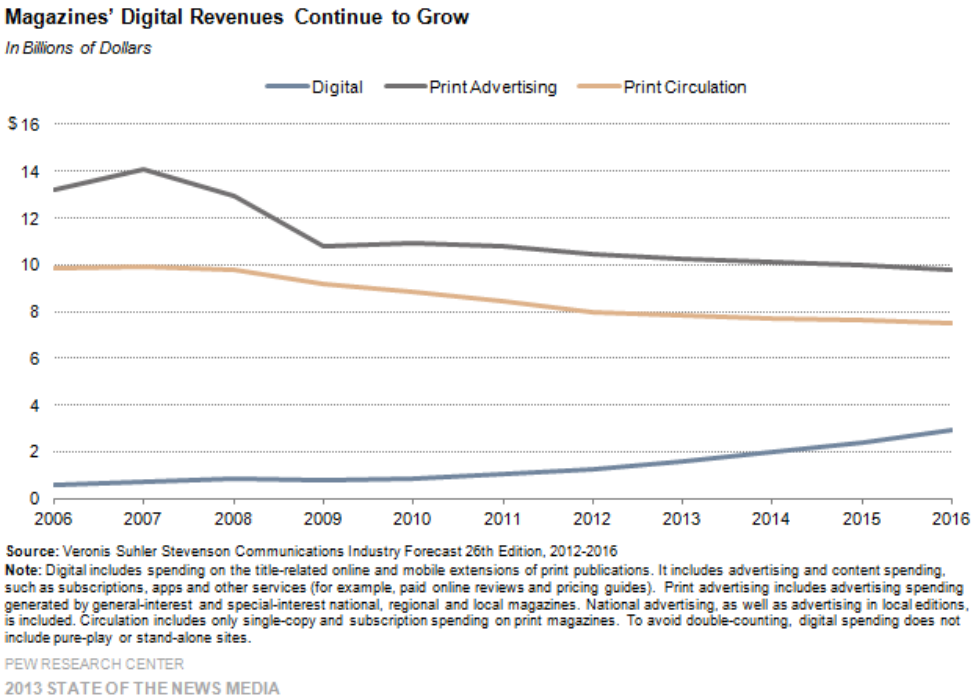

Figure 3: Pew 'State of the News Media' citing Verona Suhler Stevenson estimates to 2016

Note also that Lexis launched in 1973, Nexis (news) in 1980, but that the web-based platform was launched in 1997 (US) and 2004 (rest of world). The provision of legal

[117] Pew Research Center (2013) State of the News Media 2013, graph at http://stateofthemedia.org/2013/news-magazines-embracing-their-digital-future/9-magazines-digital-revenues-continue-to-grow/

data via the Internet is only a decade old, though electronic databases are almost 50 years old.

Social networking provides a powerful mechanism for sharing legal information and analysis. Lawyers were some of the critical early users of social media innovations such as the coffee house in the 17th Century, as discussed by Standage[118]. McKinsey Global Institute has indicated that 'knowledge workers' (which obviously includes lawyers) can increase productivity by 20-25% using social media[119]. By contrast, many US law firms continue to have only a single AOL.com email address for all communication and actively discourage the use of social media by their lawyers. This is in response to both fears of proprietary knowledge being shared, client confidentiality and Luddism – the fear that new technologies can disintermediate their low level work, as Susskind has discussed in his work[120].

While lawyers use horizontal (all-industry) professional social network LinkedIn in large numbers, the few vertical (lawyer-only) sites – such as DiverseLawyers and FoxWordy – have not reached critical mass[121]. Note that LinkedIn is much more widespread amongst English-speaking audiences. On 1st November 2014, 'legal' produced 5,001,668 people results on LinkedIn, the first time over 5,000,000 people were so classified. Attorneys produced 806,133 results, with US total of 682,719. 345,515 people used the word 'lawyer' to describe themselves on LinkedIn. There were 148,000 'solicitors', with 88,000 in the UK. 'Notary' produced 223,000 results. There were over 12,000 LinkedIn groups using the word 'legal' (60% closed professional groups moderated by its owner) and 17,000 using 'law'. There were 35,000 members of the group 'Law Society Gazette' intended for practising lawyers in the UK and 623 groups containing the words 'American Bar Association' or 'ABA' with a combined membership (including duplicate-triplicates) of over 1,000,000[122]. The European Lawyer Group has 18,000 members, the Corporate Lawyer Network 90,000 members, Accountant-Lawyer Alliance (ALA) 50,676 members. Lawyers are socialising enormously via LinkedIn but not lawyer-only social networking websites[123]. Note there are also over 1,000,000 people with 'police' in their job title and 1,300 'law enforcement' groups with well over 100,000 members. These professionals almost certainly also work within legal fields broadly drawn.

The English language survey conducted for Openlaws in the key European markets

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[118] Standage, Tom (2014) *Social Networking in the 1600s*, New York Times 23 June, at http://www.nytimes.com/2013/06/23/opinion/sunday/social-networking-in-the-1600s.html

[119] Chui, Michael with James Manyika, Jacques Bughin, Richard Dobbs, Charles Roxburgh, Hugo Sarrazin, Geoffrey Sands and Magdalena Westergren (July 2012) The social economy: Unlocking value and productivity through social technologies, Report: McKinsey Global Institute, at http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_social_economy

[120] See variously Susskind, R. (OUP, 1987) Expert Systems in Law, Susskind, R. (OUP, 1996) The Future of Law; Susskind, R. (OUP, 2000) Transforming the Law, Susskind, R. (OUP, 2008) The End of Lawyers? Rethinking the Nature of Legal Services, Susskind, R. (2013) supra n.37, all Oxford University Press.

[121] There were (in 2012) 770,000 individuals claiming to be lawyers on LinkedIn, making it the fifth largest professional group on the network. See Your American Bar Association (2012, May e-news) LinkedIn: How to grow, nurture your network and obtain results, at http://www.americanbar.org/newsletter/publications/youraba/201205article01.html

[122] Excluding the American Bankers Association (with 56,000 members) of course.

[123] Barrett Paul M. (2014) A New Social Network Entices Lawyers With Anonymity, Bloomberg Business Week Technology, 6 October at http://www.businessweek.com/articles/2014-10-06/do-lawyers-need-an-anonymous-social-network-this-startup-thinks-so

illustrates the broad range of law 'users' and their resources of choice (note that a further German language survey was produced with additional results). It produced results dominated by the United Kingdom (42% of responses), Austria (18%) and Netherlands (12%), our three case studies. The users identified themselves as legal professional 63%, non-legal professional 25%, Citizen (6%), other/publisher 6%[124]. The key usage of legal information sites are indicated below:

Table: European users of legal databases (n=163)

Databases used	Governmental	Commercial	EUR-Lex	Google
Never used	7%	12%	27%	5%
A few times per month	42%	21%	41%	22%
A few times per week	32%	28%	18%	30%
Daily	17%	34%	7%	41%

It is clear that non-subscription databases have a very high usage rate, at 95% for Google and 93% for government (which may include proprietary). Daily use is consistent between Google and commercial databases, which is unsurprising as 63% of survey respondents are legal professionals. This shows that the hybrid use thesis holds true – lawyers use lots of different databases. [The survey does not illustrate individual results across databases but that information is available and shows that lawyers are promiscuous in their use of databases].

Survey users were also able to input individual comments across categories, as well as exploring their wish to share and create content. Here, there are more interesting results, showing a high level of desire to share content with colleagues, with clients and with the wider audience.

Figure : Which participation functions would be useful?

Desirable Innovation	**Integration**	**Technical suggestions**	**Concerns: Moderation**
Public commentary filtered by either commenter's job role or position.	Integration with social networking features	An evaluation system such as in reddit, should include status of a user being a lobbyist.	A closed network, with an editor checking. Peer reviewing to filter out nonsense.
Bills which amend existing legislation are hard to work through - being able to see what changes they make would be useful.	Social media functions .	Twitter hashtag for each section or hierarchical organization, Disqus comments, etc	Prefer the traditional articles approach - keeps the amount (and quality) in check
Ability to comment directly on new initiatives capacity- or community-building groups, topics and interests	Search features on concepts, keywords, etc	Share semantic annotations Permanent links (permalinks) to specific sections or articles of laws	Moderating comments.

124 See full results updated in real time at Openlaws (2014, undated) Survey Results Collated n Google Document, https://docs.google.com/forms/d/1MVdScU8Unm0sdNBXsTgMM2A36TPvnlduMsjdIWo4DLE/viewanalytics Note that the vast majority of responses were received in May 2014. Survey was open, advertised largely via Twitter and email.

Discuss potential legal reforms, Co-create new legislation as proposals,	Reviewing feedback - comments to proposal	Visualisation and design should be more important	Ways that practitioners may be involved
Discuss cases and legislation	Rated experts to comment on cases.	Altmetrics and bibliographic metrics	Rating legal content.

1.9 Users: Legal Professionals

With their high level of legal expertise, legal professionals are gatekeepers to the law. This expert knowledge is gained through a special legal education in combination with practical experience. There are several different groups of legal professionals and practitioners. For the purpose of this the Handbook, legal professionals are categorized in the following groups: Lawyers, notaries, judges, general counsels, legal scholars, law students, and the group that should be referred to as 'semi-professionals'.[125] In this work, we group into small firms/sole practitioners, large firms, government, corporate counsel, and academic users. We also add categories not explored in depth by commercial publishers, that of non-legal professionals such as policemen and users of law in the general citizenry.

1.10 Lawyers: Small Law Firms and Sole Practitioners

According to Eurostat there are approximately 500 million legal enterprises within the European Union.[126] Most of these are solo practitioners or small law firms with only a few employees. They are either working as generalists who have a broad overview on various legal areas or they are very specialized in a particular field. Over the past years and decades they have are built and maintained – usually very good – relations to their clients, i.e. citizens and/or businesses. Hourly rates of legal experts are high, the workload is high as well, leading to constant revenue streams. In our field research, we have not found one single lawyer, who complained that there was not enough work. Usually the problem is that they do not have enough time and that their clients want "more for less", leading to declining margins, a trend that can be observed in other industries as well. Still, many of these small law firms and sole practitioners believe that their consulting business will continue in the same way as it has always been.

Critics argue that small law firms and sole practitioners do not have a bright future, in particular in liberalized regimes that do not protect the legal industry anymore.[127] Small legal enterprises cannot use economies of scale like larger legal enterprises. For example, purchasing access to commercial legal databases is relatively more expensive for a small legal enterprise than for a large one. Other examples are internal IT systems, advanced CRM systems, document management systems, collaboration and communication systems, all of which will be more and more expected by the 'end user'. Parallels may be drawn to the accountancy business, where there is a concentration of the 'Big Four' players.

However, there are many IT solutions available, that may be used by small legal players often at very affordable prices. Cloud computing theoretically enables sole

[125] See Deliverable 4.1.d3, Handbook for Stakeholders.
[126] Eurostat, Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [sbs_na_1a_se_r2], M691, http://epp.eurostat.ec.europa.eu
[127] See Susskind (2013) supra n.120.

practitioners to use economies of scale, namely the benefit from the community sharing one central IT system online. The providers of these solutions do not necessarily emerge from legal IT providers. Legal enterprises may use these solutions like any other small business. Furthermore, with the commoditization of online information services, access to legal information may also become easier. Reference is made to the providers of free legal information, like Legal Information Institutes (LIIs), the Free Access to Law Movement, the more and more powerful governmental legal databases, and free resources from large stakeholders like Google (see Google Scholar for Case Law).

Notaries are legal practitioners specialised and authorised to act in certain legal matters. By virtue of their tasks and responsibilities, notaries play an important role in the State legislature in the 21 Member States where the legal order is based on Latin civil law. Common Law Jurisdictions of the European Union also have a notarial profession whose practice extends across a wide range of legal services and whose functions and authority are principally exercised in relation to legal acts and instruments to be used in overseas jurisdictions. There are approximately 35,000 notaries, throughout Latin civil law Member States, represented by the Council of the Notariats of the European Union (CNUE), and over 1,000 notaries in the Common Law member States of the United Kingdom and Ireland, represented by the UK and Ireland Notarial Forum. It is possible to consult the European Directory of Notaries to find a notary in a Member State.

A few of these small law firms team-up with other small law firms in other countries of the EU in order to form networks or alliances. So maybe in the future we will see more networks in terms of collaboration, rather than only a concentration of market player in terms of traditional mergers and acquisitions. Legal information providers will certainly adapt their solutions to the needs of this user group. Note the declining margins and commoditization of small law firm work, and that some repetitive work that is commoditized needs little research – for instance conveyancing, wills and probate.

Smaller firms may lack physical access to law libraries to supplement online resources. They also operate in an often very conservative IT culture – the use of a AOL joint email address remains common in US law firms. The firms are less likely to spend their budget on Lexis-Nexis, which may create a vicious circle of lack of market information, commodization and reliance on free services via Google. This is a classic audience for Legal Information Institute services, and has bene widely supported by the profession, especially in Canada.

Small law firms and magistrates may have things in common when 'consuming' legal information, but their motivation to keep information private rather than sharing is also common. Lawyers run a consulting business and their proprietary knowledge, experience and personal connections are their comparative advantage for clients. For salaried magistrates, legal information is a tool to share ('creation' of legal information by stakeholders), though considerations of privacy may hinder their early adoption of an open data platform. This suggests a completely different motivation for these stakeholders with an effect on the BOLD2020 community model.

1.11 Lawyers: Large Law Firms

Large law firms enjoy economies of scale and therefore they may dominate the future

of commercial legal information services. Big law firms often cover all legal fields, so the 'end user' will always find an answer there. The people working in a large law firm are a closed community and typically they do not know each other anymore. Certain large law firms employ more experts than a whole country. In particular Openlaws field research revealed that some US based law firms have more experts than there are lawyers in Austria (i.e. approx. 6,000). Companies in these dimensions can afford an IT department and many productivity tools. Furthermore, it is also easier and more attractive for commercial legal information providers to address one large law firm at once, rather than several hundred sole practitioners individually. Accordingly, such providers may adapt their IT solutions towards the needs of these big players. For IT providers, large law firms are key accounts and 'A' customers, while small law firms are 'B' customers.

The sheer size of large firms creates a greater need for information sharing to prevent isolation of individuals and teams within the firm. Directories are the solution to at least find a colleague. The knowledge within such a huge organization is extremely high on an aggregated level, but the question is how this knowledge can and should be managed and maintained. Openlaws research discovered cases where expert advocates have left a big law firm, in order to work in a flatter hierarchy, to start their own career as a sole practitioner in a network with independent colleagues or within a small law firm.

Large law firms often have offices across the EU, sometimes even worldwide. Here again, the difference to small law firms collaborating in networks may not be too big (apart from the finance and accounting aspects in the background; administrative issues that do not increase legal competence). Marketing of large law firms can be quite different compared to small law firms. While the big ones may have a well-known name and even registered trademarks and marketing budgets, smaller law firms will rather prosper on the personal reputation of one single expert and his/her achievements in the past. In his respect, large law firms are more anonymous. This aspect is important, because in times of social networks and transparency, the competence of an individual is becoming again increasingly important again. (e.g. "endorse functionality" in LinkedIn or other networks). So already today in our network society, the advantages of a large law firm may not be so enormous as it might have looked in the past.

Outlook for BOLD Vision: There is a place for sole practitioners and small law firms in the future of society of networks. Smaller may be more beautiful, more flexible, more agile, more on-demand expert groups. However, larger firms remain likely to be the core market for commercial legal information. Juniors/associates spend a large percentage of time researching for senior colleagues. Large firms are also the largest producer of material for analysis – journal/blog authors. As margins are being squeezed, specialised offerings and tailor-made, value-added services may continue to expand as a result. Internationalisation is spreading rapidly and contributing to this differentiation trend.

1.12 Legal Scholars

There are nearly as many law students and professors as there are practising lawyers in Europe. In England, there are about 5 practising lawyers for every 2 undergraduate students (about 150,000 to 60,000), though many students take law as part of a wider

course or study law at pre-university or postgraduate level[128]. Approximately 2 out of 5 who start as undergraduate law students are finally admitted as a solicitor in practice, though many go into other areas of law than private practice. The actual total of all students who study law at some stage in their university or pre-university career cannot be known. Similarly, the total of specialist law professors is relatively low[129], but the number of professors who need some access to the law will be far higher[130].

All of these academics need access to law, whether through similar commercial databases as practising lawyer, or by some combination of free, open and commercial databases. Academic research interests will vary from the highly resource-intensive (original research) to the more mundane (textbooks, legislation and case reports) to the relatively trivial (single queries from compendia). While the market cannot be accurately sized, it is very substantial. Interviews for Openlaws.eu confirm anecdotal reports that many junior lawyers in practice use their alma mater's law library to access materials, while many academics also practice or advise professional lawyers and others, and thus one could refer to academic use of legal information as somewhat 'dual use'.

Accessibility to law journals for academics is maintained by JSTOR, a service for universities worldwide with 9000 partners. Though attempts have been made to freely release the JSTOR-accessed archive of commercial journal articles, most infamously by Aaron Schwartz, JSTOR states:

> "The societies responsible for publishing most of the journals in JSTOR are non-governmental not-for-profit enterprises. Even if the research in these titles had been taxpayer funded, that would not eliminate the costs associated with digitizing the print journals, organizing the digitized content, making it conveniently searchable and accessible on the web, and preserving it for the long-term."[131]

JSTOR has since 2011 made "nearly 500,000 public domain articles from more than 200 journals freely available to the public on the JSTOR platform. Early Journal Content includes U.S. content published before 1923 and non-U.S. content published prior to 1870." It uses Early Journal Content as its programme for public domain content, cross-subsidising both this and its 1350 developed nation library subscriptions from fees for the other 7000 regular members of the service[132].

We discussed in the Open Data section the FALM and LII movements. It is notable that academic lawyers continue to publish in a variety of law journals online and offline, with no pattern of open access or even online-only publication emerging[133].

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[128] There are 20,000 undergraduate law students entering each year (generally on 3-year degrees, equating to 60,000 students), 7000 trainees, and 128,000 solicitors. The total is approximately 195,000. See http://www.lawsociety.org.uk/careers/becoming-a-solicitor/entry-trends/

[129] 4895 total in the UK: see Higher Education Statistics Agency, email to Prof. Marsden, 14 November 2014, kept on file. For definitions see https://www.hesa.ac.uk/content/view/2881

[130] 186,000 academic staff in the entire UK (including Scotland, Northern Ireland) in 2012, estimated proportion of lawyers 5.5% or 10,000.

[131] See http://about.jstor.org/10things

[132] See further JSTOR, Early Journal Content <http://about.jstor.org/service/early-journal-content-0> accessed 14 October 2014.

[133] See Miller, Joseph S. (2006) 'Foreword: Why Open Access To Scholarship Matters' 10 Lewis & Clark L Rev 733. Plotin, Stephanie L (2009) 'Legal Scholarship, Electronic Publishing, and Open Access: Transformation or Steadfast Stagnation?' 101 L Library J 31, 40- <http://ssrn.com/abstract=1350138> Solum, Lawrence B. (2006) 'Download it While it's Hot: Open Access and Legal Scholarship' 841 Lewis & Clark L. Rev. 841, 847-857 Solum, Lawrence B. (2006) 'Blogging and the Transformation of Legal Scholarship' 84 Wash U L Rev 1071.

This is despite predictions by Hibbitts almost two decades ago that the traditional law journal may be dying[134]. Note that 37 US law reviews have signed up to open access principles, but only 2 current European journals[135]. European academic commentary is opening access in very much an incremental fashion. By contrast, US law journal subscription is falling rapidly (75-80% in the forty years from 1972) due to free online readership, but consumption is growing extremely rapidly – a victory for an open access to law model in the cash-rich US law school review publishing system[136].

Law student are 'digital natives', meaning that they adopt new technologies more easily. They use different kinds of apps, they are online, they are connected with each other in social networks, they share information, more so than professors. For example, many users of the RIS:App, the Austrian mobile legal information app, are law students.

BOLD Vision: we envisage students as early adopters, more likely to share information. This thesis can be tested using student populations as testbeds at our partner universities.

1.13 Government Users: Judges and Public Sector Experts

There are many legal experts employed in the public sector. Combined, they have an enormous legal knowledge. Unfortunately, this knowledge cannot be shared adequately today. Judges in general have access to law libraries in courts, or in Inns, but their sharing of legal information relies on proprietary solutions in many jurisdictions, to increase perceived security and confidentiality of the legal decision-making process. These are considered in more depth in country reports. Moreover, superior court judges are very few in number[137], and though tribunal chairs and magistrates make up a far larger proportion of practising legal professionals, that is still less than 1 in 2000 citizens[138]. It would be expected that superior court judges require more legal research on individual cases than criminal law magistrates, and thus superior access to legal resources.

Other categories of public servants who require access to law, largely without localised access to law libraries, are civil servants, policemen, prison and probation officials, immigration and enforcement officials, local council officers, and private

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Thomas Shaw, 'Free v Fee: Drivers and Barriers to the Use of Free and Paid-for Legal Information Resources' (2007) 7(1) LIM 23. Danner, Richard A. Kelly Leong and Miller, Wayne V. (2011) 'The Durham Statement Two Years Later: Open Access in The Law School Journal Environment' 103 Law Libr J 39 10 Nw. J. Tech. & Intell. Property 377.

[134] See Hibbitts, Bernard J. (1996) 'Last Writes? Reassessing the Law Review in the Age of Cyberspace' 71 NYU L Rev 615. Rier, David A. (1996) 'The Future of Legal Scholarship and Scholarly Communication: Publication in the Age of Cyberspace' 30 Akron L Rev. 183, 188-210; Bruce, Thomas R. (1996) 'Swift, Modest Proposals, Babies, and Bathwater: Are Hibbitts's Writes Right?' 30 Akron Law Rev. 243, 243. Pearson, Shawn G (1997) 'Comment, Hype or Hypertext? A Plan for the Law Review to Move into the Twenty-First Century' 1997 Utah L Rev 765, 798.

[135] See https://wiki.creativecommons.org/Open_Access_Law_Adopting_Journals

[136] See Davies, Ross E. (August 24, 2013) The Increasingly Lengthy Long Run of the Law Reviews: Law Review Business 2012 – Circulation and Production Journal of Law, Vol. 3, No. 2 (Journal of Legal Metrics, Vol. 2), pp. 245-271, at p258; George Mason Law & Economics Research Paper No. 13-51. Available at SSRN: http://ssrn.com/abstract=2315382

[137] In 2014, there were 107 High Court judges in England and Wales for instance.

[138] Council of Europe (2012) Judicial Evaluation Report at http://www.coe.int/t/dghl/cooperation/cepej/evaluation/2012/Rapport_en.pdf England and Wales have only 3.6 professional judges per 100,000 people - a reflection of the UK's extensive reliance on lay magistrates. In central Europe, there are nearly 50 members of the judiciary per 100,000 people. The UK has 22,000 lay magistrates: http://www.bbc.co.uk/news/uk-26359326

enforcement agents who enact civil court repossession orders (known in the UK as bailiffs). While all can access information on legal changes via the national and specialist press, trades associations, briefings from government and using local libraries, their knowledge of law must to some extent depend on use of generic legal information online. More research is needed into their access to legal information[139].

1.14 Business users: Corporate Counsels

As Openlaws field research reveals, Corporate and General Counsels have greater interests in exchanging legal information with other lawyers, because they do not always lose revenue if they share knowledge, say with another general counsel. While legal knowledge is the marketable expertise for a lawyer in general practice, a general counsel has different interests, namely to reduce the risk of the company. Sometimes contract templates or best practices processes may be exchanged between general counsels free of charge.

Legal compliance and risk management are essential to corporate counsel, which makes sharing of information on diverse subjects important. These include labour law, corporate governance, but also competition law, tax law and many other aspects of regulation. This means corporate counsel need broader, and arguably shallower, knowledge than experts in law firms, though with significantly advanced knowledge within specific sectors of industry or subject domains such as pharmaceutical patent. Often they enjoy no access to legal databases, which means they make use of alternative sources – academic and Law Society libraries for instance.

Together with citizens, businesses are the ultimate consumers of legal information. They receive the information either directly via governmental institutions, in particular via governmental legal databases, or via legal professionals. Receiving legal information from legal experts is costly, nonetheless each and every business has to comply with the law.

Businesses are using free online resources for receiving legal information (see sources above). The most common 'free legal resource' is of course Google. There are also information systems operated by the government or the chambers of commerce, that includes 'digested' legal information so that it can be used more easily by companies[140]. Where advice has been given by an external legal consultant, the company cannot simply use and exploit the work. For example, if the company has received a contract from a lawyer, such contract cannot simply be re-used and shared with other companies as a standard template, because it is copyright protected. Unless the company is a legal consultant or a publisher, the core purpose of a company is rarely to sell legal information, though in a sharing economy it may make sense to exchange such information with peers and to create a pool of free legal information. There are many arguments against such a practice, such as the level of quality and whether this fits the purpose. It may be a starting point for standardization in the legal area. Take

[139] The criminology literature provides some evidence regarding in-service legal training for those in law enforcement, for instance Wyatt-Nichol, H. & Franks, G. (2009) Ethics Training in Law Enforcement Agencies, Public Integrity 12:1 pp39-50, also at http://www.academia.edu/1400696/Wyatt-Nichol_H._and_Franks_G._2009_._Ethics_Training_in_Law_Enforcement_Agencies, and Criminal Justice Review (2003) Litigation Views among Jail Staff: An Exploratory and Descriptive Study, 28: 70-87. Governments also review police legal training, see for instance http://www.justiceinspectorates.gov.uk/hmic/publication/consultation-on-hmics-programme-for-regular-force-inspections/

[140] For example in Austria: help.gv.at, usp.gv.at

for example a purchase agreement for a used car: the standardized template that is provided by the automobile association is often used.

1.15 Users: Micro-Businesses

Outsourcing and self-employment have created an extremely large overlap of micro-businesses (with less than 10 staff, typically only a single individual) and citizens. Most companies do not have a dedicated legal department. There are 43,454 large companies and 222,628 medium companies in the EU (see Openlaws Stakeholder Handbook). Small enterprises (1,349,730) and micro enterprises (18,783,480) vastly outnumber medium and large companies. The vast majority have less than 10 employees. The United Kingdom has 4 million self-employed people, in addition to those whose self-employment is a supplement to their main employment. The majority are taxi drivers, hair dressers, private landlords, and other service workers including consultants.

Such companies will hardly ever afford an internal legal professional and have to consult external experts. Dealing with legal questions and risks is highly important for small enterprises even if it is cumbersome. A lawsuit or violation of public law (e.g. environmental or safety regulation) can threaten the whole business. Their need for professional legal advice is minimal compared to their citizen need for legal help, and their most usual encounter with the law is in the filing of annual tax returns and sales tax returns, and incorporation of the business. Thus, their default professional advisor is an accountant, though the amount of self-filing of income tax also suggests the online advice given by the taxation authorities is a more common encounter with legal information. These people are thus full-time prosumers, both citizens and producers, and their access to law is critical but often overlooked. They are as likely to contract with a lawyer or notary when letting, buying and selling property, a making a will, getting divorced, as in the course of their professional self-employment.

Businesses are 'end-users' of legal information like citizens, but their behaviour and their needs are quite different. These different legal roles are explicitly recognized by the EU and its member states, by differentiating between them in many legal acts and even by enacting dedicated laws (e.g. consumer protection laws or trade acts). Generally speaking, a company is less protected than a citizen, because it is assumed that a company is better educated than a citizen. If a citizen starts a micro business), such person has to comply with legal obligations just as any large company.

The easiest and fastest way to access legal information for them is via the Internet (as also shown by our survey). Depending on the EU member state, there are free governmental platforms. In addition they will find information in law blogs, in wikis and in different forums. However, they will face three issues with such a search. First, is the information complete and up-to-date? Second, is it quality controlled? Third: Does the information fit the specific situation the company encounters? If the business person decides that the legal question cannot be answered sufficiently internally, they have two options: they can consult a legal professional - or not. However, acting with due care may require that the director contact an external expert, if he/she does not want to risk personal liability. What is actually done (explicitly or in a more tacit manner) is a kind of legal risk assessment. In this particular case, is it worth hiring an expert (with an extremely high hourly rate) or do we simply take the risk? If the risk is considered higher than the legal expenditures that will occur, the

expert/intermediary/gatekeeper will be consulted. The company will pay for the advice and receive legal information that is 'catered' to the specific issue.

“Non-lawyer” is not one category. There is also a category of 'semi-professionals’, employment law experts in human resources, accountants on tax law. A citizen might need legal information less than annually (e.g. employment law issues, divorce). A larger business needs legal information from the day of its incorporation, new regulations, labour law (therefore a SLEPT analysis in business, where 'legal' is a category of its own). Compliance is a major burden for SMEs, including financial regulations, privacy or competition law. Business would be much more willing to pool knowledge and legal information (standard contract templates included). This use of law by non-lawyers is a major consideration in open information sharing.

In summary, businesses without a corporate counsel face legal questions on a regular basis with greater liability than consumers. They have to act with due care and have to consult legal professionals, if the risk of solving the legal issue themselves is considered too high. Businesses are always interested in reducing and optimizing costs, so the Internet and free sources of legal information are an opportunity for them.

1.16 Users: Citizens

Citizens are a very under-resourced group in accessing law. Where there is great demand for access to social welfare law for non-specialists, government has in some cases provided basic access to landlord-tenant law, for example. CANS service in the United Kingdom has provided wide access to social legislation summaries since 1939 [141]. This is intended to help members of the general public to understand the law in areas such as welfare, property and so on. In its own words,

> “Cans Legal Information – a registered charity in England and Wales (No.803343) – has the charitable purpose of making low-cost legal information available to the general public. As part of its charitable aims, it publishes www.cans.org.uk (a detailed summary of the laws of England, Wales and Scotland) as well as the loose-leaf version of the same product, CANS Digest of Social Legislation. Cans Legal Information is the trading name of CANS Trust which was established in 1990 to continue the publication of CANS Digest of Social Legislation…It was introduced to inform the public about the numerous emergency measures that came into force during World War II.”

CANS is a very comprehensive database, also available on CD-ROM. It is aimed at “public libraries and the general public that visit them; universities and colleges along with the students in attendance; and solicitors, accountants, advice centres, charities and any other body that dispenses advisory information.” It also reaches law clinics that would otherwise not have access to resources available at low price to the general public who form their clientele.

Citizens are of course the ultimate arbiters of legislation as the electorate. The potential for citizen-inspired laws is of great interest. In Hamburg, Germany citizens have created a draft Transparency Act, which was later enacted in a formal legislative

[141] CANS: 1939 launched alongside Citizens Advice Bureaus. See e.g. bomb shelter advice: http://www.cans.org.uk/libraries-public/archive

process. The users wrote a new law in a wiki-like environment, at first even without the support of a legal expert. In a second stage, a former judge reviewed the draft before it was finally presented to the governmental authorities. The group could engage 'the crowd' so that a sufficient number of supporting signatures could be collected. Finally, the Transparency Act was accepted and enacted by the city of Hamburg. This is one of the first 'co-created' laws, a first signal for what collaboration and participation could do to inform legislative processes.[142]

In the Openlaws survey, users were also asked for their views on public collaboration on law. This also produced a range of positive, technical, sceptical and negative responses.

Figure 5: Detailed Survey Respondents Answer to Questions on Public Collaboration on Law

Positive Responses	Suggested Improvement	Balanced Answer	Sceptical Questions	Negative Responses
Would be great if text of proposed draft legislation for consultation (and a long enough consultation period) so people can spot the inevitable mistakes that require litigation to interpret.	This needs moderation and public engagement. One would need to be convinced that the group likely to use this system would be representative.	Yes and no. Online participation tends to be self-selecting, partisan, and generally without responsibility for the outcome.	Would people participate if they weren't paid to? Why can't government and policymakers get decent legal (and technical) advice before passing legislation, etc?	Don't see that this is relevant to public access to legal information. A legal search function should not aim to be all things to all people, still less a substitute for participatory democratic processes.
Yes, but enormously time consuming.		The main problem is public sector taking into consideration	'Start initiatives' sounds good: doubt government would agree	Co-creation of proposals for legislation is extremely optimistic.
Yes, but problems: lack of time and they don't listen	Law makers have a finite capacity to process data: information overload prevents identification of salient points on which a majority of respondents might otherwise agree.	Established systems are more like discussion boards organized around topics and listing postings in a linear (chronologic) way, without any good auto-generated semantic layer beneath.	Too many consultation exercises are a formality. It is highly questionable whether central government has either the capacity or the inclination to reflect on the responses received	No (or very few) possibilities for co-creation in the drafting process.
Due to the nature of my work, there is already participation in the process.	As I work in an institution I should not participate.	Main problem for me in participation would the thinking: who is ever gonna read my comments anyway...	Needs limiting to those who have something useful to contribute. If you can do that, fine, but I seriously doubt it.	No but I would like to enable others to do so.
Yes, on both a professional and a personal level.	Yes but tools already exist	No tools for crowdsourced drafting of regulation/legislation.	To draft a law requires detailed knowledge of previous laws and it must be done carefully	Sifting through irrelevant information.
As a citizen I am keen for my voice to be heard. On a	If it was easy I would probably participate to some extend and	Groupsourcing legislation may seem superficially attractive but the reality is that it has to be properly curated to be effective.	Linking and varying citation styles. Or is everyone expected to spend their days looking up the laws	I never look at the comments of other lawyers. There is no guarantee of the quality whatsoever.

[142] http://de.hamburgertransparenzgesetz.wikia.com/wiki/Transparenzgesetz_selber_machen

professional level not so much.	provide feedback on existing law		others are referring to?	Considering them would be negligent.
Depth of knowledge and understanding of mechanisms to enable participation	The ability to participate would be valuable	It is very difficult to draft amendments to bills. This is probably a minority interest, but keeping track of what is going on during the legislative process is most useful.	Completely unrestricted online access might be self defeating if it attracted 'trolling'.	[1] blur the line between comments in edited journals and random remarks of lawyers. [2] participation function attracts lawyers without enough work and/or incapable of publishing in serious journals.

These responses reflect the wide range of opinion regarding the usefulness of participation. They do reveal an interest in why and how users can participate in the 'social layer' of legal information, which will be explored in future Workstream 2 deliverables.

2 Conclusion

The BOLD analysis reveals a huge increase in legal data publication, and a hybrid system of both production and consumption. Much legal data remains proprietary or tied up in formats that make sharing difficult, but there is increasing open access to legal data. Free access is also growing, and the 'freemium' model ensures that proprietary data is in part being opened subject to access controls. Inasmuch as there is a production function separate to readers, it appears to be flourishing in both commercial and non-commercial environments, though this leads to a fragmentary and complex situation for users. While more primary, secondary and expert commentary on law is produced than previously, access is in a messy and poorly organised state.

User surveys including that by Openlaws shows that there is appetite for greater online collaboration and co-creation. Users are creating content and sharing widely. However, the digital tools to share content online are limited both by commercial publisher business models and lack of coordination or aggregation of open source and open content tools. 'Prosumers' are thus hampered in their ability to mash up and otherwise co-create legal content, which inevitably means that European citizens have less access to accurate summary and commentary on law than would otherwise be possible. There is no visibility of any 'legal hacker' movement in Europe, though it appears to be emerging in the United States. This is exacerbated by the fragmentation of European legal traditions and the lack of international coordination within the profession in giving greater access to law for European citizens.

While the overall legal information environment is dynamic, the research featured in this report suggests that greater coordination of free, open and proprietary legal resources is needed in order to achieve a Big Open Legal Data vision for 2020. Country case studies will provide more evidence of the state of legal information sharing to support this State of the Art report's interim conclusions.

Annex 1: Methodology

We use soft systems methodology (SSM) in the specific case studies, the standard method for exploring systems of production which is suitable for legal information publishing. SSM as a seven-stage methodology proceeds with:

1. Entering the problem situation.
2. Expressing the problem situation.
3. Formulating root definitions of relevant systems.
4. Building Conceptual Models of Human Activity Systems.
5. Comparing the models with the real world.
6. Defining changes that are desirable and feasible.
7. Taking action to improve the real world situation[143].

The dynamics of the method come from the fact that stages 2-4 are an iterative process. Lancaster proposed criteria for analysis summarized in the mnemonic CATWOE:

1. Clients (beneficiaries, who benefit or suffer from system operations)
2. Actors (responsible for implementing, carrying out system activities)
3. Transformation (transformation that inputs to this system bring about in becoming outputs)
4. Worldview (what justifies the existence of this system, and makes it meaningful?)
5. Owner (Who has the authority to abolish this system or change its measures of performance)
6. Environmental constraints (which does this system take as a given?).

Explicitly acknowledging these perspectives forces us to consider the impact of any proposed changes on the people involved. Basic criteria by which system performance (CATWOE) can be measured are efficacy, efficiency, effectiveness:

- Efficacy (E1) - indicates, whether the transformation provides the intended outcome
- Efficiency (E2) - indicates, whether the least possible amount of resources is being used to implement the transformation
- Effectiveness (E3) - indicates, whether the transformation helps to realize a more long-term goal (i.e. if it fits into a long-term strategy of the system).

Note that the creation of large legal data sets in themselves is only an E1 goal, while E2 depends on a variety of technical and organisational factors, and E3 depends on user satisfaction measured ultimately in measures of innovative use of legal data, and more directly in user satisfaction and increased productivity based on new usages of legal information retrieval tools.

Note also that the qualitative interviewing of experts and other stakeholders is carried out using 'snowball' sampling[144] based on prior search if literature, policy presentations and otherwise publicly acknowledged experts and representative stakeholders[145].

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[143] See Checkland, Peter B. (1981, 1998) Systems Thinking, Systems Practice, John Wiley & Sons Ltd.; Checkland, Peter B. and Scholes, J. (1990) Soft Systems Methodology in Action, John Wiley & Sons Ltd.; Checkland, Peter B. (2000) Soft Systems Methodology: A thirty year retrospective. Systems Research and Behavioral Science, 17, 11–58.

[144] Goodman, L.A. (1961). "Snowball sampling". Annals of Mathematical Statistics 32 (1): 148–170. doi:10.1214/aoms/1177705148

[145] Baker, Sarah Elsie and Edwards, Rosalind (2012) How many qualitative interviews is enough. Discussion Paper, UK Economic and Social Research Council National Centre for Research Methods at

http://eprints.ncrm.ac.uk/2273/ Edwards, Rosalind and Janet Holland (2013) What is Qualitative Interviewing? Bloomsbury Academic at: http://www.bloomsbury.com/uk/what-is-qualitative-interviewing-9781849668095/#sthash.upoeZB2W.dpuf

Annex 2 LAPSI 2: Deliverable on Licensing Guidelines

There is no harmonized EU system where it concerns the extent to which public sector information is exempt or has otherwise special status under copyright and database laws. Nor is the matter of ownership / rights allocation harmonized. Intellectual property rights, especially database rights and copyright are important mechanisms for the public sector to exercise control over distribution/use of legal information. It is not harmonized at EU level. Nonetheless, it can & should be used to support open data through open licenses/ public domain declarations. The development of Public Sector Information (PSI) sharing in the widest sense is the aim of initiatives built on the PSI Directive as revised[146], as well as national developments in creating public access to government data[147], including legal data[148].

Comparison shows there are different models in operation: full exclusion of (some) PSI, broad exemptions, narrow exemptions. The exclusion regime provides no copyrights exist in public sector works defined by the LAPSI project as:

> "PSI that fulfils the national requirements needed by the national law to obtain copyright, neighbouring rights and sui generis database protection. Official texts are merely a sub-category of Public Sector Works''.

Such works or databases are in the public domain, no matter who produced them and at which state it was transferred to the public sector body ('PSB').

A broad exemption is usually characterised by an open-end clause defining the PSW, as is the case in the Czech Rep. or Poland. These countries have one of the broadest definitions of PSWs and have a wide array of works that are not eligible for copyright protection. Moreover, in the Czech Rep, any copyrighted work may be exempted from copyright protection if it gains 'official' status. Also in Austria (text) works produced exclusively or mainly for 'official use' are exempt from copyright ('*freie Werke'*). Further, Norway also provides for quite a broad exemption from copyright protection.

Generally speaking, however, most jurisdictions do not exclude public sector works from copyright protection per se (i.e. narrow or analytical exemption from protection). Only a strictly specified list of PSWs that would otherwise be protected are exempted

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[146] Directive 2013/37/EU, OJ L175/1 amending Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information, Official Journal L 345 , 31/12/2003 P. 0090 - 0096

[147] See in general 2014/C 240/01 'Guidelines on recommended standard licences, datasets and charging for the re-use of documents.

[148] Article 2 of the 2003 Directive defines:

> 1. "public sector body" means the State, regional or local authorities, bodies governed by public law and associations formed by one or several such authorities or one or several such bodies governed by public law;
> 2. "body governed by public law" means any body: (a) established for the specific purpose of meeting needs in the general interest, not having an industrial or commercial character; and (b) having legal personality; and (c) financed, for the most part by the State, or regional or local authorities, or other bodies governed by public law; or subject to management supervision by those bodies; or having an administrative, managerial or supervisory board, more than half of whose members are appointed by the State, regional or local authorities or by other bodies governed by public law;
> 3. "document" means: (a) any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording); (b) any part of such content;
> 4. "re-use" means the use by persons or legal entities of documents held by public sector bodies, for commercial or non-commercial purposes other than the initial purpose within the public task for which the documents were produced. Exchange of documents between public sector bodies purely in pursuit of their public tasks does not constitute re-use.

from copyright protection as such. The specific list of PSW typically includes: legislation (legislative acts from national, regional and local authorities), case law and administrative decisions. This is the case in countries such as Germany, the Netherlands, Spain, Belgium, Slovenia, Italy, Latvia, Romania, Denmark or Austria. In France, copyright law does not address this question, however it is assumed, that laws, decrees, administrative and judicial decisions are not copyrighted.

Official texts or other works produced by PSBs, other than those indicated above, are fully protected by copyright. Consequently, standard national copyright rules do apply, including the limitations of copyright (private copying, teaching exemptions etc.) Standard protection also means standard duration of the copyright term.

However, in some counties, a special '*copyright-light'* regime applies. In the Netherlands, any use of works made public by or on behalf of public authorities is free unless the rights have been reserved. In Germany, other official texts (including PSW not mentioned above) published in the official interest for general information purposes are also exempted from copyright protection. The UK's Crown Copyright regime (with respect to the special provisions for Parliamentary copyright) protects all PSI, including official texts and metadata, however only applies to information produced by *central government departments* and agencies. It should be noted that Crown Copyright is essentially about centralised ownership and duration (the term of protection differs from normal rules), rather than a specific category of PSI. Even though the UK has Crown Copyright, this is not generally used for blocking re-use but as a sort of integrity check. The actual content under Crown Copyright is available under an Open Government License v2.0. In Romania, a relatively flourishing market in the re-use of court judgements has been identified. A needed pre-requisite is the exemption from copyright of the texts of the decisions. The mechanism to achieve this is one where even if the decisions are assorted by the respective courts (and thus a *sui generis* rights database protection may arise if conditions under the Database Directive as implemented are fulfilled), the courts also decided to not exercise any of this, potentially applicable, *sui generis* database rights. This situation would therefore provide for free re-use and a competitive market.

Even where no intellectual property rights exist, as is the case with legislation and court decisions in many countries, actual control over access to the source allows the public sector to conclude exclusive publishing agreements[149], as is done in the Czech republic (e.g. Supreme Court decisions, mass transportation data and publication of Commercial Gazette).

Ownership and transfer of rights in public sector information

Whether copyright exists in a work held by a public sector body is one matter, who owns the (economic) rights or is another. The LAPSI survey shows there are different models here as well. Two major categories are works produced by the employees of public sector bodies and/or works commissioned by third parties.

The most prevalent practice is that the economic rights are automatically transferred (or the right to exercise them) to the employer (Czech, Poland, Norway, France, Latvia). This applies in the same way for the sui generis database rights with exception of Latvia where the matter is not sufficiently solved within legislation and

[149] Note however that exclusive arrangements are subject to a necessity test and review under the PSI Directive (2013).

if left to individual agreements. In Belgium or Spain regulation is either unclear or missing. In the UK, works produced by employees of the Crown, and subject to Crown copyright, can be assigned but the Crown copyright status remains in place.

As regards the works created by third parties for the PSBs, regulation again differs. Usually no specific provisions apply to public sector bodies and thus the general copyright rules on ownership and transfer apply (Czech, Spain, UK). In the Netherlands, for example, given the initial allocation of rights to the employer, most PSI created by civil servants will be owned by government bodies a*b initio,* without the need for a transfer. To allow for re-use of such PSWs a licence is required from the relevant copyright holder.

When to use a licence for PSI

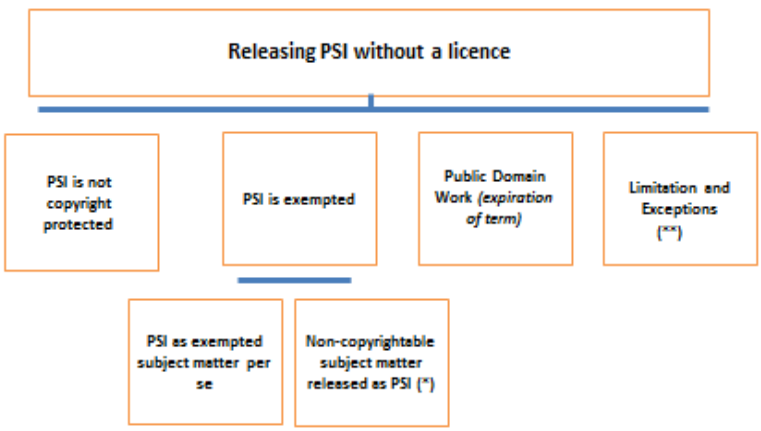
LAPSI 2 recommends that PSBs should refrain from using licenses for PSI that is in the Public Domain. Such licences would create restrictions upon the use of works that are not or no longer protected by copyright or similar rights, use that should be free. LAPSI recommends the same approach to the digitised reproductions of analogue non-copyrightable data or public domain works. The mere act of digitisation does not give rise to copyright and keeping digitised versions in the Public Domain will guarantee they remain free to use as the original work. Digital reproductions of works which are in the Public Domain must also belong to the Public Domain.

Does the PSB have the right to licence the PSI? Important issues to bear in mind: Cultural heritage rights; Rules on privacy; Confidentiality; 3rd party trademarks, patents or trade secrets; Limitations arising from rules on statutory rights of (privileged) access, freedom of information law etc.

The PSB has to ensure that two conditions are met before it goes on to license any PSI it lawfully holds, namely:that a license is indeed needed and that, if this condition is met, the PSB has the right to release the PSI.

Licensing Criteria

● Use standardized and re-usable licences: if licensing needs to be used, then the first suggestion of LAPSI 2 is to use licences that are both standardized and reusable., ie. falling under one of the available licensing schemes. The most common such licenses are the **Creative Commons** and the **Open**



(*) But the arrangement itself could potentially be protected under (i) copyright or (ii) sui generis databsae right
(**)The exception might cover the use (fair use etc) but not cover re-use – Hence important to note the existance of 3rd party material if any.

Knowledge Foundation licenses.

The CC licences are a set of **standard and re-usable** public copyright licenses which have been tested in several courts and can be considered as legally valid as robust agreements. They come with a set of machine-readable metadata in open formats which make it easier to mark PSI and additional information, such as Attribution, as well as to discover PSI with search engines like Google. The Open Knowledge Foundation has developed similar licenses for databases.

- Use a public domain waiver:

For PSI that is not exempt from copyright protection, it is recommended that the PSI is released into the public domain, either by (i) exempting them from copyright and database rights , or (ii) by waiving copyright and related rights and dedicating the PSI to the public domain. For that purpose, the CC0 Public Domain Dedication is recommended. Also, the Open Data Commons Public Domain Dedication and License (PDDL) is an equivalent tool for dedicating works to the public domain.

In any case, should the aforementioned not be possible, LAPSI 2 recommends the use of a licence which is compliant with the Open Definition. These are, for example, CC Attribution licence or the UK OGL

- In any case, a *No Derivatives* licence should **not** be used. This are sometimes used in an effort to prevent 'misrepresentation' or misleading uses of data, is however not a good idea as it will prevent many usages of the PSI which are allowed under the European Directive. Further, it should be noted that national legislation often establishes their own non-alteration requirements which, as Communia points out, can contribute to legal uncertainty and thus create an obstacle to cross-border, pan-European datasets.

- It is therefore advisable that if governments or PSB insist in making their own licence that they create an Attribution-Only licence where they ensure a.o. (i) clear versioning and (ii) Open Knowledge Definition compliance. Indeed, some national governments and PSBs may prefer to develop and use their own OGL because it gives them more control over the wording of the licence and the licence update process. However, this also requires a dedicated team that monitors updates, interoperability etc.
- Refrain from using licences that reserve *commercial use,* as they would otherwise require users to seek additional permissions/license for many types of uses that are regarded as 'commercial' under CC.
- Caution with the use of *copyleft (share-alike) licences* as it can raise interoperability issues, especially if the user wants to combine data under different licencing schemes.
- Add metadata and documentation, i.e. short information notices to accompany the PSI, helping the re-user name the source of the PSI. It is recommended that no unreasonable requirements are demanded (eg. those requirements on attribution and integrity, beyond source linking).

GUIDELINES on recommended standard licences, datasets and charging for the reuse of documents (European Commission 2014/C 240/01)

These guidelines, released in July 2014, are the result of the online consultation launched by the commission in from August to November 2013 following the revised Directive on the re-use of public sector information (2013/37/EU). The role of the guidance document is to assist member states and its national administrations in transposing the revised PSI Directive. At the same time, the Commission aims to

encourage re-use in the digital market through sharing best practices and licencing options.

In the development process, the LAPSI 2 work on licensing was considered. Overall the commission guidelines are consistent with the LAPSI recommendations. Though the Commission appears to be satisfied with what it considers to be '*an increasing trend towards a more open and interoperable licensing system in Europe'* it believes that the development of actual business models is still lagging given that the 'newly introduced pricing principles were not called into question by the majority of the respondents (…) to the consultation'.

Use of standard licences: the revised Directive 2013/37/EU , in its Recital 26 lists two acceptable conditions that the public sector bodies can impose for the re-use of documents: (i) acknowledgement of source and (ii) acknowledgement of any modifications to the document. In that sense, the Directive encourages the use of standard licences, which must be available in digital format and be processed electronically (article 8.2). Recital 26 encourages the use of open licences, which should eventually become common practice across the Union.

In any case, it should be noted that the Directive does not mandate the use of formal licences. If necessary, a simple notice can be used instead, which is, for example, recommended for documents in the public domain.

In the context of open licences, as is the case with LAPSI 2 the Commission highlights Creative Commons licences (4.0), in particular CC0 public domain dedication.

Guidelines on Recommended Licensing Provisions

- ✓ **Scope**: time and space, types of rights and range of reuse allowed. Generic formulation is recommended to avoid potential interoperability issues.
- ✓ **Attribution**: requirements should be kept to a minimum
- ✓ **Exemptions**: described explicitly
- ✓ **Definitions**: in user-friendly language. It is recommended to define concepts such as 'use' or 're-use' by means of indicative terms, rather than exhaustive, in order to allow interoperability.
- ✓ **Disclaimer of liability**: given that the information is (should be) provided '*as is'*.
- ✓ **Consequences of non-compliance**: to be included, especially if these include automatic and immediate revocation of the re-user's rights.
- ✓ **Information on licence compatibility and versioning**: clarity on licence versioning and data scheme as well as compatibility of licencing schemes when information is derived from different sources under different (compatible) licences.

Pricing Indications

Marginal Cost Method: Art. 6(2) of the Directive states that public sector bodies may charge no more than the marginal cost of reproducing, providing and disseminating the documents. The Commission explains that the category that fits best with the principle of marginal cost is that of *'data distribution',* which would refer to those costs directly relating to, and necessary for, the reproduction of an additional copy of a document and making it available to the re-users.

The Guidelines also describe which costs can be regarded as eligible, such as infrastructure, duplication or handling and delivery . It notes that these costs are in principle applicable to both offline and online means of distribution and to both

digital or non-digital data. Nonetheless, it is important to distinguish delivery through physical infrastructure, which will represent some costs, from digital delivery, where the costs incurred in will be close to zero. Hence, the guidelines recommend that a zero-cost method should be used for the online delivery of digital data.

The Guidelines also reminds us that Article 6(2) sets out circumstances under which marginal cost does not apply and where the ***'Cost Recovery Method'*** is allowed. This method comprises the cost of collection, production, reproduction and dissemination AND a reasonable return on investment (ROI). The Guidelines note that this ROI is not comparable to that of commercial players, as the public and private mandates are completely different.

Finally, the guidelines also include some indications on the use of personal data and describes some categories of datasets which should enjoy 'priority release' such as geo-spatial data, transport or statistical data with demographic and economic indicators.

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