

Editorial

***De iurisprudencia picturata*: brief notes on law and visualisation**

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Law is usually considered a textual phenomenon (Katsh, 1995). For example, from their first steps into a faculty of law students know they will have to prepare for exams on codes and text-books. In their practice lawyers have to formulate opinions, claims or defences in a document or in oral statements. Judges are called on to write decisions which will be read aloud in court and published. Notaries prepare (and confer authenticity on) legal documents and contracts for their clients. Legislators enact laws, decrees and regulations that consist of a series of rules expressed in verbal statements. Legal scholars write books, commentaries, essays and scientific articles starting from the literature review.

The “verbocentrism” or “logocentrism” of law has been explained by Boehme-Neßler (2011, pp. 106-107) as a choice that over the centuries has had the role of ensuring the rationality and objectiveness of law and verbal linguistic acts have been the preferred means of communicating the complexity of legal discourse. After all, the “word”, written or spoken, is one of the most efficient technologies invented by humans to pass on knowledge (including legal knowledge) to the next generation.

However, a closer look at legal history demonstrates that textual form is not the only way in which legal concepts and knowledge can be expressed (Sacco, 2015).

First, as the scholars of law and literature have extensively argued, symbols (Costantini and Morra, 2014), emblems (Goodrich, 2014; Heritier, 2014), graphs (e.g. the tree of human knowledge by Diderot and d’Alembert)¹ and rituals (Miller, 2005) are examples of the manifestation of the law and its normativity through visual representation. Therefore, the use of visual communication in law is not something completely unknown or new to the legal tradition.

Second, the convergence of digitalisation, the visual media culture, insights from information design and behavioural sciences, and the

¹ Where the legal science is classified under philosophy, as the fruit of knowledge based on the human faculty of reason (philosophy > science of the man > ethics > particular). Legal science or jurisprudence is then divided into: natural, economic and political law. See, https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&ved=2ahUKEwjI0LLXv5flAhVLU1AKHQExBscQjRx6BAgBEAQ&url=https%3A%2F%2Fen.wikipedia.org%2Fwiki%2FFigurative_system_of_human_knowledge&psig=AOvVaw3WgsIV_1t7uybb3-0Hs0hE&ust=1570996364855298 (Accessed 11 October 2019).

advent of legal design² have contributed to opening new perspectives on the relationship between law and visual studies.

How, though, is this relationship structured? Trying to offer a bird's eye view of the phenomenon, it seems to me that the interplay between law and visualisation is essentially threefold.

First of all, visualisation can be the object of the law. Intellectual property is a paradigmatic example of regulation of human creativity and forms of visual communication. For example, copyright/*droit d'auteur* recognises an exclusive right – limited in time - to authors of original works (e.g., paintings, photographs, pictures, etc.). Design protects the appearance of the whole or part of a product (either three-dimensional or two-dimensional). A trademark is a sign (not only a word mark, but also a figurative one, a shape, a pattern, a sound, a colour) used to identify products and distinguish the right holder from competitors.

Hence, the law can intervene to establish and verify the requirements of protection for certain forms of visualisation. However, it can also prohibit some graphical presentations of information in order to guarantee other legal interests and values. This is the case, for example, with pre-ticked boxes for obtaining consent, something explicitly forbidden in different areas of law, notably consumer protection and data protection.³ This policy measure evidently embeds some behavioural insights: the legislator has banned such pre-checked boxes to effectively protect the weak party against those forms of visualisation which can unduly influence the decision-making process of the user.⁴ Indeed, by exploiting the inertia and status quo bias the choice architecture at the core of pre-ticked boxes is likely to lead consumers and data subjects to stick with the default option that is offered to them (van Ooijen and Vrabc, 2019).⁵

² Legal design is an emerging interdisciplinary field that applies a human-centred approach to preventing or solving legal problems (as initially defined in the Legal Design Manifesto, version 1.0, available here: www.legaldesignalliance.org). More extensively, see, Hagan, 2017; on the law as proactive and preventive mechanism, Haapio, 1998 and Haapio, ed., 2008.

³ See, for instance, Article 22 of the Consumer Rights Directive, recital 32 of the General Data Protection Regulation (GDPR) and the recent decision of the Court of Justice of the EU in *Planet49* (Judgement of the Court - Grand Chamber - of 1 October 2019, *Bundesverband der Verbraucherzentralen und Verbraucherverbände - Verbraucherzentrale Bundesverband e.V. v Planet49 GmbH*, Case C-673/17, ECLI:EU:C:2019:801).

⁴ The intertwined relationship between behavioural insights and policy making is indeed much wider. For an overview, Zamir and Teichman 2018. In particular, in the field of consumer protection, cf. Helleringer, G., Sibony, A-L., 2017.

⁵ Pre-ticked boxes are an example of “dark patterns”, i.e. design strategies or choice architectures that exploit heuristics and cognitive biases to “trick” users and manipulate their decision making-processes (for example, by leading them toward more privacy-intrusive choices). Scholars, consumer advocates and policy makers are now focusing on this controversial issue to investigate whether the current legal framework is able to cope with such deceptive practices and what technical measures can be implemented to recognise and fight against dark patterns (see, for instance Bösch 2016, NCC 2018, CNIL 2019, Mathur et al. 2019).

The other two strands of the relationship between law and visualisation are what Colette Brunschwig has labelled as “visual law”, meaning the “law as visual phenomenon both within and outside the legal context” (Brunschwig, 2014, p. 902).

According to Brunschwig, visualisation in the extra-legal domain refers essentially to visual legal culture, i.e. the representation of the law (legal concepts, *topoi*, professionals, courts) in art, literature, architecture, films, novels, TV series, etc. This area has been the object of investigation by legal iconography, legal iconology, visual legal semiotics, and the art and law movement.⁶

With regard to visual law as instances of visualisation in the legal framework, Brunschwig distinguishes between 1) legal visualisation in legislation and in legal sources in a strict sense, 2) legal visualisation in court judgements, 3) visual jurisprudence (legal education and research), and 4) legal visualizations in state legal practice in a wide sense and in private legal practice.

1) Legal visualisation in legislation and in legal sources in a strict sense refers to norm visualisation established in a legal provision and having legal value. The paradigmatic example is represented by the traffic signals of road codes, which express warnings, prohibitions, orders or information.

In this section I would also include other forms of visualisations, such as the provision of Article 12(7) GDPR, where machine-readable icons (to be adopted with a delegated act) are suggested for use in liaison with the textual information that data controllers must give to data subjects (according to the information obligations provided at Arts. 13-14 GDPR).⁷ The rationale behind this provision is to implement the principle of transparency in practice, proposing “accompanying icons” as a way to provide a more meaningful and intelligible overview of processing.⁸

Along the same lines, the field of intellectual property offers a few examples. For instance, drawings are a key element of a patent application and can be used to interpret claims, while certification seals and geographical indications in food law (Ferrari and Izzo, 2012) play a pivotal role in informing consumers about product quality and safety.

⁶ For a rich set of examples in this area, see the volume edited by Wagner and Sherwin (2014).

⁷ Even if not contained in a legislative act, the use of icons, tables, structured layouts and other graphical elements is encouraged in the Guidance document on the Consumer Rights Directive, in order to illustrate the content of a contract. The Guidance also contains a model for displaying consumer information about digital products (Annex I, EC Commission, DG Justice Guidance document concerning Directive 2011/83/EU, p. 69 ff.). However, the proposed model has not become standard in current practice.

⁸ To this end legal ontologies, such as “PrOnto”, the Privacy Ontology for Legal Reasoning (Palmirani et al., 2018), can be used to allow visualisation - in a semi-automated or automated way - of the GDPR provisions (Rossi and Palmirani, 2018).

2) Legal visualisation in court judgements. This is probably the least developed area of the Brunshwig categorisation because graphical and other visual elements are not usually part of the body of the judgement (if we do not consider court emblems and stamps). However, Haapio and Passera (2013) have identified two first interesting examples that, even if episodic, could serve as a preliminary case study. The US example is probably the most famous. In 2011 Judge Posner, acute and prolific legal scholar, inserted into his opinion two pictures: the first one representing an ostrich and the second one showing a man in a suit, both occupied in burying their heads in the sand. The goal was to literally illustrate the attitude of the two lawyers that, in a tyre case pending before Posner, ignored a relevant precedent (not favourable to them).⁹ In that case the use of pictures was not directly functional for representing the holding of the decision (but eventually to give more rhetorical force to an *obiter dictum*). Nevertheless, it is interesting from a comparative perspective since it confirms the peculiar style of US opinions, a “literary genre” well-studied by comparative lawyers (Wells, 1994; Mattei, 2004) and Posner (1995) himself.¹⁰ However, it is also possible to find an example of the use of visual elements in the body of a judicial decision in Europe. In a case of financial fraud in 2009 the Court of Appeal for Western Sweden used two pictures (specifically, timelines and graphs) to integrate the *narratio* of the facts of the case (in particular, to represent the timing of the creation of false invoices by the defendant in relation to its financial situation).¹¹

This is as far as we have gone with the direct use of pictures and images by judges in their decisions. However, graphical elements have long been utilised in judicial proceedings.¹² Photographs, drawings, maps and models can be introduced as evidence by lawyers or used by court-appointed experts in their reports. While a graph illustrating the chronological order of transactions or a cadastral map can indeed be a useful element for better understanding factual dynamics, other forms of visualisation are more problematic. Without needing to recall the shrewd John Travolta at the beginning of *A civil action*, several studies have underlined the “persuasive” power of images and pictures in judicial decision-making, especially when a jury is involved (Mnookin, 1998; Feigenson, 2010).

3) Despite not being widely used, visual elements have also made their way into legal education and research. Tables, flowcharts, diagrams and cartoons can be found in textbooks to guide students in the learning

⁹ The text of the decision of the 7th Circuit Court of Appeal (pictures included) is available at: <http://media.ca7.uscourts.gov/cgi-bin/rssExec.pl?Submit=Display&Path=Y2011/D11-23/C:11-1665:J:Posner:aut:T:fnOp:N:813789:S:0>

¹⁰ It is not uncommon to find literary citations (from Shakespeare to Jane Austen, and from Mark Twain to Bob Dylan) in US judicial decisions but also *divertissements* and examples of judicial humour. An interesting and pleasant overview can be found in the collection of the Gallagher Law Library of the University of Washington: <https://guides.lib.uw.edu/law/humor/parody> (Accessed 11 October 2019).

¹¹ Court of Appeal for Western Sweden (Göteborg), 15 July 2009, Case number B 1534-08. I wish to thank Helena Haapio for her immediate help in retrieving the original (Swedish) source.

¹² This field is categorised by Brunshwig (2014, p. 917 ff.) under the umbrella of “visualised legal and legally relevant facts”.

process (Pascuzzi, 2008) and, taking up a noble tradition, illustrations may enrich a handbook (Zeno-Zencovich, 2019). Several courses are emerging worldwide that introduce design, visual and imaginative skills into the law curriculum in order to enhance students' critical thinking and the acquisition of soft skills. This is the case for the courses and student-run projects at the Stanford Open Law Lab directed by Margaret Hagan,¹³ the teaching activity developed by Colette Brunschwig in 2011 at the Department of Law at the University of Basel (where students were called to visualise and evaluate the visualisation of the Swiss Code of Obligation),¹⁴ the legal visualisation project of Michael Doherty and Chelsea Cully on tenants' rights,¹⁵ the Jean Monnet Module "European IT Law by Design" at UCLouvain,¹⁶ and the innovative teaching and learning tools developed by Emily Allbon at City, University of London.¹⁷ This list is not exhaustive and the teaching initiatives in this area are growing since visualisation has proven to be a successful "constructionist technique for learning the law in an authentic context" (Colbran and Guilding, 2018).

With regard to research, scholars are not new to the utilisation of visual elements in their presentations and papers. Using graphs and mind maps to present data and research results is standard in empirical legal studies but other forms of knowledge visualisation, including cartoons,¹⁸ are being adopted to present research outcomes and disseminate them not only among the research community but also to society at large.¹⁹

4) Legal visualizations in state legal practice in a wide sense and in private legal practice is the most heterogeneous and widely populated category. Legal visualisations in state legal practice include e-government open data initiatives for visualising online legal information (Brunschwig, 2014, p. 911) as well as infographics realised by the same governmental institution. Infographics are information design tools that combine both graphical and textual elements and are used to explain the main points of a legislative act or initiative. Over the last few years infographics have become widely used as a dissemination instrument by legislators around Europe.²⁰

¹³ <http://www.openlawlab.com/project-topics/illustrated-law-visualizations/> (Accessed 11 October 2019).

¹⁴ Listed in Brunschwig, 2014, p. 909, footnote 41.

¹⁵ <https://graphicjustice.wordpress.com/2018/07/17/legal-visualisation-project-tenants-rights/> (Accessed 11 October 2019).

¹⁶ www.eitlab.eu (Accessed 11 October 2019).

¹⁷ <https://tldr.legal/home.html> (Accessed 11 October 2019).

¹⁸ https://teachprivacy.com/cartoon-cookies-and-the-gdpr/?utm_source=Opt-in+Newsletter&utm_campaign=a2b790aa72-10.08.19&utm_medium=email&utm_term=0_b681bb8bd9-a2b790aa72-226912229 (Accessed 11 October 2019).

¹⁹ *Ex multis*, Esayas and Mahler (2015). See, also, the Visual Law Project, <https://law.yale.edu/isp/initiatives/about-visual-law-project> (Accessed 11 October 2019).

²⁰ In Italy, for example, for an explanation of complex laws and reforms, see: https://www.camera.it/application/xmanager/projects/leg17/attachments/infografica/pdfs/000/000/021/italicum_new_14-05.pdf (summarising the so-called "Italicum", the electoral law introduced in 2015); <https://www.camera.it/application/xmanager/projects/leg17/attachments/infografica/pdfs/000/>

Interestingly, the visual representation of law can also contribute to improving the legislative process and drafting. While preparing the White Paper “Toward a new format for Canadian Legislation. Using graphics design principles and methods to improve public access to law” (2000)²¹, Berman and his team discovered some inconsistencies in the legislation thanks to the preparation of flow chart diagrams of some of the laws.²² Therefore, the authors suggested introducing graphical representation and schematisation of law in the earliest stages of legislative drafting.²³

On the other hand, legal visualisations in private legal practice can cover several areas. These include contract visualisation (Haapio, 2013; Passera, 2017), legal design patterns libraries (Haapio and Hagan, 2016; Rossi et al, 2019), lawyer-client communication (McCloskey, 1998), online arbitration (Kaufmann-Kohler and Schultz, 2004), visual litigation,²⁴ and visualisation of information flows for the development of new technologies and services along the lines of the principle of data protection by design.

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As this succinct excursus aims to show, the relationship between law and visualisation is complex and multifaceted but it exists. Different disciplines and sub-disciplines are investigating the law as a visual phenomenon from various angles and some scholars have argued in favour of a holistic approach toward the study of legal communication practices (Brunschiwig, 2014).

The present notes do not have the ambition of responding to such a challenge. Nevertheless, a few points for exploring further lines of investigation can be traced.

Among legal scholars there is often spread, more or less unconsciously, a certain bias against the use of visual elements in their practice. This kind of scepticism – in few cases, almost an apotropaic fear of visualisation in law - is not justifiable for several reasons. First of all, this is for a historical reason: since the medieval era lawyers have made use of visual techniques for representing and passing on legal knowledge. Therefore, visualisation is not something completely alien to the western legal tradition. A second reason is an “authoritative” one: in many circumstances the law itself

000/018/DDL_WEB.pdf (explaining the modifications to the legislative *iter* proposed alongside constitutional reform in 2015 – not adopted in the end).

At the EU level using infographics has become a common practice to accompany legislative initiatives and policy measures. See, for example, the animated infographics about the GDPR: https://ec.europa.eu/justice/smedataprotect/index_en.htm or <https://www.consilium.europa.eu/en/infographics/data-protection-regulation-infographics/>.

²¹ Berman, 2000. Available at: <http://davidberman.com/NewFormatForCanadianLegislation.pdf> (Accessed 11 October 2019).

²² As reported in Haapio and Passera, 2013.

²³ Berman, 2000, p. 24.

²⁴ https://www.visualpersuasionproject.com/visual_litigation/ (Accessed 11 October 2019).

mandates or regulates the use of certain kinds of visual expression. Third, the so-called “visual turn” does not aim to expunge textual and verbal communication out of the legal phenomenon. The trend toward visualisation does not mean that every legal aspect can be translated into a graphic element. Neither does it intend to affirm the supremacy of images over text in legal theory and legal interpretation. In some cases, and given certain conditions, visualisation techniques can be effective (like the successful example of the Creative Commons licences)²⁵, while in some others they simply are not. It would clearly be absurd – and visual law does not intend – to express the provisions of any criminal code with emoticons. However, it would be equally absurd not to recognise any legal value (at least as an element in investigating the contractual intent of parties) to, e.g., an acceptance expressed through a “👍”.²⁶

The development of digital communication technologies, which has reinvigorated the debate about visual law, invites scholars (not only from the legal field) to critically engage with the opportunities that visualisation *of* law, *in* law and *for* law might provide us with but also to honestly explore its limitations. Empirical research in this field is therefore highly needed in order to continue testing the validity of legal visualisations and to provide useful insights which can later support policy measures in a given area (e.g., to contrast dark patterns or to better presentation information to consumers).

The two JOAL special issues dedicated to visual law aim to contribute to the current debate, focussing specifically on what has been labelled “visual law as instances of visualisation in the legal framework”.

The original contributions here selected show how visualisation can empower citizens by restructuring organisations and processes for facilitating access to justice (Margaret Hagan), and enhancing the understandability of administrative procedures and documents (Chiara Fioravanti and Francesco Romano). If one of the goals of visual law is to pave the way for legal empowerment and awareness, however, its main feature (the visual component) excludes by default vulnerable subjects such as people with visual impairments. Therefore, studying the principles of inclusive design can contribute to understanding whether and to what extent it is possible to guarantee access to law in such cases (Sara Frug).

A central research topic aspect in visual law is indeed information design. Graphic interfaces, such as web landing pages, can be structured in order to embed legislative intent, i.e., preventing risks arising from illegal gambling (Maria Jose Smith-Kessen, Julia Hörnle, and Alan Littler). Visualisation also plays a pivotal role in enhancing access to and retrieval of legal knowledge, as in the case of network visualisation (Neil du Toit).

²⁵ The Creative Commons machine-readable icons embed the copyright permissions and obligations that the right-holder decides to establish for her work (<https://creativecommons.org>. Accessed 11 October 2019).

²⁶ The use of emojis and emoticons is becoming object of legal attention, as demonstrated by a growing number of cases that have ended up in courts. See, <https://www.theverge.com/2019/2/18/18225231/emoji-emoticon-court-case-reference> (Accessed 11 October 2019).

A third area that will be covered in this issue concerns the use of visualisation in teaching. If digital visual media presents advantages in terms of engagement, an ability to recall facts and retain learning and the development of higher order thinking skills, its implications for legal education (Emily Allbon) and judge training (Sara Conti, Ginevra Peruginelli, and Enrico Francesconi) are promising areas for further investigation.

The second JOAL special issue on visual law, expected in the spring of 2020, will further explore the topic, with a special emphasis on visualisation in contracts and privacy indicators.

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