

# New Frontiers of Legal Knowledge: How Design *Prototypes* Can Contribute to Legal Change

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## Abstract

Legal change is a complex phenomenon. Transplants, imitations, borrowings, assimilations by chance or for prestige, adoptions and rejections, and cross-fertilization are all dynamic processes, which correspond to the past and the present of world legal systems—they are not just a matter of the “sovereign will” of a state and its sovereign power. Beyond the state, supranational institutions of various kinds are the global agents responsible for shaping legal order reform. Their actions are the preserve of a multitude of forces, including transnational epistemic communities across the globe. What is less explored is how legal change can be the outcome of individual and collective actions, in an age when, for the first time in human history, social organizations depend on the use of information and communication technologies (ICTs). This fact radically affects the legal sphere. How do these collectives and individuals exercise their rights and how are they reminded of their duties, thus playing a major role in delineating the boundaries of the relationship between themselves, legal institutions, and legal change? What legal change is implied by the empirical analysis of the social acts involved in what they do? While legal transplantation theory explicitly deals with how legal change is produced with reference to national and transnational legal institutions, the recognition of speculative design practice in the legal domain can raise awareness of pressing societal issues and bolster individual and collective civic agency over transformation and legal change, through imagination and critical thinking.

## 1. Legal Change: Setting the Scene and its Narratives

Legal change can be described through the agents vested with the power to change the law. The following are the main (simplified) narratives aimed at reconstructing legal change from the modern era to the present day, to constitute a minimum common ground of shared knowledge between jurists and designers, a starting point for contributing to a critical and speculative reflection on future scenarios about legal change.

In Western legal tradition, the agents of legal change are judges and lawmakers, with the former acting through case law, and the latter through government and parliamentary legislation. Legitimized from below, as institutions of the *Rechtsstaat* founded on the archetype of the will of the people, these agents decide whether to adopt or reject legal change, controlling it within state borders, with the aim of arriving at new and more efficient legal solutions for fairer legislative reform. The Western-style sovereign state therefore assumes that changes in legal rules are the result of a complex function entirely internal to its organs, in which an independent body of specialists-expert judges, together with good legislative practice by state officials, can be steered towards specific policy objectives, such as the recognition of human rights, democratic values, non-discrimination principles and justice, improved economic performance, greater investments and efficiency (but also towards diametrically opposed political goals, as was the case with the Nazi-fascist regimes in Europe). It later also assumed that good rules can be exported to countries transitioning to democracy and the market, because most legal rules can operate in very different societies from the one for which they were originally created through the almost surgical operation of “legal transplants,” to use the fortunate expression coined by Alan Watson (1974).

This first narrative of legal change characterized the modern era until the Second World War. It then came to overlap with a more complex transnational narrative, which ever since the Bretton Woods agreements has been guided by economic liberalism and a functional approach. Private international financial institutions and international corporations

regarded the World Bank's activities (granting of loans) as complementary to their interests: public works projects to improve the economic infrastructure could only be good for private foreign investors, too. The fundamental idea is that policy choices and legal rules have a direct effect on the functioning of markets and economic growth, with spill-over effects on sectors not directly dependent on economic mechanisms. In this transnational dimension,<sup>1</sup> multiple agents steer legal change. Over the last fifty years, the dynamics of legal change have been based on specific alliances between states, forming more or less cooperative networks that act at different speeds. Such alliances range from the maximalist political and economic integration model of the European Union and its Member States, to the minimalist model of the Commonwealth of Independent States (CIS), created in the wake of the break-up of the Soviet Union to prevent the sudden disappearance of an alliance system that for seventy years had kept the Soviet Socialist Republics together; from purely economic cooperation for the elimination of tariff barriers –operating on a macro or mega-regional scale, where for macro-areas we have, for instance, the United States–Mexico–Canada Agreement (USMCA, formerly NAFTA) in North-Central America, the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), the Gulf Cooperation Council (GCC) in the Persian Gulf, the ASEAN Free Trade Area Agreement in Southeast Asia, or the MERCOSUR in Latin America; and for mega-areas we have, for example, the World Trade Organization (WTO), which deals with the global rules of trade between nations, and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)– to cooperation that integrates economic aspects into a future framework of political integration, such as the Andean Community, the Union of South American Nations (UNASUR), the African Union, the Arab League, and the Council of Europe, to name but a few. By accommodating transnational dynamics, legal change is driven by a range of factors, which can be simplified in terms of military force, political influence, and economic power, even once colonialism had ceased. Of these three factors, improving economic performance is perhaps the most visible goal in terms of joint statements and declarations of intent; however, it is also the least relevant for the dynamics of legal change, as what usually matters most in these cases is not the effectiveness of legal reform, but the reputation-based legitimacy acquired by joining a prestigious “club of peers” or group of “reliable states.” Regional or international financial organizations, such as the EBRD in Europe, the IMF, or the World Bank,<sup>2</sup> often fund legal change processes, but they propose a “one size fits all” approach to be implemented as quickly as possible, with funding conditional on the adoption by recipient countries of the rule of law and democratic reforms. By proposing the adoption of economic theories and models that make the effectiveness of legal change dependent on the time needed to evaluate its effects on markets' performances, legal systems become market-dependent variables. In this functionalist paradigm, legal rules become a tool of social engineering, a mere technique of utility in the service of better economic performance. Endorsing this approach and its neo-liberalist version, other players have joined in the global dissemination of standardized, high-performance rules. They include not only public entities, but also private, or public-private, organizations, foundations, associations, corporations, professional firms, NGOs from all sectors, standardization organizations–such as, for example, the International Organization for Standardization (ISO), and ICANN,

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<sup>1</sup> Philip Jessup, *Transnational Law* (Yale Law University 1956) p 2: ‘transnational law, in general terms, is the law that regulates actions or events that transcend national borders, including both public and private international law, as well as other rules that fall outside the national source system (post-Westphalian model)’.

<sup>2</sup> For an empirical study of commercial law making within the United Nations, including the UN itself, the World Bank, the IMF, and UNIDROIT, see Susan Block-Lieb and Terence Halliday, *Global Lawmakers: International Organizations in the Crafting of World Markets* (Cambridge University Press 2017); Michael Likosky (ed.), *Transnational Legal Processes Globalisation and Power Disparities* (Butterworths 2002).

a US-based non-profit corporation with global capital, which manages the domain name system—, and even big law firms, that have an exceptional regulatory role and play an important part in processes of legal change through contractual instruments and property rights adjudication procedures.<sup>3</sup> Non-state regulatory solutions are, *de facto*, extremely pervasive in the post-Westphalian environment. Tech giants with their technological management of the Internet show how technology can transform the way regulatory and legal functions are performed nowadays, in the space that Roger Brownsword called “the Law 3.0”.<sup>4</sup> Technology is changing both the idea of existing law as a coherent system of legal rules and standards, and the way that lawyers, judges, and legislators think about the law’s role, about the national and international architecture of legal and regulatory institutions, including whether A.I. and algorithms could count as legitimate institutions as well.<sup>5</sup>

Our regulatory mind-set needs then to focus on the disruption of the fundamental assumptions on which traditional legal thinking is built, and to take up the challenge on the monopoly concentrations of the “attention merchants”<sup>6</sup> and their business models in terms of data access/data protection. This is our time, the time we live in, where “code” and “architecture” can be more important than formal laws, where IT programmers, computer scientists and neuroscientists teams have greater effect in a risk management approach to law than the legislators. It is, indeed, the “architecture” that Lawrence Lessig, in his seminal essay, called “code”<sup>7</sup> that plays the most important role today, in the digital ecosystem in which not only markets, but also our social relations have been moving for some time. The Internet is more subject to non-state forms of control than the offline world.<sup>8</sup> And it could not be otherwise. The Internet is (for now) entirely human-made, and it is online that “code” is the most powerful lever for shaping and regulating our behaviors.

These continuous transformations of the normative dimension have led political and economic uncertainty to grow worldwide.

In such a complex framework, agents of legal change also seek to measure the effects of their reforms and understand whether time is still an essential factor for reforms to take root—as it was in the past, when the control and steering of legal change was firmly in the hands of the state, and local epistemic communities<sup>9</sup> could be swayed to construct consensus for a reform. But the quantitative analyses, and the Law and Finance theory as initiated by La

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<sup>3</sup> The reinvention of the legal space by new agents and the resulting pluralism has long been investigated by Italian scholars, including Maria Rosaria Ferrarese, Mauro Bussani, Gianamaria Ajani, Michele Graziadei, Ugo Mattei, Pier Giuseppe Monateri and other younger scholars belonging to the Turin school of comparative law founded by Rodolfo Sacco, in dialogue with other leading thinkers, from Norberto Bobbio and Sabino Cassese, not only in the field of law— to Duncan Kennedy, David Trubek, Martin Shapiro, Gunther Teubner, Mireille Delmas-Marty, Alvaro Santos, Pierre Legrand, Annelise Riles, Roger Cotterell, William Twining, Zygmunt Bauman, Pierrick Le Golf, Ulrich Beck, Saskia Sassen, Robert Reich, Susan Strange, Boaventura de Sousa Santos, etc.

<sup>4</sup> Roger Brownsword, *Rethinking Law, Regulation, and Technology* (Edward Elgar Publishing 2022).

<sup>5</sup> Woodrow Barfield and Ugo Pagallo (eds), *Research Handbook on the Law of Artificial Intelligence* (Edward Elgar Publishing 2018).

<sup>6</sup> Tim Wu, *The Attention Merchants: The Epic Scramble to Get Inside Our Heads* (Alfred A. Knopf 2016).

<sup>7</sup> Code is ‘the software and hardware that constitute(s) cyberspace as it is — the set of protocols, the set of rules, implemented, or codified, in the software of cyberspace itself, that determine how people interact, or exist, in this space’ at p 4, *The Laws of Cyberspace*, draft 3, essay presented at the Taiwan Net ‘98 conference, in Taipei, March, 1998. Available online.

<sup>8</sup> Lawrence Lessig, *Code: and other laws of cyberspace*, Version 2.0 online (Basic Books 2006).

<sup>9</sup> Against the premise that epistemic communities are constituted at the national level and are dependent on privileges granted by the state see Brook Harrington and Leonard Seabrooke, ‘Transnational Professionals’ (2020) 46 *Annual Review of Sociology* 399. On ‘measuring the effects’ of legal rules see Antonio Gambaro, ‘Misurare il diritto?’ (2012) *Annuario di diritto comparato e di studi legislativi* 17.

Porta, Lopez-de Silanes, Shleifer, and Vishny<sup>10</sup> appear to be backward-looking reference systems of knowledge, based on “historical evidence”—as investigated the differences between legal origins and their impact on economic performance—especially when compared to new ways of understanding complex phenomena, as will be discussed in the following pages.

What has been said so far also applies to non-Western legal traditions, although the main drivers for legal change were, and are, other: mainly the ideology of the group or party in power, tradition, religion, chance, and even personal factors. This can be seen in the legal systems of the Islamic world, the Indian subcontinent, Far East Asia and in sub-Saharan African traditions, where legal change has coincided with the history of colonization, *coups d'état*, and non-pacific revolutions, and with the international trade routes marked out by the pressures of interest groups and personal contacts.<sup>11</sup> But when looking at non-Western contexts, what matters above all is “the process” of legal change. A process that unfolds shaped by both the supply side of the reforms, which is generally indifferent to or unaware of the framework in which new legal rules will be received, and the demand side, which often does not understand or is indifferent to the specific content of the new legal rules (examples of content include redistributive effects, the degree of compatibility with pre-existing legal rules in the system, the time required for adaptation to the local hermeneutic tradition, etc.). The supply/demand division reflects the tension between the legal change and the framework for its reception—a tension that is more significant where countries are less homogeneous than, for example, EU Member States with regard to reforms, following their European political and economic integration. Thus, at the root of legal change processes we find a lack of understanding, a network of informational asymmetries, and fallacious simplifications that are of little help in grasping the various facets of legal change, in particular of legal transplants shaped by religious factors, personal interests, chance and prestige.<sup>12</sup>

In the wake of the coronavirus pandemic, and the fears and negative effects associated with the transnational dynamics of Covid-19, Western and Global North institutions are fully aware of how legal changes are complex and non-linear multifactor processes, with no clear boundaries between what is local (nationalism) and what is global (transnationalism/supranationalism).<sup>13</sup> Instead they are mutually constitutive dynamics, in which local and global construct each other, becoming “glocal”. Local customs, practices, and traditions are real elements of all legal systems, not a cultural invention in response to the neoliberal international legal order.<sup>14</sup>

What we are therefore experiencing today on a global level is the contradictory coexistence of very different regulatory systems: on the one hand, customary rules, practices, and traditions that are the effective components of all legal systems; on the other, the architecture of the Internet, and coding techniques, which are the equally real elements of

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<sup>10</sup> For a summary: Mathias Siems, *Comparative Law* (3rd ed Cambridge University Press 2022).

<sup>11</sup> Li-Wen Lin, ‘Legal Transplants through Private Contracting: Codes of Vendor Conduct in Global Supply Chains as an Example’ (2009) 57 *The American Journal of Comparative Law* 711; John Gillespie, ‘Globalisation and legal transplantation: Lessons from the past’ (2001) 286 *Deakin Law Review* 286.

<sup>12</sup> Gianmaria Ajani, ‘By Chance and Prestige: Legal Transplants in Russia and Eastern Europe’ (1995) 43 *The American Journal of Comparative Law* 93.

<sup>13</sup> Michele Graziadei, ‘What Does Globalisation Mean for the Comparative Study of Law?’ (2021) 16 *Journal of Comparative Law* 511.

<sup>14</sup> Graziadei (n 13) 514; Michele Graziadei, ‘Legal Transplants and the Frontiers of Legal Knowledge’ (2009) 10 *Theoretical Inquiries in Law* 723; Michele Graziadei, ‘Comparative Law as the Study of Transplants and Receptions’ in Mathias Reimann and Reinhard Zimmermann (eds.) *The Oxford Handbook of Comparative Law* (OUP 2006) 441-476.

contemporary legal systems. As such, they raise issues of justice, responsibility, sustainability, and solidarity.

## **2. Legal Change: The Good Practice of Interdisciplinary in Comparative Law**

Comparative law, as some other domains of study, looks at legal knowledge from an interdisciplinary point of view. Legal knowledge has porous boundaries and fault lines. By displaying overarching patterns of difference and similarity, comparative law has, for some time now, opened the “black box” of law, revealing its many dimensions and pushing for an examination of the actual and potential possibilities available when legal change is necessary or desired.

The consolidation of interdisciplinary approaches has led comparative law to tap into a composite and collective knowledge that is methodologically robust and, at the same time, flexible and not self-referential. After all, stateless issues such as global warming, environmental destruction, social injustice, poverty, natural disasters, and pandemics are not inevitable events, or the result of historical determinism, and can only be addressed by bringing together different disciplines, practicing interdisciplinarity, and pursuing wide-scale participatory action—without which the well-known goals of the UN 2030 Agenda, “a plan of action for people, planet and prosperity”, as it states in its preamble<sup>15</sup>, will remain a dead letter.

Interdisciplinary inquiry, for instance, has brought to light the deep malaise in Western legal and political thought based on the values of civilized nations.<sup>16</sup> The dualistic tendency it shows of identifying bad local rules based on tradition, implying they are synonymous with backwardness, and good global norms of a universal, cosmopolitan, and rational nature, based on the supposed existence of a natural law (for which one is against landmines/for the protection of dolphins, against racism/for equal gender rights, against genocide/for human rights, etc.) has been widely commented on and criticized as a functionalist approach to legal change based on the so-called “Washington consensus,” leading to the “Americanisation” of the world<sup>17</sup>—although the same can be said today about Europe and the so-called “Brussels effect” beyond European borders.<sup>18</sup>

Interdisciplinary inquiry, furthermore, has provided an alternative explanation in response to the observation that many rules imitated or transplanted have remained on paper and have not always produced the hoped for legal uniformity to promote trade and better market performance. Scholars usually proceed with a historical analysis to explain that it is all the fault of the past which conditions the present, and that legal change is bound to events that happened in the past, as taught by the path dependency theory. Those past events have a solid impact on legal culture, which becomes the catch-all factor used to emphasize how and how much the past conditions the present. But this explanation only partially satisfies us. In countries in transition and in the Global South, the ineffectiveness of legal change is usually associated with the antagonistic relationship that arises between local institutions and role-occupants (generally judges, public officials, Western consultants) sent to carry out

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<sup>15</sup> cf <<https://sdgs.un.org/2030agenda>> (accessed 12 Jan. 2023).

<sup>16</sup> The charter of the International Court of Justice is also based on these principles: see Marija Dordeška, *General Principles of Law Recognized by Civilized Nations (1922–2018)* (Brill Nijhoff 2020).

<sup>17</sup> Ex multis, Francis Snyder, ‘Economic Globalization and the Law in 21st Century’, in Austin Sarat (ed), *The Blackwell Companion to Law and Society* (Blackwell Publishers 2004) 2-17; Ugo Mattei, ‘A Theory of Imperial Law: A Study on U.S. Hegemony and the Latin Resistance’ (2003) 10 *Indiana Journal of Global Legal Studies* 383; Mathias Reimann, ‘Beyond National Systems: A Comparative Law for the International Age’ (2001) 75 *Tulane Law Review* 1103.

<sup>18</sup> Anu Bradford, *The Brussels Effect: How the European Union rules the World* (OUP 2020); Marise Cremona and Joanne Scott (eds) *EU law beyond EU borders: the extraterritorial reach of EU Law* (OUP 2019).

reforms or provide local training, who treat legal data according to the principle of the indifference and technical neutrality of the law,<sup>19</sup> for which societies that are different from each other can be governed by the same rules.<sup>20</sup> That same mechanism, however, is also observed in the legal systems of the Global North, where the failure of legal reforms carried out according to the functionalist approach is associated with the dialectical tension between the autonomy of local constituencies and the central institutions that impose top-down legal reforms. Empirical observation studies suggest that resistance to change is not linked to cultural differences, as an exoticizing view of non-Western laws might initially seem to suggest.<sup>21</sup> Reiterated conclusions as to the ineffectiveness of legal change when pursued according to the abstract model of legal transplants and the logic of “one size fits all” have recently prompted legal scholars to explore the deeper relationship between law, considered the main tool of legal change, and “societal forces”, “different vested interests,” and “political interests”.<sup>22</sup>

Thus, it turns out that legal change, in both the Global South and the Global North, depends on a number of additional variables, such as the effects of informal processes on the standardized discourse about the rule of law and democracy, political choices and ideology, the role of cryptotypes, and customary practices shaping implementational rules, as well as social practices that shape the law.<sup>23</sup> This implicit dimension of normativity that silently rules the actions of individuals and communities may in fact be unveiled applying the normative variant of Paul Grice’s theory of conversation developed by Marina Sbisà,<sup>24</sup> and Rodolfo Sacco’s theory of cryptotypes:<sup>25</sup> these “underlying patterns” can be revealed, or made visible through micro-comparisons of legal rules among different legal systems. The discovery of a cryptotype is facilitated when, as happens, a legal rule, a concept, or a principle implicit in one legal system is explicit in another one. By logical and non-logical inferences of textual information from an explicit rule, pragmatics tools unveil the connections between what lies outside the text and what is inside it, what can plausibly be considered as part of what a statute, a judgment, a decree communicated when it was produced, and what can enrich a legal rule without affecting its truth value.<sup>26</sup>

In the background lies the idea that law is a socially valuable practice of regulation in a given time and place, a practice that reflects the variability of socio-legal conditions and contexts.<sup>27</sup> What thus counts in defining what is legal are particular social settings: law is not only what

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<sup>19</sup> On neutrality, see among Italian scholars: Gianmaria Ajani, ‘Trapianto di norme informato e globalizzazione alcune considerazioni’, in Gianmaria Ajani and Antonio Gambaro (et al. eds), *Studi in onore di Aldo Frignani Nuovi orizzonti del diritto comparato europeo e transnazionale* (Jovene 2011) 3–15.

<sup>20</sup> On the “one size fits all” approach see Section 1.

<sup>21</sup> Franz and Keebet von Benda-Beckmann, ‘Why not Legal Culture’ (2010) *Journal of Comparative Law* 104.

<sup>22</sup> Graziadei ‘What Does Globalisation Mean for the Comparative Study of Law?’ (n 7).

<sup>23</sup> On law and society see the recently published Lester Salomon, *The Tools of Government: A Guide to the New Governance* (OUP 2022); cf Antonina Bakardjieva Engelbrekt and Joakim Nergelius (eds), *New Directions in Comparative Law* (Edward Elgar Publ. 2010).

<sup>24</sup> Herbert-Paul Grice, *Logic and conversation*, in Peter Cole and Jerry Morgan (eds), *Syntax and semantics, vol. 3: Speech acts* (Academic Press 1975) 41–58; Marina Sbisà, *Detto non detto. Le forme della comunicazione implicita* (Laterza 2007); Marina Sbisà, ‘Normatività e comunicazione’ in Lucia Morra and Barbara Pasa (eds), *Questioni di genere nei testi normativi: crittotipi e impliciti* (Giappichelli 2015) 15–38.

<sup>25</sup> In the seminal work by Rodolfo Sacco, *Introduzione al diritto comparato* (Giappichelli 1980). See also Rodolfo Sacco, ‘Mute Law’ (1995) 43 *The American Journal of Comparative Law* 455; a fresh reflection, by the same author, is contained in the book *Il diritto muto* (Il Mulino 2015).

<sup>26</sup> Barbara Pasa and Lucia Morra, ‘6. Implicit Legal Norms’ in Jacqueline Visconti (ed), *Handbook of Communication in the Legal Sphere* (De Gruyter Mouton 2018) 141-168.

<sup>27</sup> Roger Cotterrell, ‘Why jurisprudence is not legal philosophy’ (2014) *Jurisprudence* 41, 51.

law officials do and say they are doing, but it is also a reflection of social values, educational conditioning, ideology and economics.<sup>28</sup>

The law then can appear for what it is: an interpretative socially valuable practice of formal regulations and customary rules in a given time and place, made up of embodied subjectivities that find protection under a wider notion of “citizenship” as part of the legal change itself; a procedural notion of citizenship understood as the social process of being engaged that facilitates cohesion, rather than a status, or a goal in itself (a reward for being integrated) is then needed.

### **3. Choice is Good, but Community Engagement is Better: Citizenship**

The uglier face of globalization is shown when the law and legal change processes admit their powerlessness in setting out the moral limits of markets. One remedy often proposed is to lower their level of complexity and then essentially solve the problem by reducing it to a matter of self-determination and freedom of choice—because “choice is good.”<sup>29</sup> Such a solution, however, is not altogether convincing. We believe the question—or rather, the questions—should be restated: how can states, markets, and other players involved in legal change—both in the Global South and in advanced post-industrial, multicultural countries—come to terms with deeply-rooted social structures that they cannot change? To what extent does public opinion impact public policy? What difference does individual behavior make? How do networks of higher civil service elites (public administration, public management, judiciary, etc.) shape legal change? In identifying the institutions that organize social, economic, and political interaction, can we also say, drawing from cognitive science and ethnology, that the human mind “is the first institution,” one shared by all human societies? Might the unity of the human mind—because all humans share important common cognitive frameworks, also with other hominids<sup>30</sup>—be a crucial factor in social organization and legal change?

It is at this point that a broad vision of citizenship comes into play. Based on active community engagement, it is citizenship understood as a social process, in which the greatest possible number of people partake.<sup>31</sup> And not only humans,<sup>32</sup> considering that the general principles of perceptual organization and the common framework of basic assumptions of the world, built on our genetic system, are something we share with all species, or at least with all vertebrates.

The citizenship debate first originated from concerns about social cohesion and the maintenance of public order in nation-states. It was a censorious citizenship<sup>33</sup> that arose

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<sup>28</sup> William Twining, *Law in context: enlarging a discipline* (OUP 1997); William Twining, ‘Social science and diffusion of law’ (2005) 32 *Journal of Law and Society* 203.

<sup>29</sup> The topic of personal self-determination in private law is the subject of extensive debate, for example in the area of surrogate motherhood agreements, contracts promoting sex work, marriage brokerage contracts, nuptial agreements, but also usurious contracts as well as immoral suretyships, etc. See Aurelia Colombi Ciacchi, Chantal Mak, Zeeshan Mansoor (eds), *Immoral Contracts in Europe* (Intersentia 2020).

<sup>30</sup> We have an innate ability for the “mental score-keeping of services,” that is, a mechanism for social exchange based on reciprocity, as psychological, anthropological, and ethnological studies appear to show; see Raffaele Caterina, ‘Comparative Law and the Cognitive Revolution’ (2003-2004) 78 *Tul. L. Rev.* 1501 inspired by Dan Sperber, *Explaining Culture: A Naturalistic Approach* (Blackwell 1996); cf Dan Sperber and Deirdre Wilson, *Relevance: Communication and Cognition* (Blackwell 1986; 2nd ed 1995).

<sup>31</sup> The desire to make law “work better for people,” and to design legal systems “fit for real humans” weaves through many of the interviews conducted by Henna Tolvanen and Nina Toivonen for their Legal Design Podcast: see the episodes at <<https://legaldesignpodcast.com/>> (accessed 12 Jan. 2023).

<sup>32</sup> On post-human, more-than-human agency in legal design see Joaquín Santuber and Lina Krawietz, ‘The Sociomateriality of Justice: A Relational Ontology for Legal Design’ (2021) *Revista Chilena de Diseño* 1.

<sup>33</sup> Stefano Rodotà, ‘Antropologia dell’*homo dignus*’ (2010) *Storia e memoria* 107.



within certain territorial boundaries, based on a legitimization of sovereignty of an ascending (from the people), and no longer descending (from the divine) kind, referring to the people, the nation, a singular identity.<sup>34</sup> Today, the criteria for becoming a citizen contained in national legislations have in practice become obstacles to achieving citizenship itself, and to integration.<sup>35</sup>

One of the basic principles of liberal states is that all citizens are formally equal to each other and before the law. But as we all know, the equality of citizens is intersected by many inequalities (by ethnicity, gender, physical and mental disability, income, and so on) and the substantial exclusion to the enjoyment of rights for noncitizens (migrants, asylum seekers, refugees). For if there were no inequalities, there would indeed be no need for anti-discrimination laws and inclusion practices. Today, moreover, there can be no citizenship without taking the digital dimension into account, just as there can be no “mature citizens” regardless of the digital dimension.<sup>36</sup> The point is not only the recognition of a digital citizenship that has broken through the territorial boundaries of nation-states, expanding to coincide with the concept of “netizenship”—from [Inter]net + [cit]izenship.<sup>37</sup> Current research is outlining the figure of the “happy citizen”<sup>38</sup> based on the principle of well-being, as intangible collective capital, which is expressed in the preservation and transmission of cultural heritage, collective memory, political participation, peace, environmentalism, social equity and the inclusion of minorities and vulnerable social groups. The idea of happy citizenship is already at the core of political and regulatory decisions aimed at increasing people’s well-being and life satisfaction, as witnessed by the OECD projects.<sup>39</sup>

The relationship between citizenship and the ideals of happiness and well-being, integration, and equality are complex. In particular, the goals of citizenship policies are not well defined, and generally at odds with those of immigration. Among other things, the differentiation between citizens and noncitizens sharpens when migrants travel mainly in South-North and East-West directions.<sup>40</sup> This makes it desirable to have a flexible notion of citizenship, based on solidarity-building mechanisms, traceable to the idea of pan-citizenship, to help further active community engagement<sup>41</sup> and greater tolerance of

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<sup>34</sup> On the process of forming nation-states and “authentic citizens”, in particular with regard to the destruction of local crafts in favor of nationally integrated workers, shaped by the technical requirements of their jobs and by their participation in national culture, by their speaking one common national language, by their reading the same newspapers and going to the same coffee-houses and sharing the same dress code etc. see Melissa Aronczyk and Craig Calhoun, ‘Nationalism’ in R. A. Couto (ed), *Political and Civil Leadership, A Reference Handbook* (Sage 2010) 490–497 [the “violence” of the state, 494]. cf also Bryan Roberts, *The Making of Citizens. Cities of Peasants Revisited* (Routledge 1995).

<sup>35</sup> Steven Vertovec, ‘Super-Diversity and its Implications’, (2007) 30 *Ethnic and Racial Studies* 1024.

<sup>36</sup> Alfonso Fuggetta, *Cittadini ai tempi di Internet. Per una cittadinanza consapevole nell’era digitale* (Franco Angeli 2018) 62.

<sup>37</sup> In the pioneering definition given by Michael and Ronda Hauben, *Netizens – On the History and Impact of Usenet and the Internet* (IEEE Operations Center 1997).

<sup>38</sup> Galit Wellner, Aharon Aviram, Yael Rozin, Alfredo Ronchi, ‘Well-Being in the Digital Age’, in Alfredo Ronchi (ed.) *e-Citizens: Toward a New Model of (Inter) Active Citizenry* (Springer Nature 2019) 28; Michele Graziadei and Barbara Pasa, ‘Happiness Once More’ (2019) *Journal of Comparative Law* 203; Sofia Axelsson and Stefan Dahlberg, ‘Measuring Happiness and Life Satisfaction Amongst Swedish Citizens. An inquiry into semantic equivalence in comparative survey research’, (2018) *Working Paper Series* 2018:2, University of Bergen.

<sup>39</sup> See <https://www.oecdbetterlifeindex.org/topics/life-satisfaction/>; <https://www.oecd.org/wise/measuring-well-being-and-progress.htm> (accessed 12 Jan. 2023).

<sup>40</sup> Stephen Shulman, ‘Challenging the Civic/Ethnic and West/East Dichotomies in the Study of Nationalism’ (2002) 35 *Comparative Political Studies* 554.

<sup>41</sup> Russell Dalton, ‘Citizenship Norms and the Expansion of Political Participation’ (2008) 56 *Political Studies* 76.



different lifestyles and values, a notion that embraces social responsibility and aims to reduce the number of people with extremely limited rights. That means a broader definition of citizen to include migrants, refugees, and marginalized people in general, with stronger value placed on active community engagement. Here, public participation goes beyond the turnout of voters at elections<sup>42</sup>, entailing new forms of consultation and governance,<sup>43</sup> where the latter is understood as a process through which institutions, businesses, and community members articulate their interests, exercise their rights, and allocate choices and opportunities, while mediating their differences.<sup>44</sup>

#### **4. The Contestability of Decision-Making Processes and the Micro-Dimension of Persons as Agents of Legal Change**

In thinking about legal change, the focus should therefore be shifted onto the dialectic between policy-making and the law. It can be observed how the domestic politics of states and major changes within the national political arena project outwards and reshape the legal structure of the global system.<sup>45</sup> Law cannot act as a substitute for political choices, as witnessed by the adjudication process<sup>46</sup>—a privileged site of interaction between the legal and the political—and by widely documented policy transfers.<sup>47</sup> While it is true that legal change is based on selective adaptation under the pressure of specific political-economic interests,<sup>48</sup> it is also true that legal change is centered on the “contestability” of decision-making processes, where contestable means there are no major barriers to change.<sup>49</sup>

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<sup>42</sup> Considering the record abstention rate of more than 40% of voters during the last three years of political and administrative elections in many European member states, such as Italy, France, Germany, Spain, Ireland, Latvia, Estonia, Lithuania, Croatia and Bulgaria, but the same phenomenon it is also noted in other countries: cf Pew Research Center, November 1, 2022 at <<https://www.pewresearch.org/fact-tank/2022/11/01/turnout-in-u-s-has-soared-in-recent-elections-but-by-some-measures-still-trails-that-of-many-other-countries/>> (accessed 12 Jan. 2023).

<sup>43</sup> Nico Krisch and Benedict Kingsbury, ‘Introduction: Global Governance and Global Administrative Law in the International Legal Order’ (2006) 17 *European Journal of International Law* 1. For connections between design and citizenship see Veronica Dal Buono, Gianni Sinni and Michele Zannoni, ‘Design for Citizenship’ (2020) 10 *MD Journal* <<http://mdj.materialdesign.it/index.php/mdj/article/view/177>> (accessed 12 Jan. 2023).

<sup>44</sup> This is the definition given by the Second Global Knowledge Conference GKII (2000), cf Second Global Knowledge Conference (GKII): building knowledge societies: access-empowerment-governance 7-10 March 2000, Kuala Lumpur: Global Knowledge Partnership (2000).

<sup>45</sup> Charles B Roger, *The Origins of Informality: Why the Legal Foundations of Global Governance Are Shifting, and Why It Matters* (OUP 2020).

<sup>46</sup> Duncan Kennedy, *A critique of adjudication: fin de siècle* (Harvard University Press 1997).

<sup>47</sup> Fabrizio Gilardi and Fabio Wasserfallen, ‘The Politics of Policy Diffusion’ (2019) 58 *European Journal of Political Research* 1245; Diane Stone, ‘Between Policy Failure and Policy Success: Bricolage, Experimentalism, and Translation in Policy Transfer’ in Claire Dunlop (ed) *Policy Learning and Policy Failure* (Policy Press 2020) 71-92.

<sup>48</sup> Tobias Hofmann, ‘How Long to Compliance? Escalating Infringement Proceedings and the Diminishing Power of Special Interests’ (2018) 40 *Journal of European Integration* 785.

<sup>49</sup> Decision-making process is “contestable” if decision-makers are open to adopting new methods, such as the “seven-generation rule” of indigenous peoples, when making decisions. cf Eliezer Yudkowsky, *Inadequate Equilibria. Where and How Civilizations Get Stuck* (Machine Intelligence Research Institute 2017), who uses the term “contendible”: “a contendible situation is one in an inadequate equilibrium, which is still an equilibrium (that is why it has not changed), but it is inadequate, so it might be possible to disrupt it with a reasonable effort”; cf the Sci-Fi Economics Lab, involved in the Long Termism Deep Demonstration (2020) at <<https://www.climate-kic.org/programmes/deep-demonstrations/long-termism/publications/>> (accessed 12 Jan. 2023).

In this changed epistemological horizon, the theory of legal change is called to explore the subjective micro-dimension, on a dual level: on the one hand, individuals and, on the other, the collective. The key notion advanced to explore this micro-dimension, proposed by scholars inspired by psychological studies of the social formation of the mind,<sup>50</sup> is that of “mediated action.” Mediated action denotes action performed by people through the instrumentality of material objects and other kinds of artifacts, such as mnemonic techniques, algebraic symbol systems, works of art, writing, schemes, diagrams, maps, mechanical drawings, all sorts of conventional signs, and so on.<sup>51</sup>

This brings us to the question of languages, laws, and their design. Drawing on the intuition that languages are social tools, the approach we embrace provides the theoretical bases for understanding how legal change processes occur in “places of engagement,” where discourse turns into action,<sup>52</sup> starting from schools and universities, where emphasis can be placed on the importance of graphic design in creating not only visual communication, but also in changing people’s attitudes and capabilities.<sup>53</sup>

The reflection on words, terminologies, and “language” in general is a fruitful and common starting point for the dialogue between law and communication design. In both areas, a tacit or mute dimension<sup>54</sup> is admitted and represents much of what lies beneath the surface. There are many silent rules, with people often knowing how to put them into practice, but without being able to formulate them. However, knowing “how to do” something is different from knowing “what to do”, just as “knowing that” is distinct from “knowing how”<sup>55</sup>—a fact and an awareness that are ultimately shared by both law and design. “Knowing that” the law is not only about the content of detailed legal rules and the structures and concepts used by doctrine and legal actors, but also about implicit sources, foundational principles and values, assumptions underpinning them, and about the interaction of socio-economic and political values with the idea of law itself is just as important as “knowing how” to go well beyond written texts or spoken words in legal communication, extending to images, rituals, feelings and public performances,<sup>56</sup> as modes of human ruling and interpretation, since legal texts imply more than they say. Continuing along this line of reasoning, it seems worth emphasising that law and communication design studies share the reflection on the relationship between alphabetical writing and visual codes in the formulation and communication of complex messages.<sup>57</sup> While recognising the dominance of verbal language

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<sup>50</sup> Graziadei ‘What Does Globalisation Mean for the Comparative Study of Law?’ (n 13) 518.

<sup>51</sup> Lev Semeňovich Vygotsky, ‘The Instrumental Method in Psychology’ in James Wertsch (ed.), *The Concept of Activity in Soviet Psychology* (M. E. Sharpe Inc. 1981) at 134, 137.

<sup>52</sup> Sigrid Norris and Rodney H. Jones (eds.), *Discourse in Action: Introducing Mediated Discourse Analysis* (Routledge 2005); cf for example Yoram Shachar, who illustrates how mediated action works with respect to legal transplants in the drafting of the Israeli Declaration of Independence: Yoram Shachar, ‘Jefferson Goes East: The American Origins of the Israeli Declaration of Independence’ (2009) 10 *Theoretical Inquiries in Law* 589.

<sup>53</sup> Jorge Frascara, ‘Graphic Design: Fine Art or Social Science?’ (1998) *Design Issues* 18.

<sup>54</sup> Above, Section 2.

<sup>55</sup> Gilbert Ryle, *The Concept of Mind* (Barnes & Noble 1949).

<sup>56</sup> The reflection on ‘law & language’ covers a vast spectrum, from the absence of written forms to the multiplicity of representations forms: for instance, the performance of an act, or of a duty, acquiescence, exercise of a right can be implied by silent, normative, rules: cf Sacco 1995, 2015 (n 25); pictures and images have a normativity in themselves: cf Anne Wagner and Richard Sherwin (eds), *Law, Culture and Visual Studies* (Springer 2014); Volker Boehme-Neßler, *Pictorial Law. Modern law and the power of pictures* (Springer 2011).

<sup>57</sup> Emily Allbon, ‘Beyond text: exploiting the visual in law’ (2018) *Australian Law Librarian* 54. On the production of user-friendly legal documents, using for example graphic symbols and icons that are machine-interpretable and able to elicit information effectively, see Arianna Rossi and Monica Palmirani, ‘From Words

in human communication, at least in our cultural context, both law and communication & graphic design in specific acknowledge that not all writing is alphabetical (such as in China) and not all writing is verbally oriented (such as the graphic symbols used to represent numbers). The fact that all writing is a set of conventional graphic signs used to represent, preserve, and transmit information by organizing language in physical and digital space<sup>58</sup> is another relevant aspect for a promising dialogue between law and design. Furthermore, transformative processes are completed through ideologies, which are tools that legitimize normativity.<sup>59</sup> Ideologies are further forms of action aimed at orienting social beliefs, responding to the need to build consensus, or resistance, towards legal change. It is in the nature of ideology, given that its adherents will act in largely the same way in similar situations, to facilitate the carrying out of joint tasks and contribute to group cohesion. In this sense, an ideology is essentially an “interface” between individual practice and collective action,<sup>60</sup> and interface is another key word that can unite jurists and designers in contemporary thinking, on which design studies can project their theoretical and practical knowledge. Ideology has primarily been studied as a tool of domination, or as an expression of benevolent paternalism—and both, at certain times and under certain conditions, have been interpreted as the realization of ideals of justice.<sup>61</sup> However, ideologies are above all ambiguous and contradictory, and they have a finite temporal horizon. They change over time, adapt to the context, and tolerate multiple personal affiliations and subtle variations in personal commitments; they are forced to make continuous adjustments to accommodate what lives on the margins, the singularities that animate the collective. As a circular process, it is the behavior of the individuals that determines that of the entire system, and any behavior depends on individual incentives and the individual framing of information to obtain the desired behavior.<sup>62</sup> At the same time, the behavior of the system is deduced from that of the collective. Rebound and other second-order effects, which refer to behavioral or other systemic responses after the implementation of new laws, are important as well.<sup>63</sup> The

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to Images Through Legal Visualization’ in Ugo Pagallo, Monica Palmirani, Pompeu Casanovas, Giovanni Sartor and Serena Villata (eds) *AI Approaches to the Complexity of Legal Systems*. AICOL AICOL AICOL AICOL AICOL 2015 2016 2017. Revised selected papers, Lecture Notes in Computer Science, vol 10791 (Springer 2018) 72–85. This area studies have been also called “legal information design”: Arianna Rossi, Rossana Ducato, Helena Haapio, Stefania Passera and Monica Palmirani, ‘Legal Design Patterns: Towards a New Language for Legal Information Design’ in *Internet of Things. Proceedings of the 22nd International Legal Informatics Symposium IRIS* (2019) 517-526.

<sup>58</sup> Giovanni Lussu, *La grafica è scrittura, una lezione*, A.A.M Architettura Arte Moderna e Istituto Europeo di Design di Roma (Stampa Graffiti Roma 1996).

<sup>59</sup> Ajani ‘By Chance and Prestige: Legal Transplants in Russia and Eastern Europe’ (n 12).

<sup>60</sup> Teun A. van Dijk (ed), *Discourse as Social Interaction. (Discourse Studies: A Multidisciplinary Introduction)* (Sage 1997) 25.

<sup>61</sup> For example, Christopher L. Tomlins, ‘Transplants and Timing: Passages in the Creation of an Anglo-American Law of Slavery’ (2009) 10 *Theoretical Inquiries in Law* 389 (for the justification of slavery); Jane Dailey, ‘Race, Marriage and Sovereignty in the New World Order’ (2009) 10 *Theoretical Inquiries in Law* 511 (for the justification of racial superiority). Cf also Joseph Berger (et al.), ‘The Legitimation and Delegitimation of Power and Prestige Orders’ (1998) 63 *American Sociological Review* 379.

<sup>62</sup> On the nudge theory see Richard H Thaler and Cass R Sunstein, *Nudge: Improving Decisions About Health, Wealth, and Happiness* (Yale Univ Press 2008).

<sup>63</sup> It is worth noting that the literature regarding the rebound effect does not distinguish between policy-driven rebound and “autonomous” rebound. It suggests that rebound effects are plural because a number of mechanisms are involved: see Hans Jakob Walnum, Carlo Aall, and Søren Løkke, ‘Can Rebound Effects Explain Why Sustainable Mobility Has Not Been Achieved?’ (2014) 12 *Sustainability* 9510.

expected effects are not equivalent to an engineering estimate, because of systemic and behavioral adjustments; habits and lifestyles are also factors that lead to the mitigation or, more frequently, amplification of the rebound effect. If we accept the shortcomings of a positivistic research paradigm, then there is room to understand the indirect and society-wide rebound effects from a qualitative and theoretical perspective. Our micro-dimension starting point is therefore a stimulus for investigating legal change from the perspective of the well-being of the final recipients of the normative message, of different subjectivities and their positions in respect to the collective. But that is not all. What drives us to adopt this analytical and subjective perspective is the recognition that the so-called Fourth Revolution,<sup>64</sup> based on information and communication technologies (ICT), has changed our understanding of the world in the Internet and social media age, highlighting our nature as “permanently interconnected informational organisms”.<sup>65</sup> This nature of ours is shared with both other biological organisms and artificial agents (A.I.) within an ecosystem of information and message communication.<sup>66</sup> Breaking free from human exclusivity in law and approaching a post-anthropocentric legality is an “ontological turn” that we can accomplish with legal design.<sup>67</sup> The more the ICT-dependency of contemporary societies consolidates, the more important it becomes to delve into the issue of regulatory profiles of digital technologies and the more important the role played by human-centered design becomes in designing the objects and environments in which we live, interact, and socialize,<sup>68</sup> especially considering the fact that we have all become “infomaniacs” and “phono sapiens.”<sup>69</sup>

## 5. The Transformative Power of Law and Design

With the aim of clarifying what we propose in comparison to analyses of legal change based on backward-looking reference systems<sup>70</sup>, in the following Sections we will introduce possible scenarios of legal change led by collective practices and individual actions based on speculative design and storytelling as tools for legal and policy change: what we named forward-looking reference systems.

Engaging with design is only a recent topic of interest for jurists and lawyers,<sup>71</sup> in which design is generally treated as a skill that can be picked up along the way, while the true

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<sup>64</sup> Luciano Floridi, *The Fourth Revolution: How the Infosphere is Reshaping Human Reality* (OUP 2014).

<sup>65</sup> Ugo Pagallo, *Il diritto nell'età dell'informazione* (Giappichelli 2014).

<sup>66</sup> For McLuhan the medium is itself the message: Marshall McLuhan, *Understanding Media: The Extensions of Man* (McGraw-Hill 1964).

<sup>67</sup> Arturo Escobar, *Designs for the Pluriverse. Radical Interdependence, Autonomy, and the Making of Worlds*, (Duke University Press 2017); Santuber and Krawietz (n 32).

<sup>68</sup> Marij Swinkels, 'How ideas matter in public policy: a review of concepts, mechanisms, and methods' (2020) *International Review of Public Policy* 281.

<sup>69</sup> Byung-Chul Han, *Undinge: Umbrüche der Lebenswelt* (Ullstein Verlag 2022) at 7 and 46.

<sup>70</sup> Those mentioned in Section 1.

<sup>71</sup> For a summary of the different positions on what is 'legal design' see Rossana Ducato and Alain Strowel (eds), *Legal Design Perspectives* (Ledizioni 2021); cf also Dan Jackson, Jules R Sievert, Miso Kim and Sankalp Bhatnagar 'What legal design could be: Towards an expanded practice of inquiry, critique, and action' in Dan Lockton, Sara Lenzi, Paul Hekkert, Arlene Oak, Juan Sádaba, and Peter Lloyd (eds) *DRS2022: Bilbao* (Design Research Society 2022) <<https://doi.org/10.21606/drs.2022.281>> (accessed 12 Jan. 2023).

Initiated by Margaret Hagan with her work *Law by Design* (2016), online at <<https://lawbydesign.co/>>, the discussion is ongoing. LeDA, What is Legal Design? (2018), online at <<https://www.legaldesignalliance.org/>> and the NuLawLab, the interdisciplinary innovation laboratory at Northeastern University School of Law at <<https://www.nulawlab.org/>> (accessed 12 Jan. 2023).

experts in the room remain the jurists. This has much to do with the mythical “lawyers’ mindset”<sup>72</sup> that would appear to be an insurmountable hurdle to the empathy that is central to human-centered design—a mindset in which a jurist’s value is determined by their assumed knowledge, made up of words and by the manipulation of words, where failure must be avoided at all costs, the group of experts must contain the least possible cognitive diversity, creating a situation of homophily, and the problem-solver is the leading role they can play.<sup>73</sup> Below, we will capture the opposite dynamic, when designers engage with law and in which design is applied to a legal context, to achieve that “well-being of law as a practical idea,” a duty that we all have, as Roger Cotterrell suggests<sup>74</sup>—what we might call service design, or process design, or systemic design (we will not linger here on the issues that certain taxonomies raise). By relating the story of some practices carried out at our university, we would like to stress the naivety of the assumption that a jurist or a lawyer can turn their hand at being a service designer, or a graphic, or information designer. The training, aptitude, and experience required to be skilled in design practices is relevant. The relationship between jurists and designers ought to be mutually constructive. Design methods draw on humanistic and technical knowledge and their experience can break through the legacy of formal thinking,<sup>75</sup> opening up the legal setting to empathy, fictitious descriptions of users, visualizations, peripheral information, and the experiences of others, while the legal experience that designers require can be provided in co-design processes, through the participation of jurists and the community at large, and in speculative design practices. These practices<sup>76</sup> do not run the risk of distraction or self-indulgence: on the contrary, the vision of multiple possible, or probable futures trains our serendipity, our ability to notice the unexpected and make it constructive for change, our abilities to detect, interpret and connect accidental data or random phenomena from the existing. Thus, in planning legal change for the benefit of society as a whole, and for the individuals who interact under the law’s protection, we may be able to move from where we are now to where we would like to be.

## 6. Speculative Design for Legal Change in Public Services

Law and design are not knowledge for themselves, but knowledge for action. They are social practices and poietic disciplines that can build change in the future, starting from the observation of the present. By exploring alternative hypotheses to the question about people’s real needs, and then forcing the explanation, they enable us to see the future

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<sup>72</sup> Rae Morgan and Emily Allbon, ‘Is Law Really that Special?’ in Ducato and Strowel (n 71) 139–158; Anne-Marie Slaughter, ‘On Thinking Like a Lawyer’ (2002) *Harv. L. Today* <<https://www.princeton.edu/~slaughtr/Commentary/On%20Thinking%20Like%20a%20Lawyer.pdf>> (accessed 12 Jan. 2023); Stefania Passera, *Beyond the wall of contract text - Visualizing contracts to foster understanding and collaboration within and across organizations* (Aalto University publication series Doctoral Dissertations 134/2017).

<sup>73</sup> Lawrence Krieger, *The Hidden Sources of Law School Stress: Avoiding the Mistakes that Create Unhappy and Unprofessional Lawyers* (Kindle 2014) 7–9.

<sup>74</sup> Roger Cotterrell, *Sociological Jurisprudence Juristic Thought and Social Inquiry* (Routledge 2018).

<sup>75</sup> cf Amanda Perry-Kessaris, ‘Legal design could and should be more sociolegal’ in Lockton, Lenzi, Hekkert, Oak, Sádaba, and Lloyd (n 71) [she also traces the history of the idea that design can enhance cross-disciplinary thinking and practice]; Amanda Perry-Kessaris, ‘Making sociolegal research more social by design: Anglo-German roots, rewards and risks’ (2020) 21 *German Law Journal* 1427.

<sup>76</sup> As we will see in Sections 7-8.

possibilities for what seems inadequate, ineffective, or unjust in the present (enabling capacity of speculative design).

Our hypothesis is that legal change can be successfully experimented within the interdisciplinary space where law and design meet. Our experimental work focuses, in particular, on design strategies that speculate on the future and are implemented through participatory and social interaction practices in the public services sector.<sup>77</sup>

Public services are the sector that has attracted the most social innovation, involving the direct engagement of citizens.<sup>78</sup> An exemplary case is the UK Gov design team,<sup>79</sup> with similar experiences in France,<sup>80</sup> Italy,<sup>81</sup> Spain,<sup>82</sup> Denmark,<sup>83</sup> Belgium,<sup>84</sup> just to name but a few examples.

In these cases, co-design activities focus on including user needs in the actual design process of digital services.<sup>85</sup> The degree of community engagement varies from citizens as co-implementers of services and activities formerly carried out by the government, to citizens

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<sup>77</sup> Mauricio Vico, Santiago de Francisco Vela, and Monica Pachón Buitrago, 'Cuando el pensamiento en Diseño y el mundo legal se encuentran: Innovación para mejorar la prestación de servicios públicos' (2021) *RChD: creación y pensamiento* 1.

On public service design and some examples, such as the UNESCO Global Futures Literacy Network, the UK Policy Lab, the OECD Directorate for Public Governance and its Observatory of Public Sector Innovation, the Danish Design Center Future Welfare, the EU Policy Lab The Future of Government 2030+ and others, a summary in Barbara Pasa and Gianni Sinni, 'Democracy in Outer Space. Speculative Design for Future Citizenship' forthcoming (2023).

<sup>78</sup> On the relevance, for the designer, of reflecting on civic and political issues, and in particular on public services, see the first debates in Italy with the 1984 First Cattolica Graphics Biennial; among others, Giovanni Aneschi, *Prima Biennale della grafica: propaganda e cultura* (Mondadori 1984).

<sup>79</sup> Louise Downe, *Good Services: Decoding the Mystery of What Makes a Good Service: How to Design Services that Work* (Bis Publishers 2019).

<sup>80</sup> DINSIC (*Direction interministérielle du numérique et du système d'information et de communication de l'État*) – now DINUM (*Direction interministérielle du numérique*), for example, included the *MonAvis* button (I give my opinion) on public websites to test the satisfaction of citizens on administrative processes. See <<https://www.plus.transformation.gouv.fr/engagement/7>> (accessed 12 May 2023).

<sup>81</sup> The *Team per la Trasformazione Digitale* has a large developer community (Developers Italia) that creates new softwares and allows developers on other levels of government to reuse developed tools: developers, suppliers, civil servants, citizens can collaborate to improve a common code base and customize public services using open-source architecture.

<sup>82</sup> The Spanish Central Administration, via its Secretary General for Digital Transformation, since the program "2017 Digital Strategy for an Intelligent Spain", has used co-assessment *ex-ante* and *ex-post* evaluation for digital public services, where stakeholders are essential to measure the economic and social impact. A success case of co-assessment has been in the selection of the non-working days for notifications at the Tax Agency, based on a massive evaluation feedback from all stakeholders.

<sup>83</sup> The Danish Business Authority is part of the Ministry of Business and Finance and includes stakeholders in early activities in order to define user needs as the basis for any kind of co-creation activities. See <<https://www.co-val.eu/case-studies/blog/project/the-danish-business-authority-dba/>> (accessed 12 May 2023).

<sup>84</sup> BOSA's DG Digital Transformation has set up the reporting website managed by the Administrative Simplification Agency, where citizens can report feedback on administrative experiences they had, signal issues, and what can be improved: <<https://www.kafka.be/fr>> (accessed 12 May 2023).

<sup>85</sup> Ines Mergel, 'Digital Service Teams in Government: An International Comparison of New IT Governance Structures' available at [https://www.economie.gouv.fr/igpde-editions-publications/comparative-analysis\\_n6](https://www.economie.gouv.fr/igpde-editions-publications/comparative-analysis_n6). See also the material gathered by the "25th International Government Design Community Call," where maturing and scaling up design is discussed: <<https://www.youtube.com/watch?v=apGPATMrvKg>> (accessed 12 Jan. 2023).

as co-designers, involved in designing the content and delivery process of the services, to citizens as initiators of the design of specific services.<sup>86</sup> In general terms, some suggest using the term “co-production,” where: “Specifically, we define co-production as an umbrella concept that captures a wide variety of activities that can occur in any phase of the public service cycle and in which state actors and lay actors work together to produce benefits.”<sup>87</sup> With co-production, the commissioning of services—seen as a “core public sector task [to be] undertaken by politicians and top managers”<sup>88</sup>—is generally done by state institutions and lay actors working together. This practice of co-commissioning, used by digital government service teams in several European countries, is prospective in nature, in that it is oriented toward the future (a near future) and concerned with activities that may take place at a later (but not too far) date.

While this is the starting point for co-commissioning, involving designers at multiple levels—in user consultation, service design labs, customer journey mapping, neighborhood and community regeneration forums, ethnographic research, participatory research, and so on to redesign, for example, the websites for health care services, public education, and senior citizens creating opportunities for interdependent living—our experimental practices draw more on speculative design and design fiction as disrupting, visionary, imaginative, and provocative methods<sup>89</sup> that can fuel active participation by multiple actors with different interests and have a strong impact on legal change.

The influence of future studies on design is not new; however, interest in the discipline has been growing especially of late in design schools, as it seems to reemerge in times of crisis, when the need to think about alternative futures becomes pressing. Nevertheless, future-oriented research methods and interdisciplinary studies are currently only included in curricula at the initiative of individual lecturers. Interest in future studies in the field of law instead lags behind. Although in some cases the expression “future studies and law” appears to indicate an interest in exploring critical issues in law, emerging technologies, and society, future studies have yet to be incorporated into regulatory processes—processes that continue to be non-speculative and non-participatory, failing to engage people and the community in the creation, planning, and organization of services, which in some sectors are crucial for their well-being (such as environment, education, infrastructure, energy, and others).

The tertiary education system and public institutions have a responsibility to identify ways of engaging design students in the design of public services, in the knowledge that only the active engagement of designers in new interdisciplinary contexts can ensure the development of the public services sector. At the same time, universities have a similar responsibility towards law students, who are called upon to abandon their traditional isolation, uniqueness, and specialness, and participate in non-lawyer-dominated but interdisciplinary design activities. Collaboration as a mode of dialogue between jurists and designers and, indeed, as a wider template for social and political life is the way forward<sup>90</sup>: legal change must be done within a collaborative framework.

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<sup>86</sup> William Voorberg, Victor Bekkers and Lars Tummels, ‘A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey’ (2015) 17 *Public Management Review* 1333, 1347; Ezio Manzini, *Design, When Everybody Designs: An Introduction to Design for Social Innovation* (MIT Press 2015).

<sup>87</sup> Tina Nabatchi, Alessandro Sancino and Mariafrancesca Sicilia, ‘Varieties of Participation in Public Services: The Who, When, and What of Coproduction’ (2017) *Public Administration Review* 766, 769.

<sup>88</sup> Tony Bovaird and Elke Loeffler (eds), *Public Management and Governance* (Routledge 2015) 6.

<sup>89</sup> Hallie Pope, ‘Liberatory legal design and radical imagination’ in Lockton, Lenzi, Hekkert, Oak, Sádaba, and Lloyd, (n 71).

<sup>90</sup> Annelise Riles, ‘From Comparison to Collaboration: Experiments with a New Scholarly and Political Form’ (2015) 78 *Law and Contemporary Problems* 147.



## 7. Storytelling and Design Fiction as Tools for Legal Change

The speculative design approach does not begin with product design but starts “with laws, ethics, political systems, social beliefs, values, fears, and hopes, and how these can be translated into material expressions.”<sup>91</sup> That enables designers co-designing with legal experts and end-users, i.e., the people to whom the legal regulations are addressed, to anticipate and imagine the future and concretely represent, through various artifacts, the implications of legal choices made in the present.<sup>92</sup>

Design fiction is the practice of creating artifacts that are not intended to meet market needs, but rather to stimulate public debate and reflection through the construction of a narrative context. These artifacts are effectively “thinking objects”—sometimes provocative in nature, so called provotypes—that encourage critical discourse about changing the status quo.<sup>93</sup> Narrative, on the other hand, is an effective tool for overcoming resistance to legal change by using empathetic language rather than solely informative language. As all research on human cognitive biases has widely shown,<sup>94</sup> an abundance of information can lead to greater resistance, rather than to a better understanding of the context.<sup>95</sup> This is the so-called “backfire effect,” an expression coined to denote the apparent impossibility of rationally correcting deeply ingrained beliefs.<sup>96</sup> By raising public awareness of specific themes, narrative media, such as cinema and literature, have demonstrated their ability to exert a direct influence on the orientation of government policy in the United States, for example, in the reorganization of the psychiatric system, in building consensus on massive investments in space exploration, in the overhaul and modification of the administrative-bureaucratic apparatus, and in the reorganization of the health care system.<sup>97</sup>

Starting in the designer’s educational career, design fiction can combine law and politics, foresight and civic participation, within a conscious and ethical narrative framework.<sup>98</sup> This is not a mere exercise in futurology. Rather, speculative design in general can help address

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<sup>91</sup> Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming* (MIT Press 2013) 70.

<sup>92</sup> Gianni Sinni, ‘Speculative Design for the Public Sector. Design Fiction as a Tool for Better Understanding Public Services’ (2021) *Design Culture(s)*. Cumulus Conference Proceedings Rome 2021.

<sup>93</sup> Bruce M Tharp and Stephanie M Tharp, *Discursive Design: Critical, Speculative, and Alternative Things* (MIT Press 2019).

<sup>94</sup> Daniel Kahneman, Olivier Sibony and Cass R Sunstein, *Noise: A Flaw in Human Judgment* (Hachette Book Group 2021); Daniel Kahneman, *Thinking, Fast and Slow: Daniel Kahneman* (Penguin Books 2011).

<sup>95</sup> Alberto Cairo, *The Truthful Art: Data, Charts, and Maps for Communication* (New Riders Pub 2016) 84-85.

<sup>96</sup> Brenda Nyhan and Jason Reifler, ‘When Corrections Fail: The Persistence of Political Misperceptions’ (2010) 32 *Political Behavior* 303.

<sup>97</sup> Howard McCurdy, ‘Fiction and Imagination: How They Affect Public Administration’ (1995) 55 *Public Administration Review* 499; Christian Sauvé, ‘The Public Service in Science Fiction. Institutionalized Evil, Perfect Incompetence or Invisible Efficiency’, presented at Science-Fiction and Long-Term Projections for the Public Service. Public Service Commission of Canada (1998, June) <<https://www.christian-sauve.com/essays/the-public-service-in-science-fiction/>>; Lyn Holley and Rebecca Lutte, ‘Public Administration at the Movies’ (2017) 4-10 available at <[https://www.researchgate.net/publication/313034742\\_Public\\_Administration\\_at\\_the\\_Movies](https://www.researchgate.net/publication/313034742_Public_Administration_at_the_Movies)> (accessed 12 Jan. 2023).

<sup>98</sup> In support of ethical design see Emily Allbon and Amanda Perry-Kessaris (eds), *Design in Legal Education* (Routledge 2022) [a summary is available at <<https://designinlegaleducation.net/book-home.html>>] (accessed 12 Jan. 2023).

the shortcomings of our current understanding of how legal change takes place and broaden our understanding of key aspects of the law.<sup>99</sup>

One of the crucial aspects that design fiction can help clarify in contemporary debate is the relationship between law and power, delving into the question of whether the law is a product of power, as Bobbio held.<sup>100</sup> This assertion raises questions of justice, as power—being a flexible concept, understood as the authority to act for personal or collective purposes, either through orders or through freedom—offers only to those who hold it “a large space for the self.”<sup>101</sup> Conversely, the space for social participation is very limited. Whenever we lack the right to participate on an equal footing, justice is called into question. Including the needs of people through speculation on the future in the actual process of designing public services and in the regulations that govern them is a step towards an effective right to participate. Furthermore, speculative design helps develop tools that are applicable to public policies and regulations, placing the necessary emphasis on ethical concerns, as it has a counterfactual dimension and provokes us to imagine a different reality from the one we are immersed in, exploring it with awareness using scientific, technological, political, and social knowledge to represent desirable futures. As argued in the previous Sections, our reflections also offer a particularly stimulating opportunity to critically engage in a discourse, in the spirit of speculative design and storytelling, on the legal change from a perspective of sustainability and equity

The complexity of the implications of such speculation can be addressed by drawing on interdisciplinary skills.

Legal design is one such example,<sup>102</sup> with the potential it has to change and improve the status quo in the legal domain by using critical discursive and fictional tools and exploring alternative regulatory approaches.

Policy design is another example, as the dynamics of legal change make it clear that the law is closely linked to politics. Hence, with the general term of policy design, we describe the action of defining the goals of policies and the interdisciplinary design tools necessary to achieve them.<sup>103</sup>

Often the definition of a public policy constitutes a “wicked problem”,<sup>104</sup> one of those problems whose cause can derive from bureaucratic, normative, technological,

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<sup>99</sup> Arianna Rossi, Regis Chatellier, Stefano Leucci, Rossana Ducato, Estelle Hary, ‘What If Data Protection Embraced Foresight and Speculative Design?’ in Lockton, Lenzi, Hekkert, Oak, Sádaba, and Lloyd (n 71).

<sup>100</sup> Norberto Bobbio, *Diritto e Potere: Saggi su Kelsen* (Giappichelli 2014). On the need to develop counterstorytelling to contrast the actual experience of power cf Hallie Pope, ‘Designing to Dismantle’, Chapter 13, in Allbon and Perry-Kessaris (n 98).

<sup>101</sup> Byung-Chul Han, *Was ist Macht?* (Reclam Philipp Jun 2005) at 15.

<sup>102</sup> Here we do not enter the discussion of whether legal design is or should be seen as a distinct discipline within design and/or law, or a post-disciplinary movement, or a nomadic practice, or a broad array of practices and studies: for a summary Ducato and Strowel (n 71), Allbon and Perry-Kessaris (n 98), Jackson et al (n 71), Santuber and Krawietz (n 32). See also Phoebe Walton, ‘James v Birnmann: The potential of critical design for examining legal issues’, in Lockton, Lenzi, Hekkert, Oak, Sádaba, and Lloyd (n 71); Marcelo Corrales Compagnucci, Helena Haapio, Margaret Hagan and Michael Doherty (eds), *Legal Design: Integrating Business, Design and Legal Thinking with Technology* (Edward Elgar Publishing 2021); Amanda Perry-Kessaris, ‘Legal Design for Practice, Activism, Policy and Research’ (2019) 46 *Journal of Law and Society* 185.

<sup>103</sup> Michael Howlett and Ishani Mukherjee (eds), *Routledge Handbook of Policy Design* (Routledge 2018).

<sup>104</sup> According to the definition by Horts Rittel, a mathematician, designer, and former teacher at the Hochschule für Gestaltung (HfG) Ulm: “wicked problems are a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing”. This approach suggests that there is a fundamental indeterminacy (in the sense that there are no definitive conditions or

organizational constraints, or from political conditions or a combination of all these. In such cases, the solution to a single problem, isolated from an overall vision, fatally risks exacerbating the criticalities, rather than contributing to their resolution. The characteristics of a systemic design, which places relationships and their sustainability at the center, can therefore be particularly useful in policy and legal design. The goals can be of various types: to modify the policy-making practices, to allow the necessary institutional change; to build the capacity to co-design and implement systemic strategies that can lead to potentially transformative policies and actions; and the methods can be of diverse inspiration too: the Polak Game, where persons are asked to indicate their position with respect to the experience of change (things are getting better/worse) and their own contribution to change (I can do little/I can do a lot);<sup>105</sup> the Futures Wheel, a visual representation in which future repercussions are hypothesised in various categories of thought—social, economic, philosophical, religious, health, legal, ethical, environmental;<sup>106</sup> the Futures Cone, with the representation of the alternatives of probable, plausible or possible futures among which to identify, by untangling the contingencies represented by the wild cards, the preferable future;<sup>107</sup> and the reverse archaeology of the game *The Thing from the Future*, where participants create a story from a set of random premises—temporal location, trend, reference context, object type, state of mind.<sup>108</sup>

Instead of limiting ourselves to thinking about concrete answers in terms of legal change or transformative policies, what is even more interesting is that speculative design emphasizes the implications rather than the applications; it means that it entrusts designers - and their expertise drawing from different disciplines —with the task of asking the right questions and no longer providing answers as problem solvers. From this perspective, speculative design can make a significant contribution to the formation of aware, informed, and empowered citizens capable of rising to the challenges of our present (design as world making).<sup>109</sup>

The use of narrative fiction does not compromise the concreteness of co-designing legal change. This is evident if one considers the extent to which imaginary scenarios are fundamental for the construction of the human social system. Narrative is indeed at the core of our ability to organize extended and remote collaborative networks. The search for alternative and ethically sustainable futures cannot, therefore, avoid questioning the dominant narrative. Design fiction thus has the unique potential to tackle and question the structural problems of our society, creating narratives of possible futures that help us question the reasons for the present. As said, the goal of design fiction is to focus on a plurality of futures—probable, plausible, and possible<sup>110</sup>—so as to steer reality towards those considered preferable, but in the awareness that the future, like any chaotic system, contains all those forms of discontinuity and variability (“wildcards”) that, far from the classical

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limits to design problem) in all but the most trivial design problems. cf Richard Buchanan, ‘Wicked Problems in Design Thinking’ (1992) 8 *Design Issues* 5, 15-16.

<sup>105</sup> Peter Hayward and Stuart Candy, ‘The Polak Game’ in Richard Slaughter and Andy Hines (eds), *The Knowledge Base of Futures Studies* (Association of Professional Futurists, 2020) 326-340.

<sup>106</sup> Jerome C. Glenn ‘The Futures Wheel’ in Jerome C. Glenn and Theodore J. Gordon (eds), *Futures Research Methodology* (Version 3.0 [CD-ROM] (2009).

<sup>107</sup> Joseph Voros, ‘A Primer on Futures Studies, Foresight and the Use of Scenarios’ (2001) *Prospect. The Foresight Bulletin* 6 available at <<https://thinkingfutures.net/foresight-primer>> (accessed 12 Jan. 2023).

<sup>108</sup> Stuart Candy and Jeff Watson, *The Thing from the Future* (Situation Lab 1st ed., 2014, Print-and-Play ed., 2015, 2nd ed., 2018). Available at <[https://situationlab.org/wp-content/uploads/2015/10/FUTURETHING\\_Print-and-Play.pdf](https://situationlab.org/wp-content/uploads/2015/10/FUTURETHING_Print-and-Play.pdf)> (accessed 12 May 2023).

<sup>109</sup> Gianni Sinni, ‘Designing Implications. Design Fiction as a Tool for Social Change’ in Alessandra Bosco and Silvia Gasparotto (eds), *Updating Values. Perspectives on Design Education* (Quodlibet 2020); Sinni (n 92); Pasa and Sinni (n 77).

<sup>110</sup> Voros (n 107).

deterministic view, make it unpredictable and not predetermined. Design fiction is also a tool for innovating social practices because it presupposes broad participation in those practices. Ultimately, this relationship between law, politics, and design is the essence of the “design hope” invoked by Tomás Maldonado: “Politically speaking, the revolutionary sense of dissent is really only attainable through design. Dissent that rejects hope in design is nothing but a subtle form of consent.”<sup>111</sup>

## **8. Working with Futures: Some Examples**

At a series of design communication workshops organized as of 2016 for masters’ students at the University of the Republic of San Marino and at the University Iuav of Venice,<sup>112</sup> we experimented with the potential of storytelling and design fiction to bring students to reflect on the implications of public service design and legal change—topics generally not present in traditional design (nor in legal) curricula. The experience led to the development of design communication workshops at the University Iuav of Venice in collaboration with different institutions and, for the last two years, with the Italian Government Department for Digital Transformation.<sup>113</sup> In the workshops, students were encouraged to map the ecosystems, archetypes, touchpoints of the main public administration services such as land management, mobility, health, education, culture, with the aim of tackling complex projects on the future of public services sector, playing with heterogeneous and hybrid visual languages.<sup>114</sup>

The results of the projects, some of which are illustrated below through the synopses developed by the students themselves, can help highlight the dual function inherent to this particular learning approach: on the one hand, building a common ground between future designers and public decision-makers; on the other hand, transporting the project into a critical and sometimes antagonistic dimension. Speculative design frees the mind from the constraints of dominant thinking and allows us to question even those socio-economic assumptions that, like cognitive biases, prevent us from fully grasping the real opportunities for change. Here, in the speculative narrative’s immersive space, it seems entirely reasonable to propose radical legal change, such as, to cite just some of the projects developed in the workshops: the end of the consumer system and private property through a widespread goods sharing service; demanding the disposal of one’s biometric data upon reaching legal age; using a highly connected IoT network to do away with the prison system through social control (utopia or dystopia? The choice is yours); or even the design of a direct democracy system for guiding human communities living in the hostile Martian environment.

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<sup>111</sup> Tomás Maldonado, *La Speranza Progettuale* (Einaudi 1970) at 60.

<sup>112</sup> Laura Badalucco and Luca Casarotto (eds), *Design e formazione. Continuità e mutamenti nella didattica per il design* (Il Poligrafo 2018) 80-89.

<sup>113</sup> Gianni Sinni, ‘Un atlante per la collaborazione tra design e PA’ in Luca Casarotto, Raffaella Fagnoni and Gianni Sinni (eds), *Dialoghi oltre il visibile. Il design dei servizi per il territorio e i cittadini* (Ediz. illustrata Ronzani 2021).

<sup>114</sup> The visual restitution of the investigations makes up the pages of an atlas for collaboration between design and public administration. The Projects are also available at <<https://sites.google.com/iuav.it/design/design-open-lab/202122-primo-semester/212-i-lm-design-comunicazione-1?authuser=0>> (accessed 12 May 2023).



## Delete-me

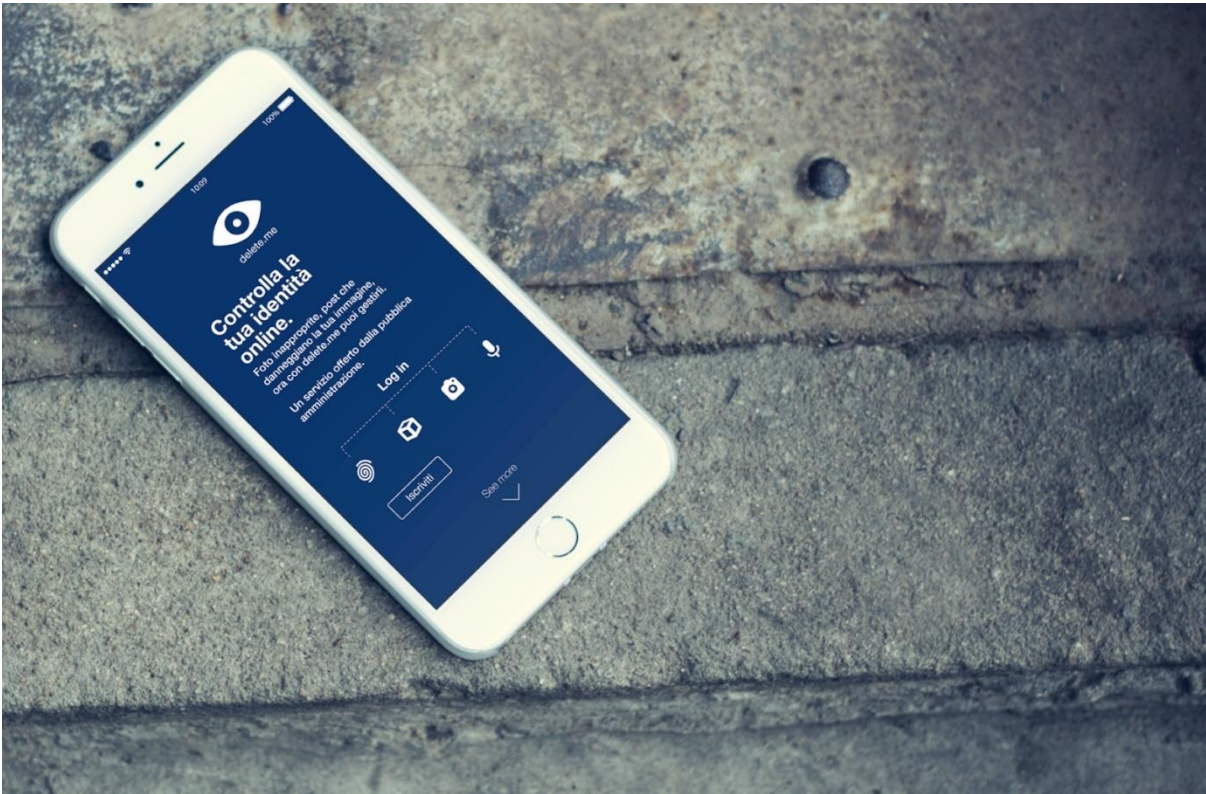


Fig. 1. *Delete-me*, project by Luca Barbieri, Elena Cavallin and Irene Trotta. Hybrid design workshop, led by Gianni Sinni with Tommaso Bovo. Master's degree program in design, University of the Republic of San Marino, 2016/2017.

Synopsis: By 2030, web platforms will all be connected to each other, becoming the place where people constantly share information and personal data. The increasingly detailed info-trail they leave of themselves online, however, will also be increasingly difficult to erase. Simply deleting one's profile will not be enough, as the information entered over time remains recorded and available to everyone. As such, the government will provide a service that helps citizens understand the weight of their shared information, offering the possibility to reset the data as they feel is appropriate. That solution will be *delete.me*, an application that communicates with social networks. People will be able to manage their online image by deciding which contents to obscure and, if necessary, restore later, or delete permanently. In addition, they will have the possibility, through 3D scanning, facial recognition, and voice and text recognition to track down content, uploaded by others, that depicts them. Such content will automatically come under a person's control when they reach the age of eighteen, as they contain their image and data. Finally, the app will provide a documentation section that explains the steps to take to eliminate one's online presence.

*OP!*



Fig. 2. *OP!*, a project by Giorgia Perich, Violeta Tufonic and Simone Zorzetto. Communication design lab 3, led by Gianni Sinni with Irene Sgarro. Bachelor's degree program in design, University Iuav of Venice, 2020/2021.

Synopsis: Year 2040. After decades of crisis, the country is finally recovering. The digitization of services and public administration, initiated at the beginning of the 21st century, will now be a reality. *OP!* is an institutional monitoring and public participatory planning application. By accessing the service with their digital identity, people will be able to monitor public activities and view active projects in their residential area, as well as national projects of interest. They will be able to actively contribute to projects with appraisals, advice, and criticism. They will also be able to propose original projects and see them implemented with community support. This service will involve citizens in collective interest projects and optimize public spending.



## Independent Theater

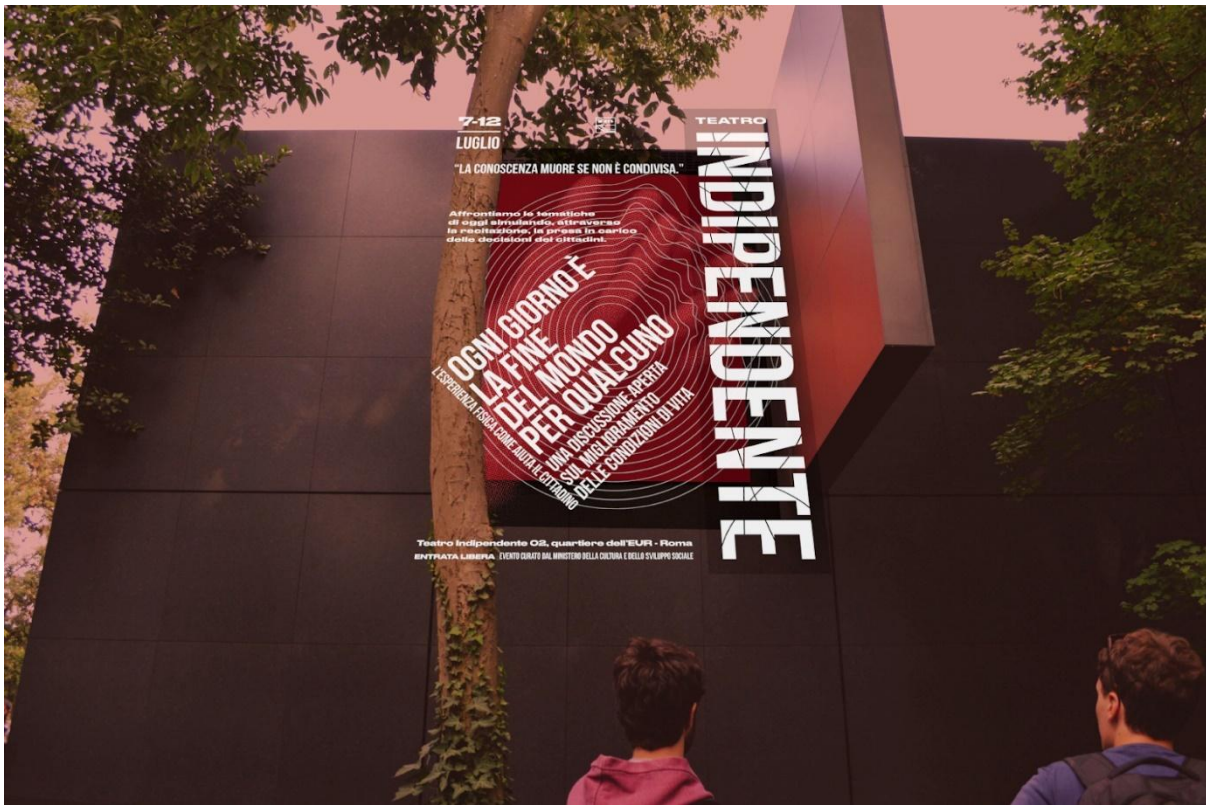


Fig. 3. *Independent Theater*, project by Anna Bigaran, Rosa Corazza, Febe Corba and Martina Valente. Communication design workshop 3, led by Gianni Sinni with Irene Sgarro. Bachelor's degree program in design, University Iuav of Venice, 2020/2021.

Synopsis: In 2050, the world is in crisis. The environment, the economy, and the demographic crisis are pressing problems. Complexity, unpredictability, risk, and technologies have taken over, creating a digitalized society at the expense of analog-human society. The situation has corroded society to the point of its disintegration. As a result, individuals have adopted a more and more anti-social and introverted behavior, neglecting the need to establish human relationships. In response to the need to focus on human beings and protect the environment in which they live, an anthropocentric system will be developed, which allows people to express their thoughts within an *Independent Theater*. The idea of a social theater service is based on the ideal of classical Greek theater, which socialized citizens, and is therefore educational in its purpose, while seeking to gather people's opinions to pursue concrete actions based on shared ideas. The social theater service will be based on three values considered fundamental: concertation, as there can be no dialogue without others; inclusiveness, as respect and personal opinions all deserve equal importance; and physical experience, as it is important to meet in person to fully understand what one does.



## Smart jail



Fig. 4. *Smart Jail*, project by Matteo Boem, Miriam David, Giovanni Maraga and Erica Penazzo. Communication design lab 3, led by Gianni Sinni with Irene Sgarro. Bachelor's degree program in design, University Iuav of Venice, 2020/2021

Synopsis: In 2050, the world is made up of smart cities, real jungles of IoT systems where there is a constant exchange of information. In this ultra-technological environment, *Smart Jail* will be a new type of prison, developed using IoT systems to monitor all the movements of people who have committed crimes. In 2050, the term “inmate” will no longer be used, because *Smart Jail* will be designed to do away with prisons as physical places and the concept of detention, for which people tracked through *Smart Jail* will simply be known as “offenders.” The idea is to replace prisons with a correctional environment that becomes a rehabilitation experience. Alongside the use of IoT systems, offenders will be monitored through a localizing wristband, equipped with hologram technology enabling them to interact and self-organize their daily tasks within a program designed to stimulate socialization and reeducation, aimed at their reintegration into society.

## *Oright*



Fig. 5. *Oright*, project by Lisa Bachmann, Sarah Maglio, Valentina Phung and Elettra Pignatti. Communication design lab 3, led by Gianni Sinni with Irene Sgarro. Bachelor's degree program in design, University Iuav of Venice, 2020/2021.

Synopsis: Year 2060. Climate troubles and the scarcity of raw materials have led to a new awareness, enabling the sharing economy to take hold much more than in the past, to the point that private property no longer matters. Due to the unsustainability of the capitalist consumption model, people in 2060 will seek durable, high-quality products and services for all their needs and lifestyle choices like never before. Artificial intelligence will help people to be more aware of what is unnecessary, to know their needs and manage their lives more wisely. Since people will no longer have to perform and devote time to certain tasks, the time saved can be spent on leisure or educational activities, as well as on personal interests and hobbies. *Oright* will therefore operate in a post-capitalist scenario, where the quality and circularity of products and services prevails. Sharing high-quality products and services at affordable prices will help break down the social barriers raised by ownership, in favor of a different logic of collective utility. *Oright* will be designed for sharing any material or digital good and service. Not having to own what one needs can only be advantageous: guaranteed assistance and maintenance, savings on objects of little use, technological updates without supplements, and flexible loans, etc.

## Harmonia



Fig. 6. *Harmonia*, a project by Robert Cosmin Oanca, Anna Laura Pascon, Emiliano Rainis and Caterina Sartorello. Communication design lab 3, led by Gianni Sinni with Irene Sgarro. Bachelor's degree program in design, University Iuav of Venice, 2020/2021.

Synopsis: Year 2100, planet Mars. *Harmonia* is a human settlement of one million inhabitants on Martian territory. The planet is not yet terraformed but daily life is possible thanks to a system of pressurized buildings and the local, self-sufficient production of resources. The governance of *Harmonia* is ethical, welcoming, human-scale. Its inhabitants come from various countries on Earth, but on Mars they all become citizens of *Harmonia* (and use only English as the common language). Their motivations for joining the settlement vary—for scientific research, humanitarian reasons, artistic inspiration, or simply adventure, but as volunteers they are selected for their ability to contribute to the sustainability and development of human society on Mars. *Harmonia* is a direct democracy, in which pan-citizens propose and vote on decisions collectively. *Harmonia* is also a welfare state, in which everyone is a public employee, essential goods are guaranteed for free and luxury goods can be enjoyed through credits earned by performing activities useful to the community. Public services in *Harmonia* are provided through a digital platform that people can access via the numerous public terminals available and via the personal devices they are each assigned. All political, economic, and administrative life is managed through the *Harmonia* portal.

### 9. Conclusions

The future scenarios depicted by our students in their “objects of the future” and provotypes projects can serve as inspiration for policy-makers and legal change. The common themes addressed include socialization, engagement, co-participation, training, education, and direct democracy. This shows that legal change can be supported by design fiction and speculative design, starting with the reform of public services co-designed with people, as individuals and as a collective, to enhance confidence and cooperation, and potentially reduce public spending. Incorporating the experiences, practices, and speculative imagination of individuals and communities into the design, planning, and implementation

of public services through an outside-in approach allows the agents of legal change to better understand how public services can be designed to be of greatest use and benefit for individuals and communities. Our complex ecosystem—populated, by states and markets, but also individuals who perform social acts and by collective actions that are conceived and actuated through verbal and nonverbal behaviors—is constitutive of the ethical dimension of the law. The projects we have presented, based on speculative design, storytelling, and design fiction, focus on the ethical dimension of the law and regulatory processes.

As said, many pressing issues of justice in the contemporary world intertwine with legal change and its complex institutional and legal dimensions, which include multiple perspectives that often emerge through comparative law. The public space of the future and the common interests of citizens and society need to be filled with inclusive and accessible services that aim to reduce social barriers through a logic of collective utility. We believe in the power of mistakes, provocation, speculation, and fiction in designing alternatives legal changes, relying on inclusive, participatory forms of law-making and policy-making from the bottom up, driven by a collective civic agency that steers transformation. To further this goal, a pedagogical turn is necessary, which involves building different educational tools for legal scholars and designers, including teaching legal basics in design schools and incorporating prototypes, design fiction and co-design processes into legal training. This pedagogical shift requires a radical change in the legal process as well, incorporating co-design and speculative practices into the creation of legal rules, and ultimately leading to a quest for justice.

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