

Name: Rotem Medzini

Title: “The Adoption of New Policy Instruments and Regulatory Strategies into the Regulation of Information and Communication Technologies”

Abstract

By restructuring governmental architectures and reshaping control mechanisms, the “modern” regulatory state has transformed how the different actors within the regulatory space structure accountability and transparency into policy instruments used to pursue public goals (Levi-Faur, 2010, 2013; Lodge, 2004; May, 2007; Salamon, 2000; Scott, 2000). Simultaneously, within the information ecosystem, while information technology companies express their informational advantage within the regulatory space algorithmically (Pasquale, 2015) and resist ‘external’ state regulation, the regulatory state manages to maintain its influence and adapts to new circumstances affected by Information and Communication Technologies (ICTs) (Braman, 2006; Castells, 2009; Keohane & Nye, 1998). In doing so, the state manages to evolve to an “informational state” where it learns to master informational power to the level of non-state actors, it learns to use the private sector to reach social goals, and it learns to support multiple state and non-state actors (Braman, 2006). Therefore, the recent adoption of new policy instruments within the information ecosystem raises the question of what explains the adoption of this new regulatory strategy?

Specifically, in recent years, the principle of Privacy-by-Design have been incorporated into information protection regimes ranging from the Internet and telecommunication sectors to the police and air-transportation sectors. The inclusion of this principle by both national and transnational institutions in the U.S. and the EU and the centralization of Data Protection Authorities signifies most of all a change in the trajectory of the regulatory strategy from prescriptive-based regime to a process-based regime. This research follows the rise of the information regulatory state through the inquiry into the adoption of information protection regimes and the new policy instruments used to handle the global information market. As such, the proposed PhD project offers to center on three case-studies. In parallel to the two leading information regulation regimes, this first paper offers to center on the broad European regime, while the second paper will deal with the much technology stronger American regime. The third paper offers to center on the multinational corporations and the transatlantic regulation of information.

The main goal of this proposed project is to explain the new strategies used to regulate ICTs, the causes for their adoption, and the effects of regulating through implementing policy instruments on cyberspace. Additionally, the proposed project adds three specific contributions to previous research. First, the regulation of ICTs sheds light on how a regime is slowly becoming a process-based regime through the interactions amongst actors and adopting new policy instruments. Second, the proposed project contributes to the research into ICTs and algorithm-based decision making in the context of how state and non-state actors use policy instruments to regulate cyberspace. Lastly, the differences between the EU and U.S. information protection regimes provide a broader comparative perspective rarely adopted by previous investigations.

Introduction

The rise of the “modern” regulatory state symbolizes most of all the restructuring of regulatory strategies and the growing in number of the actors working to shape accountability and transparency within the regulatory space (Freeman & Rossi, 2012; Levi-Faur, 2013; Lodge, 2004; Majone, 1997; May, 2007; Scott, 2000, 2001). This broader sense of regulation is also linked to the new governance paradigm (Levi-Faur, 2010; Lobel, 2004; Trubek & Trubek, 2005), a paradigm that shifts the unit of analysis from public agencies to the policy instruments used to pursue public goals (Salamon, 2000). Yet, while some scholars such as Castells (2009) and others raise concerns that “the state” has lost its power to non-state actors, probably the strongest challengers that force the regulatory state to rethink its use of policy instruments (Howlett & Ramesh, 2006) are multinational corporations that can easily move their production lines to states with lower standards and weaker regulations (Drezner, 2005; Stiglitz, 2006; Vogel, 1995). In line with research into the limitations of disperse regulation among states and “thin” states’ interests (Stiglitz, 2006), and the research into the tension between “races to the bottom” versus “races to the top” in regulatory standards (Vogel, 1995, 1997), this PhD project offers to contribute to the research on the effects of globalization on the regulatory state working within the transatlantic information ecosystem.

Within the information ecosystem, however strong and resistant to regulation the information technology companies are, the regulatory state manages to maintain its influence and to adapt itself to new circumstances affected by Information and Communication Technologies (ICTs) (Braman, 2006; Castells, 2009; Keohane & Nye, 1998). By and large, information technology companies express their authority over individuals and their informational advantage over other actors within the regulatory space algorithmically, i.e. within the confines of their “black-boxes” ICTs thus enabling them to utilize information to drive decisions and make profit (Pasquale, 2015). However, in this ecosystem, the state manages to evolve to an “informational state” where it learns to master informational power to the level of non-state actors, it learns to use the private sector to reach social goals, and it learns to support multiple state and non-state actors (Braman, 2006). In practice, this process occurs through the adoption of policy instruments used to implement public policy in the realm of information protection regimes. Mostly, more than mandate behaviors and regulate the responsibility between state and non-state actors (Coglianese & Lazer, 2003; Gilad, 2010; Salamon, 2000), the chosen instruments institutionalize the power dynamics between the actors. In the processes of institutionalizing the policy instruments, an underexplored policy problem is the consequential institutionalizing of politics between supranational, national, and private actors and their interests within information protection regimes.

Literature review

Answering regulation-related policy problems, two types of questions are in order: who is conducting the regulation and how is the regime being structured? (Gilardi, Jordana, & Levi-Faur, 2007). Questions dealing with *who is the regulator* can relate to three types of regulation strategies: (1) first party

regulation is where the rule-maker is also the rule-taker; (2) second party regulation is where the rule-maker is independent from the rule-taker; (3) and third party regulation is where in between the rule-maker and the rule-taker there is a third party that acts as either an independent or semi-independent auditor (Levi-Faur, 2010). Mixing the three can create four forms of regulation. In ‘co-regulation’ the rule-maker and the rule-taker might share either the regulatory design, the regulatory enforcement role, or both. In ‘enforced self-regulation’ due to the policy design, the rule-taker would write a set of rules tailored to the unique set of contingencies facing the firm. Later, the set of rules would be approved by the rule-maker (Levi-Faur, 2010). In ‘meta-regulation’ the rule-taker sets its own internal rules and the rule-maker monitors whether these rules can deliver the ordered social goals (Black, 2008; Gilad, 2010; Levi-Faur, 2010). Lastly, “multi-level regulation” is where authority is allocated at different levels of a particular territorial or hierarchical tiers: supranational, national, regional, and local (Levi-Faur, 2010). As explained, questions can also deal with *how the regime is structured* and not merely with who is regulating them (Freeman & Rossi, 2012; Hancher & Moran, 1998; Scott, 2001). In all forms, regulatory regimes have to set standards and norms, establish monitoring systems, and define and apply sanctions for violations (Levi-Faur, 2010; May, 2011). These actions are conducted through the regimes’ set of policy instruments that in turn address either the organization’s planning procedures, its acting, or its outputs (Coglianese & Lazer, 2003). Intervention of any of these stages would affect the production of social outputs.

Regimes types: prescriptive-based, performance-based, and process-based regulation

Prescriptive-based regulation, also known as command and control regulation, intervenes with the acting stages of the rule-takers’ production. In its core, prescriptive-based regulation tells rule-takers exactly how to act (Coglianese, 2016). For instance, the regulation will set the specific behavior to follow, the technology to adopt, or the procedures to implement. By doing so, prescriptive-based regulation requires a high level of precision thus clearly define the line of responsibility and accountability between rule-makers and rule-takers (Levi-Faur, 2010; May, 2007, p. 9). However, this line of regulatory strategy is problematic as if prescriptive-based regulations are not sufficiently particularistic, and due to regulatory limitations typically they are not, regulation tends to be open to interpretation, vagueness, and criticism (Coglianese, 2016).

Unlike prescriptive regulation, performance-based regulation does not prescribe specific behaviors to follow or technologies to adopt. Rather, performance-based regulation intervenes with rule-takers’ output stages of production and specifies the social outputs that must or must not be reached (Coglianese & Lazer, 2003). Given that neither behaviors, methods, or technologies are prescribed, rule-takers have the discretion to decide between different technologies and methods as to how to meet the predefined regulatory goals (Coglianese, 2016; Coglianese, Nash, & Olmstead, 2003; May, 2011). As such, in choosing performance-based regulation, policymakers provide rule-takers with the discretion how to achieve compliance, provide the market with an external incentive to innovate new effective and efficient solutions

to meet the required objectives, and provide to the rule-makers the task of certifying and measuring performance instead of writing prescriptive rules (Coglianese, 2016).¹

In contrast to prescriptive-based and performance-based regulation, process-based regulation is better suited in one of two cases – in cases where the rule-takers are heterogeneous and it is difficult and costly to measure outcomes (Coglianese & Lazer, 2003) or in cases where the regulated market, even in homogenous and stable industries, can resist any prescriptions or commitments to compliance (Gilad, 2010). For such cases, process-based regulation is a flexible regulation strategy that centers on the rule-takers' planning stages of production, enables rule-takers to design regulation to their individual circumstances, while holding the rule-takers accountable for their plans and decisions (Coglianese & Lazer, 2003; Gilad, 2010).² In many ways, process-based is also different from principle-based regulation. In principle-based regulation, outcomes are broadly set through high-level rules abstractedly put in place without specifying the means to achieve compliance (Black, 2008; Freiberg, 2010). As such, rule-takers are left to fill the gaps, while in a later stage a regulator or a court might measure their conduct against some broad criteria such as "reasonableness". Meanwhile, in process-based regulation there are clear information asymmetries between rule-makers and rule-takers. While shifting the costs to rule-takers, the holders of most information, rule-makers still have to retain their capacity to independently assess the validity of the rule-takers' plans regardless of the extent of information that was provided to them (Coglianese & Lazer, 2003; Gilad, 2010). In practice, rule-takers might adopt unique regulatory responses. For instance, rule-takers can work *informally* and respond to complaints before rules-makers have a chance to make decisions and the court to make a ruling. At the same time rule-takers can work *formally* and wait for any regulatory approval before making changes to its privacy policies (Medzini, 2014).

For the literature invested in policy instruments choices and crafting regulatory strategies, designing a regime raises different questions. Of interest for this proposed research, some researchers inquire why is one instrument or a mix of several instruments adopted rather than others (Bemelmans-Videc, Rist, & Vedung, 1998; Howlett & Ramesh, 2006; Salamon, 2000). There are two general explanations how to adopt policy instruments. According to the first explanation, policy instruments are means to an end. Following a decision by policymakers to adapt a new regulation, the question for them is which type of authoritative force to utilize (Howlett, 1991). In contrast, according to the second explanation for policy

¹ In implementing their certification, rule-makers can choose between how to determine performance, by which mechanisms or measures to monitor performance, by who, and what burdens of proof to require (Coglianese, 2016; Coglianese et al., 2003; May, 2011). For instance, relevant specified standards can vary from qualitative to quantitative measures and shift from predictive measures to actual measurements. Furthermore, when performance cannot be observed or when the outcomes are of a type that is inherently unwelcome, a risk-based regulation might be developed to complement performance-based regulation (May, 2011). As an example, in such cases as regulating nuclear plants and dangerous chemical and biological hazardous materials, rule-makers can require applying performance indicators to intervene at an early point of time and act to prevent an unwanted outcome from occurring.

² Analyzed through the premise of regulatory tiers, for Gilad (2010) regulation can target one or more of the three tiers of the rule-takers' operations. The first layer of operations deals with the regulated entity's core production processes. The second layer of operations mandates the rule-takers to utilize governance structures and controls to audit their compliance with the first-layer requirements. In contrast, the third tier of operations directs the rule-takers to evaluate, design and readjust their first and second tiers. As such, according to Gilad (2010), while performance-based regulation and prescriptive-based regulation might be fitting for the first and second tiers, process-based regulation deals only with the third tier.

instruments adoption, and based on the “new governance” theory, policy instruments are more than just means to an end. Policy instruments are in and of themselves institutions that craft rules, mandate behaviors, and allocate responsibility between actors in a regulatory space (Coglianese & Lazer, 2003; Gilad, 2010; Salamon, 2000).

Along these lines, Andrew Murray adopts an approach for regulating cyberspace. According to Murray, rule-makers and rule-takers are working in tandem while utilizing different hybrids or mixtures of policy instruments (Murray, 2011a, 2011b; Raab & de Hert, 2007). In doing so, Murray builds on systems theory in favor of a dynamic self-sufficient and complementary regulatory systems of actors and policy instruments. Yet, Murray recognizes the system theory’s dynamic nature, making him favor Baldwin and Cave’s (1999) macro-regulatory modalities for analyzing complex regulatory systems (Murray, 2007). Subsequently, one case for investigation of adopting policy instruments is the information regulation of ICTs in Europe and the US.

A EU-U.S. comparative analysis of information protection regimes for regulating Cyberspace

From its origins, and mainly following World War II, Europe have held privacy in an up most level of protection. Indeed, both Article 8 of the European Convention of Human Rights and articles 7 and 8 of the Charter of Fundamental Rights of the European Union have embedded into the heart of the European Union the protection of privacy and personal data. Pushed forward by previously established national Data Protection Authorities on top of the lightly implemented intergovernmental Council of Europe convention (Newman, 2008), the European Data Protection Directive of 1995 have been envisioned as the data protection gold-standard, a standard that contrast the OECD guidelines that also promotes free-flow on global data to a lesser extent (Schwartz, 2013). For both legal and public policy scholars, the Data Protection Directive is a force that more than harmonizing data protection within Europe, it also have influenced legislation and international agreements as it raises the data protection standards even with the economically stronger USA (Bach & Newman, 2007; Long & Quek, 2002; Newman, 2008; Schwartz, 2013). Meanwhile, though influential in its standard setting capabilities, policymakers and other involved actors called for updating the Data Protection Directive and its principle-based regulation to better face new challenges brought by both information technology and globalization. However, unlike its predecessor Data Protection Directive, the newly adapted General Data Protection Regulation is also supported by European Union institutions and broader European interests.

Unlike the its European counterpart, the US-based information regime enjoys far less research from a political perspective. On the one hand, many political scientists interested in better understanding the American information regime do so due to an external global event, and mainly the European information regimes influence (Bach & Newman, 2007; Bradford, 2012; Farrell, 2006; Long & Quek, 2002; Schwartz, 2013). For instance, several papers investigated the consequential effects of the US-EU safe-harbor agreement and the regulatory differences amongst the two biggest economies worldwide. In order to enable US firms to process European private data, the US department of Commerce and the European Union

signed an international agreement, which required US firms to raise their level of self-regulation and the federal government to step up their enforcement actions (Bamberger & Mulligan, 2011, 2015; Long & Quek, 2002; Solove & Hartzog, 2014). On the other hand, legal scholars have been more keen on diving into the regulation of information in the US. However, this analysis centered mostly on the Federal Trade Commission (FTC), its privacy regulatory regime, and its influence over industry (Bamberger & Mulligan, 2011, 2015; Hoofnagle, 2016; Solove & Hartzog, 2014). In that regard, based on the FTC's complaints, Daniel Solove and Woodrow Hartzog described how the FTC have become an influential regulatory force that transformed practices and norms into a pro-consumer regime (Solove & Hartzog, 2014). Meanwhile, as part of a bigger interviews-based investigation into understanding privacy on the ground, Kenneth Bamberger and Deidra Mulligan explained the FTC's role in shifting corporate approaches to privacy and adopting a consumer expectation approach rather than a "formalist" approach to privacy (Bamberger & Mulligan, 2011, 2015).

In contrast to this broader literature, a theoretical gap still remains as to the investigation of how process-based regulation are adopted in the ICTs industry – an industry that is divided between two forces of innovation and privacy (Cohen, 2014; Zarsky, 2015). As such, the goal of this research is to follow the rise of the information regulatory state through the inquiry into the adoption of information protection regimes and the new policy instruments used to handle the global information market. The proposed PhD project offers to center on three case-studies. In parallel to the two leading information regulation regimes, this first paper offers to center on the broad European regime, while the second paper will deal with the much technology stronger American regime. The third paper offers to center on the multinational corporations and the transatlantic regulation of information. Closing this theoretical gap can shed light on the adoption of new approaches to regulation following the introduction of ICTs to existing regimes as they regulate cyberspace and contribute to success of new regimes being shaped.

Research Questions

1. What is the portfolio of policy instruments used to regulate Information and Communication Technologies in the US and Europe?
2. What are the differences and similarities in adopting new policy instruments and new regulatory strategies used to regulate Information and Communication Technologies in the US and Europe?
3. What are the explanations the causes to the differences in the new regulatory strategies used to regulate Information and Communication Technologies in the US and Europe?

Research Hypotheses:

1. The differences in the developments and the mix of privacy instruments are the results of a privacy paradigm shift from “rational choice theory” to “bounded rationality theory”.
2. The differences in the developments and the mix of privacy instruments are the result of the introduction of Privacy-by-Design into the data protection regime
3. The differences in the developments and the mix of privacy instruments are the results of the stronger policy influence of the European data protection institutions over state and non-state interests.
4. The differences in the developments and the mix of privacy instruments are the results of the promotion of information regulation as a public interest.
5. The differences in the developments and the mix of privacy instruments are the results of the involvement of professional associations.
6. The differences in the developments and the mix of privacy instruments are the results of the political power of the private interests promoting or preventing the adoption of information regimes.

Research Contribution

For many years, the literature concerning Internet governance in the past and Information regulation in the present gave a broad theoretical understanding regarding the use of policy instruments in regulating cyberspace (Lessig, 1999; Murray, 2007; Reidenberg, 1997; Zittrain, 2008). However, this literature does not consider the influence of multinational corporations, the rapid challenges brought by both technology and globalization, and the politics involved while state and non-state actors within the regulatory informational state fight over who will govern cyberspace and how. Therefore, the main goal of this proposed project is to explain the new strategies used to regulate ICTs, the causes for their adoption, and the effects of regulating through implementing policy instruments on cyberspace. Additionally, the proposed project adds three specific contributions to previous research. First, the regulation of ICTs sheds light on how a regime is slowly becoming a process-based regime through the interactions amongst actors and adopting new policy instruments. Second, the proposed project contributes to the research into ICTs and algorithm-based decision making in the context of how state and non-state actors use policy instruments to regulate cyberspace. Lastly, the differences between the EU and U.S. information protection regimes provide a broader comparative perspective rarely adopted by previous investigations.

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SELECTED PRESENTATIONS:

- 2016 **The 12th Annual Graduate Conference in Political Science, International Relations and Public Policy in Memory of the late Yitzhak Rabin, Presenting:** The Adoption of New Input-based Strategies in the Regulation of Information and Communication Technologies
- 2016 **The Third Privacy and Cyber Workshop 2016, Tel-Aviv University, Presenting:** Timeline Understandings: Privacy Governance in the Age of Information Collection Regulation, Speaker: May 19, 2016, Tel-Aviv, Israel.
- 2016 **The Cyber Forum May 2016, University of Haifa,** Meeting Title: “Licensing the Cyber Profession.” Hosting Adv. Deborah Housen-Couriel, Interdisciplinary Cyber Research Center, Tel Aviv University & Colonel (res.) Ami Shilo, Head of the Civilian Sector, Israel National Cyber Bureau, Prime Minister’s Office. Coordinator & Chair: May 18, 2016, University of Haifa, Israel.
- 2016 **Cyberspace and Human Factor 2016, The Hebrew University, Presenting:** In the Search for Effective Individual Action to Combat Revenge Porn: On the Implications of Shifting from Privacy Rights to Copyrights, Speaker: March 16-17, 2016, Jerusalem, Israel.
- 2016 **The Cyber Forum March 2016, University of Haifa,** Meeting Title: “Other People’s Papers.” Hosting Professor Jane Bambauer, University of Arizona. Coordinator & Chair: March 16, 2016, University of Haifa, Israel.
- 2016 **The Cyber Forum March 2016, University of Haifa,** Meeting Title: “Cybersecurity for Idiots.” Hosting Professor Derek Bambauer, University of Arizona. Coordinator & Chair: March 16, 2016, Haifa, Israel.
- 2016 **The Cyber Forum January 2016, University of Haifa,** Meeting Title: “Book Launch Reception & Discussion: “Privacy on the Ground: By Kenneth A. Bamberger and Deirdre K. Mulligan”. Hosting Prof. Kenneth A. Bamberger, UC Berkeley School of Law & Prof. Tal Zarsky, the Haifa Center for Law and Technology, University of Haifa, Faculty of Law. Chair & Coordinator: Jan. 20, 2016, Haifa, Israel
- 2015 **The Cyber Forum November 2015, University of Haifa,** Meeting Title: “Cyber-Security in the Internet of Things.” Hosting Mr. Hagai Bar-El, VP Security, IoT BU at ARM & Adv. Yoram Hacohen, CEO of the Israel Internet Association, Coordinator & Chair: Nov. 18, 2015, Haifa, Israel
- 2015 **The Amsterdam Privacy Conference 2015, Institute for Information Law (IViR),** Presenting: In the Search for Effective Individual Action to Combat Revenge Porn: On the Implications of Shifting from Privacy Rights to Copyrights, Speaker: Oct. 23-26, 2015, Amsterdam, The Netherlands.

- 2015 **The International Conference on Public Policy, University of Milano**, Presenting: Prometheus Bound: An Historical Content Analysis of Information Regulation in Facebook, Speaker: July 1-4, 2015, Milan, Italy.
- 2015 **Connected_Life_2015, Oxford Internet Institute**: Our Digital Society, presenting: Re-inscribing Social Networks' Complaints: Privacy Governance in the Age of Information Collection Regulation, Speaker: June 4, 2015, Oxford, UK.
- 2015 **The Cyber Forum April 2015, University of Haifa**, Meeting Title: "Lighting out the Darknet: Technological and Legal Issues." Hosting Adv. Dr. Haim Vismonsky, The Israeli Justice Department & Adv. Jonathan Klinger, Israel's Digital Right Movement, Coordinator & Chair: April 29, 2015, Haifa, Israel.
- 2015 **The Cyber Forum March 2015, University of Haifa**, Meeting Title: "The Renewed Role of the Sovereign in Cyber Protection - Israeli and International Aspects." Hosting Adv. Amit Ashkenazi, Legal Counsel, The Israeli National Cyber Bureau, Coordinator & Chair: March 18, 2015, Haifa, Israel.
- 2014 **The Seventh Annual Privacy Law Scholars Conference, UC Berkeley School of Law and The George Washington University Law School**, Presenting: Prometheus Bound: Chaining the Information-Collector Giant, Speaker: June 5-6, 2014, Washington D.C., U.S.A.
- 2013 **Law Faculty of McGill University and at the Cyberjustice Laboratory of Université de Montréal, Conference**, "the 12th annual ODR Forum", presenting: "Disputes Regulation by the Online Community? Learning from the Gaming Virtual Worlds Experience", Speaker, June 2013, Montréal, Canada.
Honors: the paper won a student call for papers on the "Future of ODR".
- 2013 **The Haifa Center for Law and Technology, University of Haifa**, Israel & the Hans-Bredow-Institut for Media Research at the University of Hamburg, Germany, Workshop, "Mapping the Frontiers of Governance in Social Media", presenting: "Understanding the Legal Comparative Perspective: Looking at Israeli and American Court Decisions", Speaker & Administrative Coordinator, July 2013, Haifa, Israel.
- 2013 **The Research Center for Media & Communication, University of Hamburg**, Germany, "Repeat, Remix, Remediate" Summer School, "The King Is Dead, Long Live the King: The Ambiguous Role of Copyright in a Digital Society" by Prof. Wolfgang Schulz, University of Hamburg/Hans-Bredow-Institute, Chair & Discussant, July-August 2013, Hamburg, Germany.

RESEARCH EXPERIENCE:

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- 2012-Today **Research Fellow at the Haifa Center for Law and Technology**, University of Haifa, Faculty of Law
- Conducts research in legal scholarship on Internet Governance, Information Privacy

- Law, Copyright Law, Cyber-regulation.
- 2013-2014 **SPILS Fellow at Stanford Law School**, Stanford Program for International Legal Studies
- Assisted and followed my colleagues to the SPILS Program with their empiric research, as well as references to scholarship and literature that might be of relevance to their research.
- 2012-2013 **Research Assistant to Prof. Niva Elkin-Koren**, Director, the Haifa Center for Law & Technology
- Conducted research in legal scholarship on Intermediary Liability, Copyrights, and Enforcement.
 - Organized the Freedom of Information (FOI) requests from the Judicial Authority regarding cases involving litigation in Copyrights.
- 2012-2013 **Research Assistant to Prof. Tal Zarsky**, Senior Lecturer, the Haifa Center for Law & Technology
- Conducted research in legal scholarship on Online Intermediary Liability, Online Privacy, User Interest & Freedoms, Social Norms, Online Architecture and Enforcement.
 - Coordinated various interdisciplinary research projects academically sponsored by professors from Israel and Germany including creating a comparative survey, analyzing regulation theory, and describing internet architecture & code.
- 2008-2010 **Research Assistant to Dr. Daniel Benoliel**, Assistant Professor, Haifa Center for Law & Technology.
- Edited papers and conducted research in areas such as International Intellectual Property, Patents, Internet Standards, and Internet Regulations.

TEACHING EXPERIENCE:

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- 2016-Today **Teaching Assistant to Public Policy School Members, The Hebrew University of Jerusalem**
- “Comparative and Global Policy”, Dr. Elyakim Kislev
 - “Globalization, Immigration and Policy”, Dr. Elyakim Kislev
- 2009-Today **Teaching Assistant to Faculty Members, Faculty of Law, University of Haifa**
- “Ethics for Lawyers,” Prof. Eli Salzberger
 - “Cyber Law,” Dr. Alan Miller.
 - “Property Law,” Dr. Alexander (Sandy) Kedar & Dr. Raif Zraik.
 - "Law in the Information Era," Prof. Niva Elkin-Koren.
 - "Foreign Legal Systems: Historical and Comparative Aspects," Dr. Sylviane Colombo.
 - "Patent Law" and "Biotechnology Law," Dr. Daniel Benoliel.

- 2011-2015 **Teaching Assistant in the Global Law Program, Faculty of Law, University of Haifa**
- **Prof. Neil W. Netanel**, UCLA School of Law, USA – Course: “Cross Border Intellectual Property Litigation”.
 - **Prof. Gerald Spindler**, Georg-August-Universität Göttingen, Germany – Course: “European Consumer Protection Law”.
 - **Prof. Michael Botein**, New York Law School, USA – Course: "U.S. Law of Electronic Communications: Media, Telecommunications, Internet".
 - **Prof. Andreas Heinemann**, University of Zurich, Switzerland – Course: "The Regulation of Competition in the IT Sector – An EU Perspective".
 - **Prof. Mark Ramseyer**, Harvard University, USA – Course: "Practicing Law in Japan".
 - **Prof. Wolfgang Schultz**, Hans-Bredow-Institut, University of Hamburg, Germany – Course: “Regulating the Information Sector”.

PROFESSIONAL EXPERIENCE:

- 2014-2016 **Coordinator of the Cyber Forum, Haifa Center for Law and Technology & the Minerva Center for the Rule of Law under Extreme Conditions at the University of Haifa**
- Coordinated, organized and planned conferences in the Law and Technology fields.
 - Oversaw numerous projects, including: Public Relations and Advertising of the Center, Webmaster, and Collecting Research Agendas from the center members.
- 2012-2013 **Coordinator of the Haifa Center for Law and Technology.**
- Coordinated, organized and planned conferences in the Law and Technology fields.
 - Oversaw numerous projects, including: Public Relations and Advertising of the Center, Webmaster, and Collecting Research Agendas from the center members.
- 2010-2012 **Paralegal & Legal Clerk for Commissioner Yoram Hacohen, the Israeli Law, Information and Technology Authority, the Israeli Justice Department.**
- Conducted Research and wrote Policy Papers in such areas as Online Intermediary Liability, Online Privacy & Anonymity, Cellular Technologies, and Children's Online Privacy.
 - Prepared legal summaries for Governmental, and Parliament Committee Hearings.
 - Prepared position papers and proposals for legislation, regulation, and regulatory guidelines.
- 2007-2013 **Project Leader for "Creative Commons" Israel (volunteer).**
- Wrote legal papers on Creative Commons, Online Licensing and related subjects.
 - Worked with the Israeli Open Source and Open Content Communities.
 - Represented the International Organization in Parliament committee hearings.
 - Represented Israeli interests in international conferences.

PROFESSIONAL TRAINING:

- **ECPR, Budapest Summer School for Research Methods**
Qualitative Comparative Analysis (Certificate received: July 2016): Coding Language: R
- **Coursera, Specialization Certificate – John Hopkins University**
Data Science, Signature Track (Certificate: in process): Coding Language: R
- **Coursera - University of Michigan**
Programming for Everybody (in process): Coding Language: Python
- **The Research Center for Media & Communication, University of Hamburg, Germany**
Summer school on "Repeat, Remix, Remediate" (Certificate received: August 2013)

LANGUAGES

Hebrew (native); English (excellent); German (Basic).