College of Information Studies University of Maryland 4130 Campus Drive (Hornbake Building) College Park, MD USA 20740 sevilla@umd.edu https://idonibrasco.github.io/

INTERESTS & HIGHLIGHTS:

I am an Assistant Professor at the College of Information Studies, University of Maryland. I am interested in comparatively analyzing institutional settings and policy developments for digital risk governance across nations, sectors, and contexts. I study information technology governance by investigating top-down and bottom-up governance structures as well the operation of threat actors. I aim to test theories on the expansion of the state on digital risk governance frameworks, while utilizing my technical information security expertise to complement findings at the policy level with studies on how security & privacy threat actors are institutionalized 'on the ground.' I use process-tracing, thematic & inductive analysis, fuzzy set qualitative comparative analysis (fsQCA), and statistical analysis to reach my conclusions.

I hold a background in computer and social sciences, with eight years of experience in leading technical cybersecurity positions from the private sector, Israel's Prime Minister's Office, and the Israeli Air-Force [Captain]. I was previously a postdoctoral fellow at Cornell Tech's Digital Life Initiative (DLI), MA Fulbright Scholar at the University of Minnesota, and U.S. Congress Research Fellow in Washington DC. I had completed my BA with honors in Computer Science at the Technion – Israel's Institute of Technology.

I have published peer-reviewed journal articles on U.S. & EU policy processes and institutions that govern cybersecurity, privacy, and national security. I teach about theories of the policy process, public policies for the digital world, information risk management [cybersecurity, privacy, and ethics], and created a class for designing and implementing honeypot technologies to capture the behavior of hackers.

EDUCATION

08/2014-08/2019

Ph.D. in Public Policy & Governance, Federmann School of Public Policy and Government, **The Hebrew University of Jerusalem**. Academic Supervisor: Prof. David Levi-Faur.

<u>Dissertation Title:</u> Explaining Policy Change in Governing Digital Technology Risks: Longitudinal Analysis of US and EU Cybersecurity and Privacy Policy Regimes

08/2012-08/2014

M.A in Public Policy, Global Policy Concentration, The Humphrey School of Public Affairs, **University of Minnesota**. Academic Supervisor: Prof. Brian J. Atwood. (GPA: 3.95/4.00)

<u>Thesis:</u> Whistleblowing in the Digital Age – A Comparative Analysis of Whistleblowing Acts in U.S. and Israel.

10/2002-12/2005

B.A in Computer Science, **Technion – Israel's Institute of Technology** (Dean's list of honors for Scholastic Achievements – top 10% of class).

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RESEARCH EXPERIENCE

01/2021-currnet	Assistant Professor, College of Information Studies, University of Maryland
08/2019-12/2020	Postdoctoral Fellow at the <u>Digital Life Initiative (DLI) in Cornell-Tech</u> , Cornell University, New York City, New York, U.S.
	Host: Prof. Helen Nissenbaum <u>Research Project Title:</u> Accountable Information Use – Privacy and Fairness in Autonomous Decision-Making Systems.
04/2016-04/2018	Neubauer Research Fellow at the Institute for National Security Studies (INSS), Tel Aviv University . Cybersecurity Research Program.
08/2014-08/2016	Researcher in a multi-disciplinary group, funded by Israel's Ministry of Science, to study the behavior of hackers. Designing and implementing honeypot technologies to capture hackers' behavior.
10/2013-08/2014	Research Assistant at the Humphrey School of Public Affairs, University of Minnesota . Working with Prof. Brian Atwood on U.S. institutions.

PUBLICATIONS

Peer-reviewed Scientific Journals

- Sivan-Sevilla, I. (2020) "Europeanization on Demand: The EU Cybersecurity Certification Regime between Market Integration and Core State Powers [1997-2019]." *Journal of Public Policy*. DOI:10.1017/S0143814X20000173. Summary available here.
- Sivan-Sevilla, I. (2019). "Framing and Governing Cyber Risks: Comparative Analysis of US Federal Policies [1996-2018]", *Journal of Risk Research*. DOI:10.1080/13669877.2019.1673797
- Sivan-Sevilla, I. (2018). "Complementaries and Contradictions: National Security and Privacy Risks in U.S. Federal Policy, 1968-2018", *Policy & Internet* 11(2): 172-214, DOI: 10.1002/poi3.189. Blog post about the article available here.
- Siboni G. & I. Sivan-Sevilla. (2017). "Israeli Cyberspace Regulation: A Conceptual Framework, Inherent Challenges, and Normative Recommendations." *Cyber, Intelligence, and Security* 1(1):83-102. Available here.
- Sivan-Sevilla, I. (2020). "Analytical Framework for Cyber Risk-Regulatory Models", *Haifa Law Review*. Paper was selected 5 out of 20 papers for a special issue on law & cyber policy. Available here (Hebrew).

Under Review:

Sivan-Sevilla, I. "Data Protection Enforcement Strategies post-GDPR: A fuzzy-set qualitative comparative analysis (fsQCA) across data protection authorities."

Work-in-Progress:

- Sivan-Sevilla, I. and Levi-Faur D. "Building & Controlling Security Capacities: How and why technological innovations transform the EU regulatory security state." Slides available here.
- Sivan-Sevilla, I. "Cyber insurers as Regulators: Comparative Analysis of Risk Management Roles taken by Cyber Insurance Companies." Essay available here.

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- Sivan-Sevilla I., Newman A., Mizrahi-Borohovitch I. "The civic transformation of policy implementation: A comparative analysis of bottom-up data protection enforcement by NGOs across member states." Abstract available here.
- Sivan-Sevilla, I. Parham, P., Nissenbaum H. "How publishers govern your privacy? The political economy of web privacy."
- Sivan-Sevilla, I. "Power with(out) responsibility? A comparative analysis of 'effective accountability' across public algorithmic governance." Pending funding proposal here.
- Sivan-Sevilla, I. "Cybersecurity with(out) accountability? The shadow of hierarchy for private rule-intermediaries in the digital economy." Abstract available here.

Book Chapters

Sivan-Sevilla I. & S. Sharvit. "When Cybersecurity Meets the Regulatory State: Case-Study Analysis of the Israeli Cybersecurity Regulatory Regime". In Galnor I., E. Tevet, and V. Shiffer (eds.). *Regulation in Israel: Values, Effectiveness, Methods.* Available here.

Under Review:

Sivan-Sevilla I. "The Israeli Cybersecurity Challenge: Policy Regime Change [1998-2018]." In Avigur A. and I. Berkovich (eds.) *Public Policy in the Information Age*. Open University of Israel. Magness Books.

Peer-reviewed Conference Proceedings

- Sivan-Sevilla I., W. Chu, X. Liang, H. Nissenbaum. (2020). "<u>Unaccounted Privacy Violation: A Comparative Analysis of Persistent Identification of Users Across Social Contexts</u>." *FTC PrivacyCon 2020*. Research was highlighted by Cornell University <u>here</u>.
- Sivan-Sevilla, I. (2017). "<u>Trading Privacy for Security in Cyberspace: A study Across the</u>

 <u>Dynamics of U.S. Federal Laws and Regulations Between 1967 and 2016</u>." *9th International Conference on Cyber Conflict (CyCon)*. IEEE, pp. 1-19. Available here.
- Rechavi, A., T. Berenblum, D. Maimon, I. Sivan-Sevilla. (2015). "<u>Hackers Typology Matter</u> <u>Geography: Mapping the Dynamics of Repeated System Trespassing Events Networks</u>." IEEE/ACM International Conference on Advances in Social Network Analysis and Mining.

Peer-Reviewed Research Projects for Policymakers

- Siboni G. & I. Sivan-Sevilla. (2018). "Cybersecurity Regulations at the Private Sector: A Comparative Analysis of U.S., EU, UK, France, Germany, and Israel." *INSS: Tel-Aviv, Israel.* Available here.
- Shwartz-Altshuler T., Aridor-Hershkovitz R., and Sivan-Sevilla, I. (2021). "What is Cyber Security? Cyberspace, Cyber Attacks, and Cyber Protection" *The Israel Democracy Institute*, Jerusalem (Hebrew). Available here.

Non-Refereed Articles and Essays

"Can We Diverge From the Path of Digital Surveillance?" Smerconish for Independent Minds, 12 Aug 2021.

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"Private-Interest Cybersecurity Governance: The Case of Cyber Insurers," Cornell Tech Blog, 16 Dec 2020.

"The Role of the State in the Private Sector Cybersecurity Challenge" (co-author), Georgetown Journal of International Affairs, 27 May, 2018.

"The Double Standard of the State in Cybersecurity" (Hebrew), The Marker, 3 March, 2017.

"The FCC's Latest Privacy Regulations: A New Stance on Private Sector Protections?", The Columbia Science and Technology Law Review, 12 December, 2016.

"Apple vs. The FBI: The War on Privacy and Security" (Hebrew), Calcalist, 6 March, 2016.

"The EU-US Fight for Privacy" (Hebrew), INSS Blog, 9 February, 2016.

AWARDS, FELLOWSHIPS, GRANTS, AND HONORS

2020-2023	Government of Singapore: AI & Public Opinion Research Grant (Collaborator, €55,000)
2019-2021	ISEF Foundation Postdoctoral Fellow (€8,600 Annually).
2016-2019	<u>Azrieli</u> Foundation: Graduate Studies PhD Fellowship (€87,560 for three years). Each year 15 PhD students are selected from the entire country.
2016-2019	The <u>Hoffman</u> Leadership and Responsibility Program PhD Fellowship at the Hebrew University of Jerusalem (€43,000 for three years). Each year 12 doctoral students are selected from the entire university.
2016-2018	Institute of National Security Studies (INSS) <u>Neubauer PhD Fellowship</u> <u>Program</u> . (€28,700 for three years)
2017	<u>Top Student Paper</u> - Seventh Annual International Symposium, Center for Digital Ethics and Policy, Loyola University Chicago.
07/2017	Leonard Davis Institute Fellowship for <u>Oxford Internet Institute Summer</u> <u>Doctoral Program</u> . (€2,580)
2016	European Forum at the Hebrew University Fellowship. (€860)
06/2016	Ortwin Renn Prize for Applied Risk Research - European Society for Risk Analysis (SRA-E) (€473).
2015	The Federmann School of Public Policy and Government, PhD Fellowship for Excellence in Studies. (€14,370)
05-08/2013	Rosenthal Fellowship for Placement as a Legislative Assistant at the U.S. Congress. (€6,450)
2012-2014	U.S. Department of State, <u>Fulbright</u> Scholarship for MA at the Humphrey School of Public Affairs, University of Minnesota. (€130,000)
2004-2005	Technion – Israel's Institute of Technology. Dean's list of honors for Scholastic Achievements.
2002-2005	Israeli Defence Forces (IDF), ' <u>Atidim'</u> Scholarship for BA in Computer Science at the Technion – Israel's institute of Technology. (€26,000)

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TEACHING EXPERIENCE

2021 – current	Lecturer, "Information Risk Management," syllabus available <u>here</u> .
	UMD's iSchool.

Lecturer, "Cybersecurity Foundations for Policymakers," syllabus TBD.

UMD's iSchool.

2015-2019 Teaching Assistant, "Conceptual and Theoretical Issues in Public Policy",

Graduate level, Israel's Cadets Program (Future Policymakers), The Federmann School of Public Policy and Government, **The Hebrew**

University of Jerusalem.

2015-2017 Teaching Assistant, "Theories of the Public Policy Process"

Graduate level, M.A. Program, The Federmann School of Public Policy

and Government, The Hebrew University of Jerusalem.

PHD MENTEES

2021 – current Patrick T. Parham: Comparatively Studying identify graphs constructed by

the data brokers industry.

PROFESSIONAL POSITIONS

05-08/2013	Legislative Assistant at the U.S. House of Representatives , Office of Congressman Ami Bera (CA-07), <u>Letter</u> from Congressman.
09/2011-08/2012	Cybersecurity Projects' Leader, The Prime Minster Office, The Government of Israel .
02/2011-09/2011	Product Manager, The NextNine Corporation, Industrial Cybersecurity.

MILITARY & LEADERSHIP EXPERIENCE

2009-2011	Cybersecurity Team Leader [Captain], Israeli Air Force (IAF) , <u>'Ofek' – IAF's Technological Unit</u> . Responsible for securing IAF's operational digital infrastructures. Managing a team of 11 programmers and consultants with a budget of \$7M. Team was chosen for excellence in 2010.
2007-2009	Cybersecurity Team Member [Lieutenant], Israeli Air Force , 'Ofek' – IAF's Technological Unit.
2005-2007	Information Technology Knowledge Manager, Israeli Air Force (IAF), Pilot's Training Academy.

PRESENTATIONS AT INTERNATIONAL CONFERENCES

(2020) "Unaccounted Privacy Violation: A Comparative Analysis of Persistent Identification of Users Across Social Contexts." FTC Privacy Con 2020. Agenda is here. Video of Presentation [2:21:30].

(2018) "Regulating Emerging Technologies in the EU: Online Advertising as an Emerging AI Technology that Threatens Cybersecurity and Privacy", *AI Law & Policy*, The Center for Cyber Law & Policy, University of Haifa (*invited*). Video of panel here.

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- (2018) "Reasserting Government in the Age of Governance: An Analysis of the U.S. Cyber Security Risk Regimes", *Society for Risk Analysis (SRA) 2018 Annual Meeting*, New Orleans, Louisiana, United States (*invited*).
- (2018) "A Broken Distribution of Privacy: Evaluation of the Commodification of Personal Information Across Market Segments", *Amsterdam Privacy Conference*, The University of Amsterdam (*invited*).
- (2018) "U.S. Cybersecurity Risk Regulation Strategies", *Digital State Capacities Workshop*, Hertie School of Governance, Berlin, Germany, 20 March.
- (2017) "The Politics of U.S. Cybersecurity Risk Governance", *The 13th Annual Graduate Conference in Political Science, International Relations, and Public Policy*, The Hebrew University of Jerusalem, 13-14 December.
- (2017) "Dynamic Policy Goals: Security and Privacy in U.S. Laws and Regulations", *Seventh Annual International Symposium on Digital Ethics*, Center for Digital Ethics and Policy, Loyola University Chicago, 13 October.
- (2017) "Trading Privacy for Security? A Study Across the Dynamics of U.S. Federal Policy Regimes in Cyberspace", 3rd International Conference on Public Policy, Lee Kuan Yew School of Public Policy (NUS), Singapore. 28-30 June
- (2017) "Trading Privacy for Security in Cyberspace: A Study Across the Dynamics of U.S. Federal Laws and Regulations", 9th International Conference on Cyber Conflict (CyCon), NATO Cooperative Cyber Defence Center of Excellence (CCDCOE), Tallin, Estonia. 30 May 2 June. Video of presentation available here.
- (2016) "The Rise of the U.S. Digital Surveillance State", *The 12th Annual Graduate Conference in Political Science, International Relations, and Public Policy,* The Hebrew University of Jerusalem, 13-16 December.
- (2016) "U.S. Cybersecurity With/Out Privacy", *The 25th Meeting of The European Association for Risk Analysis*, University of Bath, UK, 19-22 June.
- (2016) "Israeli Cybersecurity Regulation", *The 18th Annual Conference of the Israeli Political Science Association (IPSA)*, Jerusalem, 26 May.

REFEREE FOR JOURNALS / BOOK SERIES

Regulation & Governance (Wiley)

Policy & Internet (Wiley)

Security Dialogue (SAGE)

Digital Policy, Regulation and Governance (Emerald Publishing)

MIT Press: The Information Policy Series

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ACADEMIC WORKSHOPS (Invited as Speaker & Reviewer)

10/2021	Contextual Integrity Symposium – Project presented: "Cross-context identification by third parties in the web." [slides]
07/2021	Invited panelist – "Comparing Effects and Responses to GDPR and CCPA" – CLTC UC Berkley. [summary report]
06/2021	Panel Chair – "Public Policies for Digital Risks" – <u>International</u> <u>Conference on Public Policy.</u>
06/2021	Privacy Law Scholars Conference (PLSC): my paper on GDPR enforcement was workshopped.
05/2021	The 8th Privacy, Cyber & Technology Workshop, Tel Aviv University
01/2021	Institute for Information Law (IViR), University of Amsterdam: <u>Governing European values inside data flow</u>
12/2020	ECPR RegGov Early Career Network (ECN)
11/2020	Joel R. Reidenberg Northeast Privacy Scholars Workshop
12/2019	Interactions between Private and Public Authority in Global (Business) Governance: comparative and inter-disciplinary perspectives. University of Melbourne – hosted by Prof. Macdonald .
11/2019	Power Sharing or Power Shifts? Examining the role of public-private interactions in global governance. Technical University of Munich (TUM) School of Governance.
01/2019	Risk Regulation & Society, Lorentz Center, Institute of Public Administration, Leiden University, The Netherlands.
2017-2018	Privacy and the Capitalism of Information, Bi-monthly Workshops, Faculty of Law, Tel Aviv University.
01/2018	Private Authority and Public Policy in a Global Context. Yale University.
04/2015	The Second Privacy, Cyber, and Technology Workshop, Faculty of Law, Tel Aviv University.

MEMBERSHIPS IN PROFESSIONAL ASSOCIATIONS

<u>Israeli Public Diplomacy Forum</u> (IPD) (two years)

International Public Policy Association (IPPA) (five years)

Society for Risk Analysis (SRA) (four years)

Israel Political Science Association (ISPA) (four years)

GUEST LECTURER

2020	Seminar Presentation at Cornell Tech: <u>AdTech & Our Privacy – Dark Present, Brighter Future?</u> Video of the talk is <u>here</u> .
2020	Research presentation at the <u>University of Coventry (UK)</u> in a module on 'Artificial Intelligence, Creativity, and Ethics' [Undergraduate]. Seminar topic: "Privacy as Contextual Integrity: Highlighting Industry and Policy Failures Through the case of Digital Advertising."
2020	Seminar at ETH Zurich: Approaches to Authentication and Security

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2017	Inter-American Development Bank & The Hebrew University of Jerusalem. Cybersecurity Executive Training with policymakers from Latin America.
2017	Israeli Public Diplomacy (IPD) Forum. <u>Six invited lectures</u> and <u>TV</u> <u>Interviews</u> on cybersecurity in U.S., Florida, <u>with business and community leaders</u> . Deception-based Security lecture available <u>here</u> . Evaluation letter <u>here</u> (Hebrew).
2017	Teldan's Information Systems Conference. Invited lecture on "the tension between security and privacy in cyberspace."
2016	Yigal Arnon (Law firm) Annual Meeting. Invited lecture on: "Implications of open-source principles on cybersecurity: Linux-based cases."

PROGRAMMING LANGUAGES

C++, Python, R, SQL, Stata, JavaScript, HTML

OUTREACH & COMMUNITY LEADERSHIP ACTIVITIES

2016 – 2019	Working with Israeli Policymakers from the National Cyber Directorate to form policy solutions for cybersecurity challenges
2014-2019	Community leadership at the Wizo Institute in Jerusalem – Leading a <u>helpline for violent men</u> to mitigate family violence.
2012	"Push" Program - Tutoring high school students from low socio-economic classes.
2011	<u>"Tzeva - Youth Building A Future"</u> - supporting students from struggling regions in Israel.
2011	Amit Program – Jewish Agency. "Hillel" training program for collaboration with Jewish students in the U.S.
2003-2005	Perach - Tutorial Project

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