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 apply historical institutionalism to understand the governance of Information and Communication Technologies (ICTs) across nations, sectors, and contexts. I study top-down and bottom-up governance structures and the way they interact to institutionalize digital practices. I am interested in understanding how come we constantly fail at governing social harms associated with ICTs in the fields of security, privacy, surveillance, and accountability? I explain the puzzle of how sticky, resistant to change policy institutions come together and interact with the rapid institutionalization of digital practices by private actors. I study structure, process, ideas, and discourse across these institutional environments. I use process-tracing analysis, thematic analysis, fuzzy set qualitative comparative analysis (fsQCA), statistical models, and social network analysis (SNA) 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 policy and governance, information risk management, the foundations of cybersecurity, ethics & privacy, and societal harms of new media.

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)

Thesis: 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	<u>Assistant Professor</u> , 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
	Research Project Title: 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.* (2021) "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. (2021). "Framing and Governing Cyber Risks: Comparative Analysis of US Federal Policies [1996-2018]." Journal of Risk Research 24(6): 692-720 DOI:10.1080/13669877.2019.1673797
- Sivan-Sevilla, I. (2019). "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.
- 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 Gatekeepers post-GDPR: A fuzzy-set qualitative comparative analysis (fsQCA) across data protection authorities." DOI: 10.31235/osf.io/kjf8q
- Mizrahi-Borohovitch I., Newman A., & *Sivan-Sevilla I*. "The civic transformation of data privacy implementation in Europe: Understanding differential enforcement by NGOs across member states." Draft available here.
- *Sivan-Sevilla, I.* "Varieties of Supranational Security States: The historical institutionalization of EU security interventions in technological contexts." Draft available here.

Work-in-Progress:

Sivan-Sevilla, I. "The institutionalization of insurance in cybersecurity: comparative analysis of the security role of insurers across organizations." Essay available here.

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- *Sivan-Sevilla, I.* "Power with(out) responsibility? A comparative analysis of 'effective accountability' across public algorithmic governance." Pending funding proposal here.
- *Sivan-Sevilla, I.* Parham, P., Nissenbaum H. "Toward Consumer Surveillance in a 'Cookie-less' World: The institutionalization of persistent identification by publisher networks"
- Ahmed, S., Kit, W., & *Sivan-Sevilla, I.* "Contextual tracking paradigms: online tracking sources and granularity preferences across US and Singapore cultural settings."

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). "Trading Privacy for Security in Cyberspace: A study Across the Dynamics of U.S. Federal Laws and Regulations Between 1967 and 2016." 9th

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

Book Chapters

Sivan-Sevilla I. & S. Sharvit. (2020) "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 Research Book 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.
- "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.

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AWARDS, FELLOWSHIPS, GRANTS, AND HONORS

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2022-2024	Temasek Grant – Government of Singapore: "Examining and inoculating against the digital deception of deepfakes." Research Grant (Collaborator, €363,397)
2020-2023	Ministry of Education - Government of Singapore: "Public Opinion on Artificial Intelligence in a Post-Trust Era." 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 Oxford Internet Institute Summer Doctoral Program. (€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)

TEACHING EXPERIENCE

2021 – current	Lecturer, Graduate-level class: "Information Risk Management," syllabus available here . UMD's iSchool.
	Lecturer, Graduate-level class: "Foundations of Cybersecurity," syllabus available here . 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: "Identity construction of marginalized communities in

times of crisis by digital service providers."

PROFESSIONAL POSITIONS

05-08/2013 Legislative Assistant at the U.S. House of Representatives, Office of

Congressman Ami Bera (CA-07), Letter 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), Ofe	<u>k' –</u>
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<u>IAF's Technological Unit</u>. Responsible for securing IAF's communication 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

(2022 – Upcoming) "Data Protection Gatekeepers post-GDPR: A fuzzy-set qualitative comparative analysis (fsQCA) across data protection authorities." <u>European Union Studies Association (EUSA) Annual Conference.</u>

(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.

(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*).

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- (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.

REFEREE FOR JOURNALS / BOOK SERIES

Regulation & Governance (Wiley)

Policy & Internet (Wiley)

Security Dialogue (SAGE)

Digital Policy, Regulation and Governance (Emerald Publishing)

Journal of the Association for Information Science and Technology

MIT Press: The Information Policy Series

ACADEMIC WORKSHOPS (Invited as Speaker & Reviewer)

06/2022	[upcoming] <u>Privacy Law Scholars Conference (PLSC):</u> "The civic transformation of privacy implementation: A comparative analysis of bottom-up data protection enforcement by NGOs across member states."
10/2021	<u>Contextual Integrity Symposium</u> – 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	<u>Privacy Law Scholars Conference (PLSC):</u> my paper on GDPR enforcement was workshopped.
05/2021	The 8th Privacy, Cyber & Technology Workshop, Tel Aviv University

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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	<u>Private Authority and Public Policy in a Global Context</u> . Yale 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</u> <u>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
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."

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PROGRAMMING LANGUAGES

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

OUTREACH & COMMUNITY LEADERSHIP ACTIVITIES

2016 – current	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	<u>"Push" Program</u> - 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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