# **Taxation of Emerging Technologies: Theory and Practice**

# **Professor Mindy Herzfeld**

## University of Florida Levin College of Law Graduate Tax Program

**Syllabus** 

**Spring 2026** 

## **Taxation of Emerging Technologies**

LAW #7931

## **Professor Mindy Herzfeld**

Office: 374

Phone: 352-273-0932

Office Hours: Monday 1-3PM, or by appointment

A. <u>Course Materials</u>: The required reading/video links/tools to be utilized can be accessed through links provided below or are posted on Canvas.

B. <u>Topics</u>: The topics for class, along with the assigned readings are described in the pages that follow.

C. Grade: Your grade will be based on the following:

- (1) Reading Assignments (40% of grade) (you will be assigned to submit questions to present to the class for discussion)
- (2) AI Tool Exercises (50% of grade) There are 3 exercises using different AI tools that you will be required to submit as part of the course, discussed in greater detail below. Part of your grade (25%) will be based on submitting the required work product before class. The other part (25% of the grade) will be awarded based on submission of final work product including reflective comparison essay.
- (3) Crypto case study (10% of grade).

The law school policy on exam delays and accommodations can be found here.

This course follows the Levin College of Law's grading policies found https://law.ufl.edu/student-life/uf-law-student-handbook-academic-policies/

Letter Grade	Point Equivalent
A (Excellent)	4.0
A-	3.67
B+	3.33
В	3.0
B-	2.67
C+	2.33
C (Satisfactory)	2.0
C-	1.67
D+	1.33
D (Poor)	1.0
D-	0.67
E (Failure)	0.0

D. <u>Readings and Other Prep Assignments</u>. You should be prepared to discuss the reading assignments for each class. You will also be required to familiarize yourself with the tech tools

being used in class, as described below and further in the syllabus.

E. <u>Attendance</u>. Per ABA requirements, you will be expected to attend a minimum of 80 percent of all classes.

#### F. Class Preparation

The following should be downloaded or registration completed before the start of the course:

- 1. BlueJ registration: the course will include an exercise using the Blue J Legal tool. Please provide me with confirmation that OK for me to provide your names and emails in order to register you for free access to this app.
- 2. OpenAI: You should sign up for an OpenAI account, which is free. https://openai.com/
- 3. <u>Become familiar with Microsoft CoPilot. See https://copilot.cloud.microsoft/en-US/prompts for overview, and then at bing.com you can access CoPilot using your UF credentials.</u>

**ABA OUT-OF-CLASS HOURS REQUIREMENTS:** ABA Standard 310 requires that students devote 120 minutes to out-of-class preparation for every "classroom hour" of in-class instruction. Each weekly class is approximately 2 hours in length, requiring at least **4 hours of preparation** outside of class including reading the assigned materials, preparing discussion questions, and working on assigned problems.

- G. <u>Guest Lecturers</u>. There will be a number of guest lectures during the week as indicated below. They are giving of their time partly in order to learn from you. You will need to be prepared with assignments (readings and AI tools) for discussion with them.
- H. <u>Class Schedule</u>. This class will meet on Mondays, 5:45pm-7:45pm, all via zoom. The zoom link is posted in canvas.

#### **Summary of the Course**

Artificial Intelligence is one of the most exciting and important developments of our time. Machine learning has and will continue to alter the way we conduct business and our lives and is transforming the nature of work. In law, artificial intelligence is raising both fundamental questions about how law is made and the role of machines in the analysis of contracts and statutes, the evolution of law, and the role of machines in legal decisions. In the legal practice, artificial intelligence is introducing radical changes into the lawyer's role, how information is processed and how data is analyzed, and in the ability of lawyers to charge for their skills and expertise. All of these changes are present in the field of tax law as well.

But is AI a profound change, or simply the latest iteration of a technological innovation causing disruption in society? As a preface to our study of how AI is changing the practice of tax law, we begin with a look at how emerging technologies have historically impacted the development of tax law, and how revenue raising measures have morphed in response to technological change. We will then move on to consider the practical questions AI poses for today's attorneys, whether in private practice or government administration, as well as larger questions about the impact of AI on the labor force and the impact that might have on tax revenues. We work with emerging AI tools and with other new technologies such as crypto to consider their opportunities and risks in real time.

Assigned readings are noted below.

## Objectives of the course

This course has a number of objectives:

- 1. To understand the historical development of the tax law in response to emerging technologies;
- 2. To explore the applications of artificial intelligence to the law and the legal profession and the opportunities and challenges it poses to each and become familiar with the academic literature in the field;
- 3. To appreciate the unique opportunities and challenges AI offers in the field of tax law and to the tax profession;
- 4. To become familiar with AI tools that tax practitioners are utilizing in daily practice;
- 5. To consider the tax implications of other emerging technologies such as blockchain.

#### **Required Course Materials**

All required readings are posted in canvas or linked to/listen in the syllabus.

- 4. Reference Materials. Additional reference materials are noted below and for each class.
- **5.** Office Hours. In addition to the office hours noted above, I am available for in-person or phone consultations. These can be scheduled by email at herzfeld@law.ufl.edu.

## **Reference Materials**

Research Handbook on Big Data Law (Roland Vogl, ed.) (2021) (available on <u>reserve in library</u> and selected chapters available on canvas).

### Class 1: Monday, Jan. 26

Introduction to the Course: Making Sense of AI

## Reading Assignment:

- 1. What is AI? / Basic Questions, by Prof. John McCarthy, available at <a href="http://jmc.stanford.edu/artificial-intelligence/what-is-ai/index.html">http://jmc.stanford.edu/artificial-intelligence/what-is-ai/index.html</a>, along with Branches of AI, available at <a href="http://jmc.stanford.edu/artificial-intelligence/what-is-ai/branches-of-ai.html">http://jmc.stanford.edu/artificial-intelligence/what-is-ai/branches-of-ai.html</a> (2007)
- 2. What is Generative AI, IBM Research Blog <a href="https://research.ibm.com/blog/what-is-generative-AI">https://research.ibm.com/blog/what-is-generative-AI</a>
  - 3. Verity Harding, <u>AI Needs You: How we can change AI's Future and Save our Own</u> (2024) (selected chapters, available on canvas, also available <u>online through the library</u>).

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4. John McDonald, What if its Robots All the Way Down? (unpublished, available on canvas)

#### Class 2: Monday, Feb. 2

## Technological Revolutions; Taxing Innovation

- 1. Art Kleiner, Carlota Perez: The Thought Leader Interview, strategy+business (2005). Available at <a href="https://www.strategy-business.com/article/05410">https://www.strategy-business.com/article/05410</a>
- 2. David Edgerton, The Shock of the Old: Technology and Global History Since 1900 (2011). Selected chapters available on Canvas.
- 3. Stefanie Stantcheva, The Effects of Taxes on Innovation: Theory and Empirical Evidence, NBER WP 29359 (2021) <a href="http://www.nber.org/papers/w29359">http://www.nber.org/papers/w29359</a> [NOTE: this is an econ research paper. Unless you have a background in economics, I suggest starting from part 3]
- 4. Ufuk Akcigit John Grigsby Tom Nicholas Stefanie Stantcheva TAXATION AND INNOVATION IN THE 20TH CENTURY Working Paper 24982 <a href="http://www.nber.org/papers/w24982">http://www.nber.org/papers/w24982</a>, 2018, rev. 2021). [NOTE: this is an econ research paper. Unless you have a background in economics, I suggest limiting your reading to the Introduction and Conclusion]

#### The Corporate Tax and the Gilded Age

- Kornhauser, Marjorie E. Corporate Regulation and the Origins of the Corporate Income Tax, 66
  Ind. L.J. Iss. 1, Article 2 (1990). Available at:
   <a href="https://www.repository.law.indiana.edu/ilj/vol66/iss1/2">https://www.repository.law.indiana.edu/ilj/vol66/iss1/2</a>
- 2. Hugh Rockoff, GREAT FORTUNES OF THE GILDED AGE, NBER Working Paper 14555 (2008) http://www.nber.org/papers/w14555

#### Class 3: Monday, Feb. 9

### Old Modalities Under Pressure

Michael J. Graetz, *The David R. Tillinghast Lecture: Taxing International Income: Inadequate Principles, Outdated Concepts, and Unsatisfactory Policies*, 54 Tax L. Rev. 261 (2001). Available at

https://scholarship.law.columbia.edu/faculty scholarship/391

## Taxation, Treaties, and Physical Presence

Bret Wells and Cym Lowell, *Income Tax Treaty Policy in the 21st Century: Residence vs. Source*, 5 Colum. J. Tax L. 1 (2013) ssrn.com/abstract=2380241

Atanas Atanasov, *Permanent Establishment 2.0 - Is It Time for an Update?* (August 12, 2017). https://ssrn.com/abstract=3017892 (Section 2: Historical Development of the Concept of PE)

## Monday, Feb. 16

## The BEPS Project and Taxing Digital

OECD *Action Plan on Base Erosion and Profit Shifting*, (2013) <a href="https://doi.org/10.1787/9789264202719-en">https://doi.org/10.1787/9789264202719-en</a>.

Herzfeld, Mindy, *The Case Against BEPS: Lessons for Tax Coordination*, 21 Fl. Tax Rev. 1 (2017) (section I) https://scholarship.law.ufl.edu/ftr/vol21/iss1/1

#### DSTs and Retaliation

Critina Enache, *Digital Taxation around the World*, Tax Foundation (Apr. 30, 2024) https://taxfoundation.org/research/all/global/digital-taxation/

Mindy Herzfeld, <u>Retaliation Against Discriminatory Taxes: The Tax Code Route</u>, 117 Tax Notes Int'l 871 (Feb. 10, 2025)

Daniel Bunn, *Testimony: The OECD's Pillar One Project and the Future of Digital Services Taxes* (Mar. 7, 2024) at <a href="https://taxfoundation.org/testimony/pillar-one-digital-services-taxes/">https://taxfoundation.org/testimony/pillar-one-digital-services-taxes/</a>

### Guest Presentation on DSTs by: John McDonald, PwC

#### Monday, Feb. 23

Tax policies to encourage Innovation

OECD, *The Impact of R&D Tax Incentives: Results from the OECD Microberd+ Project*, OECD Science, Technology & Industry Policy Papers, No. 159 (Oct. 2023) <a href="https://www.oecd-ilibrary.org/docserver/1937ac6b">https://www.oecd-ilibrary.org/docserver/1937ac6b</a>-

<u>en.pdf?expires=1709577194&id=id&accname=guest&checksum=9185DB3F331209C092DD6C8</u>798405D64

Bronwyn H. Hall, Tax Policy for Innovation, NBER Working Paper No. 25773 (April 2020) at https://www.nber.org/system/files/working papers/w25773/w25773.pdf

Irem Guceri and Steve Bond, R&D and Productivity: Evidence from Large UK Establishments with Substantial R&D Activities, Economics of Innovation and New Technology, Vol.26, Issue 1-2, (2017) 108-120.

Tobias Bornemann, Stacie O. Kelley Laplante, Benjamin Osswald; The Effect of Intellectual Property Boxes on Innovative Activity and Tax Benefits. *Journal of the American Taxation Association* 1 September 2023; 45 (2): 7–33. https://doi.org/10.2308/JATA-2021-013

## Monday, Mar 2 CLASS RESCHEDULED TO 12:30-2:30PM

## **Carbon Taxation**

H.R. 3338, The Market Choice Act, introduced May 13, 2025. Available <a href="https://www.congress.gov/bill/119th-congress/house-bill/3338/text">https://www.congress.gov/bill/119th-congress/house-bill/3338/text</a>.

Kimberly Clausing et al., *The Global Effects of Carbon Border Adjustment Mechanisms* (April 2025). NBER WP No. w33723, Available at SSRN: https://ssrn.com/abstract=5233081

## AI and Energy Use

Michael Liebreich, *Generative AI – The Power and the Glory*, Bloomberg NEF (Dec. 24, 2024) at <a href="https://about.bnef.com/blog/liebreich-generative-ai-the-power-and-the-glory/">https://about.bnef.com/blog/liebreich-generative-ai-the-power-and-the-glory/</a>

Shafik Hebous, Nate Vernon-Lin, Carbon Emissions from AI and Crypto Are Surging and Tax Policy Can Help, IMF Blog (2024) <a href="https://www.imf.org/en/Blogs/Articles/2024/08/15/carbon-emissions-from-ai-and-crypto-are-surging-and-tax-policy-can-help">https://www.imf.org/en/Blogs/Articles/2024/08/15/carbon-emissions-from-ai-and-crypto-are-surging-and-tax-policy-can-help</a>

Scott Wright, Alla Raykin, and Laurin E. McDonald, *Tricks and Traps of Data Center State Tax Incentives*, State Tax Notes (Jan. 1, 2024) <a href="https://www.taxnotes.com/special-reports/tax-technology/tricks-and-traps-data-center-state-tax-incentives/2023/12/28/7hmb7">https://www.taxnotes.com/special-reports/tax-technology/tricks-and-traps-data-center-state-tax-incentives/2023/12/28/7hmb7</a>

## Monday, March 9

Challenges and Opportunities in AI and Law

Harry Surden, *Artificial Intelligence and Law: An Overview*, 35 Ga. St. U. L. Rev. (2019). (updated version available in canvas) <u>HeinOnline</u>

Hon. John G. Browning, *Robot Lawyers Don't Have Disciplinary Hearings—Real Lawyers Do: The Ethical Risks and Responses in Using Generative Artificial Intelligence*, 40 Ga. St. U. L. Rev. 917 (2024).

Richard Susskind and Daniel Susskind, *Generative AI will upend the professions*, FT (Jun. 18 2023). Available in canvas.

**Exercise Due before class:** Your friend Suzy, who knows that you are a tax expert, asks you whether her tip income is taxable. Suzy leads tours through the wilderness in the summertime, and participants often tip generously. In the off-season, she generally works as a bartender at the local bar near her house in Washington state. Use an AI tool of your choice to draft a memo on the topic. Save the iterations of your questioning and answering of the tool. Evaluate how well a job the AI tool did in assisting you to answer this question.

Guest Lecture: Overview of AI in Law and Tax Practice: Presentation by Chris Kontaridis, PwC (co-founder, PwC Legal Business Solutions), Terra Frazier, and Hannah LaJoie, PwC (UF LLM 2022)

Guest Lecture: AI in the Legal Industry: Navigating Opportunities and Challenges, **Daniel Barsky**, Holland & Knight, Miami

## Monday, March 23

New Frontiers in AI and Tax Practice

Required Reading:

Benjamin Alarie, Anthony Niblett, and Albert Yoon, *Data analytics and tax law (Research Handbook on Big Data Law* (Roland Vogl, ed.) (2021). On <u>reserve in library</u> or on canvas.

Samuel Becher, Benjamin Alarie, *LexOptima: The promise of AI-enabled legal systems*, 75 Univ. of Toronto Law J., 73 (2025) (available in canvas).

Andrew Blair-Stanek, Nils Holzenberger, and Benjamin Van Durme, ChatGPT Generates a Novel Tax Strategy, 189 Tax Notes Federal 1097 (Nov. 17, 2025).

**Prompt Engineering**: There is lots of material that can provide you with background on Prompt Engineering on the web. You should become familiar with the concept. Similarly, you will want to do some background prep in understanding **Microsoft CoPilot**.

Guest Lecture **Prompt Engineering; Generative AI and CoPilot.** Presentation by Clara Parra Espinosa, Microsoft, Director WW Tax & Customs, and Lina Rebouh, Technology and Innovation Manager, Microsoft

Guest Lecture: Tax Specific AI Tools. Presentation by BlueJ Legal

**Exercise Due before class:** Analyze the financial instrument posted in canvas using the 3 different AI tools being discussed in class (ChatGPT, CoPilot, and BlueJ Legal), to determine whether the instrument in question would be properly classified as debt or equity for tax purposes. Have the tools write a memo for you that cites to the relevant legal authorities. Compare the different results. Include citations where appropriate.

## Monday, March 30

Workplace and Tax Revenue Impacts of Workplace Disruption

Rossana Merola, *Inclusive Growth in the Era of Automation and AI: How Can Taxation Help?* 5 Front. Artif. Intell. (May 30 2022) https://doi.org/10.3389/frai.2022.867832

Daron Acemoglu and Pascual Restrepo, *Automation and New Tasks: How Technology Displaces and Reinstates Labor*, 33 J. Econ. Perspectives 3 (2019) https://www.aeaweb.org/articles?id=10.1257/jep.33.2.3

Daniel Susskind, Work and Meaning in the Age of AI, Center on Regulation and Markets at

Brookings (2023) <a href="https://www.brookings.edu/wp-content/uploads/2023/01/Work-and-meaning-in-the-age-of-AI">https://www.brookings.edu/wp-content/uploads/2023/01/Work-and-meaning-in-the-age-of-AI</a> Final.pdf

Spencer Bastani and Daniel Waldenström, *AI, Automation and Taxation*, IZA Institute of Labor Economics, IZA Policy Paper No. 212, (2024) <a href="https://docs.iza.org/pp212.pdf">https://docs.iza.org/pp212.pdf</a>

Anton Korinek, *Taxation and the Vanishing Labor Market in the Age of AI*, 16 Ohio St. Tech L.J. 244 (2020) available at HeinOnline

Guest Lecture: [Giorgia Maffini, PwC] [TBC]

#### Monday, April 6

AI and Tax Policy

Required Reading

- Fernanda Brollo, Era Dabla-Norris, Ruud de Mooij, Daniel Garcia-Macia, Tibor Hanappi, Li Liu, Anh D. M. Nguyen, Broadening the Gains from Generative AI: The Role of Fiscal Policies (IMF Staff Discussion Notes 2024). Available at:
   <a href="https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2024/06/11/Broadening-the-Gains-from-Generative-AI-The-Role-of-Fiscal-Policies-549639?cid=bl-com-SDNEA2024002">https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2024/06/11/Broadening-the-Gains-from-Generative-AI-The-Role-of-Fiscal-Policies-549639?cid=bl-com-SDNEA2024002
- Anton Korinek and Lee M. Lockwood, The Economics of Transformative AI (University of Chicago Press, 2025), chap. 15, <a href="https://www.nber.org/books-and-chapters/economics-transformative-ai/public-finance-age-ai-primer">https://www.nber.org/books-and-chapters/economics-transformative-ai/public-finance-age-ai-primer</a> or watch: "Public Finance in the Age of AI: A Primer," 2025, Economics of Transformative AI Workshop, at <a href="https://www.nber.org/research/videos/2025-economics-transformative-ai-workshop-public-finance-age-ai-primer">https://www.nber.org/research/videos/2025-economics-transformative-ai-workshop-public-finance-age-ai-primer</a>
- 3. Anthropic, *Preparing for AI's economic impact: exploring policy responses* (2025). Available at: <a href="https://www.anthropic.com/research/economic-policy-responses">https://www.anthropic.com/research/economic-policy-responses</a>

Guest Lecture: ChatGPT, Tax Policy Considerations. Presentation by Stephen Bonovich, EVP, Tax, Open AI

Guest Lecture: **Developing New Models for Taxing AI.** Presentation by Todd Castagno, Executive Director, Morgan Stanley

Exercise Due Before Class: Use an AI Tool to develop a presentation on: How should AI be taxed?

#### Monday, April 13

AI and Tax Compliance and Administration

#### Required Reading

1. Ryan Calo, *Modeling Through*, 71 Duke L.J. 1391 (2021)

https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=4118&context=dlj

- 2. Joshua Blank & Leigh Osofsky, *Legal Calculators and the Tax System*, 16 Ohio St. Tech L.J. 73 (2020). <u>HeinOnline</u>
- 3. Emily Hollingsworth, *Experts Urge Caution as State Tax Agencies Deploy Generative AI*, 188 Tax Notes Federal 1528 (Sept. 1, 2025). Available on canvas.
- 4. Peter Henderson et al., Integrating Reward Maximization and Population Estimation: Sequential Decision-Making for Internal Revenue Service Audit Selection (Jan. 2023) (available on canvas)
- 5. OECD, Governing with Artificial Intelligence: The State of Play and Way Forward in Core Government Functions, (2025) Available at: https://doi.org/10.1787/795de142-en.

Guest Lecture: AI Regulatory Frameworks, Camila Tobon, Shook Hardy Bacon, Denver [TBC]

<u>Guest Lecture</u>: *Taxpayer Rights.* Presentation by Nina Olson, Executive Director for Taxpayer Rights, former National Taxpayer Advocate

Optional Additional Reading

OECD Forum on Tax Administration, *Tax Administration 3.0: The Digital Transformation of Tax Administration*, <a href="http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/tax-administration-3-0-the-digital-transformation-of-tax-administration.htm">http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/tax-administration-3-0-the-digital-transformation-of-tax-administration.htm</a> (2020)

## Monday, April 20

Taxation of Blockchain

#### Required Readings

- 1. Andrea Kramer, Financial Products: Taxation, Regulation and Design (2025), Chapter 68, Sections 68.1-68.7, and 68.015-68.18. Available on Canvas.
- 2. White House Report, *Strengthening American Leadership in Digital Financial Technology* (2025). Available at <a href="https://www.whitehouse.gov/wp-content/uploads/2025/07/digital-Assets-Report-EO14178.pdf">https://www.whitehouse.gov/wp-content/uploads/2025/07/digital-Assets-Report-EO14178.pdf</a>
- 3. Notice 2014-21, 2014-16 I.R.B. 938.

<u>Guest Lecture:</u> Presentation on Crypto Tax Issues by Lawrence Zlatkin and Dana Flynn, Coinbase

#### Monday, April 27

Open / Recap / Taxation of Space

**UF LEVIN COLLEGE OF LAW STANDARD SYLLABUS POLICIES:** Other information about UF Levin College of Law policies can be found at this link: https://ufl.instructure.com/courses/427635/files?preview=98226140

**UF ACADEMIC POLICIES AND RESOURCES:** Other information about UF academic policies and resources can be found at this link: <a href="https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/">https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/</a>.