

U.S. Software Publishing Industry

AI in Economics – Final Project

Galilea Ticas

NAICS Code: 511210

University of Massachusetts Amherst

RESECON 490AI

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Why This Industry

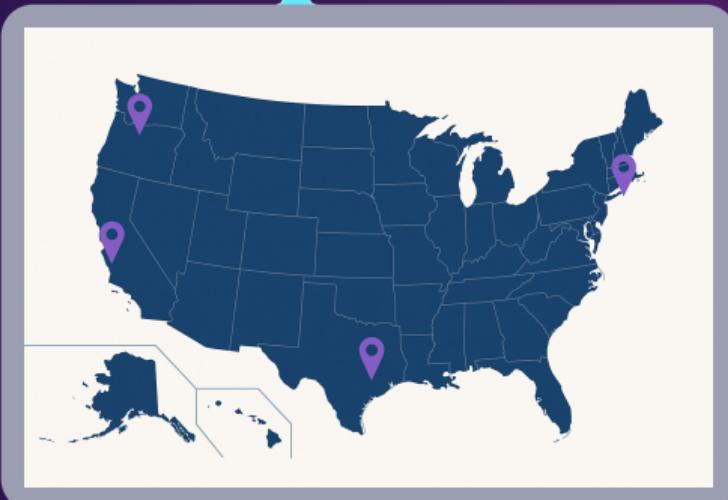
Personal Motivation

- I chose the U.S. software publishing industry because it sits at the center of the tools we use every day: apps, cloud platforms, and now AI copilots. As a Managerial Economics student who enjoys data, tech, and problem solving, I wanted to understand how this industry is changing with AI and where someone with my background could realistically fit into it.

Industry Snapshot & Life-Cycle Stage

U.S. Software Publishing (NAICS 511210)

- 2025 revenue $\approx \$540B$; **16,000+ firms.**
- Few tech giants + a long tail of smaller publishers.
- Hubs: **Silicon Valley, Seattle, Austin, Boston, NYC.**
- **Late-stage growth:** still expanding, but slower than the early cloud boom.
- High **R&D and AI investment** in cloud, data, and infrastructure.



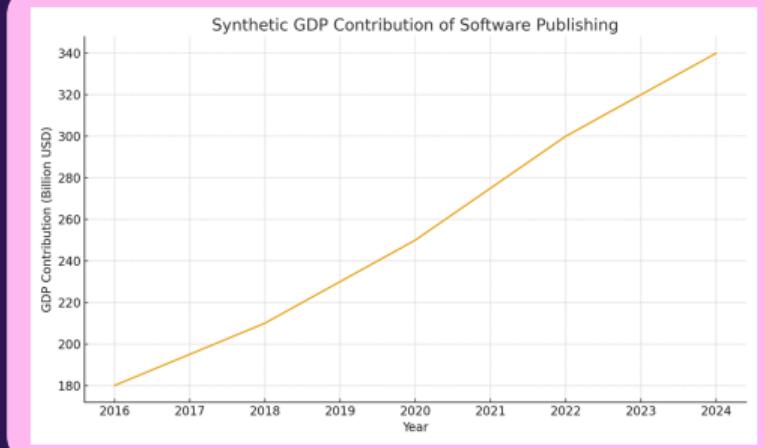
Software publishing hubs (illustrative).

Growth, Productivity & Revenue (2015–2024)

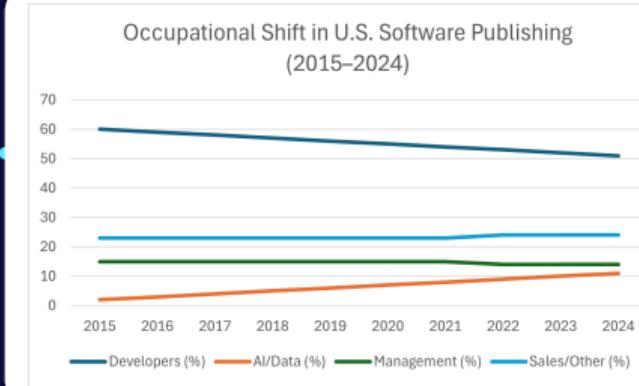
Key Industry Trends

- Employment, revenue, and value added **rise steadily**.
- Revenue grows from ~ \$350B (2015) to ~ \$540B (2025 est.).
- **Revenue per worker increases** ⇒ higher productivity.
- **Cloud & SaaS** models create sticky, recurring revenue.
- **AI tools** speed coding, testing, and deployment.

Year	Revenue (USD)
2015	\$350B
2017	\$390B
2019	\$430B
2021	\$480B
2023	\$520B
2025	\$541B



Occupational Shift



Occupational shift in AI/Data vs. other roles.

How Jobs Are Changing

- AI/Data roles grow from 2% to over 11% of employment.
- Developers stay the largest group but gradually lose share.
- Management and sales remain relatively stable.
- Overall, work becomes more **data-driven and AI-augmented**.

Impact on Workers

- Higher demand for **ML engineers, data scientists, AI-savvy developers**.
- Routine coding & testing tasks become more **automated**.
- Workers who use AI tools gain **productivity and wage advantages**.
- Skill mix shifts toward **analytical, data-focused, AI-complementary work**.



Impact of AI: Firms



AI automation reshapes costs, incumbents, and niche specialists.

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Impact on Firms

- AI reduces **marginal costs** through automation.
- Speeds up **product cycles**: coding, testing, deployment.
- Large incumbents gain from **compute, cloud, and data**.
- **Market power** rises ⇒ higher **entry barriers**.
- AI enables **niche specialists** in narrow, targeted markets.

AI Risks & Opportunities

AI Risks & Harms



Middle-skill roles at higher risk of automation and displacement



Wage inequality as AI specialists capture rising premiums



Algorithmic bias concerns



Security, access disparities in AI technologies

AI Opportunities



- New AI product lines like copilots, intelligent agents, generative tools, and adaptive analytics
- Studies suggest productivity for developers relying on AI assistance increases by 20-45%
- Open source models and cloud tools can lower barriers to entry

Where I Fit & My Upskilling Plan

Target Roles

- Junior Data Analyst, AI Product Analyst, Technical Project Coordinator

What I Bring

- Managerial/Resource Economics, Econometrics, AI in Economics.
- Strong communication; experience learning tools (LaTeX, GitHub, dashboards).

Next 6–12 Months

- Turn class projects into a GitHub portfolio.
- Practice Python & SQL through courses and small projects.
- Explore AWS/Azure fundamentals.
- Build one interactive dashboard or forecasting project.

Reflection: What I Learned About AI & Myself

Working with AI for this project changed my perspective. I expected AI to “do the work,” but I ended up spending a lot of time proofreading, refining prompts, and checking sources. That showed me how dependent AI still is on human judgment.

At the same time, using LaTeX, GitHub, and AI tools gave me confidence that I can keep learning technical skills and use AI as a collaborator rather than a threat. I now see a clearer path toward tech and data roles where my strengths in analysis, communication, and error-spotting really matter.

Conclusion

Looking Ahead

- AI will continue to reshape workflows, labor demand, and competitive strategies within software publishing. The industry's trajectory depends on access to compute resources, regulatory frameworks around data and AI, and the pace of global competition. Overall, software publishing is likely to remain a central high-tech growth engine in the U.S. economy.
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Thank You

Thank you!

Galilea Ticas

Managerial Economics – University of Massachusetts
Amherst

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