

The market for digitization economists

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The good news and bad news: Digitization economists match with many types of jobs

- Economics department
- Business School
 - Business economics
 - Strategy
 - Information systems
 - Marketing
 - Entrepreneurship
 - Operations
- Policy schools
- Government
- Private sector
 - Economics or big data groups inside major firms, such as Amazon, Facebook, Microsoft,...
 - General consulting or litigation consulting
- Also some have landed in Library, Public Health, Medicine, Engineering, etc.

Some examples (from past years)

Person	Position	Employer
Avi Goldfarb	B. school-Marketing	Toronto
Shane Greenstein	B. school-Tech. & Operations	Harvard
Susan Athey	B. school-Economics	Stanford
Mike Luca	B. school-Negotns & Organzns	Harvard
Abhishek Nagaraj	B. school-Strategy	Berkeley
Elizabeth Lyons	Policy school	UCSD
Chiara Farronato	B. school-IS/Tech. & operations	Harvard
Sarah Moshary	Economics dept.	Penn
Ben Shiller	Economics dept.	Brandeis
Erik Brynjolfsson	B. school-Information tech.	MIT
Brad Larsen	Economics dept.	Stanford
Maryann Feldman	Policy school	UNC
Petra Moser	Economics dept.	NYU
Mike Bailey	Private sector	Facebook

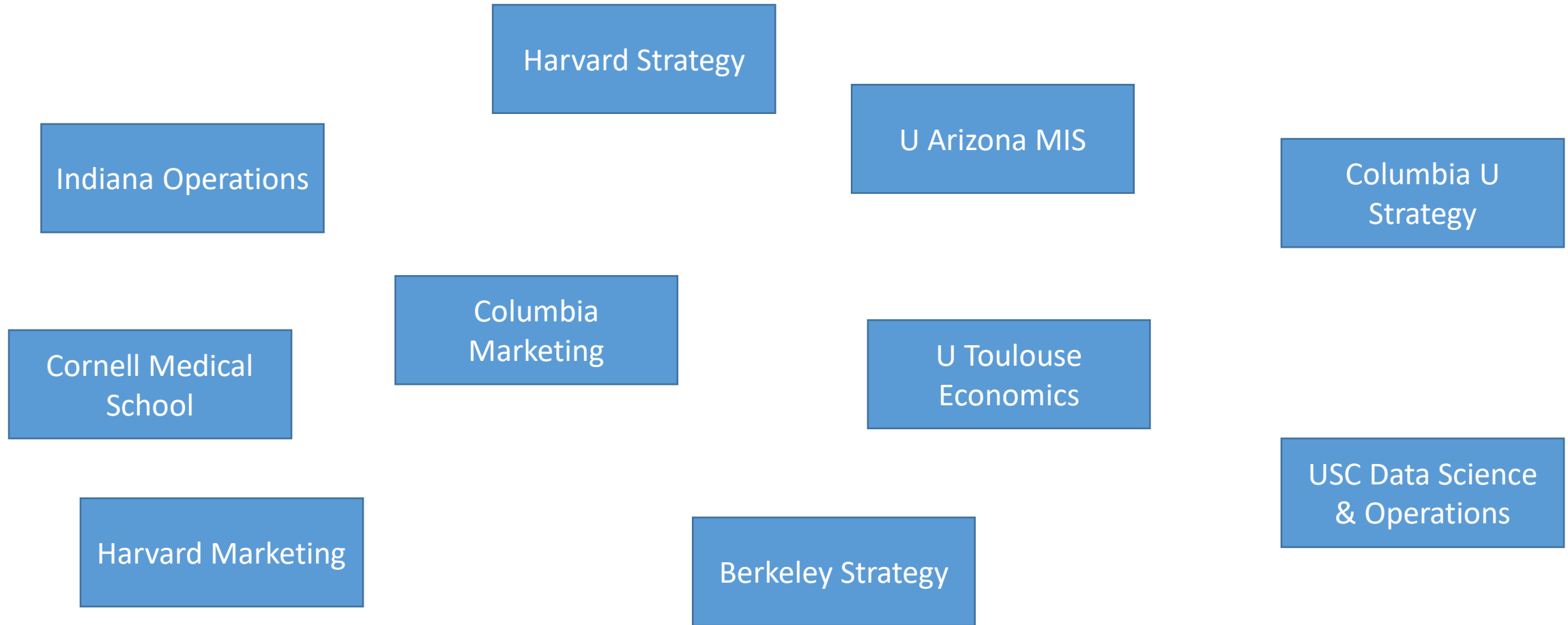
Person	Position	Employer
Joan Calzada	Economics dept.	Barcelona
Imke Reimers	Economics	N'theastern
Tom Blake	Private sector	Ebay
Kane Sweeney	Private sector	Uber
Steve Tadelis	B. school/Private sector	Berkeley
Felix Eggers	B. school-Marketing	Groningen
Jeff Prince	B. school-Economics	Indiana
Joel Waldfogel	B. school-Strategy/entreprshp	Minnesota
Joshua Gans	B. school-Strategy	Toronto
Shawn Cole	B. school-Finance	Harvard
Nilesh Fernando	Economics dept.	Notre Dame
Susan Lu	B. School-Operations mngmt	Purdue
Abraham Seidmann	B. School-Information systems	Rochester
Jeff McCullough	Public health-Health mngmt	Minnesota

Some more examples (past years)

Person	Position	Employer
Heidi Williams	Economics dept.	MIT
Sam Ransbotham	B. School-Information systems	Boston Col.
Frank Nagle	B. school-Strategy	USC
Lorin Hitt	B. School-Information systems	Penn
Justin Rao	Private sector	Microsoft
Catherine Tucker	B. school-Marketing	MIT
Randall Lewis	Private sector	Netflix
Dean Eckles	B. school-Marketing	MIT
Shai Bernstein	B. school-Finance	Stanford
Mo Xiao	B. school-Economics	Arizona
Greg Lewis	Private sector	Microsoft
Ryan McDevitt	B. school-Economics	Duke
Gordon Burtch	B. school-Information systems	Minnesota
Mike Smith	Policy school-info. Systems	CMU

Person	Position	Employer
Rahul Telang	Policy school-info. Systems	CMU
Pai-Ling Yin	B. school-Entrepreneurship	USC
Rachel Soloveichik	Government	BEA
Peter Newberry	Economics dept.	Penn State
Kevin Williams	B. school-Economics	Yale
Kristina McElheran	B. school-Strategy	Toronto
Sonny Tambe	B. School-Info. systems	NYU
Amalia Miller	Economics dept.	Virginia
Chris Forman	B. School- Strategy and IS	Cornell
Nan Li	B. school-Accounting	Toronto
Pat Bajari	Private sector	Amazon
Chris Nosko	Private sector	Amazon
Imke Reimers	Economics dept.	Northeastern
Stephan Seiler	B. school-Marketing	Stanford

Past digitization PhD camp student outcomes



Some resources

- [Economics of digitization website: bit.ly/econdigitization](https://bit.ly/econdigitization)
 - List of program activities
 - Hackpad reading list
 - Data Sources
 - Course syllabi
 - Wikipedia page
 - Facebook group
 - Every single friend of a friend of a friend

Economics of Digitization

Project Overview:

The NBER Digitization Project, launched in 2010, has built an economics-oriented research community that examines the causes and consequences of digitization. The research of this group has ranged widely, considering issues in strategic organization, market conduct, and the analysis of public policies. This research community has only begun to examine the impact of rules, policies and institutions that govern the economic incentives to create, store and use digital information. Click here for more on [Program Activities](#).

Project Resources

As a part of this project, we are working on providing a number of resources to support the burgeoning digitization community.

- **Economics of Digitization Reading List:**
 - <https://hackpad.com/PhD-Reading-List-for-Economics-of-Digitization-nbNSwjRb9mA>
A list of essential papers in the field.
 - **Digitization Data Sources:**
A list of publicly available data sources useful for digitization research.
 - **Digitization Course Syllabi:**
A collection of syllabi from courses that focus on digitization as a topic of academic study.
 - **Digitization Wikipedia Page:**
Members of the community are involved in maintaining a Wikipedia page for the research area
 - **Facebook Group:**
We also maintain an unofficial Facebook group to communicate news or exciting opportunities for grants, jobs etc in the field.
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Project Funding

We are grateful to the Sloan Foundation for their continued support of this program.

Questions/Feedback?

Please contact [Shane Greenstein](#) or [Abhishek Nagaraj](#) for further information.

General advice

- Search widely. It is a matching situation. More than one is possible.
 - This research area is applicable to an unusually large number of opportunities.
 - Examine the reading lists on the digitization home page to decide what you'd be willing to teach.
- Show interest in the job. Don't make it seem like they are a consolation prize.
 - Credible signals are best: e.g. skim basic textbook before interview (or at least flyout).
 - Use reading lists to have clear vision of what it takes to teach a topic. Some schools may want to hire you to teach economics of digitization as it applies to marketing/strategy/IS/....
 - Some practice teaching can help too. Or some TAsip in an MBA classroom.
- Show interest in the research and activities of the people who are interviewing you.
 - Look them up and try to find common areas of interest.
- Know thyself. Take responsibility for your own identity.
 - Don't be shy about being an economist, but don't be a jerk about it. You have a particular perspective that can contribute to the broader research area of marketing, strategy, policy, etc.
 - Are you also interested in the research questions of strategy, marketing, computer science? If you know your own interests, then identify them. If you do not know, then educate yourself now, while you have the time. Sit in on a class. Read papers and learn. Scan a reading list.

Prep for strategy & (some) business economics groups

- Strategy groups contain economics, sociology, and operational strategy.
 - Schools that have hired economists include Toronto, Minnesota, Harvard, MIT, USC, Northwestern, Harvard, etc.
- Main job market happens at ASSA, and/or Academy of Management for “informal” conversations. It is often direct from application to flyout.
 - Some schools hire exclusively on the econ market, but it is a thinner group.
 - JMP & other papers on your CV serve as strong signal of your interests.
 - There is a PhD student conference for technology/organizations called “CCC.” Useful overview.
- Key journals: *Management Science*, *Strategic Management Journal*, *Journal of Economics and Management Strategy*. For tech strategy: *Research Policy* and *Industrial and Corporate Change*
 - Skim. You will find the methods largely familiar as identification-focused empirics, often motivated by theory.
- Where do assistant professors publish? Econ. PhDs have had substantial success, and some continue to publish in economics (especially in the technology strategy world).
 - The NBER Innovation group contains many economists with strategy appointments.
- You should (at least!) be familiar with Porter’s Five Forces (textbook) and the idea of competitive advantage (textbook again) as well as Christensen on Disruption (i.e., the first book).
 - Strategy textbooks by Baye and Prince, and Besanko, Dranove, Shanley, and Schaefer;
 - Lots of disruption books, most recently by Gans.

Prep for marketing

- Marketing is split between “quant”, “behavioral”, and “strategy”. Most research-oriented groups have mainly quant and behavioral. About half of the quants are economists (the rest are statisticians and computer scientists).
 - Schools that have hired economists include Minnesota, UCLA, Penn, Harvard, MIT, Duke, USC, McGill, etc., and especially Chicago, Northwestern, Berkeley, Stanford, Rochester, Yale, and Toronto.
- The main job market is early.
 - Applications are due July 1, flyouts in the fall, offers before Thanksgiving.
 - Some schools also hire on the econ market, but it is a thinner group.
- Key journals are *Marketing Science*, *Management Science (marketing section)*, *Quantitative Marketing and Economics*, (to a lesser extent) *Journal of Marketing Research*
 - Skim through a *Marketing Science* or *QME* before your interview. You will find the methods largely familiar (and perhaps some of the papers too from NBER Digitization or IO)
- Econ. PhDs have had substantial success, and can continue to publish in economics.
 - Most econ. PhDs mix econ publication and **also** publications in *Marketing Science* and/or *QME*.
- The traditional textbook is Kotler’s *Marketing Management*. It isn’t too informative about the research, but it does give the basic language for teaching of “3 C’s and 4 P’s”.
 - Some challenging teaching assignment involve teaching pragmatic models for electronic commerce, SEO marketing, and ad auctions.

Prep for information systems

- IS includes economists, behavioral types (psychology, sociology, and communications), and computer scientists. Many research-oriented groups have several economics types.
 - Schools that have hired economists include Minnesota, McGill, NYU, Georgia Tech, Cornell, Irvine, Rochester, Purdue, Penn, Boston College, etc..
- The main job market is largely simultaneous with strategy/economics/operations, with the main meeting in early December (“WISE”/“ICIS”/“Informs”)
 - Applications are due by November; fly-outs in Dec/Jan, offers coincident with econ, sometimes earlier.
- Many business schools do not have an IS department.
 - Even those that hire in IS often have IS as part of Operations Management.
- Key journals are *Management Science (IS section)*, *Information Systems Research*, and *MISQ*
 - Skim through a *Management Science* for IS articles. Again, the methods largely familiar as identification-focused empirics motivated by theory. Chris Forman is currently editor for IS at *Management Science*.
- Gallagher’s *Information Systems: A Manager’s Guide to Harnessing Technology* will give you a taste of some of the key ideas.
 - Some of the least-standardized teaching assignments are in IS b/c these areas tend to have residual responsibility for some of “faddish” demands of undergrads and MBAs and, occasionally, executive education. Today those are in managing AWS, models for electronic commerce, gig economy platforms, machine learning, blockchain, organizational cyber-security, and/or IoT.

Prep for private sector and government

- This is a very broad space with a wide variety of possible roles.
 - Timing tends to coincide with economics, but less bound by state budgetary issues.
 - Amazon/Facebook/Microsoft/Uber have been major movers recently. Also Ebay, Pandora, Netflix, and many other firms.
 - Litigation consulting: Cornerstone, Lexecon, Bates-White. Model building for antitrust and regulatory issues. Work with lawyers, teaching economics to lawyers.
- Research vs strategy/policy/management.
 - And everything in between. It depends on the company, and the area, whether it is financial services, economic consulting, etc.
 - Facebook groups have some announcements.
 - “Economist as engineer” – e.g., optimizing auction models for ads, optimizing matching models, basic ML models, ad effectiveness, A/B testing, etc.... Work with computer scientists & data scientists & statisticians.
- Government: Central bank, Census, BLS, BEA, Regulator (FTC, DoJ, CFPB, FCC, European Commission, etc.), etc. US and International.
 - Mostly advertised through economics job market.
 - “Economist as analyst” – e.g., blog posts & memos, regulatory advise, interpret trends. Again, with lawyers.
- Same remarks about attitude. Do your homework.
 - There are smart people everywhere. Less well publicized, so often more surprising jobs.
 - Ask about the pace of work. Ask about the boss. Ask about autonomy.

Prep for other academic positions

- Policy, Library, Public health, Medicine, etc.
 - Especially if you either had this as a background before getting your PhD, or you developed expertise as part of your research....
- Groups are idiosyncratic.
 - Know the school (especially if you get an interview).
 - Identify the key researchers.
 - Identify the journal(s) they publish in (in and out of economics).
 - Try to (quickly!) skim the relevant first year course material.
- If you have been paying attention, you can figure out the rest....

Some related conferences

- NBER Summer and Winter Digitization Meetings
- Workshop on Information Systems and Economics (WISE)
- ZEW Conference on the Economics of Information and Communication Technologies
- IDEI-TSE-IAST Conference on the Economics of Intellectual Property, Software, and the Internet
- Searle Conference on Internet Search and Innovation
- NET Institute
- Workshop on the Economics of Information Security
- Workshop on Health Information Technology and Economics (WHITE)
- Statistical Challenges in Ecommerce Research (SCECR)
- Academy of Management
- Strategic Management Society
- Various “Big Data” and “Digital” one-off conferences in marketing, strategy, IS, economics, etc.
- Also friendly to digitization: CCC, DRUID, SMS, IIOC, EARIE, TPRC, Marketing Science, QME.

Advice for advisors

- If possible, separate letters for econ. departments and other places.
- The letters should **not** say “any econ. department outside the top 25 or any business school including the top 5.”
 - This language is standard for economics and not for any other field. It comes across badly in other areas.
- Arrange for third party letter service. And be careful to remember who has done what for which service!
- Encourage meeting with faculty in the relevant field early (or at least before the job market). If nothing else, this helps identify relevant timelines.
 - Faculty should consider introducing students to colleagues from other specialties early and often. Though, as students, you should take initiative on this too!
- Arrange for financial support to attend the relevant conferences.
- You may have to do a lot of this on your own initiative.
- Post docs are not unusual, and can often be very satisfying.

Wrap-up

- Search widely.
- Basic common sense and politeness.
- Credible signals of your keenness are useful.
- Remember: they want your skills as an economist. Otherwise, they'd hire someone from another background.
- Take responsibility for your own identity.