

The market for digitization economists

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(with help from Mike Luca)

Types of jobs

- Economics department
- Business School
 - Business economics
 - Strategy
 - Information systems
 - Entrepreneurship
 - Operations
- Policy school
- Government
- Private sector
 - Also some have landed in Library, Public Health, Medicine, Engineering, etc.

Some examples

Person	Position	Employer
Avi Goldfarb	B. school-Marketing	Toronto
Shane Greenstein	B. school-Tech. & Operations	Harvard
Joel Waldfogel	B. school-Strategy and Econ.	Minnesota
Mike Luca	B. school-Negotns & Organzns	Harvard
Susan Athey	B. school-Economics	Stanford
Dina Mayzlin	B. school-Marketing	USC
Clémentine Van Effenterr	Economics dept	Toronto
Judy Chevalier	B. school-Economics	Yale
Emilio Calvano	Economics dept	Bologna
Peter Rossi	B. school-Marketing	UCLA
Pai-Ling Yin	B. school-Entrepreneurship	USC
Pinar Yildarim	B. school-Marketing	Penn
David Yang	Economics dept	Harvard

Person	Position	Employer
Maryam Saeedi	B. school-Economics	CMU
Glen Weyl	Office of Chief Tech Officer	Microsoft
Chiara Farronato	B. school-Tech. & Operations	Harvard
Mohammad S. Rahman	B school-Information Systems	Purdue
Mohammed Alyakoob,	B school-Data science	USC
Alberto Cavallo	B. School-Govt and internatl	Harvard
Zach Brown	Economics dept	Michigan
Hal Varian	Private sector	Google
Jorg Claussen	B. school-Strategy	Munich
Alexander MacKay	B. school-Strategy	Harvard
Dave Godes	B. school-Marketing	Maryland
Amalia Miller	Economics dept.	Virginia

Some more examples

Person	Position	Employer
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
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
Heidi Williams	Economics dept	MIT

Person	Position	Employer
Rahul Telang	Policy school-Info. systems	CMU
Rachel Soloveichik	Government	BEA
Kevin Williams	B. school-Economics	Yale
Sonny Tambe	B. School-Info. systems	NYU
Chris Forman	B. School- Strategy and IS	Cornell
Nan Li	B. school-Accounting	Toronto
Pat Bajari	Private sector	Amazon
Chris Nosko	Private sector	Amazon
Sridhar Narayanan	B. school-Marketing	Stanford
John Barrios	B. school-Accounting	Chicago
Jonathan Timmis	NGO	OECD
Yael Hochberg	B. school-Finance	Rice U

Past digitization PhD camp student outcomes

Field	Schools
Economics	Toulouse, Singapore Management U, Shanghai U Science & Tech., NUS,
Strategy	UBC, Minnesota, Arizona, Columbia, Harvard, Frankfurt, Cornell, BU, Temple, Penn, Ohio
Consultant	TGG, Analysis Group, Edgeworth, Cornerstone, Citadel
Non profit/government	Sloan, CDL, US CEA, IMF, FTC,
Digital firm	Amazon, Facebook, Uber, LinkedIn, Lyft, Houzz, Pandora, Google
Operations	Indiana, USC
Information systems	U Washington, Boston College, USC, Dallas, Arizona, UVA
Marketing	Rochester, SMU, Berkeley, Toronto, Wash U, Harvard, UNSW, Columbia, BU, Nanyang, Kellogg,
Policy	Chicago
Organizations	Berkeley
Medical School/public health	Cornell (medical informatics), UIC,

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

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.
 - 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 the basic textbook before the interview (or at least the flyout).
 - Use the reading lists to have a clear vision of what it takes to teach a course in the topic. Some schools may want to hire you explicitly in order 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.
- Don't be shy about being an economist though.
 - You have a particular perspective that can contribute to the broader research area of marketing, strategy, policy, etc.
 - Lots of schools have new data analytics programs. They need economists to teach data-driven decision-making.

Digitization economists in economics depts.

- Used to be very rare. No longer.
- Usually digitization as applied in a particular established field:
 - IO (e.g. Imke Reimers, Brad Larsen, Matt Gentzkow, etc.)
 - Labor/health (e.g. Amalia Miller)
 - Macro (e.g. Pascual Restrepo)
 - Political economy (e.g. David Yang)

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 of relevance to economists are *Marketing Science*, *Management Science (marketing section)*, *Quantitative Marketing and Economics*, (to a lesser extent) *Journal of Marketing Research*
 - You should 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 with tenure at top schools have at least one top 5 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”.

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 economics, with the main meeting in early December (“WISE”/“ICIS”)
- 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 of relevance to economists are *Management Science (information systems section)*, *Information Systems Research*, and *MISQ*
 - You should skim through a *Management Science* for IS articles before your interview. You will find the methods largely familiar as identification-focused empirics motivated by theory. Chris Forman is currently editor for IS at *Management Science*.
- Gallaugher’s *Information Systems: A Manager’s Guide to Harnessing Technology* will give you a taste of some of the key ideas.

Prep for strategy

- Strategy is generally split between economics, sociology, and traditional strategy. Research-oriented groups could focus on one, two, or all three.
 - Schools that have hired economists include Toronto, Minnesota, Harvard, MIT, USC, Northwestern, etc.
- The main job market is simultaneous with economics, but there is an August meeting that most job market candidates attend and have “informal” conversations with hiring schools. There is no clear centralized interview conference. Instead, it is often direct from application to flyout.
 - Some schools also hire on the econ market, but it is a thinner group.
 - There is a PhD student conference for those interested in technology called the “CCC” that is a useful lever to get in the door.
- Key journal of relevance to economists are *Management Science* (*business strategy section* and *technology and entrepreneurship section*), also *Strategic Management Journal* and (to a lesser extent) *Journal of Economics and Management Strategy*. For technology strategy, other journals include *Research Policy* and *Industrial and Corporate Change*
 - You should skim through a *Management Science* for strategy and technology articles before your interview. You will find the methods largely familiar as identification-focused empirics motivated by theory.
- 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 and the idea of competitive advantage as well as Christensen on Disruption.

Prep for private sector and government

- This is a very broad space with a wide variety of possible roles.
- Research vs strategy/policy/management.
- Government: Central bank, Census, BLS, BEA, Regulator (FTC, DoJ, CFPB, FCC, European Commission, etc.), etc. US and International.
- Private sector: Digital company (Amazon, Ebay, Google, Facebook, Pandora, Netflix, etc.), financial services, economic consulting, etc.

List of related conferences

- NBER Summer Digitization Meetings
- NBER 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
- Conference on Health Information Technology and Analytics (CHITA)
- Statistical Challenges in Ecommerce Research (SCECR)
- National Association of Business Economists (NABE-TEC)

- 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.

Prep for other academic positions

- Policy, Library, Public health, Medicine, etc.
- 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.

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.”
- 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!
- Support attending the relevant conferences.

Wrap-up

- Basic common sense: People want to know you are keen to be there.
- Credible signals of that keenness are useful.
- Still, they want your skills as an economist. Otherwise, they'd hire someone from their own Ph.D. programs.