

Jean-Baptiste MICHEL

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RESEARCH POSITIONS

- 2010-... **Postdoctoral Fellow, Harvard University.**
2010-...: Head and founder of the Cultural Observatory (www.culturomics.org) hosted in Aiden Lab.
2012-...: Aiden Lab, School for Engineering and Applied Science, Harvard
2010-12: Steven Pinker Lab, Department of Psychology (Foundational Questions in Evolutionary Biology Fellowship).
- 2010-... Research Scientist, Institute for Quantitative Social Sciences, Harvard
- 2011-12 Visiting Faculty, Google, Inc.
- 2010-12 Research Scientist, Program for Evolutionary Dynamics, Harvard.
Department of Mathematics, Department of Organismic and Evolutionary Biology.

EDUCATION

- 2007-10 **PhD, Systems Biology, Harvard University.**
Thesis: Quantitative aspect of evolution.
Advisors: Martin Nowak (Mathematics, Biology), Roy Kishony (Systems Biology)
- 2006-07 Research Assistant, Kishony Lab, Harvard Medical School.
- 2005-06 **MS, Applied Mathematics, Harvard University.**
Artificial Intelligence, Evolutionary Dynamics and Systems Biology.
- 2002-05 **BS, Ingénieur, Ecole Polytechnique.**
Applied Mathematics, Computer Science and Biology.

SELECTED PUBLICATIONS

- ACL**
07.2012 Lin, **Michel**, Aiden, Orwant, Brockman and Petrov. Syntactic Annotations for the Google Books Ngram Corpus.
- NATURE GENETICS**
11.2011 Lieberman* and **Michel***, Aingaran, Potter-Bynoe, Roux, Davis Jr, Skurnik, Leiby, LiPuma, Goldberg, McAdam, Priebe, Kishony. Parallel bacterial evolution within multiple patients identifies candidate pathogenesis genes.
- SCIENCE**
01.2011 **Michel***, Shen, Presser-Aiden, Veres, Gray, The Google Books Team, Pickett, Hoi-berg, Clancy, Norvig, Orwant, Pinker, Nowak, Lieberman-Aiden*. Quantitative analysis of culture using millions of digitized books.
Science cover. New York Times (Front Page, most emailed), Boston Globe (Front Page), The Wall Street Journal (Front Page), The Economist, and >500 venues worldwide. >200 citations. Among the most cited papers published in 2011.
- PNAS**
09.2008 **Michel*** and Yeh*, Chait, Moellering Jr, Kishony. Drug interactions modulate the evolution of bacterial resistance.
- NATURE**
10.2007 Lieberman* and **Michel***, Tang, Jackson, Nowak. Quantifying the evolutionary dynamics of language.
Nature cover. Discover Magazine (cover), >80 international newspapers. >100 citations.

DATA AND TOOLS PUBLICLY RELEASED

- 03.2012 arxiv.culturomics.org Trend-based search engine for 700,000 arxiv articles. Over 100,000 page views. Featured in the New York Times, Nature, Science. With Camacho, Schmidt, Cherniavsky and Aiden.
- 10.2011 bookworm.culturomics.org Concept for trend-based search engine for the full text of 1 million books. Over 5,000 monthly visitors. One of 9 beta selected by Digital Public Library of America. With Camacho, Schmidt and Aiden.
- 12.2010 books.google.com/ngrams ([Google Books Ngram Viewer](http://books.google.com/ngrams)) 2 billion ngrams in 7 languages: largest data release in the humanities. >1 million views in the first 24 hours. >45 Million views since launch. >200 references across fields. Best of Google Labs Award. Multiple copycats. With Aiden, Grey, Orwant and Brockman. 07.2012: POS-tagged version released based on 8 million books.

HONORS & AWARDS

- 01.2012 Forbes "30 under 30"
- 01.2012 Science & Avenir's 100 scientists. Special issue "What is man?"
- 2011-12 TED Fellow
- 04.2011 "5 Cambridge-born ideas that will change the world", Improper Bostonian
- 12.2010 Best of Google Labs Award, books.google.com/ngrams (top 3 launches in 2010).
- 2010-12 Foundational Questions in Evolutionary Biology Prize Fellowship, Templeton Foundation.
- 2010 Google Focused Research Award. \$250k for developing culturomics.
- 2009 Graduate Student Award, Program for Mind, Brain and Behavior, Harvard.
- 2008 Nature's favourite papers (Lieberman & Michel, et al, 2007)

SELECTED CONFERENCES

- 02.2012 TED. *Can we quantify history?*
http://www.ted.com/talks/jean_baptiste_michel_the_mathematics_of_history.html (>450,000 views)
- 01.2012 Public Lecture, Santa Fe Institute. *Culturomics: Science's new window on culture.*
- 01.2012 Presidential Session, American Historical Association. *Pioneers discuss the future of history.*
- 06.2011 TEDxBoston: *A picture is worth 500 billion words.*
http://www.ted.com/talks/what_we_learned_from_5_million_books.html
>**1,000,000 views**; most emailed (Sept 19th, 2011)
- 06.2011 Keynote, Digital Humanities 2011, Stanford (CA): *Culturomics.*
- 01.2011 Linguistic Society of America, Pittsburg (PA): *Culturomics.*
- 01.2011 Colloquium, Renaissance Technologies, Stony Brook (NY): *Sequencing the Cultural Genome.*
- 10.2010 Keynote, 9th Google Books Summit, Mountain View (CA): *Bibliomics.*
- 08.2008 International Conference in Systems Biology, Gotenburg (Sweden): *Antagonistic drug combinations better prevent the emergence of resistance.*
- 02.2007 Biolinguistic Investigations, Santo Domingo (Dominican Republic): *Mathematical evolution of irregular verbs.*