NYU Data Science Community Newsletter features journalism, research papers, events, tools/software, and jobs for September 11, 2015.

Please Let us (Laura Noren, Brad Stenger) know if you have something to add to the newsletter. We are grateful for the generous financial support from the Moore-Sloan Data Science Environment and NYU’s Center for Data Science.

NYU Data Science Community Newsletter Issue 018.

Data Science News

Six Lessons about Crowd Prediction
The Good Judgement Project from July 31, 2015
In this entry, we briefly summarize several thought-provoking findings from the Good Judgment Project. These findings helped us improve our aggregated forecasts and win the Aggregative Contingent Estimation (ACE) forecasting tournament, sponsored by IARPA. We also provide references to the original papers for curious readers.

Apple ups hiring, but faces obstacles to making phones smarter
Reuters from September 07, 2015
Apple has ramped up its hiring of artificial intelligence experts, recruiting from PhD programs, posting dozens of job listings and greatly increasing the size of its AI staff, a review of hiring sites suggests and numerous sources confirm.

The goal is to challenge Google in an area the Internet search giant has long dominated: smartphone features that give users what they want before they ask.

gPhoton - A time-tagged database of more than 1 trillion UV photon events from GALEX!
Twitter, MAST News from September 09, 2015

New studies deepen concerns about a climate-change ‘wild card’
The Washington Post from September 07, 2015
... One study, by three scientists from Germany’s Alfred Wegener Institute, uses computers to model how Greenland’s rapid thawing could affect the Atlantic meridional overturning circulation, the system that pushes cold, dense saltwater into the deep ocean and helps transport warm water northward, helping to warm Europe’s climate.

Their report, in the journal Geophysical Research Letters, says previous research may have underestimated changes to the ocean from the huge influx of fresh, cold water from melting ice sheets. Using new methods, the German scientists were able to estimate more precisely how much ice would melt and how all that added freshwater would affect ocean circulation.

Inequality Gets Worse When Poverty Is Visible
The Atlantic from September 09, 2015
Many commentators have pointed to disturbances in Ferguson and elsewhere over the past year as proof that economic inequality leads to tensions and even violence. But new
research out from **Yale University** suggests that it’s not the presence of inequality that causes problems, but rather the visibility of that inequality.

“Making wealth visible was a very corrosive force. It resulted in the rich exploiting the poor,” said Nicholas A. Christakis, the co-director of Yale Institute for Network Science and one of the senior authors of the study.

**Epidemic processes in complex networks**  
*Reviews of Modern Physics* from August 31, 2015

In recent years the research community has accumulated overwhelming evidence for the emergence of complex and heterogeneous connectivity patterns in a wide range of biological and sociotechnical systems. The complex properties of real-world networks have a profound impact on the behavior of equilibrium and nonequilibrium phenomena occurring in various systems, and the study of epidemic spreading is central to our understanding of the unfolding of dynamical processes in complex networks. The theoretical analysis of epidemic spreading in heterogeneous networks requires the development of novel analytical frameworks, and it has produced results of conceptual and practical relevance. A coherent and comprehensive review of the vast research activity concerning epidemic processes is presented, detailing the successful theoretical approaches as well as making their limits and assumptions clear. Physicists, mathematicians, epidemiologists, computer, and social scientists share a common interest in studying epidemic spreading and rely on similar models for the description of the diffusion of pathogens, knowledge, and innovation. For this reason, while focusing on the main results and the paradigmatic models in infectious disease modeling, the major results concerning generalized social contagion processes are also presented. Finally, the research activity at the forefront in the study of epidemic spreading in coevolving, coupled, and time-varying networks is reported.

**Humanizing Technology: A History of Human-Computer Interaction**  
*The New York Times*, Bits blog from September 07, 2015

... Yet there is another force in the striking democratization of computing beyond hardware, one that is more subtle but still crucial. That is the steady stream of improvements in the design of computer products, mainly software, which have opened the door to new users by making computers easier to use. The term most used now is “user-interface design.” But that suggests a narrower, product focus than the field that stretches back several decades, called human-computer interaction, which embraces psychology, anthropology and other disciplines.

“I think human-computer interaction designs have had as much impact as Moore’s Law in bringing the web and mobile devices to the world,” said Ben Shneiderman, a professor at the **University of Maryland**, College Park.

**Nutonian’s Fantasy Football Advice For Quarterbacks: Somerville-Based Data Science Company’s Fantasy Suggestions**  
BostInno from September 10, 2015

With the return of the NFL, it also marks the return of the universally popular fantasy aspect of the game. Millions of fans across the country scramble to outsmart one another, looking for patterns in the sea of football statistics. And one Somerville-based company is using its unique capacity to simplify big data for the betterment of your fantasy roster.

Nutonian, a data science company founded in 2011, uses the Eureqa software tool to help its impressive list of clients harness massive amounts of data in an easy to read, convenient format. Despite applying most of its time to aiding the manufacturing or finance industries
(along with many others), Nutonian recently had a little fun with its program and created a model for fantasy football quarterback evaluation.

Weather adjusting economic data

Brookings Institution from September 11, 2015

Macroeconomic data can and should be purged of the effects of bad weather to help policymakers and markets have a more accurate sense of the health of the economy. Unusual weather is not accounted for by applying “seasonal adjustment,” and the new research shows that the effects of unusual weather can be responsible for swings of as much as 100,000 jobs monthly. Michael Boldin of the Federal Reserve Bank of Philadelphia and Jonathan H. Wright of Johns Hopkins University find that unusual weather effects are important and are not reflected in the conventional seasonal adjustment that the Bureau of Labor Statistics currently uses. Adjusting for unseasonal weather (snowstorms, low temperature and snowfall) also impacts GDP data, with growth in the first quarter of 2015 increasing from 0.6 percentage points at an annualized rate to 1.4 percentage points, while the estimate of growth in the second quarter drops from 3.7 to 2.8 percentage points.

U-Michigan launches $100 million Data Science Initiative

University of Michigan News from September 08, 2015

The University of Michigan plans to invest $100 million over the next five years in a new Data Science Initiative that will enhance opportunities for student and faculty researchers across the university to tap into the enormous potential of big data.

Events

Behavioral Economics and Public Policy Workshop

Friday, September 11th, 12:35 p.m. - 1:55 p.m.
"Does Active Choosing Promote Green Energy Use? Experimental Evidence" Presenter: Cass Sunstein (Harvard Law School)
Wednesday, September 23rd, 12:35 p.m. - 1:55 p.m.
"Human and Machine Intelligence" Presenter: Sendhil Mullainathan (Harvard University Department of Economics)
Location: Room 405, Vanderbilt Hall (Law School), 40 Washington Square South

NYC Media Lab 2015 Annual Summit

NYC Media Lab's Annual Summit is a snapshot of the best thinking, projects, and talent in digital media from universities in NYC and beyond.

This is an opportunity for media executives, technologists, and decision makers to see more than 100 university prototypes and demonstrations that explore interesting technologies and applications related to the future of media. Attendees will be also invited to roll up their sleeves during a series of interactive workshops led by NYC faculty.

Friday, September 25, at 9 a.m., NYU Skirball Center for the Performing Arts

ICHPS 2015

Throughout the last 19 years, the International Conference on Health Policy Statistics (ICHPS), organized by the Health Policy Statistics Section of the American Statistical Association, has played a vital role in the dissemination process of health policy (and health
services) statistics. ICHPS provides a unique forum for discussing research needs and solutions to the methodological challenges in the design of studies and analysis of data for health policy research.

Wednesday-Friday, October 7-9, in Providence, RI

**PyData NYC**
PyData conferences are a gathering of users and developers of data analysis tools in Python. The goals are to provide a place to share ideas and learn from each other about how best to apply the Python language and tools to ever-evolving challenges in the realm of data management, processing, analytics, and visualization.

Monday-Wednesday, November 9-11, at Bank of America Merrill Lynch, 250 Vesey Street

**Deadlines**

**Knight News Challenge on Data opens for ideas**
The Knight News Challenge on Data is now open for ideas through 5 p.m. ET Sept. 30. This News Challenge, our 14th, reflects Knight Foundation’s ongoing support for projects that use data for good to inform and empower people to make decisions about their lives, communities and democracy.

In collaboration with Data & Society and the Open Society Foundations, we are seeking projects that provide an answer to the question: How might we make data work for individuals and communities?

Deadline for Submissions: Wednesday, September 30

**Personal Data: Examined Lives**
This shift towards personal use leads to challenging new research questions. This special issue of *Human-Computer Interaction* focuses on emerging research about how people might appropriate and use personal data for personal purposes such as: Self-monitoring and self-understanding Identity work, self-representation, reminiscing, and legacy Behavior change that might promote physical and mental well-being Developing and maintaining interpersonal and community relationships Monitoring and managing their relationships with organizations and applications

Deadline for Proposals: Thursday, October 15

**CDS News**

**6th NYU Data Science Showcase next Wednesday, September 16**
NYU Center for Data Science from September 16, 2015
Featured Faculty talk by Vasant Dhar, Professor and Head, Information Systems Group, Co-Director, Center for Business Analytics, Talk Title: *Should You Trust Your Money to a Robot?*

Abstract: Financial markets emanate massive amounts of data from which machines can, in
principle, learn to invest with minimal initial guidance from humans. I contrast human and machine strengths and weaknesses in making investment decisions. The analysis reveals areas in the investment landscape where machines are already very active and those where machines are likely to make significant inroads in the next few years.

Background reading:

Wednesday, September 16, at NYU Torch Club, Tap Room, starting at 4 p.m.

Click here to receive the NYU Data Science Community Newsletter OR to have us follow your twitter feed so that our data science twitter bot can easily grab links from your tweets.
To send us an announcement for the newsletter, please email laura.noren@nyu.edu and brad.stenger@nyu.edu by 9 pm Eastern time on Thursday evenings for inclusion in Friday’s newsletter. We retain curatorial discretion.

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