

UNITED STATES PATENT & TRADEMARK OFFICE

225 YEARS OF DATA

National Sunshine Week – *Strengthening Transparency  
through Open Data and Access to Information*  
March 15, 2017

# We ingest and disseminate data

- Customers use our data to make business decisions. It reveals a landscape.
- We currently provide data in bulk, forcing inventors to sift or even abandon the pursuit.
- Leads to more informed applicants to the USPTO - more time being inventive less time searching for our data.



**We want to do more...**

# **USPTO Open Data U.S Patent data is the leading indicator of R & D and Innovation**

- From “Shoes” (paper files), we have come a long way.
- Our initiative has several aspects, all designed to make our data on the innovations of the U.S. accessible and understandable.
- Demand for information is not going away.
- Opportunity to encourage innovation and grow the economy with what we do.
- So that our data can inspire, be useful, spur innovation and create conversations.



# How we are opening data?

- Releasing new data search & download interfaces, instead of bulk, will lesson the drain on our systems.
- Releasing in more accessible ways to the public - Application Program Interface or *API's* to improve access to our data.
- Breaking down silos by combining USPTO data and economic data creates new insights and basis for public policy efforts.

# INNOVATE



PROMOTE DATA USE

# Not just opening data...

[USPTO Home Page](#) > [PTMT Home](#)

## Calendar Year Patent Statistics (January 1 to December 31) General Patent Statistics Reports Available For Viewing

The Patent Technology Monitoring Team (PTMT) periodically issues general statistics and miscellaneous reports that profile patenting activity at U.S. Patent and Trademark Office (USPTO). Several PTMT reports are free while some other products and services are available at reasonable cost. Specialized services and custom reports also may be available subject to the availability of resources. For a detailed description of available PTMT products and services, please consult the PTMT Products and Services Brochure.

### Notes for Users

- PTMT reports display patent statistics and data by calendar year (1 January to 31 December).
- For most users, reports displaying [utility patent](#) statistics will be the ones of interest - utility patents are also known as "patents for invention"
- Reports that have a PDF file extension (e.g., "topo\_15.pdf") may be viewed using free [Adobe® Acrobat® Reader](#) software.
- Listed drill-down reports are indicated with an asterisk (\*).
- **The most recently updated PTMT reports include data for patents granted through 2015.**

### Table of Contents

- General Patent Statistics Reports Available for Viewing, By Report Category
  - [General Overview Reports - By Type of Patent Document](#)
    - [Patenting of Ornamental Designs \(Design Patents\)](#)
  - [By Geographic Origin](#)
    - [By U.S. Metropolitan Area, Micropolitan Area](#)
  - [By Patenting Organization](#)
  - [By Patented Technology](#)
  - [By Ownership Location and Domestic Inventor Share](#)
  - [By Industry-Based Category or Product Field \(NAICS\)](#)
  - [By Inventor](#)
  - [Historical and Extended-Year Statistics](#)
  - [Miscellaneous Tables, Reports, and Other Materials](#)

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Bulk Data Storage System (BDSS) Version 1.1.0

Patents Patent Applications Additional Patent Information Trademarks Research Datasets

2017 Terms and Conditions  
2017 Bulk Data Product Chart  
2017 Bulk Data Product Descriptions

### ISSUED PATENTS (PATENT GRANTS)

[Top]

#### Patent Official Gazettes (JUL 2, 2002 - PRESENT)

Contains bibliographic (front page) information, a representative claim, and a drawing (if applicable) of each patent grant issued that week. Includes U.S. Patent and Trademark Office Notices which provide important information and changes in rules concerning both patents and trademarks.

Patent Official Gazettes (JAN 2017 - DEC 2017)  
Patent Official Gazettes (JAN 2016 - DEC 2016)  
Patent Official Gazettes (JAN 2015 - DEC 2015)  
Patent Official Gazettes (JAN 2014 - DEC 2014)  
Patent Official Gazettes (JAN 2013 - DEC 2013)  
Patent Official Gazettes (JAN 2012 - DEC 2012)  
Patent Official Gazettes (JAN 2011 - DEC 2011)  
Patent Official Gazettes (JAN 2010 - DEC 2010)

[Home](#) > [Listings of Yearly PTMT Reports](#) > [Table of Contents for This Set of Reports](#)

U.S. PATENT AND TRADEMARK OFFICE  
Patent Technology Monitoring Team (PTMT)

## U.S. Resident Inventors and Their Utility Patents Breakout by State Regional Component

### Count of 2000 - 2015 Inventors and Their Patents As Distributed By Calendar Year of Patent Grant

[- Explanation of Data -](#)

Inventors Residing In

#### MASSACHUSETTS

And a Rank-Ordered Listing of the Inventor Residence

Locations by Regional Component (e.g., County)

(inventor residence corresponds to residence at the time of grant)  
(an inventor having multiple patents is counted multiple times, once for each patent)  
(A single patent with multiple inventors is counted multiple times, once for each inventor)  
(counts may not sum exactly due to rounding - see Explanation of Data)

This table displays regional components (e.g., counties) of the profiled area and counts of resident inventors and their utility patents; count

FIPS Code	Mail Code	State or Territory	Regional Area Component	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
25017	MA	MASSACHUSETTS	Middlesex County	3978	4368	4313	4808	4750	4113	5314	4590	5023	5296	7156
25021	MA	MASSACHUSETTS	Norfolk County	1031	1162	1049	1204	1061	939	1160	1096	1090	1099	1498
25025	MA	MASSACHUSETTS	Suffolk County	759	808	835	927	925	797	1023	931	1040	1045	1432
25027	MA	MASSACHUSETTS	Worcester County	888	866	874	950	968	823	1111	1028	1049	1193	1511
25009	MA	MASSACHUSETTS	Essex County	706	839	850	957	938	816	976	830	866	958	1315
25005	MA	MASSACHUSETTS	Bristol County	313	305	348	321	419	278	434	350	311	286	424
25023	MA	MASSACHUSETTS	Plymouth County	180	214	206	217	177	160	182	211	166	227	316

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# But creating a “platform strategy”

## Developer Hub USPTO

Open Data USPTO  
Become innovative.

Data can be beautiful.  
Our growing library of visualizations.

Share with us.  
All Open Data community.

Explore our data.  
A catalog of our data products.

Make something.  
Our library of APIs.

Application Programming Interfaces

PatentsView  
Version: 1.0.0  
The PatentsView API is intended to improve the exploration and enhanced understanding of US intellectual property.

BDSS  
Version: 1.0.0  
Bulk Data Storage System (BDSS) API allows the public to discover search by date and download patent and trademark.

Unified Event API  
Version: 1.0.0  
USPTO sponsors holds a wide variety of public facing events daily. USPTO publishes information about these events on...

Open Data Portal (beta)

USPTO APIs

See what new APIs the US Patent and Trademark Office have come out with.

What is an API?  
An API is an application programming interface. It is a set of routines, protocols, and tools for building software and applications. A good API makes it easier to develop a program by providing all the building blocks, which are then put together by the programmer.

Created something with our data?  
Let US KNOW  
Share your work with the USPTO Open Data Community - use the button below to submit your work.

PatentsView  
Version: 1.0.0  
The PatentsView API is intended to improve the exploration and enhanced understanding of US intellectual property...

BDSS  
Version: 1.0.0  
Bulk Data Storage System (BDSS) API allows the public to discover search by date and download patent and trademark...

Unified Event API  
Version: 1.0.0  
USPTO sponsors holds a wide variety of public facing events daily. USPTO publishes information about these events on...

Open Data Portal (beta)

Utility Patent Application & Grant Count  
(2 visuals)

Combination of Patent Application Counts & Grant Counts Foreign vs. U.S. Origin

View Story

Explore. Discover. Create.  
Data tells you what's happening. A good story is not only engaging but gives you insight as to why the data matters. The Patent and Trademark Office wants to make information more transparent and useful for its users. So we are providing you with new ways to explore our data through interactive visualizations. Now you can custom adjust USPTO data in real-time to discover new insights and ask questions about why the data matters. Create new visualizations of your own and share your discoveries with others in the community.

Created something with our data?  
Let US KNOW  
Share your work with the USPTO Open Data Community - use the button below to submit your work.

Utility Patent Application & Grant Count  
(2 visuals)

Apple Finances by Utility Patent Count

Utility Patents per State over Time

Open Data Portal (beta)

Our community

Our open data community is an aggregate of open data developer community contributions and provides a place to showcase your ideas, datasets, and innovative uses of USPTO data.

Created something with our data?  
We're looking for products created by the open data and open source community. If you've made something you want to share, let us know and we'll include it here.

Search by tags:

Mobile App for 200 Government Services  
By USPTO  
Monday, April 25, 2016 - 15:02

Using Data to Drive Your Decisionmaking  
Other Tobacco Weekly Sales  
By USPTO  
Monday, April 25, 2016 - 14:45

Models to Help Business Manage Change  
By USPTO  
Monday, April 25, 2016 - 14:35

Consumer Finance Protection Board Updates  
By USPTO  
Monday, April 25, 2016 - 14:13

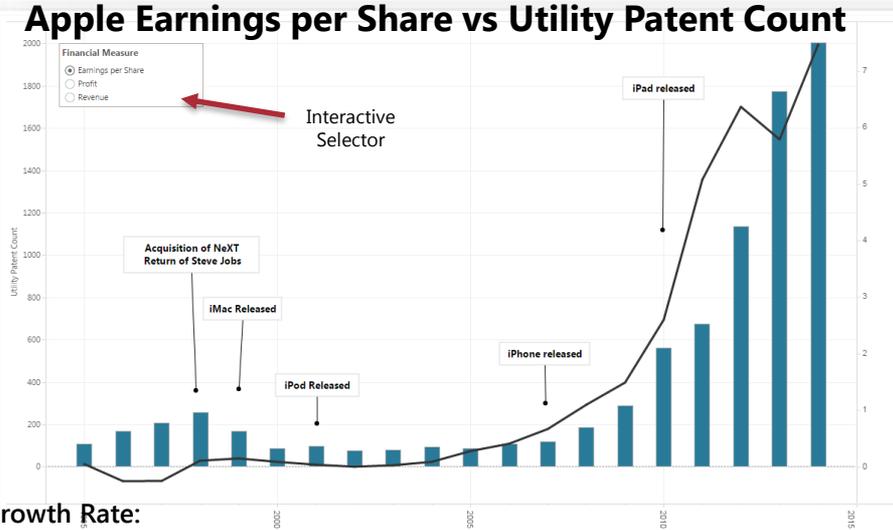
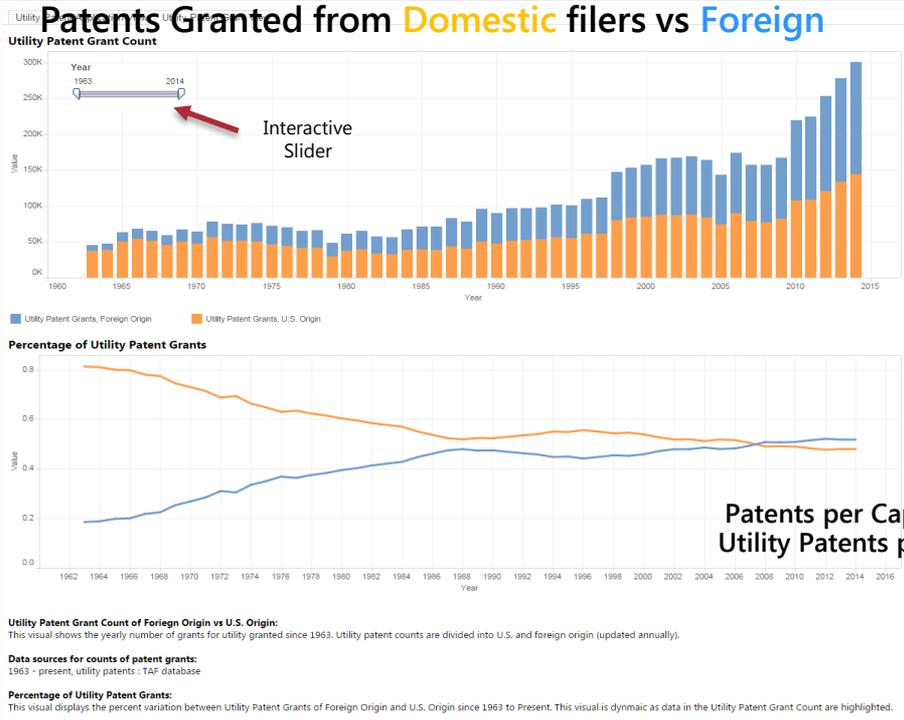
The Normal Entrepreneurs  
By USPTO  
Monday, April 25, 2016 - 13:55

Successful Launch  
By USPTO  
Monday, April 25, 2016 - 14:45

Magic Leap - Cooler than cool  
Improving Your Data Quality  
Infinite Arcade

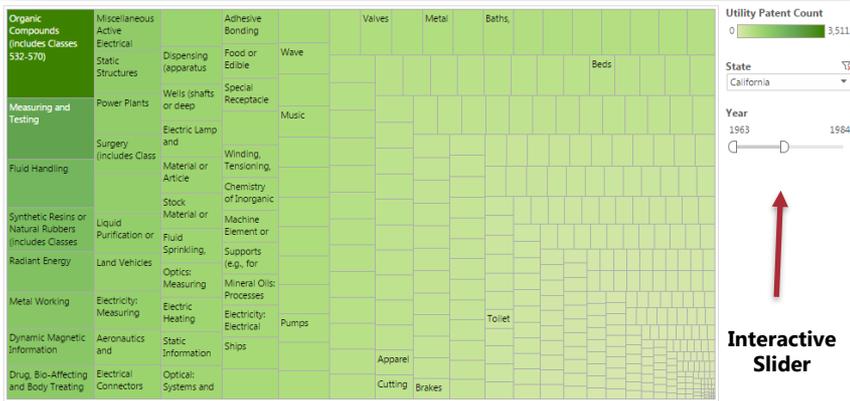
<https://developer.uspto.gov/>

# Examples of the Power of Story Telling with USPTO Data and Economic Data

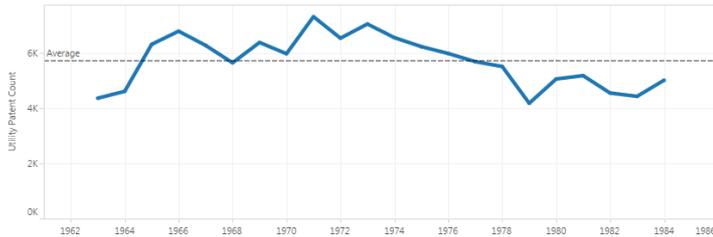


# Highest number of Granted Patents by Technology in California

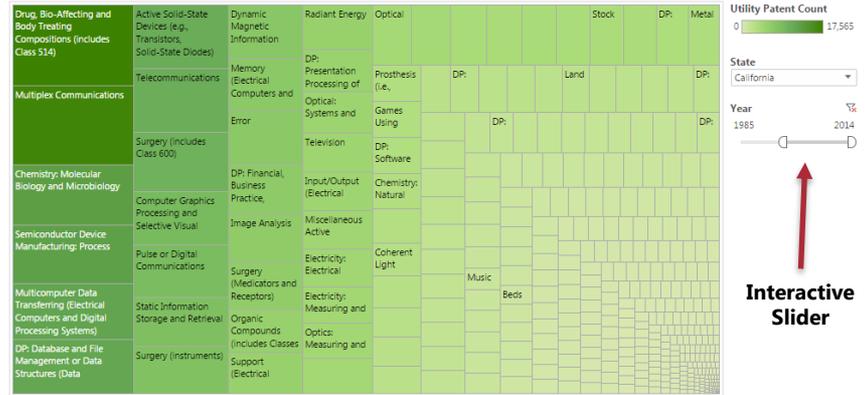
## 1963-1984



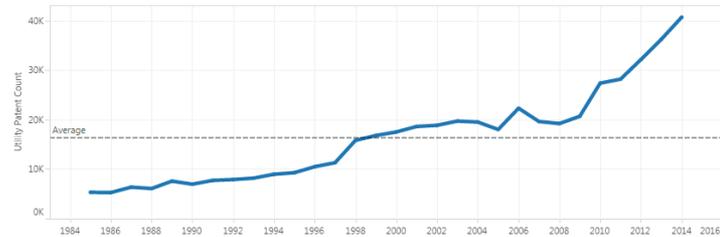
TOTAL: 125464



## 1985-2014

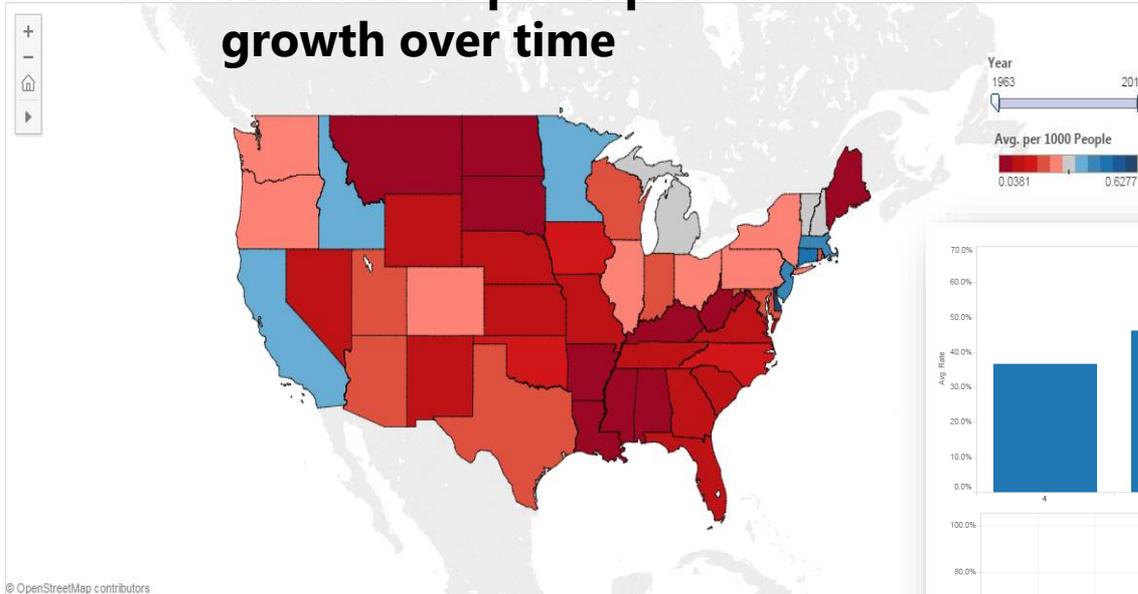


TOTAL: 492033



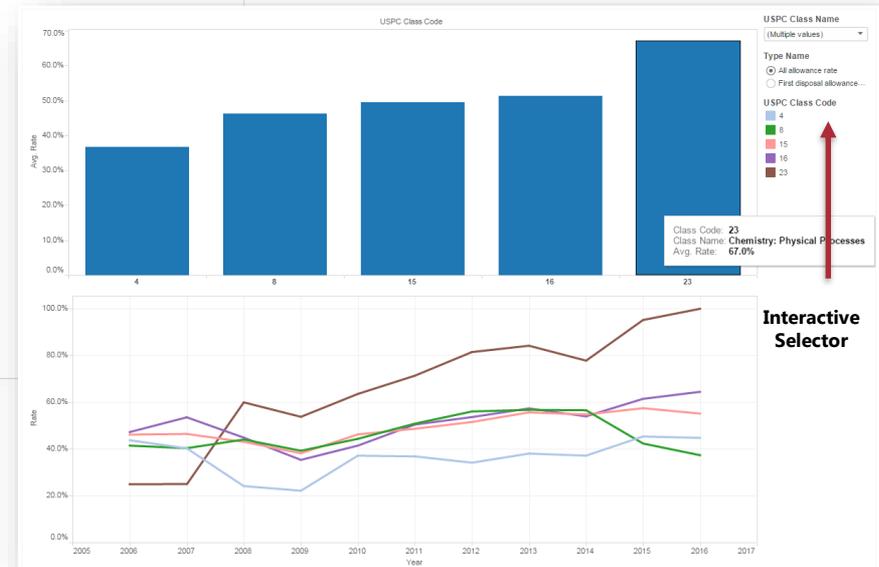
# Open Data Insights

## Most Innovative States: Granted Patents per capital growth over time



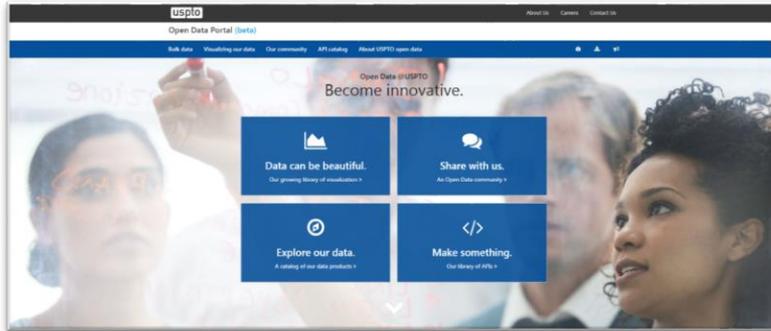
Patents per Capita, Growth Rate: 1963 - 2014

## Allowance Rate for selected USPC classifications

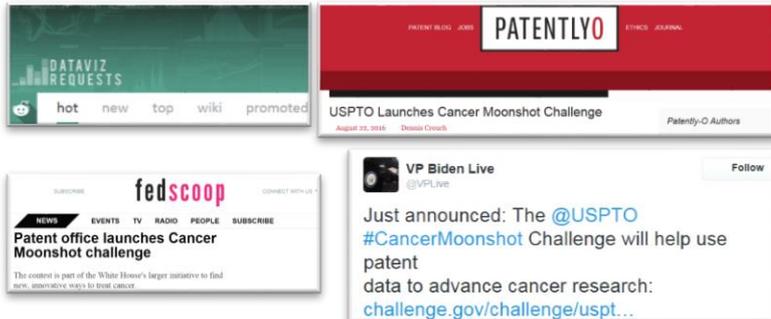


# The team effort – Cancer Moonshot

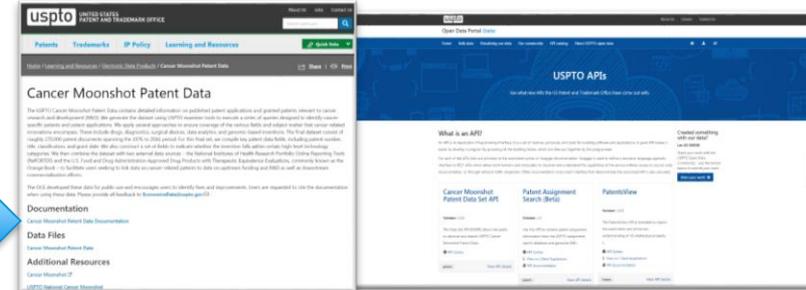
Highlight the importance of Patent Data to guide policy and research



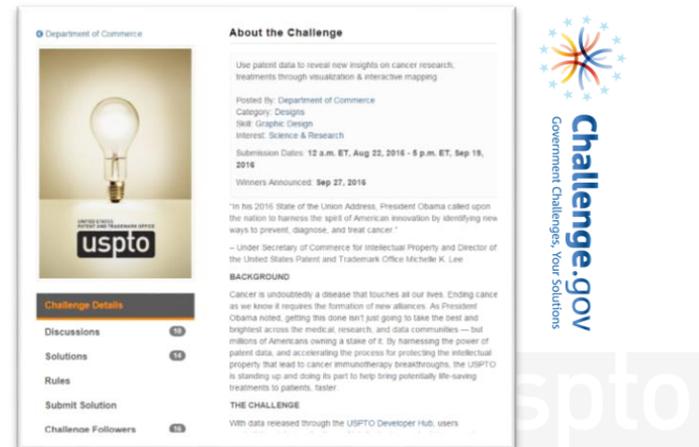
CIO updated developer Hub to support effort



Office Chief Economist (OCE) sponsored workshop & Chief Communication Office promoted event



OCE & Open Data team curated dataset and CIO developed API



Office of General Council assisted in 1st USPTO use of Competes Act

# The results

Received 19 interactive submissions publically shared via Developer Hub

The collage features several data visualization tools and social media posts:

- Top Left:** A network graph showing connections between nodes, with a sidebar for selecting a network cluster and a table of statistics.
- Top Middle:** A scatter plot of 'Patent vs. Publication, Class vs. Filing Date' and a line graph showing 'Patent vs. Publication, Class vs. Filing Date' over time.
- Top Right:** A social media post from Penny Pritzker (@PennyPritzker) mentioning Director Michelle K. Lee and the #CancerMoonshot challenge.
- Middle Left:** A bar chart showing 'Number of Patent Applications in Year' and a pie chart showing 'Patent vs. Publication, Class vs. Filing Date'.
- Middle Right:** A social media post from VP Biden Live (@VPLive) encouraging users to check out the winners of the #CancerMoonshot Challenge.
- Bottom Left:** A dashboard titled 'Cancer InnovationVU' with multiple charts and filters for 'Cancer Area', 'Year Range', and 'Entity Type'.
- Bottom Middle:** A network graph showing connections between nodes, with a legend for 'Grant Recipient Organization' and 'NIH Funding Institute'.
- Bottom Right:** A photo of an 'Innovation Lab' with people working at computers.

<https://developer.uspto.gov/visualization>

**Unlocking Patent Data to Spur Cancer Breakthroughs – Cancer Moonshot**  
During his final State of the Union, President Obama reminded all of us that we are not alone in this fight against cancer, and that if we...  
medium.com

# Next Steps

*“Continue to evangelize the importance of **patent data** to the public and to our employees”*

## Support Demand Driven Data

- Develop new curated data sets & engage with the public/private sector

## Develop new ways to access that data

- Innovate new capabilities, i.e. API “factory” - USPTO is a leader in data innovation

## Seek out additional outreach opportunities

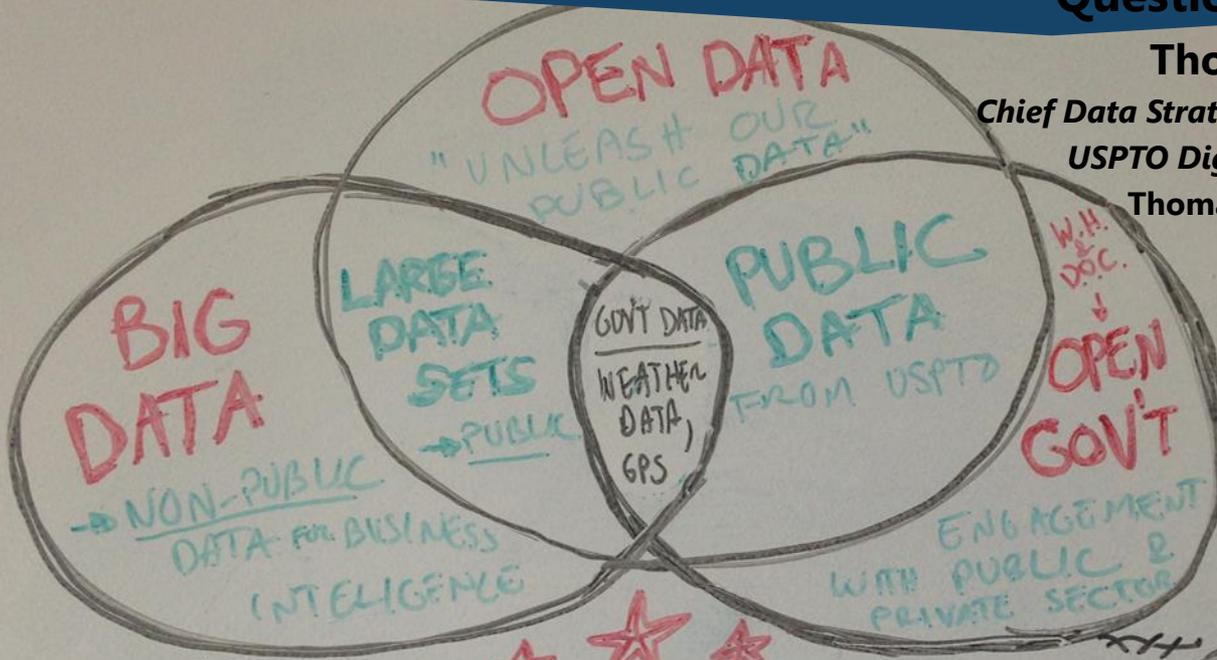
- Open Data leads to better informed applicants which leads to better quality applications
- Support constructive and useful data sets – know your data “identity”

# Questions or Comments

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"DATA IS THE NEW SILICON"

↓

"ENTERPRISE WIDE QUALITY"

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