IP Society

Final Presentation

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GESHER GROUP

Agenda

- Business Development Insights
- Data Analysis on Patents
- Final Words
- Q&A

What is IPSociety?

- An online resource focused on educating the California region about IP and Trademark Law through informational videos, news, and other relevant content.
- Aimed at sponsoring and supporting IP-related meetups, gatherings, and events to inform the public

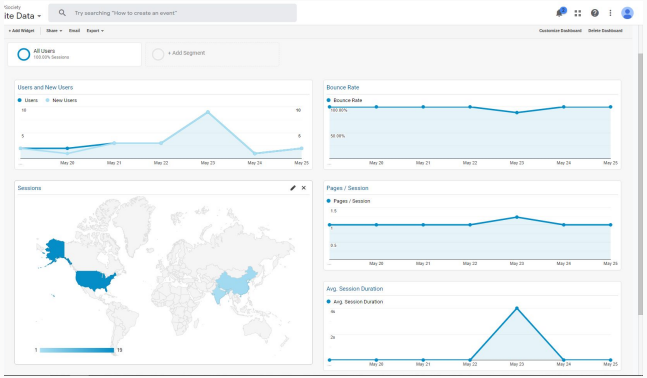
Business Development

Our Objectives

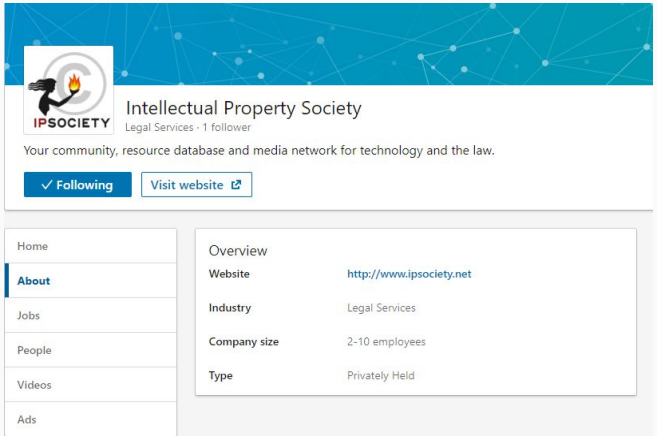
- Aggregate data through Google Analytics to track trends and understand user needs
- Conduct market research to classify audience personas and create customer decision journeys
- Create content to aid in developing the web facing side of the IPSociety

Google Analytics and Web Development

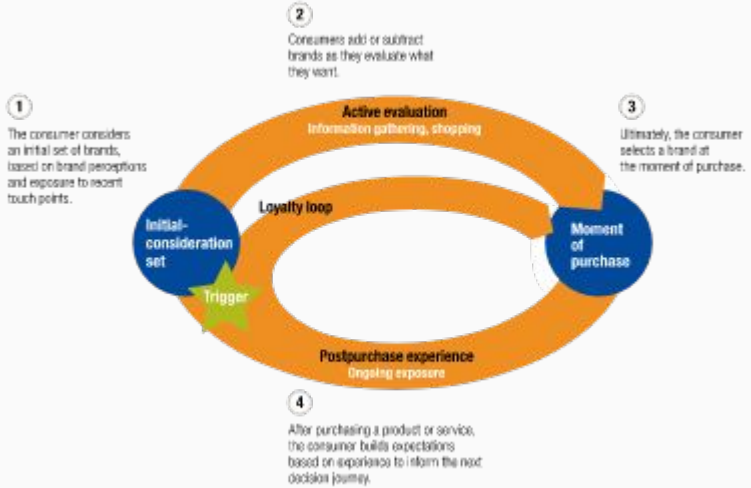
- Track progress of any changes, collect data, present insights and custom dashboards at final handoff



- Created Linkedin, Yelp page to increase web visibility and credibility



Market Research



Goals:

- Understand client perspective.
- Make effective changes to website.

Process

- Contacting people with experience acquiring patents
- Mapping out customer decision journey

Results:

- People were uninformed
- Accessibility to the website is key!

UNITED STATES
PATENT AND TRADEMARK OFFICE

uspto

Search Engine Optimization

- **Why:**

SEO allows an individual platform/website to have an increase of views, user retention and url-rank in Google's internal algorithms

- **How:**

Using simple rhetoric or language the user is familiar with/wants to see, making the first two sentences a summary/most important information, use keywords relating to IP, taylor each FAQ to answer the most commonly asked questions, leave no room for any ambiguity/confusion

Updated info

Mission Statement:

Here at *Intellectual Property Society*, our goal is simple, to educate the public and help anyone interested in obtaining a patent, trademark, copyright or trade secret. Our team of experienced IP creators and volunteer legal professionals is so dedicated, we offer a **free one-on-one educational session** to creators and consumers of IP.

Our main focus is to shed light on the advantages and limitations of these different types of IP, make it easy for a creator to best secure these protections and inform people to make the right decision when choosing a scope of IP to work with. To accomplish our educational and outreach goals, we sponsor seminars, hold lectures, go to meet-ups, and more. Find our event schedule in the "Events" tab on our website.

Please direct any questions pertaining to membership and sponsorship inquiries to admin@ipsociety.net

All one-on-one educational sessions are separate and apart from any legal advice that participating attorneys may provide through their private practices outside of IP Society sponsored events. The IP Society is not a law firm.

Part 2

What is a Trademark?

A **trademark**, or "service mark", is a word, phrase, symbol, or design, that distinguishes and identifies a source of goods of one party from those of others. For a more detailed explanation, click here!

Well-known examples:

- Jeep
- La-Z-Boy
- Polaroid
- Post-it
- Vaseline
- Ziploc

What is Copyright?

Copyright is a form of protection, made into law, when an original content creator doesn't want third parties from publishing, making copies, or using any part of their work without permission. Different from trademarks and patents, Copyrights usually pertain to works of artistic works. For a more detailed explanation, click here!

Examples include:

- Writings
- Musical Works
- Dramatic Works
- Pictures
- Graphics
- Sculptures

What is a Patent?

A **Patent**, is a form, made into law, that protects an invention or process that gives a new solution to a problem. It costs anywhere between $6,000 to $20,000 and takes around 2 years to issue. For a more detailed explanation, click here!

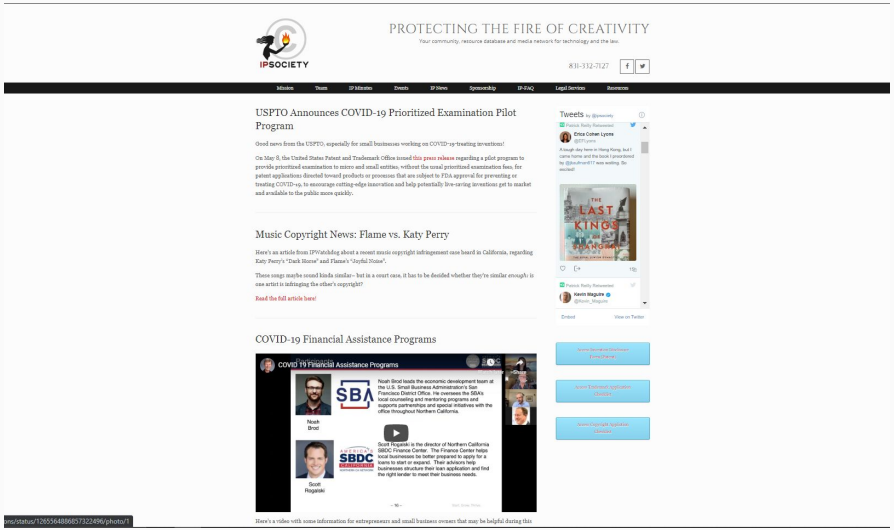
Well-known examples:

- Computer mouse
- Solar Cells
- iPhone
- Drone
- 3-D printer
- Bluetooth

Content Recommendations

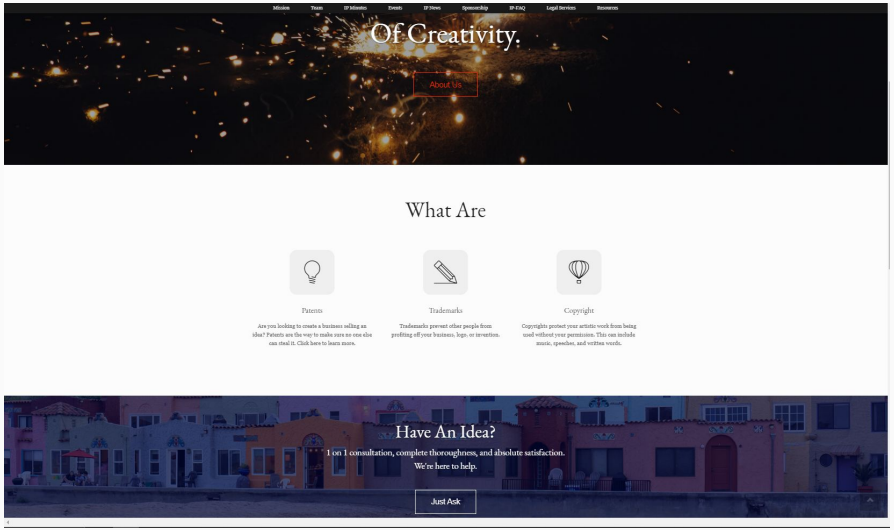
- Analytics Dashboard for consistent website analysis
- Search Engine Optimization for online presence

Home Redesign



Old Homepage

- Blog format
- Outdated design
- No direction



New Homepage

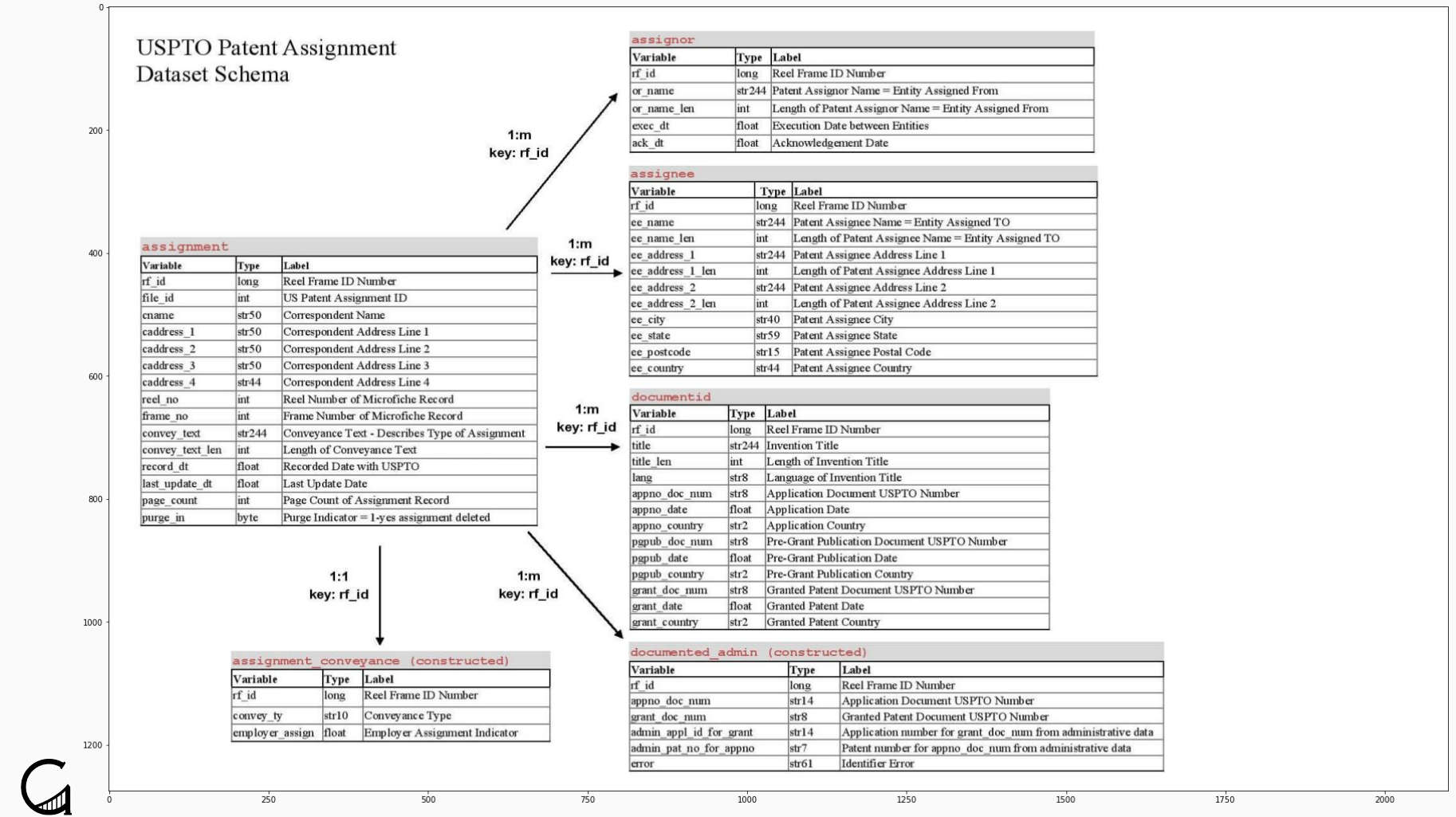
- Updated design
- Content relevant to key stakeholders
- Search Engine Optimized

Data Analysis

Our Objectives

- **Initial Goals:**
  - Extract data from USPTO and WIPO databases and analyze it to find interesting trends or anomalies.
  - Then aggregate this information as an industry report to deliver to our client.
- **Revised Goals:**
  - Extract data from USPTO database and analyze it to find interesting trends or anomalies.
  - Then package our data analytics code into a reusable tool that can produce reports.

USPTO Patent Assignment Dataset Schema



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key: rf_id

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key: rf_id

assignment

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rf_id	long	Reel Frame ID Number
file_id	int	US Patent Assignment ID
cname	str50	Correspondent Name
caddress_1	str50	Correspondent Address Line 1
caddress_2	str50	Correspondent Address Line 2
caddress_3	str50	Correspondent Address Line 3
caddress_4	str44	Correspondent Address Line 4
reel_no	int	Reel Number of Microfiche Record
frame_no	int	Frame Number of Microfiche Record
convey_text	str244	Conveyance Text - Describes Type of Assignment
convey_text_len	int	Length of Conveyance Text
record_dt	float	Recorded Date with USPTO
last_update_dt	float	Last Update Date
page_count	int	Page Count of Assignment Record
purge_in	byte	Purge Indicator = 1-yes assignment deleted

assignor

Variable	Type	Label
rf_id	long	Reel Frame ID Number
or_name	str244	Patent Assignor Name = Entity Assigned From
or_name_len	int	Length of Patent Assignor Name = Entity Assigned From
exec_dt	float	Execution Date between Entities
ack_dt	float	Acknowledgement Date

assignee

Variable	Type	Label
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ee_address_1_len	int	Length of Patent Assignee Address Line 1
ee_address_2	str244	Patent Assignee Address Line 2
ee_address_2_len	int	Length of Patent Assignee Address Line 2
ee_city	str40	Patent Assignee City
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ee_postcode	str15	Patent Assignee Postal Code
ee_country	str44	Patent Assignee Country

documentid

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grant_doc_num	str8	Granted Patent Document USPTO Number
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grant_country	str2	Granted Patent Country

assignment_conveyance (constructed)

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documented_admin (constructed)

Variable	Type	Label
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appno_doc_num	str14	Application Document USPTO Number
grant_doc_num	str8	Granted Patent Document USPTO Number
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2	36340874	PARADYNE CORPORATION	NaN	8550 ULMERTON ROAD	LARGO	FLORIDA	33540	NaN
3	36340875	PARADYNE CORPORATION	NaN	8550 ULMERTON ROAD	LARGO	FLORIDA	33540	NaN
4	36920537	EHD, INC.	A TENNESSEE CORPORATION	500 GOULD DRIVE	COOKEVILLE	TENNESSEE	38501	NaN

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1	36250888	1	NORTHERN TELECOM LIMITED	PATENT DEPT 265	P.O. BOX 3511 STATION C	OTTAWA ONTARIO CANADA K1Y 4H7	NaN	3625	888	CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).	1979-03-05	2010-09-24	4	
2	36340874	1	MORRISON & FOERSTER LLP	GARY E. CANN	345 CALIFORNIA STREET	SAN FRANCISCO, CA 94104-2675	NaN	3634	874	ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT...	1979-03-02	1999-08-17	1	
3	36340875	1	THOMAS KAYDEN HORSTEMEYER ET AL.	DANIEL A. MCCLURE	100 GALLERIA PARKWAY, STE. 1500	ATLANTA, GA 30339	NaN	3634	875	ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMEN...	1979-03-02	1999-08-17	1	
4	36920537	1	EHD, INC.	500 GOULD DRIVE	COOKEVILLE, TN 38501	NaN	NaN	3692	537	ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT...	1979-09-26	2002-04-06	3	

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2	36250888	NaN	NaN	05517218	NaN	US	NaN	NaN	NaN	3936602	NaN	US
3	36250888	POLYMER COATED HEAT INSULATED ELECTRICAL CONDU...	en	05574608	1975-05-05	US	NaN	NaN	NaN	4131690	1978-12-26	US
4	36250888	NaN	NaN	05604353	NaN	US	NaN	NaN	NaN	D244456	NaN	US

CPC	COOPERATIVE PATENT CLASSIFICATION
A	HUMAN NECESSITIES
B	PERFORMING OPERATIONS; TRANSPORTING
C	CHEMISTRY; METALLURGY
D	TEXTILES; PAPER
E	FIXED CONSTRUCTIONS
F	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
G	PHYSICS
H	ELECTRICITY
Y	GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-SECTIONAL TECHNOLOGIES SPANNING OVER SEVERAL SECTIONS OF THE IPC; TECHNICAL SUBJECTS COVERED BY FORMER USPC CROSS-REFERENCE ART COLLECTIONS [XRACs] AND DIGESTS

CPC — COOPERATIVE PATENT CLASSIFICATION

A — HUMAN NECESSITIES

\- AGRICULTURE

\- A01 — AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING

D A01B — SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESSORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL (making or covering furrows or holes for sowing, planting, or manuring A01C 5/00; soil working for engineering purposes E01, E02, E21; {measuring areas for agricultural purposes G01B})

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

A01B69/04	covered by	A01B 69/008
A01B69/06	covered by	A01B 69/005
A01B69/08	covered by	A01B 69/006

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

D A01C — PLANTING; SOWING; FERTILISING (combined with general working of soil A01B 49/04; parts, details or accessories of agricultural machines or implements, in general A01B 51/00 - A01B 75/00; {apparatus for spreading sand or salt E01C; sowing and fertilising with aircraft B64D 1/16 - B64D 1/20})

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

D A01D — HARVESTING; MOWING {(parts, details or accessories of agricultural machines or implements in general A01B 51/00 - A01B 75/00)}

NOTES

1. This subclass covers the shredding or pulverising of stubble, e.g. for the purpose of producing mulch, but does not cover other mechanical destruction of unwanted vegetation, which is covered by group

CPC

COOPERATIVE PATENT CLASSIFICATION

D A01B

SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESSORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL (making or covering furrows or holes for sowing, planting, or manuring A01C 5/00; soil working for engineering purposes E01, E02, E21; {measuring areas for agricultural purposes G01B})

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

A01B69/04	covered by	A01B 69/008
A01B69/06	covered by	A01B 69/005
A01B69/08	covered by	A01B 69/006

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

D -	**A01B 1/00**	**Hand tools** (edge trimmers for lawns A01G 3/06 {; machines for working soil A01B 35/00; making hand tools B21D})
D -	A01B 1/02	. Spades; Shovels {(hand-operated dredgers E02F 3/02)}
	A01B 1/022	. . {Collapsible; extensible; combinations with other tools}
	A01B 1/024	. . {Foot protectors attached to the blade}
	A01B 1/026	. . {with auxiliary handles for facilitating lifting}
	A01B 1/028	. . {with ground abutment shoes or earth anchors for facilitating lifting}
	A01B 1/04	. . with teeth
D -	A01B 1/06	. Hoes; Hand cultivators {(rakes A01D 7/00; forks A01D 9/00; picks B25D)}
	A01B 1/065	. . {powered}
	A01B 1/08	. . with a single blade
	A01B 1/10	. . with two or more blades
	A01B 1/12	. . with blades provided with teeth
	A01B 1/14	. . with teeth only
-	A01B 1/16	. Tools for uprooting weeds
	A01B 1/165	. . {adapted for extracting a substantially cylindrical plug out of the earth}
	A01B 1/18	. . Tong-like tools
	A01B 1/20	. Combinations of different kinds of hand tools
D -	A01B 1/22	. Attaching the blades or the like to handles (handles for tools, or their attachment, in general B25G); Interchangeable or adjustable blades

	Classifications	Subcategory
0	A	AGRICULTURE
1	A01	FORESTRY
2	A01B	HUNTING
3	A01C5/00	TRAPPING
4	E01	FISHING
...	...	...
1347	Y02A	REDUCTION OF GREENHOUSE GAS [GHG] EMISSIONS, R...
1348	Y02B	CLIMATE CHANGE MITIGATION TECHNOLOGIES RELATED...
1349	Y02C	INFORMATION OR COMMUNICATION TECHNOLOGIES HAVI...
1350	Y02D	TECHNICAL SUBJECTS COVERED BY FORMER USPC
1351	Y02E	TECHNICAL SUBJECTS COVERED BY FORMER US CLASSI...

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1	2	C02F1/00, D01G21/00, D06C3/00
2	3	G01B7/107, Y10S310/80
3	5	B23B41/04, B27F5/10, Y10T408/356
4	6	B27C5/06
...	...	...
10549676	10609847	H05K9/0049, B29D99/006, H05K5/0004, H05K5/04, ...
10549677	10609848	H05K9/0083, H01B1/22, H05K9/0086, H05K9/009
10549678	10609849	H05K9/0088, B29C43/003, B29C43/10, B32B7/02, B...
10549679	10609850	H05K13/0069, H05K13/0061
10549680	10609851	H05K13/08, G06T7/0004, H04N7/183, H05K13/0815,...

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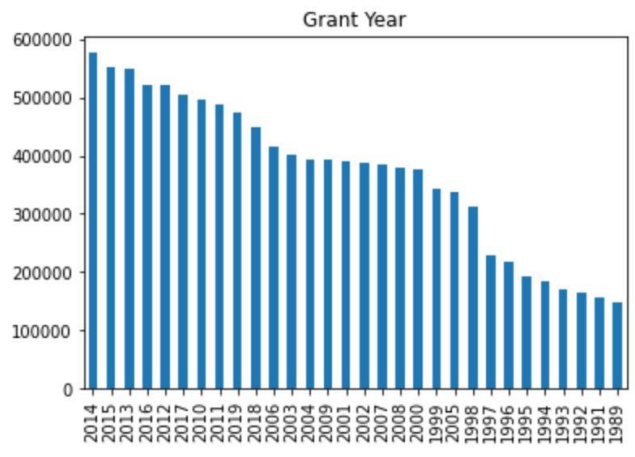
1	36250888	OPTICAL FIBRE HAVING LOW MODE DISPERSION	5.85541e+06	1977-11-28	NaN	NaN	4149772	1979-04-17	[G02B6/03688, G02B6/02042, G02B6/0288, G02B...	[G]	[G02]
2	36250888	NaN	5.51722e+06	NaN	NaN	NaN	3936602	NaN	[H04Q3/00]	[H]	[H04]
3	36250888	POLYMER COATED HEAT INSULATED ELECTRICAL CONDU...	5.57461e+06	1975-05-05	NaN	NaN	4131690	1978-12-26	[H01B7/295, B05D1/24, B05D7/20, B05D7/546, ...	[H, B, Y]	[H01, B05, Y10]
7	36250888	PLATING CURRENT AUTOMATIC SWITCHING METHOD AND...	6.46705e+06	1983-02-16	NaN	NaN	4497695	1985-02-05	[C25D21/12]	[C]	[C25]
...	...	...	...	...	...	...	...	...	...	...	...
14945907	514150283	SYSTEMS AND METHODS FOR AUTOMATED VOXELATION O...	13830632	2013-03-14	2.013023e+10	2013-09-05	9280718	2016-03-08	[A61B5/055, A61B5/4566, G01R33/4835, G01R33...	[A, G]	[A61, G01, G06]
14945908	514150283	SYSTEMS AND METHODS FOR AUTOMATED VOXELATION O...	15061798	2016-03-04	2.017003e+10	2017-02-02	9808177	2017-11-07	[A61B5/055, A61B5/4566, G01R33/4835, G01R33...	[A, G]	[A61, G01, G06]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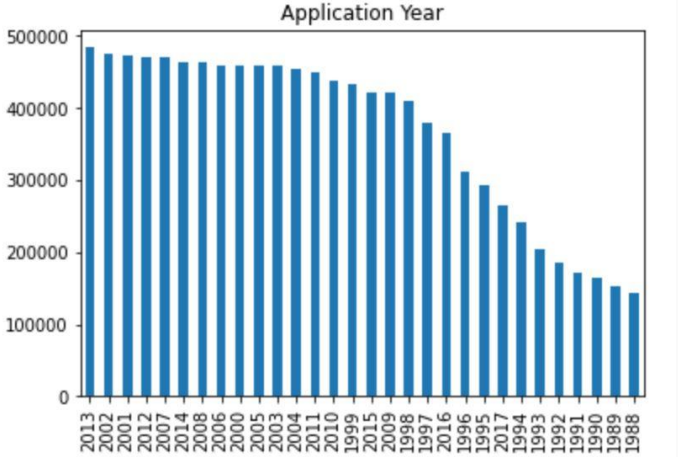
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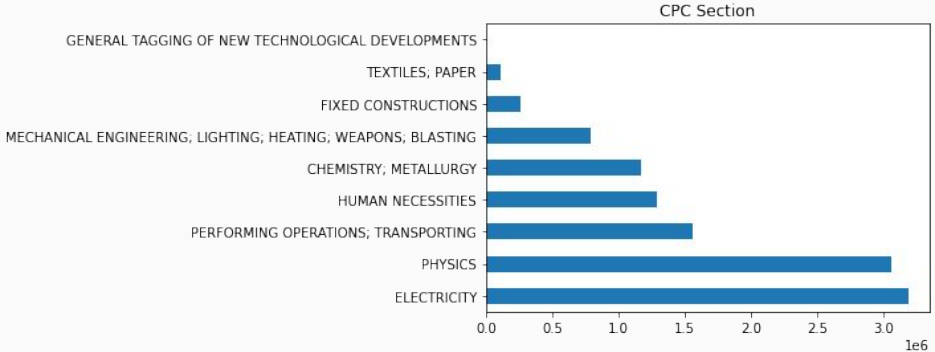
CPC Section
GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS
TEXTILES; PAPER
FIXED CONSTRUCTIONS
MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
CHEMISTRY; METALLURGY
HUMAN NECESSITIES
PERFORMING OPERATIONS; TRANSPORTING
PHYSICS
ELECTRICITY
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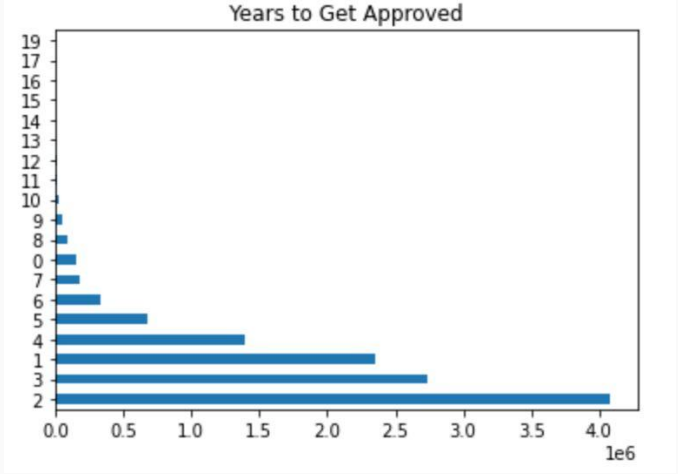
Years to Get Approved
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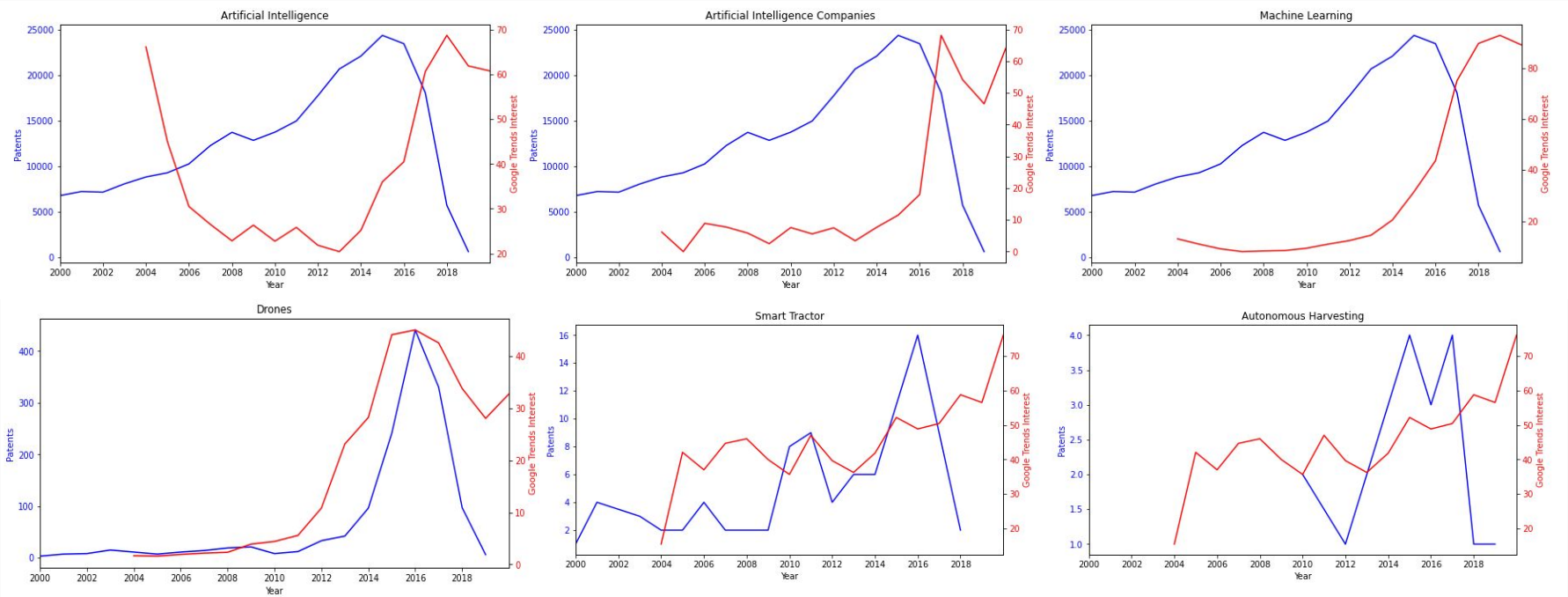
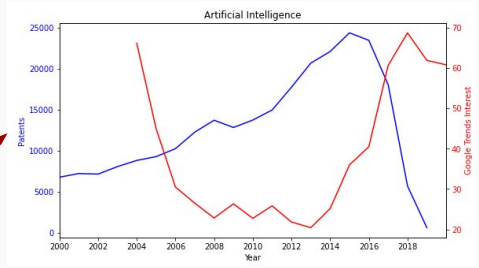
Google Trends Analysis

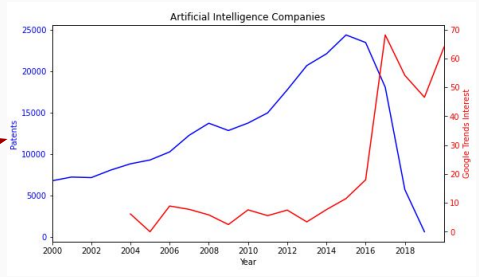


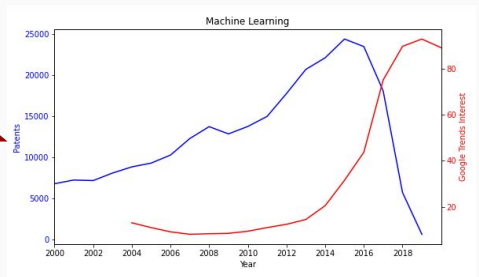
Code Deliverable

```
# Set the trends that we want to analyze
trends = ["Artificial Intelligence", "Artificial Intelligence Companies", "Machine Learning"]
```

```
# Create figure with 3 subplots
fig, axes = plt.subplots(1, 3, squeeze=False, figsize=(30, 5))

# Each iteration of the loop will create one graph
for col, trend in enumerate(trends):

  trend_file = trend.lower().replace(' ', '_') + "_trends.csv"

  "artificial_intelligence_trends.csv"

  # Isolate patents that fall under classification G06
  patent_count_df = doc_df[doc_df['Classifications'].str.contains('G06')]

  # Count the number of patents in for each year and drop unnecessary rows
  patent_years = patent_count_df.groupby('appno_year').count()
  patent_years.drop(columns=['rf_id','title','appno_doc_num', 'grant_date', 'grant_year', 'Classifications'], inplace=True)

  # Import Google Trend data and format it
  google_df = pd.read_csv('gdrive/Shared drives/Patrick Reilly Law/google_trends_csv/' + trend_file, skiprows=2)
  google_df['Month'] = pd.to_datetime(google_df['Month'])
  google_df['Year'] = google_df['Month'].dt.year
  google_df.columns = ['Month', trend + ': (United States)', 'Year']

  google_df[trend + ': (United States)'].replace('<1', '0', inplace=True)
  google_df[trend + ': (United States)'] = google_df[trend + ': (United States)'].astype(int)

  google_years = google_df.groupby('Year')[trend + ': (United States)'].mean()

  # Plot graph
  ax1 = axes[0][col]
  patent_years.plot(ax=ax1, color='blue')
  ax2 = ax1.twinx()
  google_years.plot(ax=ax2, color='red')


  # Modify how the plots look
  legend = ax1.legend()
  legend.remove()
  _ = ax1.set_xlim([2000, 2020])
  _ = ax1.set_xlabel('Year')
  _ = ax1.set_xticks([x for x in range(2000,2020,2)])
  _ = ax1.set_ylabel('Patents', color='blue')
  _ = ax2.set_ylabel('Google Trends Interest', color='red')
  _ = ax1.tick_params(axis='y', labelcolor='blue')
  _ = ax2.tick_params(axis='y', labelcolor='red')
  _ = ax1.set_title(trend)
```







Q&A

Issues

Overall, dependable client with lots of leeway and few hiccups

Final Handoff will be this Friday. Will include Analysis Code, Analytics Dashboard, and Content Recommendations