

Report on Yahoo's Patenting Trends

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Introduction

Business analysts and strategists are often found to rely on data to derive trends, which are used in gaining insight and facilitating decision making. With respect to technology companies, among various types of data used for deriving trends, patent related data is considered to be substantially important.

Patenting trends are found to provide insight into market entry strategies, product strategies, R&D efforts, IP strategies and acquisitions, among other insights.

Our team, out of curiosity, tries to identify macro level trends of various companies, and exhibits these trends through reports. This report focus is on Yahoo's patenting trends.

Theis report aims at providing a birds eye view of Yahoo's patenting trend.

The patenting trends illustrated in this post are listed below:

- 1. Year wise patent filing trend
- 2. Country wise patent filing trend
- 3. Year wise patent filing trend in top 10 countries
- 4. Top 20 IPC classes
- 5. Year wise patent filing trend for top 20 IPC class
- 6. Top 25 successful inventors

Year Wise Patent Filing Trend

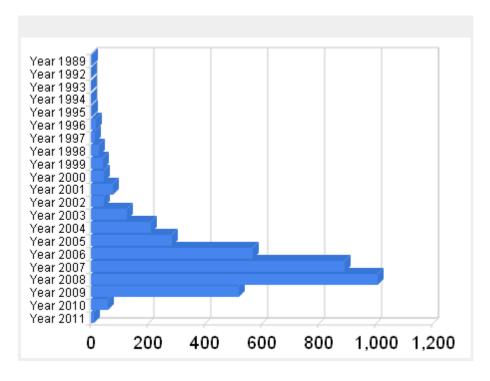
The graph illustrates number of patent applications filed by Yahoo on a yearly basis.

As seen in the graph, the rate of filling patent applications has been increasing over the years. Specifically, there has been a sharp increase in the number of applications filed on 2006. In 2006, there has been a 100% increase in the applications filed when compared with the year 2005.

Further, the number of patent applications filed appears to decline towards the year 2011. However, such an indication can be misleading because the patent applications get published after 18 months from their priority date (Priority date is the date of filing the first patent application, among several patent applications, which may have been filed by the applicants for the same invention in different countries). Hence, the patent applications having their priority date in 2010 or 2011 might be awaiting publication. Therefore, the number of applications filed in the year 2010 and 2011 might be more than what is indicated in this graph.

It shall be further noted that, the number of patent applications filed by Yahoo in each of the years might be more than what is illustrated in this graph. The reason for the same is, one patent application is considered per patent family. A patent family is a set of patents/patent applications filed in various countries to protect a single invention (same set of inventors).

Data used to derive this trend is provided in tabular form in <u>Schedule 1</u>



Country Wise Patent Filing Trend

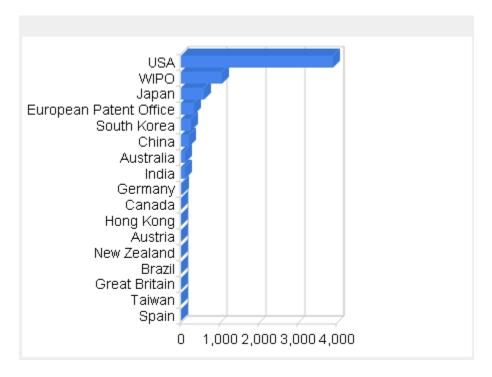
The graph illustrates the number of patent applications filled in various countries. Note that all patent application related to a patent family are considered for plotting this graph.

As expected, US and WIPO are the top two jurisdictions in which maximum number of patent applications have been filed.

Further, India and Brazil, which are developing countries also find a spot in top 17 countries in which Yahoo has filed patent applications. Also, 9 non English speaking countries make to the top 17.

Another noticeable observation is the difference in the number of applications filed in the top 1 (US) and top 2 (Japan, WIPO is not a country) country. Yahoo has filed 671% more applications in US when compared to Japan. This huge difference may indicate, among other indications, importance of US as a market to Yahoo, and strong belief in IP enforcement system in US.

Data used to derive this trend is provided in tabular form in Schedule 2



Year Wise Patent Filing Trend in Top 10 countries

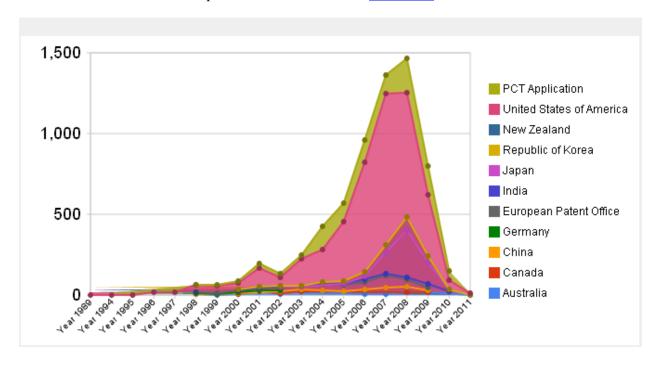
This graph illustrates the number of patent applications filed in respective countries over a period of time.

One of the interesting observations is the fact that Yahoo was founded in the year 1995. However, they have patents assigned to them much before that. Such patents might have been acquired by Yahoo.

Further, Yahoo seems to have initiated seeking patent protection outside US after 3 years (1998) since it was founded. Furthermore, it may be observed that patent filing in Japan, where Yahoo has filed the highest number of patent applications after US, seems to have gained traction in the year 2007.

Another interesting observation is absence of patent filing in Australia in the years 2004 and 2005.

Data used to derive this trend is provided in tabular form in Schedule 3

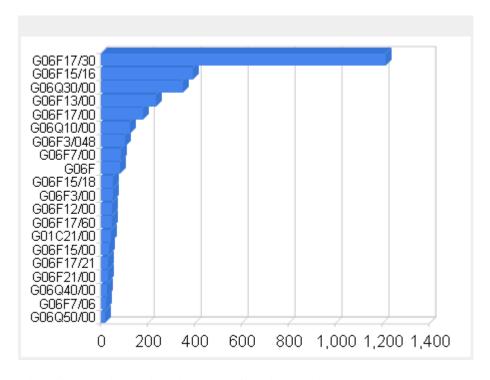


Top 20 IPC Classes

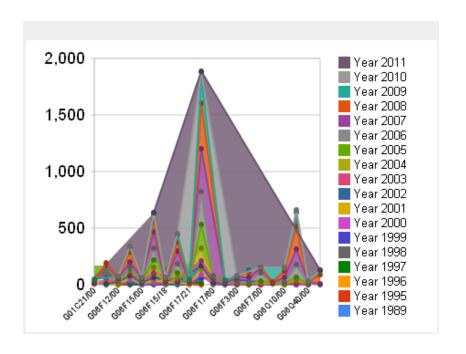
Year Wise Patent Filing Trend for Top 20 IPC codes

Known fact that information retrieval and database structures is the most focused upon area by companies operating in internet search engine domain. Yahoo being one of the dominant players in this field, as expected has substantial IP built in the information retrieval and database structures technology, which is represented by IPC code G06F17/30.

Data used to derive this trend is provided in tabular form in Schedule 4



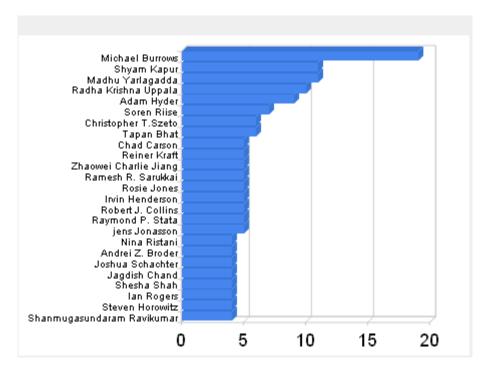
Data used to derive this trend is provided in tabular form in <u>Schedule 5</u>.



Top 25 Successful Inventors

Inventors from varies parts of the world are found in this list. Top 25 inventors of yahoo includes "del.icio.us" creator Joshua Schachter. Further, 9 out of 25 inventors appear to be of Indian origin.

Data used to derive this trend is provided in tabular form in Schedule 6



In addition to the above macro level trends, various other macro and micro level trends can be derived to serve various analytical objectives.

We hope you found this report useful. You can find more details about InvnTree and the services we offer in the pages appended below.

Thank you,

Team InvnTree

About InvnTree

InvnTree is a people and process driven company that offers a wide array of patent support services. We leverage our technology and patent expertise to provide backend support through a wide range of patent services.

InvnTree caters to patent practitioners, such as, IP law firms, individual patent agents, patent attorneys and In-House IP Counsel, across the global.

InvnTree has its delivery centre in Bangalore, India. Our location enables us to hand pick talented professionals from a vast pool of skilled professionals available in India. Our team of experienced and dedicated professionals work in accordance with lean processes to deliver high quality services at competitive prices. Our team includes professionals having advanced degrees in science and engineering from prestigious institutes; all of who have strong experience is delivering a wide array of patent support services.

We understand that no two clients are the same, and even for a single client, their needs may vary over time. Hence, we employ a <u>flexible client engagement models</u> that are scalable and sustainable.

Further, we believe that safeguarding information disclosed by our clients is of paramount importance. Hence, we have taken stringent legal, technological, process and physical measures to safeguard sensitive client information.

Facts

- On an average, we has been receiving 3.4 potential client references from each client we have served
- 42% of our clients are US and European patent attorneys. An indication that InvnTree's service quality meets quality standards expected by US and European patent attorneys
- We have a client satisfaction rating of 8.3 on a scale of 10

Superior Quality

We have been consistently delivering excellent quality patent support services through our team of experienced patent professionals. We assign patent projects to the team that has the necessary qualification and experience in the technology field to which the patent projects relate. Hence, the insight provided by our team is highly valued by our clients. We follow an effective quality check process so that project execution is reviewed at various stages to ensure optimum quality. Collectively, our qualified team and proprietary quality process ensure delivery of patent support services that always exceed client expectations.

Cost Efficient

By engaging us, patent practitioners reduce their cost structures through labour arbitrage. Patent practitioners use our team in India to get help as and when need arises. Further, our engagement model enables patent practitioners scale up rapidly using our dedicated workforce.

Our cost efficiency can be attributed to our low cost location, Bangalore, and the insignificant overhead costs we incur. About 90% of our workforce consists of patent professionals. Hence, our expenditure on non-critical departments is insignificant. Further, we have innovatively invested in office infrastructure, which helps us reduce expenditure significantly and facilitate investment in resources that add value to our clients. In addition, we follow lean project execution processes, which contribute to the reduced cost for our services.

Comprehensiveness Research

We have subscribed to paid patent databases, using which, we cover patent data from 100 countries while executing patent research projects. Further, by using our vast experience in

patent research, we have developed proprietary processes for analyzing data to provide valuable insight. By applying such processes and using various paid databases, we have been providing valuable insight, which is always backed by comprehensive research.

Short Lead-Time

Time is critical when it comes to patents. Our clients often gain strategic advantage in their market by having patent projects executed within the optimum duration. We help our clients realize such an advantage by planning project execution through Critical Path Method, and ensuring that projects are executed according to the plan.

Patent Support Services

We offer patent support services in the technology domain listed below (in alphabetical order):

Aerospace	Electronics	Robotics
Automation	Energy	Semiconductor
Automobile	Manufacturing	Software
Computer Hardware	Medical Devices	Telecommunication
Construction Technology	Process Industry	
Electrical	Other Industrial Technologies	

A list of patent support services that we offer is provided below:

- 1. <u>Drafting Support Services</u>
 - <u>Complete Patent Specification Drafting Support</u>
 - Accelerated Examination Support Document (AESD) Preparation
- 2. <u>Patent Prosecution Support</u>
- 3. Prior Art Search and Technical Analysis
 - Patentability Search and Technical Analysis
 - Freedom to Operate Search and Technical Analysis
 - Patent Validation/Invalidation Search and Technical Analysis
 - Infringement Search and Technical Analysis
- 4. Patent Intelligence Support
 - Patent Landscape Study
 - Competitor Portfolio Study
- 5. Patent Watch and Alerts
 - Technology Monitoring Services
 - Competitor Monitoring Services
- 6. India Specific Services
 - Filing Patent Application in Indian Patent Office
 - Prosecuting Indian Patent Applications
 - Filing Patent Opposition

Description of Services

Drafting Support Services

Complete Patent Specification Drafting Support

We provide patent specification drafting support to patent practitioners. Patent practitioners across the globe engage us for drafting part of the patent specification or the complete specification. The practitioners later review our drafts. By outsourcing drafting projects, patent professionals reduce the costs involved in drafting a patent specification. Further, patent professionals increase their bandwidth by engaging our patent team for patent specification drafting. Our team also specializes in preparing drawings, which are included in patent specifications.

(Back to services offered list)

Accelerated Examination Support Document (AESD) Preparation

We undertake AESD preparation projects, which help in expediting the patent examination process in the USPTO. We have worked on several AESD preparation assignments.

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Patent Prosecution Support

Patent practitioners engage us to provide patent prosecution support. As part of the patent prosecution support service, we analyze references cited and the objections raised by patent examiners. Subsequently, we draft responses in light of the instructions provided by our clients. (Back to services offered list)

Prior Art Search and Technical Analysis

Patentability Search and Technical Analysis

Freedom to Operate Search and Technical Analysis

Patent Validation/Invalidation Search and Technical Analysis

Infringement Search and Technical Analysis

Patent practitioners outsource patent search projects to us in various scenarios. Such projects require comprehensive research and hence, they are time intensive. By outsourcing such projects, patent professionals add value to their clients by providing opinions that are backed by comprehensive research, while limiting the expenses involved in carrying out such research.

We carry out patent search projects by employing various patent search strategies in **subscribed** databases (covering patent data from more than 100 countries) to identify references that are relevant to the project.

We are well versed in providing technical analysis that are used by our clients for crafting opinions corresponding to patent invalidation, patent litigation, FTO and infringement (claim mapping/product mapping).

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Patent Intelligence Support

Patent Landscape Study

Patent practitioners engage us to carry out patent landscape studies for their clients. This study is an exhaustive search, analysis and synthesis of patent documents relating to the technology domain of clients' interest. A detailed taxonomy of the technology is prepared in coordination with the client, based on the objective of the study. The patent documents are analyzed and arranged in the taxonomy to help our clients derive maximum value from the available patent data. Patent landscape reports are widely used as a knowledge base for technology trouble shooting, freedom to operate decisions, state of the art updates, understanding competitor strategy, and understanding technology trends, among others.

(Back to services offered list)

Competitor Portfolio Study

This is a detailed study of a competitor's patent portfolio. The patent portfolio is analyzed and segregated in a way that helps our clients understand competition better. Further, for each patent in the portfolio, we provide comment and technical analysis in light of, product, process, patent portfolio or specific project requirement. Furthermore, if required, we provide legal status of each of the patent in the portfolio. This study is found to be extremely useful in, understanding competitors, mergers, acquisition, determining patent filing trends, and identifying key innovators in the competitor's company, among other uses.

(Back to services offered list)

Patent Watch and Alerts

Technology Monitoring Services

As part of our technology monitoring service, we provide periodic updates about patent applications that get published and patents that are granted in the domain of your interest. We use near fool proof strategy to capture the most relevant information. We summarize the results based on your requirement as part of our update, so that it is easier and less time consuming for you to take decisions. Such updates have a variety of applications, some of which are, taking a decision on filing pre grant and post grant oppositions, and keeping track of developments in a certain technical area.

(Back to services offered list)

Competitor Monitoring Services

As part of our competitor monitoring service, we periodically update our clients about competitor's patent application publications and patent grants. We have the capability to monitor patent data in more than 100 jurisdictions. We summarize the results based on our clients' requirement as part of our update, so that, it is easier and less time consuming for our clients to take decisions. Such updates have a variety of applications, some of which are, taking decision on filing pre grant and post grant oppositions, keeping track of developments made by competitors, predicting future products and predicting competitor's entry into newer markets.

(Back to services offered list)

India Specific Services

Filing Patent Application in Indian Patent Office

Our team includes Indian patent agents, who are well versed with the procedural requirements of filing patent applications in the Indian Patent Office. Several Indian companies and companies based outside India avail our services for filing patent application in the Indian Patent Office. We also file national phase applications, PCT applications, and convention applications.

Prosecuting Indian Patent Applications

We have extensive experience in prosecuting patent applications filed in the Indian Patent Office. As part of these prosecutions, we have responded to several examination reports issued by the Indian Patent Office. We have also attended several hearings in the Indian Patent Office as part of the patent prosecution process. Our experience has helped us in thoroughly understanding the Indian Patent Act and the nuances involved in prosecuting Indian patent applications. This has led to an efficient patent prosecution practice, thereby making our practice in patent prosecution, cost and quality efficient.

Filing Patent Opposition

We enable our clients protect their interests by filing pre-grant and post-grant patent oppositions. We conduct research to collect references that can be used in filing opposition. Thereafter, we draft opposition letters and file the same in the Indian Patent Office.

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Engagement Model

On-Demand Model (ODM)

We provide project execution on demand. Our clients engage us, as and when demand for availing patent support services arises. In this model, for each project, the scope and methodology are defined and a detailed project plan is sent to the client. Subsequently, the project is executed. This model is suitable for clients who avail our patent support services at discrete intervals.

Dedicated Hours Model (DHM)

In this model, the client engages us for a predetermined number of hours every month. Based on the number of hours, we would be offering our services at a discounted hourly rate. As opposed to the dedicated team model, in which a team has to be picked, in this model, the client has the flexibility of utilizing our team members with diverse technical background. This model is suitable for clients who find it difficult to predetermine the technology domain of the work that would be outsourced.

Dedicated Team Model (DTM)

We provide full time equivalent team of patent experts dedicated to a client. The team size varies based on the requirement of the client, and typically ranges between 2 to 8 team members. This engagement model is suitable for clients who wish to extend their bandwidth by maintaining an offshore team, which proves to be cost effective. In this model, the team, methodology, and other processes are customized to meet client-specific requirements. The model enables improved overall performance, quality and value addition due to learning curve, while reducing costs. Further, the model enables our clients to handle unanticipated workload as there is a team dedicated to the client.

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Year	No. of patent applications filed
1989	2
1992	1
1993	1
1994	1
1995	2
1996	18
1997	14
1998	28
1999	43
2000	47
2001	77
2002	47
2003	128
2004	209
2005	285
2006	570
2007	891
2008	1008
2009	519
2010	58
2011	11

Schedule 2 Back to graph

Country	No. of patent applications filed
USA	3905
WIPO	1060
Japan	582
European Patent Office	342
South Korea	247
China	198
Australia	108
India	102
Germany	18
Canada	11
Hong Kong	11
Austria	6
New Zealand	3
Brazil	2
Great Britain	2
Taiwan	2
Spain	1

Schedule 3
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	Australia	Canada	China	Germany	European Patent Office	India	Japan	Republic of Korea	New Zealand	United States of America	PCT Applicati on
Year 1989	· F)))		1	ſ			2	
Year 1994										1	
Year 1995										2	
Year 1996										18	
Year 1997										15	
Year 1998	4		2	4	5				3	44	2
Year 1999	2		2	2	7					47	4
Year 2000	7	1	5	2	12	2		4		40	13
Year 2001	21	1		5	16	2		4		116	32
Year 2002	7	5	10	5	21	1	1	5		55	25
Year 2003	21	2	11		18		1	6		164	25
Year 2004			30		41			7		206	144
Year 2005			24		37	9	1	17		367	114
Year 2006	7		26		50	14	16	32		679	133
Year 2007	3		45		70	17	127	50		934	117
Year 2008	16	1	34		47	12	292	80		769	214
Year 2009	19	1	9		18	22	135	38		379	177
Year 2010						23	9	3		56	60
Year 2011	1							1		11	

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IPC	No. of Patent Applications
G06F17/30	1212
G06F15/16	392
G06Q30/00	350
G06F13/00	233
G06F17/00	178
G06Q10/00	122
G06F3/048	102
G06F7/00	83
G06F	81
G06F15/18	53
G06F3/00	50
G06F12/00	46
G06F17/60	45
G01C21/00	43
G06F15/00	34
G06F17/21	30
G06F21/00	29
G06Q40/00	24
G06F7/06	20
G06Q50/00	19

Schedule 5
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	1989	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
G01C21/																		
00												5	5	10	16	14		
G06F					1			2	6	44	114	5	5	3	10			
G06F12/		1			4				10			10	7	1.0		10	1	
00 G06F13/		1			4			6	13		2	10	7	10	9	12	1	
00013/				3	10	14	16	22	16	25	19	14	14	49	90	46	4	
G06F15/					10		10		10					.,,	70		•	
00				1	1	1	1	7	8	12	4	1	6	13	6	4	1	
G06F15/																		
16					3	6	6	27	25	38	48	68	103	145	101	53	11	1
G06F15/ 18											1		8	18	13	21	1	
G06F17/ 00					3	3	7	7	6	13	16	46	85	113	76	66	11	
G06F17/															_			
21			1		4	1	2	2				3	2	11	9	11		
G06F17/ 30		1	14	3	32	18	22	47	32	42	110	210	292	378	406	223	45	9
G06F17/																		
60							3	8	8	26	25	6	1					
G06F21/ 00									4	1			4	9	13	7		
G06F3/0 0								2		2	9	7	8	34	7	9	1	
G06F3/0											9	/	0	34	/	7	1	
48										2		6	15	44	49	10		
G06F7/0 0								1	1	1	11	19	68	42	9	2	1	
G06F7/0 6													5	10	10			
G06Q10/	1							3	1		7	1	13	36	61	29	1	
00 G06Q30/	1							3	1		/	1	13	30	01	29	1	
00						1	2	6	2	9	22	24	108	141	198	122	28	
G06Q40/ 00							2			1	7	1	4	8	5	2	1	
G06Q50/ 00													1	10	74	37	9	1

Schedule 6

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Inventor Name	Number of granted patents
Michael Burrows	19
Shyam Kapur	11
Madhu Yarlagadda	11
Radha Krishna Uppala	10
Adam Hyder	9
Soren Riise	7
Christopher T.Szeto	6
Tapan Bhat	6
Chad Carson	5
Reiner Kraft	5
Zhaowei Charlie Jiang	5
Ramesh R. Sarukkai	5
Rosie Jones	5
Irvin Henderson	5
Robert J. Collins	5
Raymond P. Stata	5
jens Jonasson	5
Nina Ristani	4
Andrei Z. Broder	4
Joshua Schachter	4
Jagdish Chand	4
Shesha Shah	4
Ian Rogers	4
Steven Horowitz	4
Shanmugasundaram Ravikumar	4