



Looking Under the Uber Hood: The Patents Jamming the Pistons

Intellectual Property Analysis of Uber Technologies

December 10, 2014

On December 4, 2014, Uber announced that it raised \$1.2 billion in its most recent round of funding, valuing the company at \$41 billion. The smartphone taxi service has grown rapidly in the past year, although it is experiencing pushback from regulatory authorities in various countries and cities. Its valuation this summer was a mere \$18 billion, but is the new higher number an accurate estimation of Uber's value? Instead of crowning Uber as the hottest global startup, this valuation may well paint a target on the company and benchmark a very high value for opportunistic patent trolls to pursue.

As exemplified in the smartphone wars between Apple and Samsung, lawsuits can add tremendous costs and represent Pyrrhic victories. Uber and its competitor Lyft have already been hit by an infringement lawsuit filed by Eclipse IP in 2013. Uber was also sued for trademark infringement in 2012 by Yellow Cab, however, Uber's intellectual property (IP) problems may have only just begun.

Uber is in a similar situation as competitors RideCell, Sidecar, and Lyft. In a world where companies must have a cogent IP strategy to successfully navigate their markets, Uber has gone far despite only having a handful of pending patent applications. Most smartphone taxi service and ride share companies are attempting to patent their way into market protection rather than create a Freedom-To-Operate strategy by licensing older patents with earlier priority dates. A patent with an early priority date in a certain technology space identifies the owner as one of the first to patent the technology. This entity is enabled to block others from using the same technology with legal enforcement measures.

Deploying a smartphone app to order a ride may be a new idea to consumers, but it's already a crowded market with a crowded innovation space. In fact, most Japanese car and device manufacturers have been patenting in the space for years.

Since Uber has decided that it wanted to enter the Asian and European markets, it needs the requisite rights to operate in those continents, in addition to the rights it is potentially missing in the United States. These rights are intangible assets, such as regulatory approvals, and they are needed for business operations. The list of countries, states, and cities actively banning Uber or claiming it is operating illegally grows hourly. Here is a current list:

New Delhi, India
Hyderabad, India
Thailand
The Netherlands
Spain
Nevada
Portland, Oregon
Rio De Janeiro, Brazil

Uber is also under scrutiny in Singapore, Indonesia, Vietnam, and Toronto, Canada.

These bans are the result of a lack of regulatory compliance on the part of Uber, as it is not authorized to operate as a taxi service in these jurisdictions. Uber argues that it is merely a technology company. It has stated that it does not own

or operate vehicles and it does not employ drivers.¹ In Germany, Uber has been forced to use licensed taxi drivers in order to continue operations.² Given this track record, Uber's efforts to define itself as a technology company may be futile since government regulators do not agree.

Similarly, Uber's attempt to quickly file patent applications that attempt to protect its business will not deter third parties which may see Uber as already infringing their patents. This valuation may only be quantifying the size of the Uber pie for those entities who want a slice.

Analysis

Using our proprietary analytical systems, we looked at Uber's developing patent portfolio. We found sixteen US patent applications, two European Union patent applications, one Canadian application, and one Australian application.

Below is sampling of Uber's patent applications.

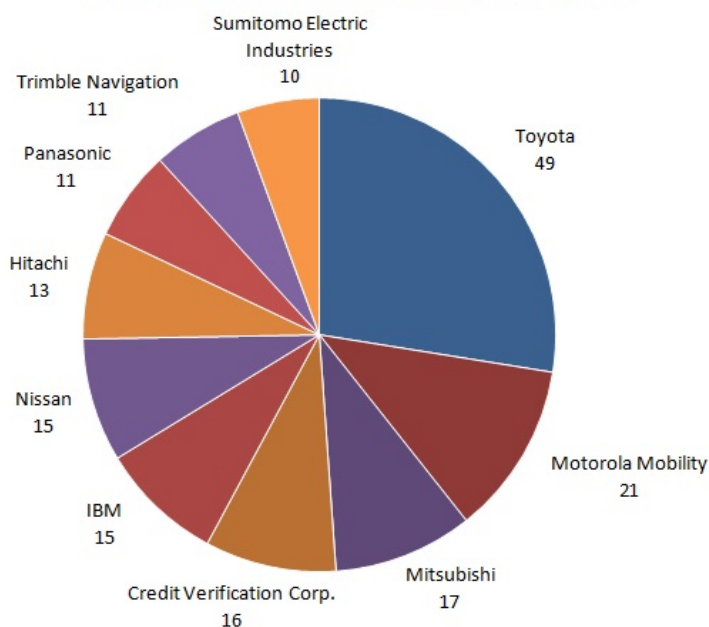
Document #	Title	Assignee Name	Priority	File	Issue
US20140279011	GENERATING PROMOTIONS FOR A SERVICE USING A MAP INTERFACE	Uber Technologies, Inc.	14-Mar-13	14-Mar-13	18-Sep-14
US20140278838	DETERMINING AN AMOUNT FOR A TOLL BASED ON LOCATION DATA POINTS PROVIDED BY A COMPUTING DEVICE	Uber Technologies, Inc.	14-Mar-13	14-Mar-13	18-Sep-14
US20140129951	PROVIDING ON-DEMAND SERVICES THROUGH USE OF PORTABLE COMPUTING DEVICES	Uber Technologies, Inc.	8-Nov-12	8-Nov-12	8-May-14

Please see Appendix A for a detailed list of Uber's patent portfolio.

The Ride Share and Taxi Booking Innovation Space

The chart below shows other entities involved in the technology space of Uber and Uber's competitors. We used a sampling of Uber's applications and the applications from the portfolios of RideCell, Sidecar Technologies, RelayRides, RideCharge, and Flywheel Software to generate a complete view of the competitors' innovation space. We then found all of the entities in the space who held patents with earlier priority dates

Top 10 Owners of the Innovation Space



¹ <http://blog.uber.com/ichooseubervn>

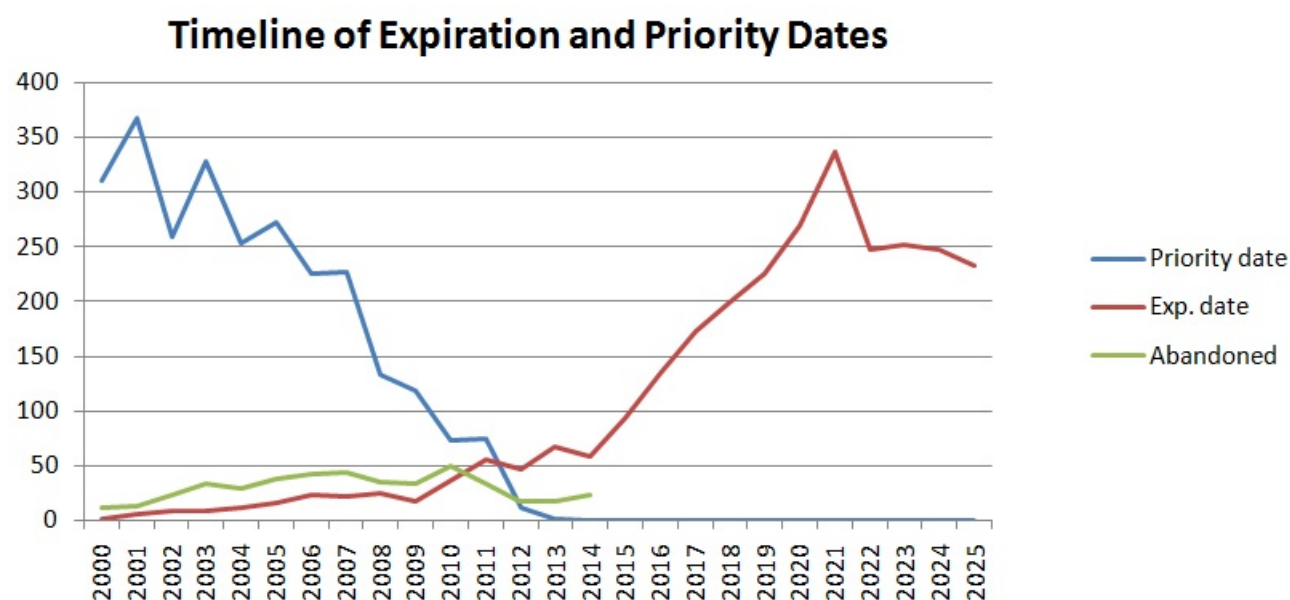
² <http://www.wsj.com/articles/uber-technologies-cuts-fares-in-germany-to-comply-with-law-1412935246>

As you can see entities such as Toyota, Mitsubishi, and Motorola Mobility hold a large number of patents in the ride share and taxi booking application space.

Most of the above entities are Japanese. In early December 2014, Japanese telecom Softbank invested \$250 million in a rival Southeast Asian taxi booking app GrabTaxi.³ Uber operates in six of the same Asian markets as GrabTaxi, so it may want to consider finding additional regional support. Uber has partnered with taxi companies in the Japanese market and operates there as a travel agency.⁴

An Aging Innovation Space

The graph below shows the intersection of priority dates and expiration dates over a 25 year timeline from the entire ride share and taxi booking innovation space. The expiration date of a patent is when it ceases to protect the technology for the owner and the technology covered by the patent enters the public domain. The space already passed a peak of over 350 patent filings in the year 2001. As expirations continue, a Freedom-To-Operate strategy could be sought by entities like Uber. If Uber or others want to avoid massive and costly litigation, this should become a top priority.



Already almost two thirds of the issued patents in this space have either expired or been abandoned.

Conclusion

Given the results of this analysis, Uber may need to rethink its IP strategy going forward. Uber and its competitors may do better to license already-issued patents as part of a Freedom-To-Operate strategy. Without this protection, its valuation could be a liability rather than a blessing as Uber becomes a target for opportunistic patent trolls. Licensing would be a better option than going to court with applications which, if they issue, may not hold up.

Uber is also lacking another key set of intangible assets –licenses to operate as a taxi service in most areas. While it allows the company to offer lower fees and save on operational costs, this is becoming a problem in places where it looks to expand and places where it is already established. The longer Uber tries to avoid regulation and intangible rights, the bigger a target it becomes.

For a more detailed examination of the patents mentioned in this report, please contact us at patentlyobvious@m-cam.com.

³ <http://gadgets.ndtv.com/apps/news/japans-softbank-pumps-250-million-into-uber-rival-grabtaxi-629763>

⁴ <http://blogs.wsj.com/japanrealtime/2014/08/08/in-japan-uber-isnt-a-taxi-service-its-a-travel-agent/>

Appendix A

Uber Technologies' patent portfolio

Document #	Title	Assignee Name	Priority	File	Issue
US20140129302	PROVIDING A CONFIRMATION INTERFACE FOR ON-DEMAND SERVICES THROUGH USE OF PORTABLE COMPUTING DEVICES	Uber Technologies, Inc.	8-Nov-12	8-Nov-12	8-May-14
US20140129135	DYNAMICALLY PROVIDING POSITION INFORMATION OF A TRANSIT OBJECT TO A COMPUTING DEVICE	Uber Technologies, Inc.	8-Nov-12	8-Nov-12	8-May-14
US20140011522	SYSTEM AND METHOD FOR PROVIDING DYNAMIC SUPPLY POSITIONING FOR ON-DEMAND SERVICES	Uber Technologies, Inc.	3-Jul-12	15-Mar-13	9-Jan-14
US20130268406	ENABLING A USER TO VERIFY A PRICE CHANGE FOR AN ON-DEMAND SERVICE	RADHAKRISHNAN MINA	19-Mar-12	14-Mar-13	10-Oct-13
US20130246301	PROVIDING USER FEEDBACK FOR TRANSPORT SERVICES THROUGH USE OF MOBILE DEVICES	Uber Technologies, Inc.	4-Dec-09	15-Mar-13	19-Sep-13
US20130246207	SYSTEM AND METHOD FOR DYNAMICALLY ADJUSTING PRICES FOR SERVICES	Uber Technologies, Inc.	19-Mar-12	14-Mar-13	19-Sep-13
US20130132887	TRANSITIONING USER INTERFACE FEATURES FOR ON-DEMAND SERVICES THROUGH USE OF PORTABLE COMPUTING DEVICES	Uber Technologies, Inc.	6-Dec-10	8-Nov-12	23-May-13
US20130132246	PROVIDING A SUMMARY OR RECEIPT FOR ON-DEMAND SERVICES THROUGH USE OF PORTABLE COMPUTING DEVICES	Uber Technologies, Inc.	6-Dec-10	8-Nov-12	23-May-13
US20130132140	DETERMINING A LOCATION RELATED TO ON-DEMAND SERVICES THROUGH USE OF PORTABLE COMPUTING DEVICES	Uber Technologies, Inc.	6-Dec-10	8-Nov-12	23-May-13
US20120323642	SYSTEM AND METHOD FOR OPERATING A SERVICE TO ARRANGE TRANSPORT AMONGST PARTIES THROUGH USE OF MOBILE DEVICES	CAMP GARRETT	4-Dec-09	28-Aug-12	20-Dec-12
US20110313804	SYSTEM AND METHOD FOR ARRANGING TRANSPORT AMONGST PARTIES THROUGH USE OF MOBILE DEVICES	CAMP GARRETT	4-Dec-09	6-Dec-10	22-Dec-11
US20110307282	System and method for operating a service to arrange transport between a customer and a transport party	KALANICK TRAVIS	4-Dec-09	6-Dec-10	15-Dec-11
US20110301985	System and method for operating a service to arrange transport amongst parties through use of mobile devices	CAMP GARRETT	4-Dec-09	6-Dec-10	8-Dec-11
EP2507753A4	SYSTEM AND METHOD FOR ARRANGING TRANSPORT AMONGST PARTIES THROUGH USE OF MOBILE DEVICES	UBER TECHNOLOGIES INC	4-Dec-09	6-Dec-10	30-Oct-13
EP2507753A1	SYSTEM AND METHOD FOR ARRANGING TRANSPORT AMONGST PARTIES THROUGH USE OF MOBILE DEVICES	UBER TECHNOLOGIES INC	4-Dec-09	6-Dec-10	10-Oct-12
WO2011069170A1	SYSTEM AND METHOD FOR ARRANGING TRANSPORT AMONGST PARTIES THROUGH USE OF MOBILE DEVICES	UBER INC	4-Dec-09	6-Dec-10	9-Jun-11
CA2782611A1	SYSTEM AND METHOD FOR ARRANGING TRANSPORT AMONGST PARTIES THROUGH USE OF MOBILE DEVICES	UBER TECHNOLOGIES INC	4-Dec-09	6-Dec-10	9-Jun-11
AU2010325793A1	System and method for arranging transport amongst parties through use of mobile devices	UBER TECHNOLOGIES INC	4-Dec-09	6-Dec-10	19-Jul-12

M·CAM's Patent Glossary

<u>Aligned Sector:</u>	The business sector in which the product(s) resulting from the patent(s) is currently or intended to be sold.
<u>Applicant:</u>	The person or corporation that applies for a patent with the intent to use, manufacture or license the technology of the invention; under U.S. law, except in special situations, the applicant(s) must be the inventor(s).
<u>Application:</u>	Complete papers submitted to the U. S. Patent and Trademark Office seeking a patent including oath, specification, claims, and drawings. This usually does not signify a Provisional Patent Application, but only a regular patent application.
<u>Art:</u>	The established practice and public knowledge within a given field of technology. This also identifies a process or method used to produce a useful result. A term used in consideration of the problem of patentable novelty encompassing all that is known prior to the filing date of the application in the particular field of the invention.
<u>Assignee:</u>	The person(s) or corporate body to whom the law grants or vests a patent right. This refers to the person or corporate entity that is identified as the receiver of an assignment.
<u>Business Method</u>	
<u>Patent:</u>	A patent that controls the way a business process is undertaken. The issuance of these patents by the United States Patent and Trademark Office (USPTO) is new and controversial, since many allege that it is unfair to allow a patent on a way of doing business.
<u>Citation:</u>	This may include patents or journal articles that the applicant or examiner deems relevant to a current application. A reference to legal authorities or a prior art documentation are examples of a citation.
<u>Claim:</u>	The language in a patent application that defines the legal scope of the patent. Most patents have numerous claims. This is typically the single most important section in the application.
<u>Concurrent Art:</u>	Concurrent art occurs when related patent applications are being examined by the USPTO at the same time. It is difficult for any company or inventor to know, at the time they file for a patent, whether a “related” patent application exists.
<u>Filing Date:</u>	The date when a properly prepared application reaches the patent office in complete form.
<u>Innovation Cycle:</u>	A description of the commercialization timeframe for the intellectual property.
<u>Innovation Space:</u>	M·CAM’s representation of the innovation(s) that occur before, during, and after the pending period of the subject patent. The innovation space is the first place to look for patents that are closely related to the subject patent and that may impact the defensibility of the subject patent or create opportunities for patent licensing.
<u>Issue Date:</u>	Not to be confused with the filing date, which is the date the patent application was physically received by the U.S. Patent and Trademark Office. This is the date on which the patent actually issues.
<u>Non-Aligned</u>	
<u>Sector:</u>	Any sector in which the patent can be used or sold, other than the sector for which the patent or resultant product was invented or intended.
<u>Pod:</u>	A group of patents owned by a company that should be treated as a single unit of innovation (e.g., a certain group of patents that comprise a single product or multiple related products).
<u>Prior Art:</u>	Any relevant patent that was issued before the patent being analyzed. If this previous patent was specifically mentioned in the new patent’s application, the previous patent is referred to as “cited prior art”. If it was NOT mentioned, then that previous patent is referred to as “uncited prior art”.
<u>Subsequent Art:</u>	Any patent that has a filing date with the USPTO that is after the issuance date of the subject patent. This subsequent art patent may or may not have cited (see “Citation” above) the subject patent. As subsequent art represents more recent innovation than the subject patent, it has great potential to shrink the market opportunity for the subject patent.

A Brief Primer on the Patent System

In recent years, the importance of patents and intellectual property rights as an important variable in the marketplace has come to the forefront of the public consciousness as world leaders declare their country's lead in the innovation race. Damaging intellectual property litigation is becoming increasingly common across all industries. This is exacerbated when patent rights are granted for non-novel ideas. A vast amount of precedent innovation is unconsidered by patent-granting authorities in the creation of new IP rights. Patent granting authorities including the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), Japanese Patent Office (JPO), Chinese State Intellectual Property Office (SIPO), Korean Intellectual Property Office (KIPO) and many others are constrained by the use of patent classification systems which are routinely circumvented by patent applicants.

There is a two-way social contract underlying the patent system. In the United States, patent terms are generally limited to 20 years from the date of application. By statutory intention, once a patent has expired, the patent holder loses the right to exclude others from fully utilizing any innovation described in the patent. A large number of patents enter the public domain when they are "abandoned" – when owners discontinue paying patent maintenance fees. Patents also only provide an exclusionary right in the country for which the patent is filed. As demonstrated by the Global Innovation Commons⁵ (G.I.C.), using intellectual property available in the public domain eliminates the need to pay licensing fees on those innovations in countries where the patent was never registered, or worldwide, if abandoned.

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⁵ <http://www.globalinnovationcommons.org/>

