

Opportunity missed

Microsoft's failed bid for Yahoo! is now all about what could have been. Nowhere is this more so than with regard to intellectual property

By D K Ram

Does Microsoft + Yahoo = Google? This was probably the question foremost in the minds of millions of techies across the globe for a good part of the first half of 2008. The events that began to unfold in February 2008 with an unsolicited offer by Microsoft for the acquisition of Yahoo! ended formally in May 2008 with Yahoo! walking away from the negotiations.

What does this mean for the players involved in this intriguing episode? Has Microsoft's weakness been exposed? Why did it so desperately want Yahoo!? Are Yahoo!'s shareholders the worst affected? Did the bid for Yahoo! make sense for Microsoft in the first place and is it better off now with the bid falling through? Amid all the focus on these two companies, has Google ultimately emerged stronger? These are but a few of the questions that have been debated in the blogosphere and the traditional media for many months now.

But while the focus has been on the straight business and technological perspectives, the intellectual property angle has been given a miss completely.

Microsoft's bid for Yahoo!

Microsoft Inc made an unsolicited offer to acquire Yahoo! Inc for US\$44.6 billion (US\$31 per share) in February 2008. The offer, which represented a 62% premium on the closing price of Yahoo! as on 31st January 2008, was subsequently rejected by Yahoo!'s board on grounds of undervaluing the company.

Yahoo! prides itself on its brand name, its wide consumer reach (approximately 500 million users in the US alone) and its leadership in terms of the time spent on its site, an important metric for marketers. The average time spent per visitor on Yahoo! sites was an estimated two hours 10 minutes and 35 seconds (Microsoft: one hour 21 minutes and 14 seconds; Google: 56 minutes and 49 seconds).

Informal discussions between Microsoft and Yahoo! began as early as May 2007 at Yahoo!'s then quoted price of US\$40 per share, valuing the company at approximately US\$50 billion. Following Yahoo!'s rejection in 2008, Microsoft persisted with the bid, reiterating that the deal was fair, while Yahoo! refused to concede. Meanwhile, Yahoo! announced its plans to explore other strategic alternatives. Microsoft, keen and optimistic on closing the acquisition by the middle of 2008, extended its offer and contemplated a proxy fight if it faced further opposition. The culmination of the saga was Yahoo!'s announcement of a deal with Google for its ad search engine and Microsoft's move to bid for a hybrid acquisition rather than its original intention to acquire the complete company.

The rationale behind the failed bid

The primary motive behind Microsoft's move was the belief that Yahoo! was a strategic fit as both companies focus on creativity, technology and engineering for developing breakthrough services in the online space. Microsoft also believed that it was possible to achieve a cultural balance by merging certain parts of the two companies while maintaining others independently for the near term. Microsoft's online services business offers personal communication services (including email, instant messaging and online information offerings, such as

MSN Live search and MSN portal content) and a range of online services (including MSN Internet access, MSN premium web services and OneCare). The revenue model comprising primarily online advertising fees, subscriptions and online paid services was seen to fit well with Yahoo!'s revenue model.

Furthermore, Microsoft expected the combined business of Microsoft and Yahoo! to stay competitive at fixed-cost expenditures. Yahoo!'s undeniable strengths, which spurred Microsoft's interest in the company, included its strong focus on increasing user engagement and experience for its most popular categories as opposed to adding new categories. The most visible example is Yahoo!'s video offering strategy. Instead of launching a separate video offering such as YouTube, Yahoo! chose to add related videos on each of its category pages. This simple addition not only enhanced the engagement of users within the site, but also enhanced the chances of promoting video content without having to secure traffic to a separate site. Moreover, Yahoo! had made important investments in strengthening its core computing infrastructure, which was expected to provide greater scalability and increase the iteration rate on core technologies for Microsoft-Yahoo!, when combined with Microsoft's software capabilities.

Hence, according to Microsoft, the merger would have paved the way for the creation of a more efficient company with synergies in the following areas:

- Scale economics – including synergies across search and non-search related advertising that would have strengthened the value proposition of Microsoft-Yahoo! for advertisers as well as publishers. Additionally, the combination would have consolidated the capital spending of both companies and eliminated redundant focus areas.
- Engineering talent – the combined talent of engineering resources would have possibly been deployed to focus on the R&D priorities that both Microsoft and Yahoo! are unable to handle independently; for example, development of a single search index and a single advertising platform.
- Operational efficiencies – these would have led to the elimination of redundant infrastructure and duplicate operating costs, which impede the competitiveness of individual companies, to improve the financial performance of the combined entity.
- Emerging user experiences – this would

Microsoft bids for Yahoo! – timeline of events

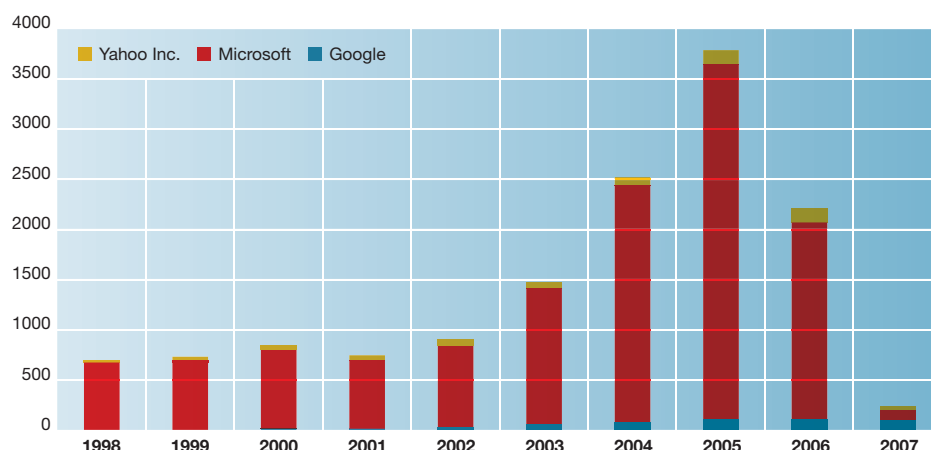
Date	Event
31st January 2008	Microsoft makes the first move; an unsolicited bid for Yahoo! @ US\$31 per share or US\$44.6 billion in deal value. On 1st February 2008, the deal is made public.
11th February 2008	Yahoo!'s board rejects Microsoft's offer, stating that the deal undervalues the company and its brand.
19th February 2008	Bill Gates, Microsoft's chairman, rejects the possibility of raising the bid price. Simultaneously, Yahoo! details a severance plan that would come into effect after the acquisition, so making the deal more expensive for Microsoft.
5th March 2008	Reports indicate the possibility of Yahoo! initiating talks with other companies, including Google, AOL and MySpace.
10th March 2008	Yahoo!'s senior executives meet near its Sunnyvale headquarters.
18th March 2008	Yahoo! provides details of its forecasts for the next two years aimed at justifying its rejection of the bid.
5th April 2008	Microsoft retaliates, giving Yahoo! three weeks to agree to the deal and threatening to initiate a hostile takeover at a lower price.
9th April 2008	Yahoo! counters by indicating its preference of using Google's search ad engine in a limited way. Microsoft starts exploring alternatives, including possible deals with NewsCorp.
15th April 2008	Sources indicate that executives from Yahoo! and Microsoft have met to discuss various issues such as different company cultures and valuations.
22nd April 2008	Yahoo! reports solid earnings and reiterates its belief that the bid undervalues the company.
26th April 2008	Deadline for the Microsoft offer expires.
30th April 2008	Microsoft's board meets. Yahoo! and Microsoft teams meet in the Bay Area. Jerry Yang, CEO of Yahoo!, indicates a price of US\$38 per share.
1st May 2008	Steve Ballmer, CEO of Microsoft, indicates to his employees his unwillingness to raise the offer beyond what he thinks Yahoo! is worth and reveals that he would "walk away" from the deal.
3rd May 2008	Microsoft raises its bid to US\$33 per share. Yahoo! refuses the bid and indicates US\$37 per share as acceptable. Microsoft withdraws its offer.
13th May 2008	Carl Icahn acquires almost 50 million shares of Yahoo!, raising the possibility of a proxy war.
15th May 2008	Carl Icahn announces decision to wage a proxy war in a bid to remove Yahoo!'s board of directors for refusing Microsoft's bid.
17th May 2008	Yahoo!'s independent board members and management team meet Microsoft. Microsoft reveals its lack of interest in a full acquisition.
29th May 2008	Microsoft submits a proposal for a "hybrid" acquisition.
12th June 2008	Microsoft makes its interest in a "hybrid" acquisition known publicly. Yahoo! rejects this move as it would have left the company without any search assets and tied up in a 10-year exclusive search partnership with Microsoft. Yahoo! enters into a commercial agreement with Google.
21st July 2008	Carl Icahn agrees to join Yahoo!'s board, ending the proxy war. Two other nominees will join Icahn as part of an expanded board.

have meant focusing engineering resources on driving innovation in emerging areas such as video and mobile to pose stronger competition to Google than what could have been accomplished by the individual companies.

These components were expected to translate into annual synergies of US\$1 billion for Microsoft-Yahoo! subsequent to the acquisition.

Sources: www.newsvine.com, www.seattletimes.com, www.cnn.com,

The big three: patenting frequency analysis



Microsoft obviously leads the way with a whopping 93% of the filings done during the 10-year period from 1998 to 2008.

While the filing activity of Microsoft seems to have peaked in 2005, Yahoo!'s and Google's patenting activity hit a high in 2006. A combination of Microsoft and Yahoo! in terms of absolute numbers would have definitely outnumbered Google.

While the large number of filings associated with Microsoft can be associated with its wider technology focus, an analysis of the company's filing spread across technology categories throws up an interesting perspective. The filing activities of these three companies were spread across nearly 145 international patent classifications (IPCs). While Microsoft once again led the pack by having a presence across 96% of the IPCs, Google upstaged Yahoo! with a share of 22% versus the latter's 17%.

A drill-down of these IPCs indicates that Microsoft had a unique presence in 106 of them. On the other hand, Google and Yahoo! had only four and two unique IPCs respectively. Hence, a Yahoo! acquisition by Microsoft would have enabled the company to have a presence in these two categories as well. However, this would still not have helped bridge the gap that the combination would have with respect to Google's portfolio; ie, with respect to Google's unique IPCs.

Drilling deep

An IPC analysis for Yahoo! for the period 1998-2007 indicates the presence of about six leading IPCs. IPC Go6F (electric digital...) saw 361 filings, followed at a distance by IPCs Go6Q (data processing systems...) and Ho4L (transmission of digital ...) with 72 and 53 filings, respectively. The leading 6 IPCs (with 514 filings) contributed to almost 95% of the total number of patent applications taken for analysis.

An analysis of IPC segments across the years 1998 to 2007 reveals that IPC Go6F witnessed major activity in the year 2006 with about 92 patent families. In the three-year period from 2004 to 2006, IPC Go6F recorded a whopping 63% of the total patent families taken for analysis. The other predominant IPCs, which recorded a remarkable improvement in the last few years are: Ho4L (21 patents in 2005); A63F (eight-patents in 2006); and Ho4Q (six patents in 2005).

An IPC analysis for Microsoft for the period 1998 to 2007 revealed six leading IPCs. As with Yahoo!, Go6F stamped its

Total number of patent families (1998-2007): 13,967

Year	Google	Microsoft	Yahoo Inc
1998		654	18
1999	1	690	26
2000	14	782	27
2001	13	668	43
2002	6	835	32
2003	38	1369	38
2004	63	2379	77
2005	100	3560	127
2006	104	1962	128
2007	73	112	28

Looking back at Microsoft's history, the company has a track record of successfully countering rivals in all areas of its business. In Google, however, the software giant has found an indomitable rival despite the size differences: Microsoft is worth something like US\$100 billion more than Google in terms of market capitalisation. With a track record of successful acquisitions in the online space (including Multima in December 2007; aQuantive, a digital advertising service provider, in August 2007; and Tellme Networks, a mobile voice-based content services provider in May 2007), Microsoft was possibly justified in looking at Yahoo! as a springboard for competitiveness at a time when Google is struggling with internal woes such as poor advertising performance and rising costs.

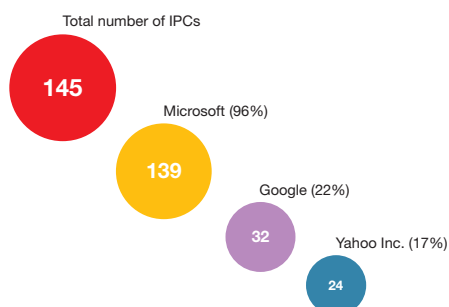
In addition, Microsoft in 2007 launched a number of new online initiatives, including Windows Live Search and Live.com in 54 international markets; Live Local Search in the United States and United Kingdom; MSN Soapbox (an expansion of the MSN Video service); Virtual Earth 3D; and Windows Live Hotmail. With the acquisition of Yahoo!, Microsoft expected to gain an edge over its smaller rivals AOL and Earthlink, and bolster its competitiveness to challenge Google as the largest player in the online services market.

But what makes this deal even more interesting is when we evaluate the ultimate objective of this entire exercise: the technology behind these companies and their patenting activities.

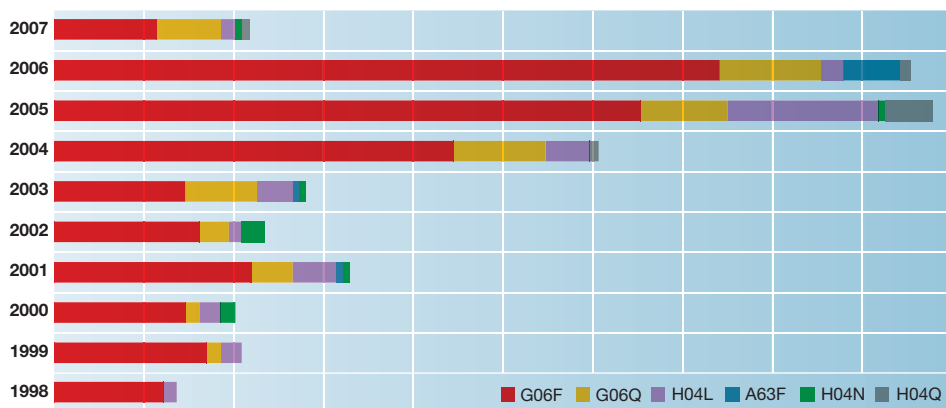
Microsoft and Yahoo! lead the pack

When the overall patenting activities of Microsoft, Yahoo! and Google are analysed,

IPC Analysis across the three companies



Major IPs for Yahoo! across the years



IPC	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Grand Total
G06F	15	21	18	27	20	18	55	81	92	14	361
G06Q		2	2	6	4	10	13	12	14	9	72
H04L	2	3	3	6	2	5	6	21	3	2	53
A63F				1		1			8		10
H04N			2	1	3	1		1		1	9
H04Q							1	6	1	1	9
Other IPC	1	0	2	2	3	3	2	6	10	1	30

IPC	Definitions
G06F	Electric digital data processing.
G06Q	Data processing systems or methods, specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes; systems or methods specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes, not otherwise provided for.
H04L	Transmission of digital information; eg, telegraphic communication.
A63F	Card, board or roulette games; indoor games using small moving playing bodies; games not otherwise provided for.
H04N	Pictorial communication; eg, television.
H04Q	Selecting.

dominance with 7,829 filings, followed at a distance by H04L with 956 filings. The leading six IPC technologies (with 10,473 filings) shared 80% of the total number of patent applications taken for analysis.

Hence, based on this analysis, we can conclude that at an overall level, IPC G06F is dominant among all three companies taken for analysis. While IPC A63F (card, board or roulette...) features among the top IPCs for Yahoo!, it does not feature among the leading IPCs for Microsoft and Google. Similarly, IPC 1404 (screen displays...), which was among the leading IPCs for Google, is not present among the leading IPCs of Microsoft and Yahoo!.

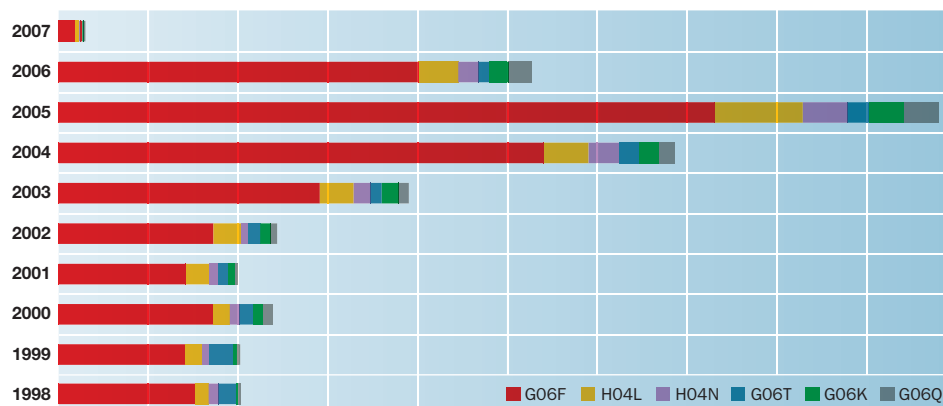
Of the IPCs, 16 are common to all three

companies. A closer look at the leading four for the period 2004 to 2007 – namely G06F, G06Q, H04L and H04N (pictorial communication) – provides certain interesting findings.

A comparative analysis of citations among themselves for Yahoo!, Google and Microsoft Corp (excluding self-citations), identified Microsoft Corp to have cited the patent families of Google and Yahoo! 68 times. Yahoo! cited 37 patent families of Microsoft Corp and Google, whereas Google referred 33 patent families of the other two companies taken for analysis.

Further analysis revealed that 18 patent families of Yahoo! were cited 72 times by Microsoft Corp (50 times) and Google (22

Major IPCs for Microsoft across the years



IPC	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Grand Total
G06F	433	402	490	401	488	826	1530	2067	1136	56	7829
H04L	41	48	49	77	89	103	141	278	123	7	956
H04N	32	31	31	29	26	56	94	143	66	10	518
G06T	56	68	44	31	31	37	67	68	35	3	440
G06K	4	13	34	17	32	50	62	113	57	4	386
G06Q	14	22	23	12	21	28	46	101	72	5	344
Other IPC	74	106	111	101	148	269	439	790	473	27	2538

IPC	Definitions
G06F	Electric digital data processing.
H04L	Transmission of digital information; eg, telegraphic communication.
H04N	Pictorial communication; eg, television.
G06T	Image data processing or generation, in general.
G06Q	Data processing systems or methods, specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes; systems or methods specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes, not otherwise provided for.
G06K	Recognition of data; presentation of data; record carriers; handling record carriers.

times) combined, establishing Yahoo! as the leading innovator among these companies. Closely following Yahoo! was Google whose 19 patent families were referred to 37 times by Yahoo! (19 times) and Microsoft Corp (18 times) combined. Microsoft was a laggard with only 24 of its patent families being cited a combined 29 times by the other two.

An exhaustive study of the patents filed by Yahoo! reveals that 242 patent families were filed under IPC G06F. Of these patent families, 12 patent families were cited by Microsoft Corp, while Google cited five. The publications US20080046826A1 (dynamic page generator) and US20050223000A1 (system and method for influencing a position on a search result list generated by

a computer network search engine), along with their family members, were cited the most times. While US20080046826A1 (along with family members) was cited 17 times by Microsoft Corp and three times by Google, US20050223000A1 (along with family members) was cited 14 times by Microsoft Corp and 12 times by Google.

In fact, a closer look at these documents – especially the one pertaining to dynamic page generator – indicates wide ramifications for the likes of Google. The US20080046826A1 patent publication and its related family members (US5983227A) discuss user customisable web pages akin to Google's personalised home pages, Pageflakes, Netvibes and so on.

Similarly, the US20050223000A1 patent publication and its related family members (US6269361) discuss a “system for enabling an advertising website promoter using a computer network to update information relating to a search listing within a search-result list generated by an internet search engine”. In fact, Overture, the then assignee of this patent and now Yahoo!’s subsidiary, had filed an infringement lawsuit against Google in 2002. This lawsuit was eventually settled in 2004 when Google offered Yahoo! 2.7 million shares of its stock as settlement (valued at US\$260 million to US\$290 million) and also agreed to license several related patents (including the US6269361) from Overture.

Similarly, Yahoo! had 48 patent families filed under IPC Go6Q, of which two patent families were cited by Microsoft Corp and one patent/application by Google. US20060026071A1 (targeted advertisements using time-dependent key search terms), along with its family members, was cited by Google four times.

If the deal had gone through, Microsoft would have gained access to such leading technologies and, given its aggressive nature, could possibly have used this as a barrier to stymie Google’s growth.

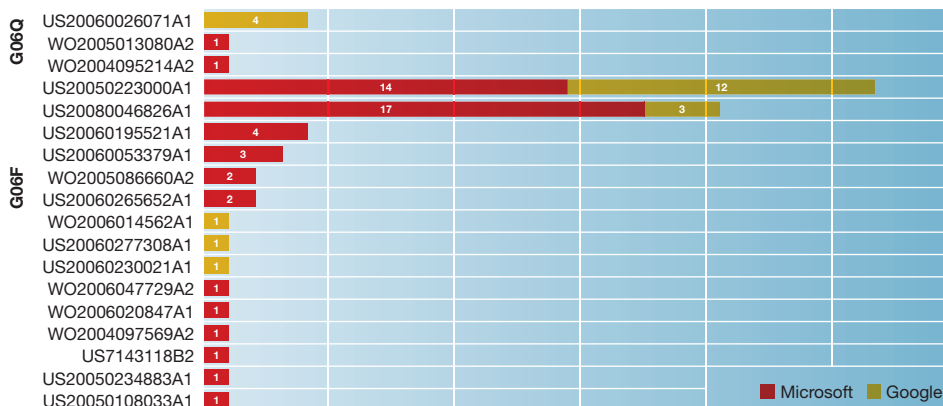
The lost opportunity

Undoubtedly, Microsoft is threatened by Google’s continued dominance in the internet search space. Although a 31.5% Microsoft-Yahoo! market share is not that close to Google’s, the benefits to both companies of a merger would have been significant. For Yahoo!, it could have been a platform for success that could have eventually minimised its past failures in management and strategy. In a market that is expected to reach US\$80 billion by 2010, Microsoft would have emerged stronger, backed by Yahoo!’s brand recognition and the US\$1 billion synergies expected from scale economies.

In addition to revitalising its AdCentre business, benefits to Microsoft would have included gaining hitherto inaccessible technology and efficiencies from data integration. Together, the two companies would have possibly been able to roll out technology-driven, software-on-demand services. In this context, especially in terms of the strengths of Microsoft-Yahoo!’s engineering talent, the merger would have provided scope for combining the respective engineering bases of both companies in order to refocus their R&D priorities.

From an IP perspective, Microsoft would have definitely gained from the strong IP that Yahoo! has, despite a few shortcomings.

Yahoo!’s patent families versus Microsoft & Google



In summary, although not sufficient to overtake Google immediately, Microsoft-Yahoo! would have been an entity with enough IP strength to leverage and emerge as a strong contender on the patent scene in the medium term. With the failure of this deal to go through, Microsoft has certainly lost a valuable opportunity to emerge victorious in the search space. Meanwhile, Yahoo!’s shareholders have seen its stock plunge to almost its lowest level since the beginning of this year (@US\$19.09 on 25th August 2008); a far cry from the US\$38 per share value that Yang demanded.

Certain industry stakeholders view this failed bid from a different perspective. The online marketing environment can be broadly divided into the search and non-search categories. Google’s primary strength is in creating search leads which can then be monetised. Some believe that this is a business that can be cloned; albeit only with substantial investments and extensive marketing. Also, there is a feeling that user curiosity levels cannot continue to grow in a sustainable manner. Eventually, non-search activities, especially user relevant content, will change the dynamics of the game. It is here that a Microsoft-Yahoo! combination could have totally dwarfed Google.

Thus, this failed bid leaves both Microsoft and Yahoo! as losers. Google, on the other hand, continues to be victorious. **iam**

	Microsoft	Google
G06Q		
US20060026071A1	0	4
WO2005013080A2	1	0
WO2004095214A2	1	0

	Microsoft	Google
G06F		
US20050223000A1	14	12
US20080046826A1	17	3
US20060195521A1	4	0
US20060053379A1	3	0
WO2005086660A2	2	0
US20060265652A1	2	0
WO2006014562A1	0	1
US20060277308A1	0	1
US20060230021A1	0	1
WO2006047729A2	1	0
WO2006020847A1	1	0
WO2004097569A2	1	0
US7143118B2	1	0
US20050234883A1	1	0
US20050108033A1	1	0

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