

Copyright in the Digital Age

Professor Brian Fitzgerald
Queensland University of Technology
Australia

International Basis of CR

- Berne Convention – 1886
- Rome Convention – 1961
- Phonograms Convention – 1971
- TRIPs/WTO – 1994
- WCT and WPPT – 1996
- FTAs
- Proposed WIPO Broadcasting Treaty and ACTA
- Development Agenda at WIPO 2004-2009

History of Copyright

- Pre-existing systems of knowledge management
- Statute of Anne (1709) UK – book publishers – utilitarian? - copyright
- Rise of authors rights – in continental Europe – authors rights approach
- The last 100 years enormous competition – in which copyright has played a role between publishers, recording industry, broadcasters, cable companies, software developers, Internet intermediaries

Web 2.0

- Rich interactive web beyond passive hypertext of Web 1.0
- Social networking and messaging – Facebook
- User generated – YouTube
- Peer production – Wikipedia
- Distributed Knowledge – Google Search Engine
- Serendipity of action - Mashups
- An ability to communicate across the world to large numbers of people cheaply - network

Copyright Challenged

- Copying is easy, cheap and can be communicated to world wide audience
- WIPO Treaties (WCT and WPPT) of 1996 – communication right, TPMs
- DMCA (1998) in the USA implements – TPM regime and safe harbours for ISPs – the “bargain”
- Famous cases in the (USA) over the last 10 years on file sharing – Napster, Aimster, Grokster, Kazaa (Au), Viacom v YouTube, Veoh, iiNet (Au)
- TPM Case – Australian High Court – Stevens v Sony (PlayStation)
- Criminalisation of CR infringement

FTAs

- Bilateral treaties – usually with USA or EU - more recently China – known as TRIPs plus
- Designed to enhance economic growth – IP interests are protected as part of the bargain
- But should not be concluded in a way that reduces the ability to innovate in the local community – as the knowledge economy is critical to development

How to respond?

- Make sure that you copyright law meets the needs of the digital environment – for the key stakeholders – creators, innovators, investors, disseminators, education/research, consumers
- Implementation of international treaties and negotiation of FTAs – look at options you have
- Increasingly being asked what level of reuse will your law allow and on what conditions?

Key Issues of Contention

- Copyright Term – should it be extended – another 20 years – many economists say “no”
- Technical Protection Measures – does the law allow adequate exceptions – see US, EU, Au
- ISP liability – do you need to consider the benefits of a safe harbour regime as in the US EU, Au
- Non commercial
- Format and space shifting; transformative use
- Access to publicly funded material
- Incentivising new business models
- Voluntary Mechanisms – FLOSS and CC

Google Book Search Settlement : An Overview



What is the Google Book Search Project?

- Google's intention was to digitize the world's collection of books
- Google planned to scan as many books as possible and make these scans available (in a limited fashion) to users online
- Potentially revolutionary for research
- <http://books.google.com/>

Google Book Search Project

Two limbs:

Google Publisher

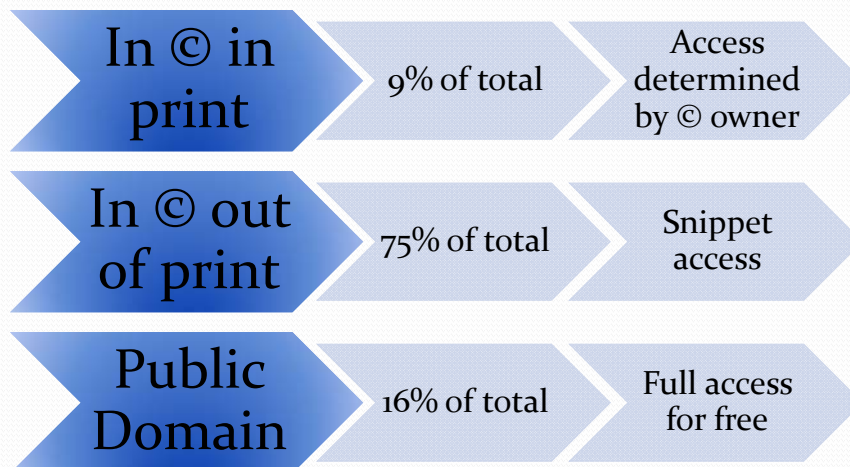
- Opt-in for publishers – Google scans books as provided by the publisher
- Publisher specifies level of access and use permitted for the public re: scanned book

Google Library

- Google scans books in partner libraries, with consent of the libraries but not necessarily publishers
- Opt-out for publishers

Google Library – original access regime

3 categories of the 18 million books scanned:



Source: http://www.lessig.org/blog/2006/01/google_book_search_the_argumen.html

Snippet access: example

Pride and Prejudice, Jane Austen, Spark Educational Publishing, 2004

http://books.google.com/books?id=vij7O6kCH0wC&dq=subject:%22+Literature+%22&as_brr=3&rview=1&source=gbs_navlinks_s

Search term: truth

Showing 29 results in this book for truth - Order by: relevance | pages

Page 360
She coloured as she spoke; but neither that, nor any thing else, awakened a suspicion of the truth. The evening passed quietly, unmarked by any thing ...
No preview available for this page. [Buy this book.](#)

Page 52
It is a truth universally acknowledged, that a single man in possession of a good fortune must be in want of a wife. However little known the feelings or views of such a

Page 1372
excitation, of having injured Mr. Wickham. I can only refute it by laying before you the whole of his connection with my family. Of what he has particularly accused me I am ignorant; but of the truth of what I shall relate I can summon more than one witness of undoubted veracity. Mr. Wickham is the son of a very respectable man, who had for many years the

Page 2062
could not be in your power, and suspicion certainly not in your inclination. You may possibly wonder why all this was not told you last night. But I was not then master enough of myself to know what could or ought to be revealed. For the truth of every thing here related, I can appeal more particularly to the testimony of Colonel Fitzwilliam, who, from our near relation-

The lawsuit

- In 2005, the Authors Guild (AG) and the Association of American Publishers (AAP) sued Google for “massive copyright infringement”
- This was a class action suit – representing all authors with an interest affected by the Google Book Search Project
- A number of US copyright scholars felt that Google would have won the suit on fair use grounds
- But this was never determined, because the AG/AAP and Google reached a settlement

A perspective on the lawsuit

“As both an author and publisher, I find the [Authors] Guild's position to be exactly backward...A search engine for books will be revolutionary in its benefits. Obscurity is a far greater threat to authors than copyright infringement, or even outright piracy...Google Library is intended to help readers discover copyrighted works, not to give copies away. It's a tremendous service to authors that will help them beat the dismal odds of publishing as usual.”

Tim O'Reilly, 'Search and Rescue', *New York Times* (New York), 28 September 2005
<http://www.nytimes.com/2005/09/28/opinion/28oreilly.html> at 9 July 2009.

The settlement: timeline

28 October 2008: Google, AAP and AG reach a Settlement Agreement, subject to court approval

The Settlement Agreement binds all persons who as at 5 January 2009 own a 'U.S. copyright interest' in one or more books affected by the settlement

17 November 2008: Judge John E. Sprizzo gave preliminary approval to the Settlement Agreement

4 September 2009: opt-out deadline for authors who do not want to be bound by the Settlement Agreement

7 October 2009: final fairness hearing

The settlement: terms

- Google must pay US \$45 million to Class Members and US \$34.5 million to establish the Book Rights Registry, which will coordinate payments and represent interests of Rightsholders (Revised Settlement Document – 14/11/2009)
- Google is given the right to digitize and display all books. Standard display is up to 20% of the pages of a book, though this can be changed at the Rightsholder's request
- Google may sell advertising on online book pages, Institutional Subscriptions to the book database and Consumer Purchases to individual users (which allow a user to view online the full contents of a book), but must pay 63% of all revenues earned to the Rightsholders

The settlement: public benefits

- The entire books database may be used for 'Non-Consumptive Research' (i.e. computational analysis) – useful for linguistics studies etc.
- Public Access Service: allows public libraries and not-for-profit Higher Education Institutions to permit users to search and view the entire Institutional Subscription database for free, on a limited number of computer terminals
- The Settlement Agreement grants greater access to the digitized books than would be allowed under fair use?
- The Google Book Search Project makes accessing out-of-print works much easier

The settlement: issues

- Fair use – the settlement has removed the possibility of a new fair use precedent if the case had proceeded
- Inadequate public access - Harvard University Librarian, Robert Darnton, has suggested that a single public access computer terminal per public library building is not enough
- Orphan works – the settlement applies to orphan works, which some argue should be the subject of legislative intervention allowing greater access to and use of orphan works after sufficient search for the © owner

The settlement: issues

- Competition (antitrust) law – The US Department of Justice has launched an antitrust inquiry into the settlement – to consider Google’s potential monopoly in the book digitization market and the effect of establishing the Book Rights Registry
- Privacy – will Google monitor the reading habits of users?
- Jurisdiction – the Settlement Agreement affects Australian authors, but the access and use terms of the Agreement are limited to the US. What impact is there for Australian users?

A perspective on the 'lost fair use precedent'

“Google was the defendant; it earned that dubious privilege by actually scanning and searching books. Having stepped up to the plate to risk a lawsuit, and having been beamed with one, Google now has the right to choose whether to settle that suit. Google’s choice to settle takes away no legal rights from anyone else; no one else loses the fair use argument because Google didn’t chance it.”

James Grimmelmann, “How To Fix The Google Book Search Settlement”, *Journal of Internet Law*, Volume 12, Number 10, April 2009, p12, available from SSRN at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1363843.

A perspective on the settlement and public access

“Looking back over the course of digitization from the 1990s, we now can see that we missed a great opportunity. Action by Congress and the Library of Congress or a grand alliance of research libraries supported by a coalition of foundations could have done the job at a feasible cost and designed it in a manner that would have put the public interest first. By spreading the cost in various ways—a rental based on the amount of use of a database or a budget line in the National Endowment for the Humanities or the Library of Congress—we could have provided authors and publishers with a legitimate income, while maintaining an open access repository or one in which access was based on reasonable fees. We could have created a National Digital Library—the twenty-first-century equivalent of the Library of Alexandria. It is too late now. Not only have we failed to realize that possibility, but, even worse, we are allowing a question of public policy—the control of access to information—to be determined by private lawsuit.”

Robert Darnton, “Google & the Future of Books”, *The New York Review of Books*, Volume 56, No. 2, 12 February 2009, <http://www.nybooks.com/articles/22281>.

Biography – Professor Brian Fitzgerald

BA (Griff) LLB (Hons) (QUT) BCL (Oxon.) LLM (Harv.) PhD (Griff) , Barrister of the High Court of Australia Website at: <http://www.law.qut.edu.au/staff/lstaff/fitzgerald.jsp>

Brian Fitzgerald is an internationally recognised scholar specialising in Intellectual Property and Cyberlaw. He holds postgraduate degrees in law from Oxford University and Harvard University and his recent publications include *Cyberlaw: Cases and Materials on the Internet*, *Digital Intellectual Property and E Commerce* (2002); *Jurisdiction and the Internet* (2004); *Intellectual Property in Principle* (2004) and *Internet and Ecommerce Law* (2007). Brian is a Chief Investigator and Program Leader for Law in the ARC Centre of Excellence on Creative Industries and Innovation and Project Leader for the Australian Government funded Open Access to Knowledge Law Project (OAK Law) and the Australian Government funded Legal Framework for e-Research. He is also a Program Leader for the CRC Spatial Information. His current projects include work on intellectual property issues across the areas of Copyright, Digital Content and the Internet, Copyright and the Creative Industries in China, Open Content Licensing and the Creative Commons, Free and Open Source Software, Research Use of Patents, Patent Transparency, Science Commons, e-Research, Licensing of Digital Entertainment and Anti-Circumvention Law. From 1998-2002 Brian was Head of the School of Law and Justice at Southern Cross University in New South Wales, Australia and from January 2002 - January 2007 was Head of the School of Law at QUT in Brisbane. He is currently a specialist Research Professor in Intellectual Property and Innovation at QUT. He is also a Barrister of the High Court of Australia.



- Joint initiative of the New York Law School and the USPTO - www.peertopatent.org
- Crowd sourcing and collaboration– the pooling of expertise in order to inform patent examiners assessment against the legal strictures of novelty and inventiveness
- Will likely lead to a more informed application of existing law in order to improve the quality of issued patents
- Focussed on ensuring that relevant prior art and related commentary (in the form of both patent and non-patent literature) is unearthed and made available for consideration by patent examiners
- Subject matter included - applications relating to computer software, information security, e-commerce and business methods patents
- As “third-party protest” against pending patent applications is prohibited under US patent law, the express written consent of applicants was required in order to allow the public to contribute to the process - Section 122 of Title 35 of the United States Code

Patent Law - Perceived Problems (1)

- Perceived failings of the application and examination system in the US evinced by the significant backlog of patent applications awaiting examination
- US Secretary of Commerce estimated that the USPTO was applying 55 per cent of its examination resources on examining applications that did not merit a patent
- Position replicated in Australia?

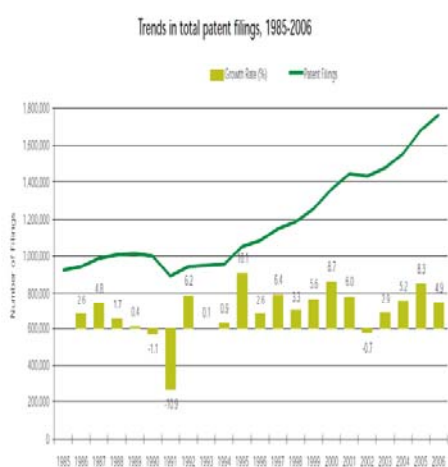
"...many observers believe policy makers around the world have erred on the side of excessive protection, granting patents for obvious and trivial inventions, and producing impassable patent thickets that choke further innovation, especially in the fields where progress is cumulative. The Review of the National Innovation System certainly felt this was the case in Australia, where intellectual property rights are too easily granted, and where they are ambiguously defined"

Source: Powering Ideas: An Innovation Agenda for the 21st Century"

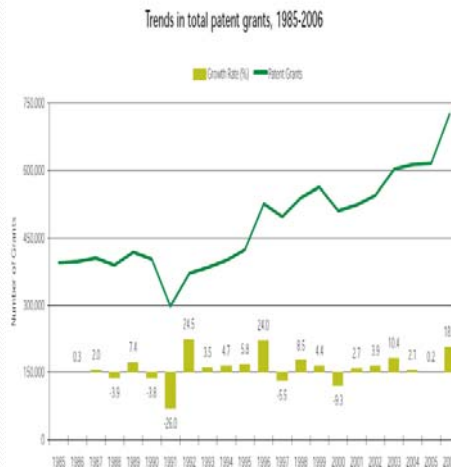
Patent Statistics

WIPO

Almost 1.8 Million Filings Worldwide



Almost 750,000 Issued Patents



Perceived Problems (2)

- US - there was general consensus that examiners often lacked the necessary scientific and technical expertise to examine specific categories of patent applications adequately
- Compounded by the fact that while the USPTO is possessed of a pre-eminent repository of scientific information, it felt unable to keep pace with the explosion of available scientific information over the last decade
- There was either too little information about prior inventions on file – as was the case in respect of computer software patents – or too much information on file without the means to sort it – as was the case in respect of biotech patents
- Is a need to bring some direction in this labyrinth – stronger more robust patents, less likely to be legally challenged – reducing patent thickets

• Other initiatives:  

Operation of Peer-to-Patent



- Companies consent to inclusion of patent applications in project
- Solicits public participation in the patent examination process
- Application open for review for fixed period of time
- Public, working as teams of collaborators, research and upload publications, patents and prior art and related commentary
- Top 10 pieces of prior art forwarded to the USPTO
- Public is not replacing the substantive work of the official patent examiner, but augmenting it by submitting information structured to tie directly into the examination process

PEER TO PATENT
in cooperation with USPTO

Sign Up | Login | Contact Us

COMMUNITY PATENT REVIEW MY PROFILE TUTORIALS ABOUT P-TO-P

APPLICATION LIST | ARCHIVED APPLICATIONS | US PATENT CLASSIFICATIONS

Home > Application List

Active Patent Applications Archived Applications

Please click on the name of an application to view that application.

Graph Style: Bar Chart | Line Chart | Scale | Subscribe

Patent Application Title	Community	Discussion	Prior Art	Annotations	Days Remaining
Instant messaging intercom system	5	5	3	0	2
Method of controlling user access to multiple systems	1	0	0	0	2
Optimized streaming evaluation of xml queries	1	0	1	0	2
Proactively determining evidence issues on legal matters involving employee status changes	1	0	0	0	9
Cryptographic binding of authentication schemes	2	1	0	0	9
Artificial neuron	2	1	0	0	9
Geocoding based on neighborhoods and other uniquely defined informal spaces or geographical regions	1	0	0	0	9
Exclusive encryption system	1	0	0	0	9
Automated sequential imaging of selected computer produced pages of data associated with designated text data objects listed on automated permutations of data tables	3	2	0	0	16
System for reliable collaborative assembly and maintenance of complex systems	1	0	0	0	16

PEER TO PATENT
in cooperation with USPTO

Sign Up | Login | Contact Us

COMMUNITY PATENT REVIEW MY PROFILE TUTORIALS ABOUT P-TO-P

APPLICATION LIST | ARCHIVED APPLICATIONS | US PATENT CLASSIFICATIONS

Home > Application List > 20090125594 > Activity

Pre-Grant Publication Number: 20090125594

Instant messaging intercom system 2 days left

Track the progress of public participation in the review of this pending patent application, and view application details. The menu on the right will help you navigate this patent application. Subscribe to the community enables you to receive updates on this application via email so that you can easily follow recent activity.

View Application

Activity Application

Abstract
Description
Claims (7)
Illustrations (4)

Discussion (5)
Prior Art (3)
Research (5)

Subscribe to this Community
Invite a Reviewer

HOW TO USE PEER TO PATENT
Peer to Patent Videos

LATEST PRIOR ART View All Prior Art

Date	Title	Reviewer	Count	Category
09/01/09	Apple Messenger - Push to Talk over MSN, Yahoo! and more!	Diane Wills	2	Computer Professional/Technologist
09/01/09	Yahoo! Messenger with Voice	Diane Wills	1	Grad/Undergrad Student
09/01/09	Office Intercom Business Audio Communication Software	Jason DeVeau Rouven	1	Entrepreneur/Business Owner
09/01/09	Office Intercom Business Audio Communication Software	Jason DeVeau Rouven	1	Lawyer/Legal Professional

View All Community

DISCUSSION View All Discussion


Claude Baudoin (about 1 month ago)
Regarding Claim 0000: First, throughout this application, the words "electro-magnetic" are used improperly. The applicant presumably refers to a "digital" signal, not an electro-magnetic signal. The Internet transmits bits, not radio signals or lightwaves. At minimum, the entire application needs to be rewritten completely with this language correction. Secondly, the claim that this intercom function happens without any intervention by the end user is incorrect. At minimum, the receiving users need to have turned on (a) their instant messaging client, (b) their speakers. It is indeed possible that this would be the default configuration of their computer when they start it, but it is not always the case. Many users also prefer to mute their speakers in order to avoid the intrusion of various alert beeps from different programs. Therefore, the claim that the transmission of the intercom voice message requires no action from the recipient is, strictly speaking, incorrect.

ACTIVITY BY CLAIM View All Claims

Claim	Count	Category
Claim 1	3	Prior Art
Claim 5	3	Prior Art
Claim 2	1	Prior Art
Claim 3	1	Prior Art
Claim 4	0	Prior Art

WHAT IS THIS APPLICATION ABOUT

Add a Tag



PEER TO PATENT
in cooperation with USPTO

[Sign Up](#) | [Login](#) | [Contact Us](#)

COMMUNITY PATENT REVIEW
|
MY PROFILE
|
TUTORIALS
|
ABOUT P-TO-P

APPLICATION LIST | ARCHIVED APPLICATIONS | US PATENT CLASSIFICATIONS

Search

Peer To Patent Registration

Welcome to the Peer to Patent community.

Peer to Patent is the Community Patent Review project. You are among the first to join the "open revolution" and sign up to become a Community Peer Reviewer!

To create an account, please provide your first and last name. To foster a sense of belonging and trust within the community, we encourage everyone to display their full names. You may use a pseudonym, if you prefer.

You can subscribe to specific patent applications and learn more about the Peer to Patent community.

For more information and updates about Peer to Patent, visit the project website <http://dotank.nyu.edu/communitypatent>.

You can e-mail us with questions or feedback at reviewer@peertopatent.org.

- The Peer to Patent Project Team


Registration

* indicates required field


(8 characters including 1 number)

(valid email address required)

(letters, numbers or underscore)



Type what you see:



PEERTOPATENT AUSTRALIA
in cooperation with IP Australia

[Sign Up](#) | [Login](#)

APPLICATION LIST | ARCHIVED APPLICATIONS
|
MY PROFILE
|
TUTORIALS
|
ABOUT P-TO-P

Home

Search

WELCOME TO PEER-TO-PATENT AUSTRALIA

Become part of this historic program. Help IP Australia find the information relevant to assessing the claims of pending patent applications. Become a community reviewer and improve the quality of issued patents in Australia.

- Click here to see a list of all applications.
- Click here to be notified of any new applications via RSS
- Click here to be notified about any new applications via email (requires login)
- Learn more about how Peer-to-Patent Australia works here

New Applications | [Most Active Topics](#) | [Applications in Mass](#) | [News](#)

- 1 [New! A dummy patent application file](#)
- 2 [New! Systems and methods for generating revenue from...](#)

[more...](#)

SUBJECT MATTER FOCUS

The Peer-to-Patent Australia project will involve the review up to 40 patent applications in the business method and computer software fields during its initial 6 month pilot.

WHAT KIND OF PATENTS CAN I HELP TO REVIEW?

[revenue](#) [social media](#)


PATENT APPLICATION PRIOR ARTIST AWARDS

These contributors submitted prior art or annotations.


Name	Type	Patent Application
Jimmy Ti	Research	Systems and methods for generating revenue from soc...
Jimmy Ti	Research	Systems and methods for generating revenue from soc...
Jimmy Ti	Research	Systems and methods for generating revenue from soc...
Jimmy Ti	Research	Systems and methods for generating revenue from soc...
Jimmy Ti	Research	Systems and methods for generating revenue from soc...
Ben McElwery	Prior Art	Systems and methods for generating revenue from soc...
Jimmy Ti	Research	Systems and methods for generating revenue from soc...

USE PEERTOPATENT AUSTRALIA TO HELP BUILD A MORE ROBUST PATENT SYSTEM


THIS IS HOW PEER-TO-PATENT AUSTRALIA WORKS




Review and discuss patent applications




Research and find prior art



Upload prior art relevant to claims



Annotate and evaluate all submitted prior art



"Top tier" prior art references forwarded

PEER TO PATENT VIDEOS
[How To Use Peer-To-Patent](#)
Beth Novick, Prof. New York Law School [More Videos](#)

PEER-TO-PATENT AUSTRALIA ACTIVITY

Annotate and Evaluate Prior Art
Engage art output
5 citations

Upload + Explain Prior Art
3 submitted

Research Prior Art
9 research

Discuss Patent Applications
2 comments posted

Size of Community
12

Privacy Policy | Code of Conduct | Terms of Use | FAQ

© 2009 Peer to Patent Australia. All rights reserved. Peer to Patent Australia is a registered service mark of the New York Law School. Peer to Patent Australia is a registered trademark of the New York Law School and is used with permission.

PEERTOPATENT AUSTRALIA
in cooperation with IP Australia

Sign Up | Login

MY PROFILE | TUTORIALS | ABOUT P-TO-P

APPLICATION LIST | ARCHIVED APPLICATIONS

Home > Application List

Active Patent Applications | Archived Applications

Please click on the name of an application to view that application.

Graph Style: Bar Chart | Line Chart | Scale | Subscribe

Patent Application Title	Community	Discussion	Prior Art	Annotations	Days Remaining
Systems and methods for generating revenue from social interaction	3	2	4	0	88
A dummy patent application title	1	0	1	0	110

Privacy Policy | Code of Conduct | Terms of Use | FAQ

Except where otherwise noted, content on this site is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 United States License. PeertoPatent Australia is operated under license from New York Law School. PeertoPatent is a registered trademark of New York Law School and is used with permission.

PEERTOPATENT AUSTRALIA
in cooperation with IP Australia

Sign Up | Login

MY PROFILE | TUTORIALS | ABOUT P-TO-P

APPLICATION LIST | ARCHIVED APPLICATIONS

Home > Application List > 20090157497 > Activity

Pre-Grant Publication Number: 20090157497

Systems and methods for generating revenue from social interaction

Track the progress of public participation in the review of this pending patent application, and view application details. The menu on the right will help you navigate this patent application. Subscribe to the community enables you to receive updates on this application via email so that you can easily follow recent activity.

88 days left

Activity | Application

Abstract | Description | Claims (20) | Illustrations (8)

Discussion (2) | Prior Art (4) | Research (9)

Subscribe to this Community | Invite a Reviewer

HOW TO USE PEER TO PATENT

How to Use the Peer-to-Patent Site

Peer to Patent Videos

View Application

LATEST PRIOR ART | View All Prior Art

Date	Title	Reviewer
09/01/09	3456	Randolph Rercharge
09/01/09	fighstghad	Randolph Rercharge
09/01/09	book site	Randolph Rercharge
08/19/09	sdjgag	Ben McEniry

COMMUNITY (3) | View All Community

1	Academic/Technologist/Engineer
1	Doctor/Healthcare Professional
1	Legal Academic/Professor

ACTIVITY BY CLAIM | View All Claims

Claim 1	4 Prior Art
Claim 2	2 Prior Art
Claim 6	1 Prior Art
Claim 4	1 Prior Art
Claim 5	1 Prior Art

DISCUSSION | View All Discussion

Randolph Rercharge (about 19 hours ago)
New comment

PEER TO PATENT ACTIVITY

Annotate and Evaluate Prior Art 5 prior art ratings 4 citations	Research Prior Art 9 research notes
Upload + Explain Prior Art 4 submitted	Discuss Patent Applications 2 comments posted

WHAT IS THIS APPLICATION ABOUT

social media revenue

Add a Tag | Peer to Patent Videos

PEERTOPATENT AUSTRALIA
in cooperation with IP Australia

Sign Up | Login

MY PROFILE | TUTORIALS | ABOUT P-TO-P

APPLICATION LIST | ARCHIVED APPLICATIONS

Peer To Patent Australia Registration

Welcome to the Peer to Patent Australia community.

You are among the first to join the "open revolution" and sign up to become a Community Peer Reviewer!

To create an account, please provide your first and last name. To foster a sense of belonging and trust within the community, we encourage everyone to display their full names, however, you may use a pseudonym, if you prefer.

- The Peer to Patent Australia Project Team

Registration
* indicates required field

First Name* Last Name*

Choose Password* Re-enter Password*
(8 characters including 1 number)

Email* Username*
(valid email address required) (letters, numbers or underscore)

Type what you see:
seven

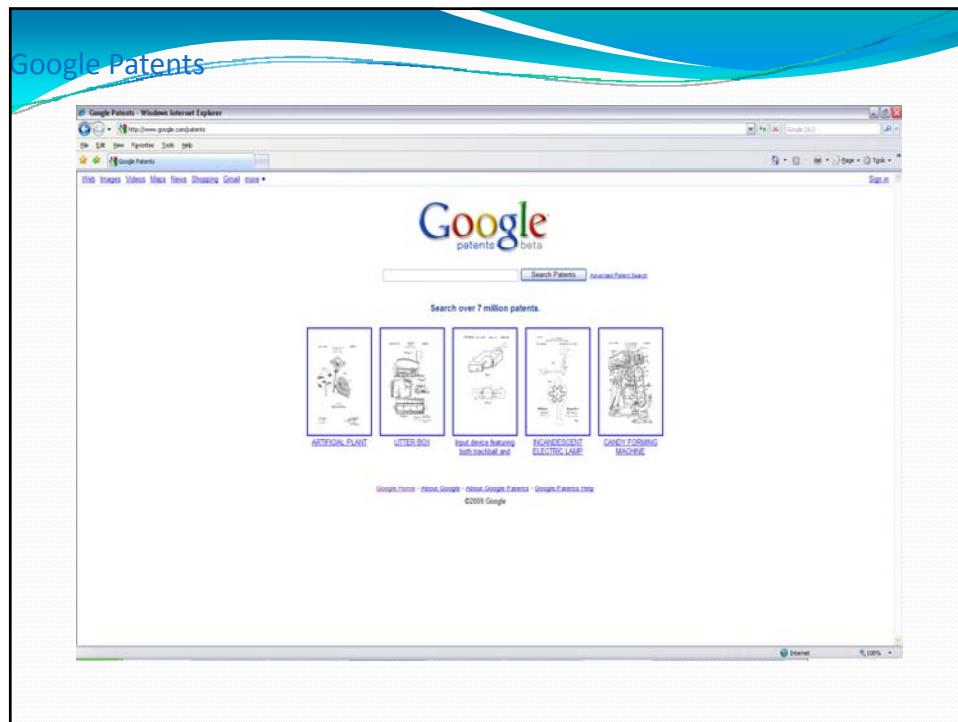
Sign up

Privacy Policy | Code of Conduct | Terms of Use | FAQ

Cambia
enabling innovation

Patent Lens IOI CambiaLabs BiOS

- Number of ongoing initiatives
- Independent non-profit institute creating new technologies, tools and paradigms to promote change and enable innovation
- Cambia wishes to see a vibrant public and private sector contributing myriad solutions to diverse challenges worldwide. This vision requires new enabling technologies, paradigms, policies, information and decision support that can break the logjam stifling creative business and public initiatives
- Patent Lens is a worldwide, open-access, free full-text patent informatics resource. It serves as the cyberinfrastructure platform for the Initiative for Open Innovation
- Patent Landscapes are "interpretation maps" that integrate volumes of specialised patent data around particular topics into a more navigable form
- Transparency of the worldwide patent system must be an international public good – an open resource that must remain open and free



Google Patents (continued)

- Part of Google's mission to organise the world's information and make it universally accessible and useful
- Google working to expand the diversity of content it makes available to its users
- All patents available through Google Patent Search come from the United States Patent and Trademark Office (USPTO). Patents issued in the United States are public domain government information, and images of the entire database of U.S. patents are readily available online via the USPTO website
- Google Patent Search covers the entire collection of issued patents and millions of patent application made available by the USPTO from patents issued in the 1790s through those most recently issued in the past few months
- Does not currently include international patents, but seeking to expanding coverage in the future
- To date, the USPTO has made available approximately seven million patents and over one million patent applications



Open Source Drug Discovery

- Inspired by Open Source models in Information Technology (For e.g., Web Technology, The Linux Operating System) and Biotechnology (For e.g., Human Genome Sequencing)
- Open source = a development methodology that harnesses the power of distributed peer-review and transparency of the project
 - expected to provide better quality, higher reliability, more flexibility, lower cost; and
 - an end to closed-door activities which increase the drug discovery cost to a great extent

Open Source Drug Discovery

- a *CSIR Team India Consortium with Global Partnership* with a vision to provide affordable healthcare to the developing world
- provides a global platform for collaboration and collective research
- aggregates the biological and genetic information available to scientists in order to use it to hasten the discovery of drugs



“Most public-funded institutions do a lot of biomedical research but the last mile of drug discovery is left to the pharmaceutical industry, which is essentially a “closed-door” activity. With respect to diseases of the poor, for example, tuberculosis, where the market incentive is very small, it is not possible to convince the pharmaceutical companies to work on these drugs.”

Prof. Samir. K Brahmachari
Chief Mentor, OSDD

Problems

- Targeted drugs are market-driven – aimed at the rich
- 450, 000 new Multiple Drug Resistant (MDR) -TB cases are estimated to occur every year
- June 2008 marked the 10th anniversary of the complete sequencing of *M. tuberculosis* genome - which was made available as open source to the scientific community
- Despite over ten years of effort by Industry and R&D Laboratories not even a single new drug molecule against tuberculosis has resulted
- Confidentiality and IPR Protection increases cost and decreases free knowledge sharing for drug discovery

OSDD – What is it about?

- *CSIR Team India Consortium with Global Partnership* with a vision to provide affordable healthcare to the developing world
- Provides a global platform where the best minds can collaborate & collectively endeavor to solve the complex problems associated with discovering novel therapies for neglected tropical diseases like Malaria, Tuberculosis, Leshmaniasis, etc.
- To collaboratively aggregate the biological and genetic information available to scientists in order to use it to hasten the discovery of drugs
- Provides a unique opportunity for scientists, doctors, technocrats, students and others with diverse expertise to work for a common cause

OSDD – What is it about? (continued)

- Success of Open Source models in Information Technology (e.g. Linux) and Biotechnology (e.g. Human Genome Sequencing) sectors highlights the urgent need to initiate a similar model in healthcare
- Funding - Government of India has committed approximately US \$38 million towards this project. Equivalent amount of funding to be raised from international agencies and philanthropists. Approximately US \$12 million has been already released by the Government of India

OSDD – Mission Statement/Objectives

“When it comes to health, we need to have a balanced view between health as a right and health as a business”

Prof. Samir K. Brahmachari

- To make affordable medicines available to every single ailing person of the developing world
- To bring openness and collaborative spirit to the entire drug discovery process with the objective of keeping drug cost low
- Development of a web-based portal for data deposition, exchange, evaluation, and tabulation for analysis
- Collaborative sharing of knowledge for the entire spectrum of processes in drug discovery
- Creation of a comprehensive Systems Biology approach for drug discovery

Mission Statement/Objectives (continued)

- Intellectual property protection to the extent it supports public good
- Can apply for the Intellectual Property Rights, but these would be shared among the open source community
- Encouragement of Academia-Industry partnership i.e. Public-Private Partnership (PPP) in an open source mode
- Establishment of an International Collaborative Centre for Affordable Health (ICCAH), which will operate with Government, International and Philanthropic funding

First Target Disease of OSDD is TB

Estimated Number of New TB Cases 2007 – Source WHO

