# PATENT PR

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ABSTRACT

As debates about the patent system have spread beyond the legal community into the public square, there has been an increase in mainstream media coverage of patent issues, including PR content generated by patent holders. However, we know very little about the subject matter of this media content and even less about its potential effects on public opinion and patent policy. This study begins to fill these gaps by building and analyzing a data set of patent-focused press releases generated by patent holders, or their licensees, and cataloging the subject matter contained therein. It offers a taxonomy of patent-focused PR content and calculates the relative proportions of patent PR relating to the top-level categories of Prosecution; Litigation; Transaction; Post-Grant Procedure; Honors/Accolades; Patented or Patent-Pending Product; ANDA Patent Challenge; and Miscellaneous. Within the top-level categories, this study calculates the relative proportion of second-level subject matter categories. In the Prosecution category, for example, this study calculates the proportion of press releases involving the categories of Patent Granted; Notice of Allowance; Application Filed; Application Pending; Application Accelerated; Response to Office Action Filed; Application Withdrawn from Issue; and Interference Declared. The Litigation category includes, *inter alia*, the categories of Settlement; Lawsuit Filed; Court Order or Ruling; Verdict; Comment; and Appealed. The study also analyzes patent PR by industry to determine which industries or technology fields generate the most patent-focused PR content and which subject matter areas are favored by particular industries. The data presented in this study enable us to determine which patent matters technology firms believe are important to highlight and provide a baseline for subsequent inquiries into how patent PR may affect policy and public opinion of patents and patentees.

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## INTRODUCTION

In recent years, discussion of patent law issues has spread beyond the practitioner and academic communities into the public square.[1] This is due, in large part, to heightened mainstream media coverage of high profile patent litigation such as *Amazon v. Barnes & Noble* (the "one-click" patent case),[2] *NTP v. Research in Motion* (the BlackBerry case),[3] *Association for Molecular Pathology v. Myriad Genetics* (the breast cancer gene case),[4] and the smartphone patent wars. These cases capture the public attention because they affect a large number of consumers, highlight dubious patents, or touch on hot-button issues like gene patenting and the effects of patent "trolls."

This increased level of public attention to patent issues has emerged as patents continue to be extremely valuable assets to technology firms.[5] In

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[1] *See* INTELLECTUAL PROPERTY – THE INTERNATIONAL LIBRARY OF ESSAYS IN LAW AND SOCIETY, Ashgate, William T. Gallagher – Ed. at xi ("Until fairly recently, intellectual property law was a relatively obscure legal specialty, and one that was subject to little scholarly (much less public) attention. With the rise of the global economy and the prominence of post-industrial information-based industries over the past several decades, however, intellectual property law and related policy issues has become the subject of everyday culture. Indeed, it is hard to read a daily newspaper without encountering references to patent, copyright, or trademark disputes. Intellectual property is also increasingly the subject of attention in the popular press.") (internal citations omitted).

[2] *See, e.g.*, James Gleick, *Patently Absurd*, The New York Times, Mar. 12, 2000 ("Last September Amazon received its patent, and instantly sued Barnes & Noble over its similar Express Lane. In December Amazon won an injunction forcing its competitor to insert a superfluous mouse click.").

[3] *See, e.g.*, Teresa Riordan, *Contest Over BlackBerry Patent*, The New York Times, June 7, 2004 ("Today in Washington, judges at the Court of Appeals for the Federal Circuit are scheduled to ponder whether Research in Motion, the Canadian maker of the much-coveted BlackBerry hand-held wireless e-mail device, should be barred from doing business in the United States. At issue is who has the patent for the BlackBerry's technology.").

[4] *See, e.g.*, Brian Alexander, *Supreme Court gene patent decision could affect every patient*, NBC News, [link], Apr. 15, 2013 ("The legal question at the heart of the US Supreme Court's debate over the patenting of human genes has practical ramifications that could ripple into the lives of every American – not just women at risk for rare breast cancer.").

[5] *See, e.g.*, Lisa Shuchman, *IBM Received Record Patent Grants in 2012*, Corporate Counsel, Jan. 11, 2013, http://www.law.com/corporatecounsel/PubArticleCC.jsp?id=1202583915636&IBM_Received_Record_Patent_Grants_in_2012&slreturn=20130609144500 ("IBM's extensive patent portfolio provides the Armonk, NY-based company with licensing revenue of about $1 billion a year").

addition to the inherent value of patents derived from licensing and enforcement, patent-related developments and milestones can provide important signals of innovation,[6] success, and value[7] to investors and the market and can act as warning signals to competitors.[8] It is not surprising, then, that technology firms generate a large volume of public relations material around patent matters.

However, despite the large volume of media material about patent issues produced by both journalists and patent holders, we know very little about its content and even less about its potential effects on public opinion and patent policy. To this author's knowledge, there has been no systematic study of media coverage of patent issues. There is no research on public relations material generated by patent holders or patent coverage by newspapers, television and other mainstream media outlets. Neither the subject matter of patent-related media content nor its potential or actual effects on patent policy has been studied.

This study takes a first step to fill these gaps by analyzing patent-focused press releases generated by patent holders, or their licensees, and cataloging the subject matter contained therein. It offers a taxonomy of patent-focused PR content and calculates the relative proportions of patent PR relating to several defined subject matter categories and a number of subcategories. This study is the first, of which the author is aware, to examine the subject matter technology firms are communicating when they generate PR content concerning patents.

I chose for this study media content generated by patent holders exclusively, as opposed to patent service providers, industry groups, journalists or commentators, because it seems the most logical starting point for analysis. There is a rich trove of mainstream media content generated by bloggers as well as print, online, and television journalists, which may impact public opinion and influence policy. However, in view of the large gap in knowledge of patent-focused media coverage generally, it makes sense to begin filling that gap from patentee-sourced media content. If we

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[6] *See* PR Newswire, *Applied Communication Sciences Receives Edison Award for Quantum Communications Patent*, Oct. 2, 2012, http://www.prnewswire.com/news-releases/applied-communication-sciences-receives-edison-award-for-quantum-communications-patent-172274841.html.

[7] *See* PR Newswire, *IEEE Spectrum Ranking of the Most Valuable Patent Portfolios Places Ruckus in Top 10 of the Communications Equipment Category*, Dec. 10, 2012, http://www.prnewswire.com/news-releases/ieee-spectrum-ranking-of-the-most-valuable-patent-portfolios-places-ruckus-in-top-10-of-the-communications-equipment-category-182811281.html.

[8] *See* Press Release, *Novatel Wireless Identifies Key MiFi Intelligent Mobile Hotspot Patents*, Jul. 29, 2009, http://investor.novatelwireless.com/releasedetail.cfm?releaseid=399698.

can map and understand what the most interested parties communicate about their patents, that foundational knowledge can provide a useful baseline for exploring and analyzing third parties' patent content.

Firm press releases can be a source of valuable information and have been the focus of scholarly attention in other disciplines, particularly business and economics.[9] Academic works by business professors, economists, and accountants have analyzed the text of earnings press releases,[10] examined whether such language is used to send signals about future firm performance,[11] studied whether investors are influenced by the tone and other stylistic attributes of earnings press releases,[12] and compared the text of earnings press releases with other forms of communication.[13] However, the author is not aware of any study of firm press releases in the patent law context.

Part I of this Article presents a brief history of patents in the news to set the stage and highlight the patent issues that have been the subjects of mainstream media coverage in the last two decades. Part II of this Article discusses the methodology used in this study of patent PR generated by patent holder technology firms. More particularly, Part II includes discussion of searching techniques, selection process, and coding of patent-focused press releases by subject matter and other parameters. Part III of this Article presents the results of the study, including the relative proportions of patent-focused press releases relating to each subject matter category, the relative proportions of patent-focused press releases relating to each Industry / Technology category, and the subject matter of press releases for the top six Industry / Technology categories. In addition, Part

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[9] *See, e.g.*, Angela K. Davis, Jeremy M. Piger and Lisa M. Sedor, *Beyond the Numbers: Measuring the Information Content of Earnings Press Release Language*, [where published?] (June 2011) (piece by business, economics and accounting professors analyzing the text of earnings press releases and examining whether the language signals expected future firm performance and whether the market responds to such signals).

[10] *See id*.

[11] *See id*.

[12] *See*, Elaine Henry, *Are Investor Influenced by How Earnings Press Releases are Written*, [where published?] (Nov. 2006) ("This study examines whether investors are influenced by how earnings press releases are written – the tone and other stylistic attributes – using actual earnings press releases and archival capital markets data in a standard short-window event study.").

[13] *See*, Angela K. Davis and Isho Tama-Sweet, *Managers' Use of Language Across Alternative Disclosure Outlets: Earnings Press Releases Versus MD&A*, [where published?] (June 2011) ("We use textual-analysis software to quantify the language used in earnings press releases and the corresponding Management Discussion and Analysis MD&A for approximately 13,000 firm quarter between 1998 and 2003. Analyzing two narrative disclosures in which managers describe firm performance for the same quarter allows us to examine managers' use of language across alternative communication outlets.").

III includes discussion of press release content and preliminary interpretations of some of the results. In Part IV, I offer some thoughts on how to build from this foundation and propose future avenues of research of patent PR content. Part V concludes.

## I. PATENTS IN THE NEWS: A BRIEF HISTORY

The old saw "no news is good news" historically applied as aptly to patents as any other subject. For many years patent issues were virtually absent from the mainstream media, and when the press did start to pay attention to patents in the early 1990s, most of the coverage was negative. Since that time, media coverage has been fairly consistently focused on the same small set of issues. Indeed, the adverse effects of patenting genes, software, e-commerce and other business methods have been mainstays of mainstream media attention since the early 1990s.[14] The rise of patent trolls in the 2000s added another perennial topic. This Part provides a brief history of patent coverage by the mainstream media.

### *A. Patenting Genes*

Although isolated DNA was held to be patentable subject matter in 1981, the contemporary debate over gene patenting in the mainstream media traces its origins to 1990. In October of that year, the Human Genome Project launched.[15] This huge research project, coordinated and funded by the U.S. government, identified and sequenced all of the genes in human DNA over a 13-year period.[16] It also may have contributed to a rush

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[14] *See* Tom Wilkie, *Patent rights 'slowing medical progress'*, The Independent (London), Mar. 23, 1995); Tim Clark, *Are e-commerce patents patently absurd?*, CNET News, Feb. 5, 1999.

[15] *See* History of the Human Genome Project, http://www.ornl.gov/sci/techresources/Human_Genome/project/hgp.shtml ("The Human Genome Project (HGP) refers to the international 13-year effort, formally begun in October 1990 and completed in 2003, to discover all the estimated 20,000-25,000 human genes and make them accessible for further biological study.").

[16] *See* Human Genome Project Information, http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml ("Completed in 2003, the Human Genome Project (HGP) was a 13-year project coordinated by the U.S. Department of Energy and the National Institutes of Health. During the early years of the HGP, the Wellcome Trust (U.K.) became a major partner; additional contributions came from Japan, France, Germany, China, and others. See our history page for more information.

Project goals were to *identify* all the approximately 20,000-25,000 genes in human DNA, *determine* the sequences of the 3 billion chemical base pairs that make up human DNA").

to patent synthetic DNA. At the very least, by putting gene sequences into the public domain it shifted the focus of gene patenting efforts from the naturally occurring sequences themselves to laboratory re-creations of DNA.[17] A related contemporaneous development included moves to patent indigenous plants for medicinal purposes[18] and even genetic material of indigenous peoples.[19]

The popular press covered both trends by reporting the stories themselves and reaction by scientists and industry. Typical is a 1995 article in The Independent about the dangers of gene patenting.[20] The piece notes that more than one thousand genes had been patented by that time and reports on a warning by Sussex University that such activity is "undermining medical advances."[21] A University biochemist said the patents inhibit innovation and cited an instance of a British pharmaceutical company prevented from selling an improved drug for treating heart attacks in the United States because U.S. biotech company Genentech held a patent on the protein underlying the drug.[22]

A Time Magazine piece from 1998 entitled "Gene Piracy" examined the eponymous phenomenon of hunting for medically and scientifically useful

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[17] *See* Carolyn Y. Johnson and Robert Weisman, *No patenting of genes, justices rule*, The Boston Globe, June 13, 2013, *available at* http://www.bostonglobe.com/2013/06/13/supreme-court-rules-human-genes-cannot-patented/TB4XFUuICEiiQC6bdQqSkL/story.html ("Over the past two decades, the type of gene patents sought by companies has shifted, especially after the human genome project put gene sequences into the public domain. Patents now often focus on synthetic DNA forms.").

[18] *See, e.g.*, Tim McGirk, *Gene Piracy*, Time Magazine, Nov. 9, 1998, *available at* http://www.time.com/time/world/article/0,8599,2054278,00.html (discussing the practice of bio-prospecting, i.e., pursuing medically and scientifically useful substances used by indigenous peoples in remote areas);

[19] *See, e.g.*, Pam Rigden, *Companies covet genes; ethics and profits compete in the patenting of human genetic materials*, Alternatives Journal, June 22, 1997, *available at* http://www.highbeam.com/doc/1G1-19908789.html (discussing the debate arising over the patenting of genetic material from a man in Papua New Guinea).

[20] *See supra*, note __ [Wilkie, The Independent] ("The race to patent human genes is undermining medical advances, a group of researchers warned yesterday.").

[21] *See id.* ("Many of the patents which are being applied for – and granted – are so broad that they will inhibit innovation and prevent other companies from developing new drugs or diagnostic kits, Dr Julian Burke, a biochemist at the university's Department of Biology warned.").

[22] *See id.* ("Dr Burke cited the case of a 'clot-busting' drug called tissue plasminogen activator (TPA), which is used in the treatment of heart attacks. The drug is based on a naturally occurring human protein to which the US biotechnology company Genentech claims patent rights. The British drugs company Wellcome was recently prevented from marketing an improved version of TPA in the US because it infringed Genetech's patent – even though Wellcome had independently isolated the gene and had vastly improved the product.").

substances used by indigenous peoples in remote areas.[23] Also called "bio-prospecting," this controversial practice includes such activities as "extracting the saliva of vampire bats from Mexico," "spooning microscopic fungus from the soil in Panama," and "spending time with Irula tribesmen" in southern India "in hopes of determining which berries and plants local medicine men use to cure cobra bites."[24]

Another article explored the debate over a patent directed to a T-cell line, which was derived from the genetic material of a man in Papua New Guinea.[25] The man was one of the Hagahai, a small group of seminomadic hunter-horticulturalists living in the fringe highlands of the Madang Province. Owned by the U.S. National Institutes of Health, the patent was seen by defenders of indigenous people as a form of exploitation.[26] However, genetic researchers called the case a model for the ethical treatment of indigenous peoples, pointing to a contract that guaranteed certain benefits for the Hagahai people.[27]

It was not only indigenous peoples in far flung foreign lands that interested journalists. American television also dealt with patenting genetic material of crops at home. A Bill Moyers telejournalism piece called Seeds of Conflict aired in October of 2002.[28] In it, Moyers addressed bioengineering of seeds and the domination of the major agricultural corporations in the field.[29] The piece noted that "six corporations now own 75% of the patents for the bioengineered seeds of some of America's most important crops."

In an extended reprise, the mainstream media heavily covered the issue of gene patenting again when Myriad Genetics' breast cancer gene patents were litigated from 2009 to 2013.[30] At issue were several patents directed

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[23] *See supra*, note __ [McGirk article]

[24] *Id.* at 2.

[25] *Supra*, note __ [Rigden article]

[26] *See id.* ("On March 14, 1995 the US National Institutes of Health (NIH) patented the T-cell line of a Hagahai man from Papua New Guinea, effectively taking ownership of his genetic material. The move outraged many defenders of indigenous people, who have long seen such patenting as a form of exploitation.").

[27] *See id.* ("Genetic researchers, in contrast, point to the Hagahai case as a model for the ethical treatment of indigenous people by genetic researchers. They say that benefits for the Hagahai are addressed in a contract initiated by a Papua New Guinean medical anthropologist involved in the project.").

[28] Bill Moyers, Now, Transcript: Seeds of Conflict, PBS, http://www.pbs.org/now/transcript/transcript_corn.html.

[29] *See id.* ("But agricultural biotechnology is not only being driven by idealism. It is also being driven by a multi billion dollar industry in search of blockbuster products. To that end, six corporations now own 75% of the patents for the bioengineered seeds of some of America's most important crops.").

[30] *See, e.g.*, Brian Alexander, *Supreme Court gene patent decision could affect every*

to BRCA1 and BRCA2, genetic mutations associated with a much higher risk of breast and ovarian cancer.[31] The central question before the Supreme Court was whether isolated DNA is patentable subject matter. While ownership of the human body's blueprints alone is controversial enough, this lawsuit laid additional moral and ethical layers on the debate because arguably the patents enabled Myriad Genetics to charge monopoly prices for breast cancer screening procedures.[32]

Needless to say, the case was a hot topic in the popular press.[33] One patent law firm blog highlighted this with a post entitled "Myriad Gene Patent Debate Hits Mainstream Media."[34] media coverage of the case reflected passionate voices on both sides. Forbes even noted that the debate had made one of its own, a gene scientist and blogger for the magazine named Steven Salzberg, a "mainstream media star."[35] Perhaps the high- (or low-) water mark of the gene patent controversy going mainstream is the continuing coverage of Angelina Jolie's decision to undergo a double mastectomy after her breast cancer screening revealed that she has the BRCA gene mutation.[36]

The media coverage reflected strong views on both sides of the issue, as interested parties made sure their voices were heard. A number of medical professionals called for the Myriad patents to be invalidated.[37] A typical

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*patient*, NBC News, [link], Apr. 15, 2013 ("The legal question at the heart of the US Supreme Court's debate over the patenting of human genes has practical ramifications that could ripple into the lives of every American – not just women at risk for rare breast cancer.").

[31] *See id.* ("That's because all of those issues are entangled in the case involving a Utah company, Myriad Genetics, which controls the patents on variations of two human genes, known as BRCA1 and BRCA2. Women with mutations in those genes are at much higher risk for getting breast and ovarian cancer.").

[32] *See supra*, note __ [Brian Alexander] ("Myriad's current exclusive right to the testing means all BRCA tests are conducted by Myriad. There's no second opinion or confirmation by an independent second source and Myriad can set its own price free of competition.").

[33] *See* Anton Hopen, *Myriad Gene Patent Debate Hits Mainstream Media*, Smith & Hopen blog (noting that MSNBC reported on the gene patent controversy raised by the Myriad litigation).

[34] *Id.*

[35] *See* Robert Langreth, *Forbes Gene Patent Critic Becomes Mainstream Media Star*, Forbes, Nov. 2, 2010, *available at* http://www.forbes.com/sites/robertlangreth/2010/11/02/forbes-gene-patent-critic/.

[36] *See, e.g.*, Liz Neporent, *Angelina Jolie's Double Mastectomy Fueling National Debate*, abcnews.com, June 4, 2013, http://abcnews.go.com/Health/angelina-jolies-double-mastectomy-fueling-national-debate/story?id=19315336.

[37] *See, e.g.*, Jeffrey A. Rosenfeld and Christopher E. Mason, *The Supreme Court should invalidate the patent on human DNA*, Washington Post, Apr. 5, 2013, available at http://articles.washingtonpost.com/2013-04-05/opinions/38307541_1_gene-patents-

example of this view appeared in a Washington Post editorial by a professor of medicine and a professor of genomics in which the authors argued that the human genome should not be patentable because natural body parts belong to their owners.[38] Permitting gene patents elevates property rights over scientific research and disease prevention, the authors said.[39] By contrast, a Forbes piece published after the Supreme Court invalidated the Myriad patents, raised the prospect that the decision might actually stifle medical research.[40] The article speculated that the Myriad decision could have ramifications beyond DNA and be used to invalidate patents on drugs based on other naturally occurring molecules.[41] An older New York Times piece quoted the Biotechnology Industry Organization, which said a policy excluding genes from patentable eligibility would "undermine U.S. global leadership and investment in the life sciences."[42]

Patent experts weighed in as well, typically in support of maintaining DNA as patentable subject matter. A 2010 New York Times article reporting on the Obama administration's opposition to gene patenting quoted two patent lawyers who had harsh words for the Department of Justice.[43] Harold Wegner's widely circulated email entitled "Eric Holder Hijacks the Patent System Flunks Patents 101" was mentioned in the piece.[44] Another patent lawyer called the administration's position

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myriad-s-polio-vaccine ("Like many scientists, we believe that these patents never should have been granted and that the genes of the human genome, like other natural body parts, belong to their owners, not to companies seeking to exploit monopolies. If the court allows these types of patents to stand, it will put the endeavors of openly researching, preventing and treating lethal diseases on a lower level of importance than a set of ill-conceived property rights.").

[38] *See id.*

[39] *See id.*

[40] *See* Daniel Fisher, *Gene-Patent Decision Is Popular But A Threat To Personalize Medicine*, Forbes, June 14, 2013, *available at* http://www.forbes.com/sites/danielfisher/2013/06/14/gene-patent-decision-is-popular-but-a-threat-to-personalized-medicine/ ("by declaring whole swaths of the emerging field of personalize medicine off-limits for patents, the court may wind up stifling the very research it claims to be protecting").

[41] *See id.* ("[The Supreme Court Myriad decision] could be used to attack drugs based on naturally occurring molecules of all kinds, such as the chemicals in yew-tree bark that gave rise to the anticancer drug Taxol.").

[42] *See* Andrew Pollack, *Gene Patent Ruling Raises Questions for Industry*, The New York Times, Nov. 1, 2010, *available at* http://www.nytimes.com/2010/11/02/health/02gene.html?_r=0.

[43] *See id.* ("Sharp reaction greeted the declaration that human and other genes are not patentable, a reversal of what had been the government's policy for decades. One patent lawyer characterized the new position as dumb.").

[44] *See id.* ("'Eric Holder Hijacks the Patent System, Flunks Patents 101,' Mr. Wegner

"dumb."[45] Robert Stoll, a former Commissioner of the U.S. Patent and Trademark Office, was quoted by Forbes calling the Supreme Court opinion a "very bad decision" that will "really reduce research in a lot of areas."[46]

### *B. Business Method Patents*

The internet boom in the late 1990s brought with it a new set of dubious and controversial patents. Questions of patentable subject matter and obviousness swirled around applications and patents directed to computer software, internet inventions, electronic commerce, and other ways of doing business. The Federal Circuit's 1998 decision in *State Street Bank and Trust Company v. Signature Financial Group*, which held that inventions that produce a "concrete and tangible result" are patent eligible and opened the door to a wave of business method patents.[47] With titles like "Patently Absurd" articles in the popular press began to explore controversial patent litigation, subject individual patents to ridicule, and report on a patent system "in crisis."[48]

One of the first patents to capture the attention of the mainstream media in this period was U.S. Patent No. 5,794,207. Owned by Priceline.com, this patent is directed to the company's "name-your-own-price" feature that allows consumers to indicate how much they are willing to pay for an airline ticket.[49] A CNET article from 1999 notes that Priceline's patent faced a challenge by a prior inventor with a similar patent.[50] Several critics of e-commerce and business method patents, the piece explained, said that such patents could stifle innovation and hamper growth of the internet.[51]

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wrote in an e-mail to 1,250 people, referring to the attorney general.").

[45] *See id.* ("One patent lawyer characterized the new position as dumb.").

[46] *See supra*, note __ [Daniel Fisher article]

[47] *See State Street Bank and Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998).

[48] *See supra*, note __ [James Gleick] (discussing the Amazon "one-click" patent, software patenting after the State Street Bank decision and stating "the patent system is in crisis.").

[49] *See* Tim Clark, *Are e-commerce patents patently absurd?*, CNET, Feb. 5, 1999, http://news.cnet.com/2100-1017-221259.html ("The foremost example [of a company obtaining an e-commerce patent] is Priceline.com, which has patented its 'name-your-own-price' business model that lets consumers say how much they'll pay for a specific airline ticket on a specific day.").

[50] *See id.* ("But Priceline, which has filed for an IPO, faces a challenge to its patent. Thomas Woolston contends his patent, filed 16 months earlier, supercedes Priceline's.").

[51] *See id.* ("some critics fear patents could slow the growth of the Internet as a commercial medium by stifling innovation and putting an emphasis on patents, not business or technology. Others say patents of 'business models" for doing business on the Net are philosophically absurd.").

Patents procured by a company call Open Market, including one for online "shopping carts," also garnered some discussion and attacks as obvious for merely moving a physical object online.[52]

Perhaps the most popular mainstream media patent story of this era was that of the notorious Amazon "one-click" patent. As explained by the New York Times in March 2000, Jeff Bezos is not only the founder of Amazon.com, but also a named inventor on U.S. Patent No. 5,960,411 ("'411 Patent").[53] Entitled "Method and system for placing a purchase order via communications network," the '411 Patent is directed to a method of choosing an item for purchase and loading a stored shipping address and credit card number with a single click of the mouse button. The New York Times said e-commerce patents like the '411 Patent are "marking off broad swaths of electronic commerce,"[54] and business method patents can protect "trivial slices of off-line life" such as executing a tennis stroke.[55] Amazon's patent infringement suit against Barnes and Noble, in which the online retailer succeeded in preventing its competitor from using a one-click ordering system, was big news during and after the 1999 holiday season.

After the turn of the century, news stories about industry backlash to these patents began to appear.[56] A Wired piece from 2004 reported software industry reaction to such patents and calls for an overhaul of the patent system.[57] The article quotes the executive director of the Software Patent Institute, who noted that the lack of existing software patents hampers patent examiners' ability to adequately evaluate the "sudden rush"

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[52] *See id.* ("Open Market's patents kicked up considerable furor. They covered online 'shopping carts' in Web storefronts, certain secure-card payments over the Net, and some ways of tracking visitors through a Web site. Critics attacked the shopping cart patent in particular, saying it was 'obvious' because it merely moved a physical world concept onto the Net.").

[53] *See supra*, note __ [James Gleick] ("Not everyone who knows Bezos as the newly minted billionaire founder of the world's leading Internet retailer knows that he's also an inventor, but he is. It says so on U.S. Patent No. 5,960,411, 'Method and system for placing a purchase order via a communications network.'").

[54] *See id.* ("This is just the beginning. Patents marking off broad swaths of electronic commerce will soon be pouring from the patent office, unwelcome surprises to whole categories of new entrepreneurs.")

[55] *See id.* ("For that matter, the most trivial slices of off-line life are winning patent protection: for example, a technique for measuring a breast with a tape, to determine bra size; and one for executing a tennis stroke while wearing a kneepad").

[56] *See, e.g.*, Amit Asaravala, *Dodgy Patents Rile Tech Industry*, Wired, Apr. 5, 2004, *available at* http://www.wired.com/techbiz/media/news/2004/04/62930?currentPage=all.

[57] *See id.* ("Although each patent has its own nuances and is embedded in so much legalese that it's difficult to dismiss outright, few veterans of the software industry have a hard time imagining how much damage the patents could do if left unchallenged. That's why the industry has renewed calls for an overhaul of the U.S. patent system.").

of software patent applications.[58] The news media also picked up on organized efforts to target patents thought to be of dubious validity or to stifle innovation.[59] The Electronic Frontier Foundation got some press attention for its campaign to invalidate patents having a "chilling effect" on the public interest.[60] The organization's goal, according to another 2004 Wired article, was to prevent "questionable" patents from being asserted against individuals and small businesses.[61] The group targeted a number of individual patents, including the Amazon one-click patent.[62]

When the Federal Circuit and the Supreme Court addressed the patent eligibility of business methods several years later in *In re Bilski*, the media also revisited the issue.[63] The E-Commerce Times covered the legal issues in some detail, noting that there were several different tests for patentable subject matter used by the patent office and the courts and proposed by the attorneys arguing the case.[64] The piece took a favorable view of e-

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[58] *See id.* ("Roland Cole, executive director of the Software Patent Institute, pointed out what he described as another flaw in the examination process: the lack of existing software patents to act as a guide for examiners. 'The primary source that the patent examiner looks at (for prior art) is other patents,' said Cole. 'But if you get a sudden rush of patents in an industry that didn't have any, then there aren't any patents to look at.'").

[59] *See, e.g.*, Sabra Chartrand, *Patents; A Web site invites bounty hunters to disprove ownership of ideas, even those of its founders*, The New York Times, Oct. 23, 2000, *available at* http://www.nytimes.com/2000/10/23/business/patents-web-site-invites-bounty-hunters-disprove-ownership-ideas-even-those-its.html ("The Boston company introduced a Web site last week, BountyQuest.com, where people and companies can offer rewards for information leading to the de-bunking of a patent.").

[60] *See, e.g.*, Amit Asaravala, *EFF to Fight Dubious Patents*, Wired, Apr. 19, 2004, *available at* http://www.wired.com/techbiz/media/news/2004/04/63122.

[61] *See id.* ("Wendy Seltzer, an attorney for the EFF, said in an interview Monday that the goal of the new campaign is to prevent questionable patents like these from being used against individuals and small businesses.").

[62] *See id.* ("the civil liberties group targeted 10 patents in particular, including one awarded to Amazon.com for one-click shopping").

[63] *See, e.g.*, Bradley C. Wright, *End of the Road for E-Commerce Patents?*, E-Commerce Times, May 26, 2008, *available at* http://www.ecommercetime.com/story/63107 ("For years, the U.S. Patent and Trademark Office (PTO) has granted patents covering e-commerce business methods, and companies have exploited such patents to gain a competitive advantage in the marketplace….However, an impending decision by the U.S. Court of Appeals for the Federal Circuit in Washington may soon change things.").

[64] *See id.* ("Several of the judges appeared to have difficulty agreeing with Bilski's proposed 'real-world' test for patentability and wanted a more clear-cut rule for it. Some of the judges also appeared to question whether the 'useful, concrete and tangible" patentability test applied in its earlier State Street case provided a workable standard to judge patentability….professor John Duffy proposed that the court look at various factors to determine whether a process was patentable, including the extent to which the patent

commerce patents, stating that they provide "a valuable resource" and help companies obtain venture capital and protect their R&D investments.[65]

Of course, business method patents, particularly in the area of e-commerce, did not disappear after *Bilski*. They continued apace, and the media coverage did too. A 2010 TG Daily article entitled "Ebay sued for billions over e-commerce patents" reported that an intellectual property holding company sued the online auction site for alleged infringement of six patents.[66] An industry publication called Internet Retailer published a piece in late 2011 observing that patent infringement suits against e-commerce and software companies substantially increased in number that year.[67] In its 2012 year in review post, entitled "Software patents: The talk of 2012," the Open Source blog noted that "software patents were a major concern."[68] The blog observed that the past year had seen "an increasing recognition by the public at large that software patents can hinder innovation."[69] Finally, the blog said the high volume of patent lawsuits throughout the year had been "the subject of both open source community and mainstream media interest."[70] Each of these articles expressly or implicitly mentioned that e-commerce and software patent news implicates so-called patent "trolls,"[71] another major focus area of the mainstream media.

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was connected to real-world activities.").

[65] *See id.* ("Such patents have provided a valuable resource for companies to obtain venture capital and to protect research and development investments.").

[66] Emma Woollacott, *Ebay sued for billions over e-commerce patents*, TG Daily, Jul. 14, 2010, *available at* http://www.tgdaily.com/business-and-law-features/50650-ebay-sued-for-billions-over-e-commerce-patents.

[67] *See* Thad Rueter, *E-commerce patent suits nearly double in 2011*, Internet Retailer, Nov. 1, 2011, http://www.internetretailer.com/2011/11/01/e-commerce-patent-suits-nearly-double-2011 ("So-called patent trolls have filed more than 200 cases against e-commerce and software companies so far in 2011, eclipsing the total for the whole of 2010, according to figures released today by RPX Corp., the latest reminder that patent infringement remains a costly risk for online retailers.").

[68] *See* Rob Tiller, *Software patents: The talk of 2012*, Open Source, Dec. 26, 2012, http://opensource.com/law/12/12/software-patents-talk-2012 ("Looking back over the law channel posts of 2012, I was not surprised to see that software patents were a major concern.").

[69] *Id.*

[70] *Id.*

[71] *See id.* ("The high volume of significant patent lawsuits of competitors and rising levels of NPE (aka patent trolls or patent assertion entities) suits has been the subject of both open source community and mainstream media interest."); *see supra*, note __ [Thad Rueter] ("So-called patent trolls have filed more than 200 cases against e-commerce and software companies so far in 2011"); *see supra*, note __ [Emma Woollacott] (referring to plaintiff XPRT Ventures as an "IPR holding company").

### *C. "Patent Trolls"*

The patent "troll" controversy exploded into the mainstream media with NTP-RIM BlackBerry patent litigation. The popular press could not resist as the suspense mounted over the possibility of an injunction that could shut down the operation of the popular personal email device.[72] A 2004 New York Times article opened by asking if it is "really possible that Bill Gates, Pamela Anderson and phalanxes of stockbrokers, lawyers and Congressional staff members" will be forced to stop using their BlackBerries.[73] The piece explained that NTP is a patent holding company that "does not make anything."[74] After the parties finally settled in 2006, CNN Money reported that Research in Motion agreed to pay "patent holding company" NTP $612.5 million to settle the litigation that "had threatened to shut down the popular wireless e-mail service for its 3 million users."[75]

The BlackBerry case brought patent "trolls," or non-practicing entities ("NPEs") to the fore and triggered public calls for patent reform to curb their impact.[76] A piece written by George H. Pike noted that the BlackBerry lawsuit had renewed call for patent reform and that Congress was considering a bill to reform U.S. patent law to provide more information to patent examiners, improve the post-grant review process, and make it more difficult for a patentee to obtain an injunction.[77]

The popular media picked up the theme again in connection with the

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[72] *See, e.g.*, Teresa Riordan, *Contest Over BlackBerry Patent*, The New York Times, June 7, 2004, *available at* http://www.nytimes.com/2004/06/07/technology/07patent.html ("Is it really possible that Bill Gates, Pamela Anderson and phalanxes of stockbrokers, lawyers and Congressional staff members will have to give up one of their most treasured possessions: their BlackBerries?").

[73] *Id.*

[74] *See id.* ("Indeed, NTP does not make anything. It is a patent holding company formed by [sic] in 1992 by Thomas J. Campana and some investors with the intent of licensing patents.").

[75] Rob Kelley, *BlackBerry maker, NTP ink $612 million settlement*, CNNMoney, Mar. 3, 2006, http://money.cnn.com/2006/03/03/technology/rimm_ntp/.

[76] *See, e.g.*, George H. Pike, *BlackBerry: Lawsuit and Patent Reform*, Information Today, May 2006, http://www.infotoday.com/it/may06/Pike.shtml ("The BlackBerry lawsuit has renewed calls for reform of the U.S. patent laws.").

[77] *See id.* ("A bill to reform U.S. patent law substantially is now before Congress, which addresses a number of these controversies: First, the amount of information available to patent examiners would be increased, potentially reducing the number of invalid patents being issued. Second, the threat of a shutdown to obtain licensing fees would be harder to use by requiring the court to evaluate additional information about the use of the technology before an automatic shutdown order is issued. Finally, a new, more expeditious post-patent review process would be created.").

Supreme Court hearing of *eBay v. MercExchange*.[78] Fox News framed the question in the case as "how to declaw" patent trolls and explained that eBay was asking the high court to take away patent trolls' "chief weapon: the nearly automatic injunction."[79] The Fox News piece noted that the case had entered the "national legal spotlight"[80] and suggested the reason the mainstream media were so excited to cover the story, observing that the litigation had generated "[t]rolls, blackmails, extortion and other vitriol."[81]

More recently, the media re-visited the subject of non-practicing entities in late 2012 after a spike in patent "troll" litigation around that time.[82] The fact that the mainstream media was paying attention to the subject actually led the coverage by Tech Dirt in December of that year. Entitled "The Problems of Patent Trolls Continuing to Get Mainstream Attention," the piece noted "a recent uptick in stories about patent trolling getting media attention."[83] Specifically, the article cited a televised story on CBS This Morning about a patent infringement suit by Uniloc against Laminer Research, the developer of X-plane.[84]

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[78] *See, e.g., 'Patent Trolls' May Live or Die by EBay Supreme Court Ruling*, Fox News, Mar. 31, 2006, http://www.foxnews.com/story/2006/03/31/patent-trolls-may-live-or-die-by-ebay-supreme-court-ruling/ ("The question of how to appropriately declaw so-called "patent trolls" took center stage March 29 in an important patent infringement case argued before the U.S. Supreme Court.").

[79] *See id.* ("now these and other high-tech luminaries are asking the high court to take a away a patent trolls' [sic] chief weapon: the nearly automatic injunction courts issue against companies found to be in violation of patents.").

[80] *See id.* ("The potential for such a far-reaching decision has elevated an otherwise mundane patent spat to the national legal spotlight.").

[81] *See id.* ("Trolls, blackmails, extortion, and other vitriol grows from a case eBay initiated after a federal jury in Virginia decided in 2003 that eBay had violated two patents held by MercExchange, a Great Falls, Va.-based company.").

[82] *See, e.g., "Patent trolls"; How some say they're hurting U.S. economy*, CBS News, Dec. 21, 2012, http://www.cbsnews.com/8301-505263_162-57560405/patent-trolls-how-some-say-theyre-hurting-u.s-economy/; *see also* Edward Wyatt, *Obama Orders Regulators to Root Out 'Patent Trolls'*, New York Times, June 4, 2013, *available at* http://www.nytimes.com/2013/06/05/business/president-moves-to-curb-patent-suits.html?_r=0 ("The [troll] companies exploded onto the technology scene in the last two years, accounting for more than half of the 4,000 patent infringement lawsuits filed in the United States last year, according to several studies, up from 45 percent the year before and from less than 30 percent in every prior year.").

[83] Mike Masnick, *The Problems Of Patent Trolls Continuing To Get Mainstream Attention*, TechDirt, Dec. 27, 2012, http://www.techdirt.com/articles/20121222/01200121474/problems-patent-trolls-continuing-to-get-mainstream-attention.shtml.

[84] *See id.* ("There's been a recent uptick in stories about patent trolling getting mainstream media attention, and the latest example is a recent segment on CBS's national morning program, *CBS This Morning*, which explored how patent trolls are hurting the US economy, mainly by focusing on the story of Uniloc suing the maker of X-plane.").

Thanks to several executive orders announced by President Obama, the popular press covered the issue again in some detail in June 2013.[85] The New York Times discussed the President's orders as well as legislative activity to address patent trolls.[86] In an editorial, the newspaper called "abusive" patent litigation a "festering" problem and hailed a bipartisan effort to encourage innovation by curbing patent trolls.[87] The Washington Post covered the President's anti-troll policies from a different angle, discussing the positive reaction from Silicon Valley venture capitalists.[88]

### *D. Interested Parties Voice Their Opinions*

Aside from hot button issues, another common thread of mainstream media patent content is the jostling of interested parties to get their views carried by the media. Interest groups and their spokespeople are regular players in the mainstream media, from both the pro- and anti-patent perspectives. As discussed above, medical professionals used media outlets to call for excluding genetic material from patenting during the Myriad patent debate,[89] and software industry groups voiced their concerns over software patents in the backlash that followed the *State Street Bank*

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[85] *See, e.g.*, Edward Wyatt, *Obama Orders Regulators to Root Out 'Patent Trolls'*, New York Times, June 4, 2013, *available at* http://www.nytimes.com/2013/06/05/business/president-moves-to-curb-patent-suits.html?_r=0 ("On Tuesday, President Obama took direct aim at the [troll] companies and their practices, announcing several executive orders 'to protect innovators from frivolous litigation' by patent trolls.").

[86] *See id.* ("Mr. Obama ordered the Patent and Trademark Office to require companies to be more specific about exactly what their patent covers and how it is being infringed. The administration also told the patent office to tighten scrutiny of overly broad patent claims and said it would aim to curb patent-infringement lawsuits against consumers and small-business owners who are simply using off-the-shelf technology….Representative Robert W. Goodlatte, a Virginia Republican who is chairman of the House Judiciary Committee and drafting a bill to address the patent troll issue, said at a panel discussion Tuesday that opposition was stiff enough that 'it led a number of people to believe that it was going to delay overall patent reform.'").

The administration has proposed changes that should help fix at least part of the problem. It is asking Congress to restrict lawsuits against consumers and businesses that use technology, a badly needed step. Another proposal would

[87] *See* The Editorial Board, *Fighting 'Patent Trolls'*, The New York Times, June 5, 2013, *available at* http://www.nytimes.com/2013/06/06/opinion/obamas-promising-reforms-to-fight-patent-trolls.html.

[88] *See* Vivek Wadhwa, *Why Silicon Valley likes Obama's patent troll offensive*,The Washington Post, June 18, 2013, *available at* http://www.washingtonpost.com/blogs/innovations/wp/2013/06/18/why-silicon-valley-likes-obamas-patent-troll-offensive/.

[89] *See supra*, note __ [Rosenfeld and Mason editorial].

decision.[90] The Electronic Frontier Foundation gave interviews to criticize dubious business method patents and discuss its efforts to invalidate them.[91]

The parties most interested in patent matters are the patent holders themselves. Accordingly, we now turn to the methodology of this study designed to analyze and understand the PR content generated by patent holders.

## II. METHODOLOGY

This Part discusses the searching and selection of the data set of patent-focused press releases. It also discusses the criteria used to code press releases by subject matter category.

### *A. Searching Press Releases*

I conducted multiple searches to build my ultimate set of 414 press releases. First, I searched in the LexisNexis Mega News database under US News for the ten-year period between March 18, 2003 and March 18, 2013 for articles containing the term "patent" in the headline. This search yielded 268 hits.[92] I also utilized the online search tools of two news services, PR Newswire and BusinessWire. These sites provide only a limited time frame for public searching, typically six months prior to the date of the search, but are a rich source of patent-focused press releases. On the BusinessWire web site I searched by the keyword "patent" from January 1, 2013 through March 19, 2013. On the PR Newswire site I searched by the keyword "patent" from September 20, 2012 through December 31, 2012. I conducted a number of different keyword searches on Google, breaking them down by year from 2008 through 2011, including "patent press release YEAR"; "press release YEAR patent announced"; and "BusinessWire YEAR patent".

### *B. Selecting Press Releases*

The goal of this study is to analyze only press releases that (1) are generated by patent holders (or their licensees), and (2) focus on patent matters or developments, i.e., the patent matter cannot be secondary or tangential to the subject of the press release. Accordingly, I retained or discarded press releases from my initial raw data set based upon these two

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[90] *See supra*, note __ [Asaravala article].

[91] *See supra*, note __ [Asaravala article].

[92] Because the number of hits for the years 2003-2007 was very low, I elected to build the data set from press releases issued in the years 2008-2013.

criteria.

1. Generated by Patent Holders

To satisfy the first criterion, I discarded any documents that were news stories by journalists. I also excluded press releases generated by third parties or patent service providers such as law firms, consultancies, and patent brokerage/auction houses. For example, a number of press releases by Ocean Tomo and ICAP were excluded. However, I retained some press releases in which the patent owner announced that it had retained a particular consultancy or brokerage firm to monetize or offer its patents for sale. To ensure that the press releases retained were indeed generated by the patent holder I looked for source indicators, which are commonly used in the BusinessWire and PR Newswire releases, and/or for keywords in the text such as "announced" after the name of the patent holder.

Any other articles which I could not have a high level of confidence were generated by the patent holder were removed from the data set. Where the same announcement was picked up by more than one news source, only a single press release was retained. To ensure that no single patent holder comprised a large enough proportion of the data set to skew the results, I imposed a maximum of three press releases for any one patentee.[93] Accordingly, no single technology firm patent holder represents even 1% of the data set.

2. Patent Focus

Satisfying the second criterion, patent focus, required, admittedly, making some judgment calls. My guiding principle in making this determination was to exclude any press release where the patent information is arguably ancillary to the main message of the release. For example, a number of press releases in the raw data set focus on a new product launch and mention that the product is patent-pending. Those releases were often discarded. However, there were exceptions in instances where the fact that the product is patent-pending was emphasized by the patentee, e.g., the patent-pending aspect was prominently featured in the headline or the first sentence of the release.[94] For press releases discussing technology

[93] The following firms reached the maximum of three: Network-1, VirnetX, Eolas Technologies, Bradshaw Medical, j2 Global, Id Analytics, Qualcomm, Gevo, LG, Mylan, and Voip-Pal.com.

[94] *See, e.g.*, Reuters, *First Patented Social-Discoverability Application Beta Released*, Nov. 21, 2012, http://www.reuters.com/article/2012/11/21/idUS207338+21-Nov-2012+PRN20121121.

purchases, sales, or licenses, the releases were retained only if they made clear that the technology at issue is protected by one or more patents and placed some emphasis on the patent aspect of the transaction. Applying these criteria, judgments, and analyses, I arrived at a final data set of 414 patent-focused press releases generated by patentees between 2008 and the first quarter of 2013.

### *C. Subject Matter Coding*

For each press release, I recorded the following identifying information: publication date; title; technology firm / patent holder; patent or application number if provided; industry; technology; subject matter code. In particular, I analyzed each press release to determine the subject matter of the release. I developed and implemented a coding system to identify each press release by subject matter, including first- and second-level codes, and in some instances, third- and fourth-level codes. This Part explains the coding system, which forms a taxonomy of content for patent-focused press releases.

#### 1. First-Level Coding

My first-level coding system consists of the following subject matter categories: Prosecution; Litigation; Transaction; Post-Grant Procedure; Honors/Accolades; Patented or Patent-Pending Product; ANDA Patent Challenge; and Miscellaneous. The first-level coding required making some judgment calls in close cases. Many press releases, for example, report that litigation settled and a party to the litigation took a license to the patent- or patents-in-suit, so could be coded as Litigation and/or Transaction. In these instances, I made a judgment based on the emphasis of the press release. If the settlement was first mentioned in the headline or the first sentence, and the license discussed later in the release I coded the release as Litigation. If the reverse was true, I coded the press release as Transaction.

For a number of these releases, it was not possible to discern a primary emphasis because the litigation settlement and patent license aspects were roughly equal in emphasis, e.g., they were mentioned the first time together in the headline, in the same sentence or in adjacent sentences. In these instances, rather than make a false choice, I coded the press releases as both Litigation and Transaction. Because of this double coding, which also was necessary in some of the second-level coding, I ended up with more press releases than the actual data set for calculation purposes. To be exact, my data set was 414, but for calculation purposes with double counting the total

number of press releases is 437.

2. Second-Level Coding Under Prosecution

Under Prosecution the second-level coding system consists of the following subject matter categories: Patent Granted; Notice of Allowance; Application Filed; Application Pending; Application Accelerated; Response to Office Action Filed; Application Withdrawn from Issue; Interference Declared. Again, there were some ambiguities in coding these press releases, and I had to make judgment calls. For example, for some of the releases it was difficult to discern whether the firm was referring to a notice of allowance or the issuance of a patent. Instead of using the most accurate identifying language, these releases sometimes used ambiguous phrases like "provided protection" and "awarded a patent." In instances where a patent number was provided I coded the release as Patent Granted. However, even that is not a perfect indicator because the underlying event could have been the U.S. Patent and Trademark Office issuance of the Issue Notification, which provides the patent number and grant date a few weeks before grant. By contrast, where the press release provided only a patent application serial number I coded the release as Notice of Allowance. In these cases, I figured the absence of a patent number militated against a coding of Patent Granted. In instances where the press release did not provide a patent number or a patent application serial number, I simply had to make a judgment call based on the full text of the release.

3. Second-Level Coding Under Litigation

Under Litigation the second-level coding system consists of the following subject matter categories: Settlement; Lawsuit Filed; Court Order or Ruling; Verdict; Comment on Lawsuit; Appealed; Accused Product Added; Dismissed; Hearing; Remedy; Schedule; and Lawsuit Withdrawn. A few of the second-level subject matter categories for Litigation required third-level coding to clearly identify the types of information being conveyed. These are Court Order or Ruling, Verdict, and Comment on Lawsuit. Under Court Order or Ruling the third-level coding system consists of the following subject matter categories: Infringement; Non-Infringement; Injunction; Discovery; Enforceable; Fees/Costs; New Trial Motion Denied; and Validity. Under Verdict the third-level coding systems consists of the following subject matter categories: Infringement; Non-Infringement; Damages; and Validity. Four press releases in the Verdict category were double counted because they reported both a mixed verdict of infringement and non-infringement, infringement and validity, or

infringement and damages. Under Comment on Lawsuit the third-level coding system consists of the following subject matter categories: Court Order or Ruling; Infringement; and Reexamination.

4. Second-Level Coding Under Transaction

The second-level coding for the Transaction category consists of Patent(s) Licensed; Patent(s) Acquired; Patent(s) Sold; and Patent(s) For Sale / Auction. Two press releases in this category report both an acquisition and sale of patents and were therefore double-counted and coded for both Patent(s) Acquired and Patent(s) Sold.

5. Second-, Third-, and Fourth-Level Coding Under Post-Grant Procedures

Under Post-Grant Procedures the second-level coding consists of Reexamination; Opposition; and Reissue. Each of these subject matter categories has a third-level subject matter code under it. The third-level coding under Reexamination consists of Inter Partes and Ex Parte, with each having under it a fourth-level code. Under Reexamination: Inter Partes, the fourth-level coding consists of the categories Patent Valid; Office Action / Rejection; Filed; and Patent Invalid. Reexamination: Ex Parte fourth-level coding consists of Office Action / Rejection; Patent Valid; and Claims Narrowed. Under Oppositions the third-level coding consists of Patent Valid; Patent Invalid; and Priority. Finally, under Reissues the third-level coding consists of just one subject matter category: Granted/Reissued.

6. Second-Level Coding Under Miscellaneous

For the Miscellaneous subject matter category, the second-level coding consists of the following categories: Miscellaneous Comment; Donate Patent(s); Patent Expiration; Identify Patent(s); Investigating Infringement; Patent Job Hire; Will Not Enforce Patent(s); and Seeking Patent.

7. Second-Level Coding for Honors/Accolades

The second-level coding for the Honors/Accolades category consists of Number of Patents Granted in a Year; Number of Patents Cumulative; Patent Innovation Award; and Patent Portfolio Value.

8. Subject Matter Categories With No Second-Level Coding

There are no second-level codes for two of the first-level subject matter categories, namely, Patented or Patent-Pending Product, and ANDA Patent Challenge. These categories are sufficiently narrow and focused such that the press releases falling into them are homogeneous and self-explanatory.

### *D. Industry / Technology Coding*

The second major area of analysis is the Industry / Technology coding of the patent-focused press releases, providing a breakdown of patent PR by industry. The coding system for Industry / Technology consists of 26 categories.[95] The top six Industry / Technology categories are Pharmaceuticals; Biotechnology; Software/Internet; Telecommunications; Clean Technology; and Medical Devices.

As with subject matter coding, there were some ambiguities in classifying the industry and technology field of the press releases which required making judgment calls. For example, IBM's patent portfolio is notoriously large and ranges over various technologies. Moreover, some of its press releases are not limited to a single patent or even a small number of patents, which could be placed into a particular technology category. Rather, consistent with its reputation, two of the three IBM releases in the data set announced the annual number of patents issued to the company. However, it is not feasible within the scope of this study to analyze IBM's entire patent portfolio and engage in multiple counting to place it in all possible technology categories. Thus, I classified IBM in accordance with the industry and technology it is best known for, namely, computer hardware.

In addition, the lines between different industries and technologies are sometimes blurred. Notable in this regard are Pharmaceuticals and Biotechnology as well as Medical Devices and Medical Data, Systems and Diagnostics in some instances. In these cases, I made judgment calls based on a combination of the firm's own description of its industry and/or technology and the nature of the technology discussed in the press release.

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[95] Pharmaceuticals; Biotechnology; Software/Internet; Telecommunications; Clean Technology; Medical Devices; Medical Data, Systems and Diagnostics; Computer Hardware; Financial; Healthcare, Nutrition and Health Management; Consumer Electronics; Media and Marketing; Smart Devices / Smart Phones; Digital Imaging; Semiconductors; Pharmacy; Chemical; Gaming / Video Games; Automotive; Infrastructure; Agriculture; Home Appliances; Athletic Gear; Food / Food Science; Laboratory Equipment; Other.

## III. RESULTS AND DISCUSSION

This Part presents the results of the patent PR content analysis described above. More particularly, this Part shows the relative proportions of patent-focused press releases relating to each subject matter category and to each Industry / Technology category.

### *A. Subject Matter Coding: First Level*

Chart 1.1 shows the numbers and percentages for the first-level subject matter categories.

Chart 1.1 – First-Level Subject Matter

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 215 | 49.2% |
| Litigation | 106 | 24.3% |
| Transaction | 65 | 14.9% |
| Post-Grant Procedure | 24 | 5.5% |
| Honors/Accolades | 10 | 2.2% |
| Patented or Patent-Pending Product | 5 | 1.1% |
| ANDA Patent Challenge | 4 | 0.9% |
| Miscellaneous | 8 | 1.8% |

The largest subject matter category is Prosecution, with 215, or nearly half, of patent-focused press releases relating to the patent application process from filing to grant. 106 releases, or just under a quarter of patent PR, involve litigation, the second place category. Transactional matters comprise 14.9 percent of patent press releases, and Post-Grant Procedures represent 5.5 percent of the data set. The smallest subject matter categories are Honors/Accolades (2.2 percent), Patented or Patent-Pending Product (1.1 percent), and ANDA Patent Challenge (0.9 percent). Miscellaneous subjects comprise just under two percent of the data set. More details about the content of these press releases are discussed below in the second-, third- and/or fourth-level category sections.

As discussed above, it is common for a press release to simultaneously report that litigation settled and the parties entered into a license agreement. Some were coded as either Litigation or Transaction releases based on whether the emphasis was placed on the settlement or the license. For example, a press release entitled “Rambus and LSI Corporation Sign Patent

License Agreement" opened with the patent license agreement and mentioned settled claims and disputes in the third sentence of the first paragraph.[96] By contrast, when hybrid vehicle drivetrain developer Paice announced it had settled patent litigation with Toyota, the parties put out a release entitled "Toyota and Paice Reach Settlement of Patent Disputes" with the majority of the release discussing the disputes, the settlement, and the technology with only oblique references to a licensing agreement.[97]

However, a number of press releases could not be parsed in this way and were therefore counted as both Litigation and Transaction. I took this approach where, for example, the headline referred to both the litigation settlement and the transaction as in the release entitled "Qualcomm and Broadcom Reach Settlement and Patent Agreement."[98] Also, releases in which the headline referred to a litigation settlement and a prominent sub-heading mentioned a license were double counted. One such release was entitled "Network-1 Announces Settlement of Patent Litigation with NETGEAR" and featured a subheading stating "NETGEAR Agrees to License Network-1's Remote Power Patent for Its Power over Ethernet Products through 2020."[99] This Network-1 press release triggered a double count for the additional reason that the opening sentence referenced both the settlement and the license.[100]

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[96] *See* BusinessWire, *Rambus and LSI Corporation Sign Patent License Agreement*, Feb. 19, 2013, http://www.businesswire.com/news/home/20130219006821/en/Rambus-LSI-Corporation-Sign-Patent-License-Agreement ("Rambus Inc. (NASDAQ:RMBS), the innovative technology solutions company, announced today it has signed a patent license agreement with LSI Corporation (NASDAQ: LSI). This agreement allows LSI Corporation to include Rambus patented innovations in all its products. In addition, the two companies have settled all outstanding claims, including pending disputes related to Rambus' patented innovations.").

[97] *See* PR Newswire, *Toyota and Paice Reach Settlement of Patent Disputes*, Jul. 19, 2010, http://www.prnewswire.com/news-releases/toyota-and-paice-reach-settlement-of-patent-disputes-98757134.html ("Toyota Motor and Paice LLC have entered into an agreement to settle the patent disputes between them. The terms of the agreement are confidential. All lawsuits between the companies will be dismissed….'Paice is committed to the ongoing development of hybrid technology and selected research activities," added Robert Oswald, president and CEO of Paice.' We will continue to pursue licensing agreements with other automakers which use hybrid technology patented by Paice.").

[98] *See, e.g.*, Press Release, *Qualcomm and Broadcom Reach Settlement and Patent Agreement*, Apr. 26, 2009, http://www.broadcom.com/press/release.php?id=s379764

[99] Press Release, *Network-1 Announces Settlement of Patent Litigation with NETGEAR*, May 28, 2009, http://www.network-1.com/new/PR_052809.htm.

[100] *See id.* ("As part of the settlement, NETGEAR, a worldwide provider of technologically innovative, branded networking solutions, entered into a settlement agreement and non-exclusive license for the Remote Power Patent.").

### *B. Second-Level Coding for Subject Matter: Prosecution*

As discussed above, Prosecution represents 215 patent-focused press releases, or 49.2 percent of the total data set, making it the largest first-level subject matter category. Chart 2.1 shows the numbers and percentages for the second-level categories under Prosecution.

Chart 2.1 – Second-Level Subject Matter Under Prosecution

| Subject | Number | Percentage |
|---|---|---|
| Patent Granted | 160 | 71.2% |
| Notice of Allowance | 41 | 18.4% |
| Application Filed | 13 | 5.8% |
| Application Pending | 3 | 1.3% |
| Application Accelerated | 2 | 0.9% |
| Response to Office Action Filed | 2 | 0.9% |
| Application Withdrawn from Issue | 1 | 0.4% |
| Interference Declared | 1 | 0.4% |

By far the largest subject matter category under Prosecution is Patent Granted, with over 71 percent of patent-focused press releases reporting on the issuance of one or more patents. Clearly, technology firms understand that the biggest news in prosecution is the ultimate grant of a patent. Anything short of the grant of a patent leaves the applicant with very limited provisional rights and no enforceable right. Typical of this category is "IDAutomation.com Granted Patent for Generating Barcodes without Barcode Fonts or Graphic Objects" in which the barcode fonts and solutions company announced it was "granted" a patent, listed the patent number, and summarized the patented method.[101] Some firms, such as Cyclone Power Technologies, continually churn out press releases each time a patent is granted either in the United States or abroad,[102] while others play catch-up

[101] Press Release, *IDAutomation.com Granted Patent for Generating Barcodes without Barcode Fonts or Graphic Objects*, Jan. 14, 2010, http://www.idautomation.com/about-us/press-releases/patent-printing-barcodes-without-fonts.html.

[102] *See* BusinessWire, *U.S. PTO Grants Eighth Patent on Key Component of Cyclone Power Technologies' Green Engine*, Nov. 11, 2010, http://www.businesswire.com/news/home/20101111006123/en/U.S.-PTO-Grants-Eighth-Patent-Key-Component; *see also* BusinessWire, *Cyclone Power Technologies' Multi-Fuel, Green Engine Receives Tenth International Patent*, Mar. 3, 2011,

and list a number of patents granted over several years in a single release.[103] In a 2010 press release entitled simply "New Patents Issued" Radiological Imaging Technology (RIT) listed seven U.S. and international patents issued over a seven year period, with the oldest dating back to March 2003.[104]

The Patent Granted category is nearly four times larger than the second-place subject matter category, Notice of Allowance, which represents 18.4 percent of the data set. This large disparity likely signals the importance of the patent grant mentioned above. While a granted patent provides an enforceable right, a Notice of Allowance provides little until the applicant pays the issue fee and the application proceeds to issuance. The steep drop from Patent Granted to reporting Notices of Allowance may also reflect the lack of public understanding of lesser technical prosecution milestones short of patent grant. Patent practitioners and patent-savvy applicants know that a Notice of Allowance is significant as it means the claims have successfully passed substantive examination, but the public may not be aware of the importance of this step.

Typical press releases in the Notice of Allowance category are "Regulus Announces U.S. Allowance of Fundamental microRNA Therapeutics Patent Application" reporting that the U.S. Patent and Trademark Office allowed a patent application and identifying the application by serial number,[105] "BidRx, LLC announces patent approval in Australia," announcing that an Australian patent application for a drug bidding service was allowed,[106] and "RegenRx Receives Notice of Allowance for 2nd U.S. Heart Patent" reporting receipt of a Notice of Allowance and summarizing the invention.[107]

As discussed above, it is worth noting that some of the press releases

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http://www.businesswire.com/news/home/20110303006040/en/Cyclone-Power-Technologies%E2%80%99-Multi-Fuel-Green-Engine-Receives; *see also* Market Wired, *Cyclone Power Technologies Receives Patent in Australia; Further Expands IP Portfolio on Its Waste-to-Energy Technology*, May 9, 2012, http://www.marketwire.com/press-release/cyclone-power-technologies-receives-patent-australia-further-expands-ip-portfolio-on-otcqb-cypw-1654856.htm

[103] *See* Press Release, *New Patents Issued*, Oct. 4, 2010, *available at* http://www.radimage.com/company/press-releases/ (labeled "Multiple Patents Issued") (listing several patents issued from 2003-2010).

[104] *Id*.

[105] *See* Press Release, *Regulus Announces U.S. Allowance of Fundamental microRNA Therapeutics Patent Application*, Oct. 28, 2009, http://www.regulusrx.com/regulus-announces-u-s-allowance-of-fundamental-microrna-therapeutics-patent-application/.

[106] *See* Press Release, *BidRx, LLC announces patent approval in Australia*, Nov. 15, 2010, https://www.bidrx.com/about_us/S2011121525/press_releases_body.html.

[107] *See* Press Release, *RegenRx Receives Notice of Allowance for 2nd U.S. Heart Patent*, Mar. 8, 2013, http://www.regenerx.com/wt/page/pr_1362761787.

were not clear as to which of the two prosecution milestones of allowance or grant was being reported. Ambiguous language and lack of identifying information, such as application serial number or patent number, made it difficult to discern whether the firm was referring to allowance or issuance of a patent. Press releases that provided patent numbers were coded as Patent Granted. Those that were not clear in their language but provided only patent application serial numbers were coded as Notice of Allowance.[108] Where the press releases provided neither and the language was ambiguous, I made a judgment call based on the full text. One example is a release entitled "Order Optimizer Merging Engine Recognized as Unique, Awarded Patent" which stated that the USPTO recognized Order Optimizer's content merging engine as "unique" and provided "intellectual property protection through a US patent."[109] With the language being ambiguous and no identifying number to point toward allowance or grant, I was left with giving the firm the benefit of the doubt that "awarded patent" meant just that and coded the release as Patent Granted.

Application Filed represents 5.8 percent of the Prosecution category, with thirteen press releases reporting the filing of a patent application. These releases report filing a U.S. provisional patent application,[110] filing a U.S. non-provisional patent application,[111] and filing a PCT application.[112]

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[108] *See, e.g.*, BusinessWire, Puritan Awarded U.S. Patent for Purflock® Ultra Flocked Swab Collection Device, Mar. 12, 2013, http://www.businesswire.com/news/home/20130311006480/en/Puritan-Awarded-U.S.-Patent-PurFlock%C2%AE-Ultra-Flocked ("Puritan's latest flocked swab application (No. 12/849,250) from the United States Patent and Trademark Office (USPTO) is for both inventing the PurFlock® Ultra swab as well as for its unique manufacturing process.").

[109] *See* BusinessWire, *Order Optimizer Merging Engine Recognized as Unique, Awarded Patent*, June 23, 2011, http://www.businesswire.com/news/home/20110623006074/en/Order-Optimizer-Merging-Engine-Recognized-Unique-Awarded.

[110] *See* Press Release, *ImmunoCellular Therapeutics Announces Filing of Key Patent Application Relating to Cancer Stem Cell Technology*, June 18, 2009, www.imuc.com/pdf/2009/6-18-09-IMUC-Patent-PR-Release-FINAL.pdf ("ImmunoCellular Therapeutics, Ltd., a biotechnology company…today announced the filing of a provisional U.S. patent application relating to its novel vaccine technology targeting cancer stem cells.").

[111] *See* Press Release, *PostiveID Corporation Files Patent with the United States Patent and Trademark Office for its iGlucose System*, Mar. 23, 2010, http://investors.positiveidcorp.com/releasedetail.cfm?ReleaseID=454021 ("PositiveID Corporation…announced today that it has filed with the U.S. Patent and Trademark Office a non-provisional patent application for its *iGlucose* system, currently under development, which uses wireless SMS messaging to automatically communicate a diabetic patient's blood glucose levels from any data-capable glucose meter to an online database.").

[112] *See* PR Newswire, *Medbox, Inc. Files International PCT Application*, Dec. 3, 2012,

The last several second-level categories constitute some of the technical aspects of patent prosecution that firms rarely report. For example, just 1.3 percent of the press releases report a pending patent application (Application Pending). Application Accelerated and Response to Office Action Filed each represent 0.9 percent of press releases, while one release each (0.4 percent) involves an Application Withdrawn from Issue and Interference Declared.

The Application Accelerated category is unique in that it appears to comprise reports of a prosecution development generated primarily by Clean Technology firms. In December 2009 the U.S. Patent and Trademark Office launched a pilot program to expedite green technology patent applications, launched in December of 2009.[113] The Green Technology Pilot Program allowed applications relating to improving environmental quality, conserving energy, developing renewable energy resources, or reducing greenhouse gas emissions to be advanced out of turn for substantive examination.[114] Although there are other technology agnostic expedited examination procedures, the two press releases in this category reported patent applications being accepted into the Green Technology Pilot Program.[115]

### *C. Second- and Third-Level Coding for Subject Matter: Litigation*

As discussed above, Litigation is the second largest first-level subject matter category, accounting for 104 (24.3 percent) of the full data set. The second-level coding under the Litigation category is shown in Chart 2.2

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http://www.prnewswire.com/news-releases/medbox-inc-files-international-pct-application-181831061.html.

113 Press Release, U.S. Patent and Trademark Office, The U.S. Commerce Department's Patent and Trademark Office (USPTO) Will Pilot a Program to Accelerate the Examination of Certain Green Technology Patent Applications (Dec. 7, 2009), *available at* http://www.uspto.gov/news/pr/2009/09_33.jsp.

114 *See* Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. 64666 (Dec. 8, 2009) (to be codified at ____)("Under the Green Technology Pilot Program, applications pertaining to environmental quality, energy conservation, development of renewable energy, or greenhouse gas emission reduction, will be advanced out of turn for examination without meeting all of the current requirements of the accelerated examination program . . .").

115 *See* Enhanced Online News, *GreenShift Patent Application Accepted into Accelerated Green Technology Pilot Program*, Apr. 29, 2010, http://eon.businesswire.com/news/eon/20100429006541/en; *see also* Press Release, *EcoMedia's EcoAd Program is Granted Special Status by the U.S. Patent and Trademark Office*, Sep. 19, 2011, http://www.cbscorporation.com/news-article.php?id=820.

1. Second-Level Coding for Litigation

Litigation represents 106 patent-focused press releases, or 24.3 percent of the total data set, making it the second-largest first-level subject matter category. Chart 2.2 shows the numbers and percentages for the second-level categories under Litigation.

Chart 2.2 – Second-Level Subject Matter Under Litigation

| Subject | Number | Percentage |
|---|---|---|
| Settlement | 40 | 38.5% |
| Lawsuit Filed | 35 | 33.7% |
| Court Order or Ruling | 10 | 9.6% |
| Verdict | 8 | 7.8% |
| Comment on Lawsuit | 4 | 3.8% |
| Appealed | 1 | 1.0% |
| Accused Product Added | 1 | 1.0% |
| Dismissed | 1 | 1.0% |
| Hearing | 1 | 1.0% |
| Remedy | 1 | 1.0% |
| Schedule | 1 | 1.0% |
| Lawsuit Withdrawn | 1 | 1.0% |

The two most prevalent subjects discussed by Litigation press releases are settlement of litigation and filing of a lawsuit. Together these two second-level subjects account for over 70 percent of Litigation PR content, with 40 releases (38.5 percent) involving Settlement, and Lawsuit Filed representing 35 releases (33.7 percent). The fact that the largest proportion of press releases relates to settlement of litigation may simply reflect the reality that most patent cases settle. However, it also may suggest that firms believe it more beneficial to report early resolution of patent litigation than initiation of enforcement activity or court victories.

Settlement press releases can provide a revealing window into the negotiations of the parties. Although the terms of a settlement agreement ending the hybrid vehicle patent litigation between Paice and Toyota remain confidential, their press release announcing the settlement revealed the negotiated spin each side wanted to appear in their patent PR. Specifically, a compromise statement released by the parties gingerly notes Toyota's infringement of a Paice patent on the one hand and its independent

development of the technology on the other hand:

> The parties agree that, although certain Toyota vehicles have been found to be equivalent to a Paice patent, Toyota invented, designed and developed the Prius and Toyota's hybrid technology independent of any inventions of Dr. Severinsky and Paice as part of Toyota's long history of innovation.[116]

Nearly all Lawsuit Filed press releases provide basic information such as the name of the enforcing party, the name(s) of the defendant(s), and the court or jurisdiction in which the action was filed. Some identify the patent number[117] or the accused products,[118] while others provide additional background about the dispute.[119] Some press releases announce multiple new suits filed in different international jurisdictions.[120]

There are ten press releases in the Court Order or Ruling category and eight in the Verdict category, representing, respectively, 9.6 and 7.8 percent of the total. 3.8 percent of Litigation content involves a comment on a lawsuit. Finally, several categories – Appealed, Accused Product Added, Dismissed, Hearing, Remedy, Schedule, and Lawsuit Withdrawn – appeared in just one press release each, with each accounting for just one percent of the Litigation data set.

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[116] *Id*.

[117] *See, e.g.*, PR Newswire, *Verinata Health Files Patent Infringement Action Against Ariosa Diagnostics, Inc. And Laboratory Of America Holdings*, Oct. 25, 2012, http://www.prnewswire.com/news-releases/verinata-health-files-patent-infringement-action-against-ariosa-diagnostics-inc-and-laboratory-corporation-of-america-holdings-175819221.html ("action asserts that Ariosa and LabCorp infringe U. S. Patent No. 8,296,076 (the '076 patent) entitled "Noninvasive Diagnosis of Fetal Aneuploidy by Sequencing" by offering and performing the Harmony™ prenatal test, among other activities.").

[118] *See, e.g.*, Press Release, *Nokia files patent infringement complaints against Apple in the UK, Germany and the Netherlands*, Dec. 16, 2010, http://press.nokia.com/2010/12/16/nokia-files-patent-infringement-complaints-against-apple-in-the-uk-germany-and-the-netherlands-2 (alleging that the iPhone, iPad, and iPod Touch infringe Nokia's patents).

[119] *See, e.g.*, Press Release, *Mitek Systems Files Patent Infringement Lawsuit Against USAA*, Apr. 12, 2012, http://www.miteksystems.com/about/news-releases/mitek-systems-files-patent-infringement-lawsuit-against-usaa (alleging that the defendant breached the parties' license agreement by using products beyond the scope of the agreement and disclosing confidential information).

[120] *See supra*, note __ [Nokia Apple Press Release].

2. Third-Level Coding for Litigation: Court Order or Ruling

Chart 2.2.1 shows third-level coding of the 10 press releases under Court Order or Ruling for the Litigation category.

Chart 2.2.1 – Third-Level Subject Matter Under Court Order or Ruling

| Subject | Number | Percentage |
|---|---|---|
| Non-Infringement | 2 | 20% |
| Infringement | 2 | 20% |
| Injunction | 2 | 20% |
| Discovery | 1 | 10% |
| Enforceable | 1 | 10% |
| | | |
| New Trial Motion Denied | 1 | 10% |
| Validity | 1 | 10% |

Of the press releases involving court orders or rulings, non-infringement rulings, infringement rulings, and injunctions each constitute twenty percent, or two releases each. Of the releases relating to non-infringement, one reported a summary judgment decision[121] and the other announced a Federal Circuit appellate decision reversing a lower court judgment of infringement and directing the court to enter a judgment of non-infringement.[122] The infringement rulings reported were a grant of summary judgment of direct infringement[123] and entry of an infringement

[121] *See* Press Release, *Affymetrix Announces Court Order Directing Dismissal of Illumina Patent Infringement Lawsuits*, Dec. 15, 2010, http://investor.affymetrix.com/phoenix.zhtml?c=116408&p=irol-newsArticle&ID=1507891&highlight= ("Affymetrix, Inc.… today announced that the U.S. District Court for the Western District of Wisconsin … has granted the company's motion for summary judgment that Affymetrix does not infringe the patents held by Illumina, Inc. … and has directed that the patent infringement lawsuits brought against the company by Illumina regarding U.S. Patent Nos. 7,510,841 and 7,612,020 be dismissed and the cases closed.").

[122] *See* Press Release, *FUJIFILM Corporation Wins Patent Infringement Case in U.S. Court of Appeals*, Mar. 31, 2011, http://www.fujifilmusa.com/press/news/display_news?newsID=880063 ("On January 10, 2011, the Federal Circuit Court of Appeals issued a decision that accepted Fujifilm's position on claim interpretation and reversed District Court's judgment of infringement. The Federal Circuit decision gives Fujifilm a complete victory in the case and directs the District Court to enter a judgment that Fujifilm's digital cameras do not infringe the St. Clair's patents.").

[123] *See* PR Newswire, Hologic Announces Favorable Ruling In Litigation With

order by a district court.[124] A number of other subjects represent 10 percent of this subcategory with just one press release each. These are releases reporting rulings or orders relating to discovery matters, an award of fees or costs, holding a patent enforceable, denying a new trial motion, and holding a patent valid.

3. Third-Level Coding for Litigation: Verdict

Chart 2.2.2 shows third-level coding of the 8 press releases under Verdict for the Litigation category.

Chart 2.2.2 – Third-Level Subject Matter Under Verdict

| Subject | Number | Percentage |
|---|---|---|
| Infringement | 6 | 46.2% |
| Non-Infringement | 2 | 23.1% |
| Damages | 2 | 15.4% |
| Validity | 2 | 15.4% |

As mentioned above, four press releases in the Verdict category were double counted because they report a mixed verdict of infringement and non-infringement, infringement and validity, or infringement and damages. The largest proportion of press releases relating to verdicts involve infringement verdicts, with six of the releases falling into this third-level category. This appears to be a dramatic shift from the relative proportions of infringement and non-infringement releases in the Court Order or Ruling category, in which the two subjects are reported at the same rate. In Verdict releases, firms heavily favor infringement verdicts. This suggests one of two things, or a combination of the two: jury trials more frequently end in patentee wins and/or firms enforcing patents are more likely to trumpet their jury trial victories than defendant firms are to announce a non-infringement jury verdict.

Typical is a November 2012 LG press release announcing that the

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Becton, Dickinson, Oct. 4, 2012, http://www.prnewswire.com/news-releases/hologic-announces-favorable-ruling-in-litigation-with-becton-dickinson-172635061.html (announcing the grant of summary judgment motions of direct infringement of a patent directed to automated nucleic acid testing and a patent directed to penetrable caps for specimen collection products).

[124] *See* PR Newswire, *Federal Court Order Rules in Favor of Quanta Services in Patent Infringement Case*, Oct. 2, 2012, http://www.prnewswire.com/news-releases/federal-court-order-rules-in-favor-of-quanta-services-in-patent-infringement-case-172255541.html (announcing a district court order that defendant infringed Quanta's robotic arm patent).

Korean firm achieved a jury verdict that three of its patents related to direct drive front-load washing machine technology are valid and infringed by competitor Asko/Daewoo.[125] It is common for such press releases to report the jury's damages verdict as well.[126] In a February 2008 release entitled "Akamai Prevails in Patent Litigation" the firm announced a jury verdict that Limelight Networks infringed the asserted content delivery patent and noted that the jury awarded Akamai about $45.5 million in damages.[127]

However, it should be noted that it is not always the prevailing firm reporting the infringement verdict. One of the infringement press releases in this subset was generated by a defendant found liable for infringement.[128] In what may have been an attempt to get in front of bad news, San Diego biotech firm Illumina announced that it had lost a patent lawsuit with Syntrix Systems when a jury found its BeadChip array product infringed a Syntrix patent and ordered Illumina to pay $96 million in damages.[129] The release, of course, highlighted Illumina's take on the trial outcome and its plans to fight it while continuing to sell the infringing product.[130] Illumina also noted that the court had dismissed Syntrix's claims of willful patent infringement and trade secret misappropriation.[131] As discussed below, this type of press release is more common in the Comment subcategory.

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[125] *See* Press Release, *LG Electronics Prevails in Direct Drive Front-Load Washing Machine Case*, Nov. 30, 2012, http://www.lg.com/us/press-release/wm-patent-case-release.

[126] *See* Press Release, *Akamai Prevails in Patent Litigation, Feb. 29, 2008*, http://www.akamai.com/html/about/press/releases/2008/press_022908.html ("Akamai Technologies, Inc. (NASDAQ: AKAM) announced that a jury in the U.S. District Court of Massachusetts returned a verdict today that Limelight Networks, Inc. is infringing the content delivery patent asserted by Akamai. As a result, the jury awarded Akamai $45,526,946 in damages, plus interest.").

[127] *See id.*

[128] *See* Press Release, *Illumina Announces Outcome of its Patent Litigation Against Syntrix Biosystems*, Inc., Mar. 14, 2013, http://investor.illumina.com/phoenix.zhtml?c=121127&p=irol-newsArticle&id=1796581

[129] *See id.* ("Illumina, Inc. (NASDAQ: ILMN) today announced that a federal jury in Tacoma, Washington found that Illumina's BeadChip array product infringed U.S. Patent No. 6,951, 682, asserted by Syntrix Biosystems, Inc. The federal jury ordered Illumina to pay approximately $96 million in damages to Syntrix based on a royalty rate of six percent for BeadChip products sold by Illumina from 2005 through May 2012.").

[130] *See id.* ("Illumina continues to believe that Syntrix's claims are without merit. Illumina intends to file post-trial motions asking the court to vacate the jury's finding and to rule as a matter of law that the BeadChip does not infringe Syntrix's patent. Jay Flatley, Illumina's President and CEO, stated, 'We strongly disagree with this verdict and plan to appeal the present finding of infringement. In the meantime, we will continue to sell the products that are the subject of this suit and no damages will be payable to Syntrix until all appropriate appeals have been taken, which may take a number of years.'")

[131] *See id.* ("United States District Court Judge Benjamin H. Settle, however, dismissed from the case claims that Illumina's alleged infringement was willful and that Illumina misappropriated Syntrix's trade secrets.").

Thirty percent, or three releases, report a non-infringement verdict, with two releases each reporting a damages verdict or a verdict of patent validity.

4. Third-Level Coding for Litigation: Comment

Chart 2.2.3 shows third-level coding of the five press releases under Comment for the Litigation category.

Chart 2.2.3 – Third-Level Subject Matter Under Comment

| Subject | Number | Percentage |
|---|---|---|
| Infringement | 2 | 40% |
| Court Order or Ruling | 1 | 20% |
| Reexamination | 1 | 20% |
| Fees/Costs | 1 | 20% |

When technology firms comment on litigation the most common theme is infringement, in the context of a response either to allegations in a complaint or to a jury verdict. An example of the former is travel technology firm Plusgrade's response to a patent infringement suit filed by Optiontown in September 2012.[132] Plusgrade noted that it had reviewed the complaint, deemed the lawsuit without merit, and would vigorously defend itself.[133] Other subject matter breaks down evenly among a comment on a court order or ruling, reexamination, and fees/costs.

*D. Second-Level Coding for Subject Matter: Transaction*

Second-level coding of the 67 (with double-coding) press releases in the Transaction category is shown in Chart 2.3.

[132] *See* PR Newswire, *Plusgrade Responds to Patent Infringement Claim*, Oct. 1, 2012, http://www.prnewswire.com/news-releases/plusgrade-responds-to-patent-infringement-claim-172067411.html.

[133] *See id.* (""After extensive review of the complaint, we are confident that this lawsuit is without merit and we will vigorously defend the superior platform and services for which Plusgrade is known. We believe this claim is an attempt by Optiontown to gain a competitive edge through litigation rather than competing effectively in the marketplace," said Ken Harris, Plusgrade founder and CEO.").

Chart 2.3 – Second-Level Subject Matter Under Transaction

| Subject | Number | Percentage |
|---|---|---|
| Patent(s) Licensed | 49 | 73.5% |
| Patent(s) Acquired | 11 | 16.2% |
| Patent(s) Sold | 4 | 5.9% |
| Patent(s) For Sale / Auction | 3 | 4.4% |

By far the largest proportion of press releases in the Transaction category relate to patent licensing, with nearly three quarters coded as Patent(s) Licensed. As discussed above, some of these are hybrid releases that discuss a license taken as part of a litigation settlement.[134] Press releases reporting license agreements are generated by firms at both sides of the negotiating table: licensors announcing a license grant,[135] licensees announcing they have obtained a license,[136] and the licensor and licensee together announcing their licensing arrangement.[137] An example of the latter is a joint announcement by both parties to a cross-licensing deal.[138] Patent(s) Acquired is a distant second place with 16.2 percent of releases. These range from releases about the strategic acquisition of a single patent[139] to major purchases of huge portfolios containing as many as 2000

[134] *See supra*, Section III.A.

[135] *See, e.g.*, PR Newswire, *LightPath Technologies grants GRADIUM® technology license to Hubei, New HuaGuang Information Materials Company, Ltd. (NHG)*, Oct. 11, 2012, http://www.prnewswire.com/news-releases/lightpath-technologies-grants-gradium-technology-license-to-hubei-new-huaguang-information-materials-company-ltd-nhg-173682761.html.

[136] *See, e.g.*, PR Newswire, *Verify Smart Corporation secures worldwide exclusive license for a recently issued US electronic transaction fraud prevention patent*, Nov. 28, 2012, http://www.prnewswire.com/news-releases/verify-smart-corporation-secures-worldwide-exclusive-license-for-a-recently-issued-us-electronic-transaction-fraud-prevention-patent-181235681.html.

[137] *See, e.g.*, Press Release, *Qualcomm and Semp/Toshiba Sing 3G/4G License Agreement*, Oct. 10, 2012, http://www.qualcomm.com/media/releases/2012/10/10/qualcomm-and-semp-toshiba-sign-3g4g-license-agreement.

[138] *See, e.g.*, Press Release, *Samsung Electronics and IBM Announce Patent Cross-License Agreement*, Feb. 8, 2011, http://www-03.ibm.com/press/us/en/pressrelease/33588.wss.

[139] *See* BusinessWire, *Consolidating Market Position, Preventia Acquires Patent to Electronic Trading System*, Mar. 5, 2013, http://www.businesswire.com/news/home/20130305005493/en/Consolidating-Market-

patents.[140] Four press releases (5.9 percent) report Patent(s) Sold, and three (4.4 percent) involve Patent(s) for Sale / Auction.

### *E. Second-, Third-, and Fourth-Level Coding for Subject Matter: Post-Grant Procedure*

1. Second-Level Coding

Second-level coding of the 24 press releases in the Post-Grant Procedure category is shown in Chart 2.4.

Chart 2.4 – Second-Level Subject Matter Under Post-Grant Procedure

| Subject | Number | Percentage |
|---|---|---|
| Reexamination | 15 | 62.5% |
| Opposition | 7 | 29.2% |
| Reissue | 2 | 8.3% |

2. Third- and Fourth-Level Coding: Reexamination

Chart 2.4.1 shows third-level coding of the 15 press releases under Reexamination in the Post-Grant Procedure category.

Chart 2.4.1 – Third-Level Subject Matter Under Reexamination

| Subject | Number | Percentage |
|---|---|---|
| Inter Partes | 10 | 66.7% |
| Ex Parte | 5 | 33.3% |

Chart 2.4.1.1 shows fourth-level coding of the 10 press releases under Inter Partes in the Reexamination subcategory.

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Position-Preventia-Acquires-Patent-Electronic.

[140] *See* MarketWired, *MOSAID Acquires 1,200 Nokia Standards-Essential Wireless Patents and 800 Wireless Implementation Patents*, Sept. 1, 2011, http://www.marketwire.com/press-release/mosaid-acquires-1200-nokia-standards-essential-wireless-patents-800-wireless-implementation-tsx-msd-1556192.htm.

Chart 2.4.1.1 – Fourth-Level Subject Matter Under Inter Partes

| Subject | Number | Percentage |
|---|---|---|
| Valid | 5 | 50% |
| Office Action / Rejection | 2 | 20% |
| Filed | 2 | 20% |
| Invalid | 1 | 10% |

Half of the press releases involving inter partes reexamination report that the patent or patents undergoing reexam were found valid, but just ten percent report an invalidity finding. Twenty percent report an office action rejecting some or all of the patent claims, and another twenty percent report the filing of an inter partes reexamination.

The breakdown is different for ex parte reexaminations, shown in Chart 2.4.1.2.

Chart 2.4.1.2 – Fourth-Level Subject Matter Under Ex Parte

| Subject | Number | Percentage |
|---|---|---|
| Office Action / Rejection | 2 | 40% |
| Valid | 2 | 40% |
| Claims Narrowed | 1 | 20% |

Fourth-level coding of the five press releases under Ex Parte in the Reexamination subcategory reveals that 40 percent of releases report issuance of an Office Action or a rejection of the patent claims, 40 percent report the claims were found valid, and one release (20 percent) reports that the claims were narrowed in reexam.

2. Third-Level Coding: Opposition

The third-level coding of the seven Opposition press releases is shown in Chart 2.4.2.

Chart 2.4.2 – Third-Level Subject Matter Under Opposition

| Subject | Number | Percentage |
|---|---|---|
| Valid | 4 | 57.1% |
| Invalid | 2 | 28.6% |
| Priority | 1 | 14.3% |

Over 57 percent of these releases report that the patentee had successfully defended an administrative proceeding challenging a patent and had obtained a ruling that the patent is valid.[141] In two press releases (28.6 percent) the challenger announced that it had successfully revoked or canceled a competitor's patent in a national patent office.[142] One release involves the resolution of a priority dispute.[143]

2. Third-Level Coding: Reissue

Both press releases relating to reissue proceedings report that the reissue patent was granted.[144]

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[141] *See, e.g.*, PR Newswire, *Leatt achieves European Patent Victory*, Oct. 12, 2012, http://www.prnewswire.com/news-releases/leatt-achieves-european-patent-victory-173873551.html.

[142] *See* Press Release, *Valence Technology Prevails in Decision by European Patent Office to Revoke University of Texas Patent*, Dec. 9, 2008, http://ir.valence.com/releasedetail.cfm?releaseid=353702; *see also* MarketWatch, *Comba Telecom Wins the Remote Electrical Tilt Patent Cancellation Case Against Carlyle Group Subsidiary CommScope With No Chance of Appeal*, Feb. 14, 2013, http://www.marketwatch.com/story/comba-telecom-wins-the-remote-electrical-tilt-patent-cancellation-case-against-carlyle-group-subsidiary-commscope-with-no-chance-of-appeal-2013-02-14.

[143] *See* PR Newswire, *Cardium Announces Patent Award For Rights To Cardiovascular Gene Therapy For The Treatment Of Heart Disease*, Nov. 19, 2012, http://www.prnewswire.com/news-releases/cardium-announces-patent-award-for-rights-to-cardiovascular-gene-therapy-for-the-treatment-of-heart-disease-179944031.html.

[144] *See* Press Release, *United States Patent & Trademark Office Grants Pfizer Reissue Patent For Celebrex (celecoxib capsules)*, Mar. 5, 2013, http://press.pfizer.com/press-release/united-states-patent-trademark-office-grants-pfizer-reissue-patent-celebrex-celecoxib-; *see also* Business Wire, *U.S. Patent and Trademark Office Grants Reissued Patent Replacing OSI Pharmaceuticals' Tarceva® Composition of Matter Patent*, Dec. 29, 2009, http://www.businesswire.com/news/home/20091229005248/en/U.S.-Patent-Trademark-Office-Grants-Reissued-Patent.

*F. Second-Level Coding: Honors/Accolades*

The 10 press releases in the Honors / Accolades subject matter category are broken down into second-level categories in Chart 2.5.

Chart 2.5 – Second-Level Subject Matter Under Honors/Accolades

| Subject | Number | Percentage |
|---|---|---|
| Number of Patents Granted in Year | 4 | 40% |
| Patent Portfolio Value | 3 | 30% |
| Number of Patents Cumulative | 2 | 20% |
| Patent Innovation Award | 1 | 10% |

Forty percent of the releases in this category are generated by two firms announcing the high number of granted patents they obtained in a year.[145] IBM and Canon each account for 20 percent of these press releases with titles like "IBM Shatters U.S. Patent Record; Tops Patent List for 18th Consecutive Year" and "Canon tops among Japanese companies in U.S. patent rankings for eighth consecutive year." A variation on this theme, accounting for 20 percent of this category, is press releases that announce a firm's cumulative patent filings,[146] sometimes reporting a new total including the past year's filings. [147]

[145] *See* News Release, *IBM Shatters U.S. Patent Record; Tops Patent List for 18th Consecutive Year*, Jan. 10, 2011, http://www-03.ibm.com/press/us/en/pressrelease/33341.wss; *see also* News Release, *IBM Shatters U.S. Patent Record; Will Openly Publish Many More Future Inventions; IBM Research to Work on Patent Quality Index*, Jan. 14, 2009, http://www-03.ibm.com/press/us/en/pressrelease/26471.wss; News Release, *Canon tops among Japanese companies in U.S. patent rankings for eighth consecutive year*, Jan. 11, 2013, http://www.canon.com/news/2013/jan11e.html; *see also* News Release, Canon Continues Its History of Innovation with 2,543 New Patents in 2010, Feb. 7, 2011, http://www.businesswire.com/news/home/20110207005183/en/Canon-Continues-History-Innovation-2543-Patents-2010.

[146] *See* Press Release, *Nujira raises the bar with 200th Envelope Tracking patent*, Feb. 25, 2013, http://www.nujira.com/nujira-raises-the-bar-with-200th-envelope-tracking-patent-i-371.php.

[147] *See* Press Release, *Number of patents held by Siemens climbs seven percent to 57,300 patents*, Dec. 14, 2012, http://www.siemens.com/press/en/pressrelease/?press=/en/pressrelease/2012/corporate/axx20121212.htm.

Perhaps a sign of the times, an interesting subcategory of Honors/Accolades press releases relates to the value of a firm's patent portfolio. Two of the three Patent Portfolio Value releases announce that a firm's patent portfolio has been named to the Ocean Tomo 300 patent index.[148] Israeli biotech firm Rosetta Genomics noted that the Ocean Tomo 300 lists publicly traded companies that own "the most valuable patent portfolios relative to the book value of the company" and is the only index "based on the value of corporate intellectual property."[149] The third release, by Ruckus Wireless, reported an industry ranking placing its patent portfolio in the top ten most valuable portfolios for patented innovations in its category.[150]

Finally, telecommunications firm Applied Communication Sciences put out a press release announcing that one of its patents for quantum relay architecture won an Edison Patent Award.[151]

### *G. Second-Level Coding: Miscellaneous*

The breakdown of second-level categories for the eight press releases in the Miscellaneous category is shown in Chart 2.6.

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[148] *See* PR Newswire, *Whirlpool Corporation Named to Ocean Tomo 300® Patent Index for Seventh Consecutive Year*, Dec. 21, 2012, http://www.prnewswire.com/news-releases/whirlpool-corporation-named-to-ocean-tomo-300-patent-index-for-seventh-consecutive-year-184432761.html; *see also* PR Newswire, Rosetta Genomics Added to Ocean Tomo 300 Patent Index, Nov. 15, 2012, http://www.prnewswire.com/news-releases/rosetta-genomics-added-to-ocean-tomo-300-patent-index-179478021.html.

[149] *See id*.

[150] *See* PR Newswire, *IEEE Spectrum Ranking of the Most Valuable Patent Portfolios Places Ruckus in Top 10 of the Communications Equipment Category*, Dec. 10, 2012, http://www.prnewswire.com/news-releases/ieee-spectrum-ranking-of-the-most-valuable-patent-portfolios-places-ruckus-in-top-10-of-the-communications-equipment-category-182811281.html.

[151] *See* PR Newswire, *Applied Communication Sciences Receives Edison Award for Quantum Communications Patent*, Oct. 2, 2012, http://www.prnewswire.com/news-releases/applied-communication-sciences-receives-edison-award-for-quantum-communications-patent-172274841.html.

Chart 2.6 – Second-Level Subject Matter Under Miscellaneous

| Subject | Number | Percentage |
|---|---|---|
| Miscellaneous Comment | 1 | 12.5% |
| Donate Patent(s) | 1 | 12.5% |
| Patent Expiration | 1 | 12.5% |
| Identify Patent(s) | 1 | 12.5% |
| Investigating Infringement | 1 | 12.5% |
| Patent Job Hire | 1 | 12.5% |
| Will Not Enforce Patent(s) | 1 | 12.5% |
| Seeking Patent | 1 | 12.5% |

The Miscellaneous category contains eclectic subject matter such as a report by Dow Chemical and Fuji Xerox that the firms donated some patents to the Eco-Patent Commons,[152] a repository of donated patents directed to environmentally beneficial technologies, an announcement of an individual to the position of President of Patent Licensing,[153] a comment by a DuPont executive at a conference in China on the importance of intellectual property protection in the solar industry,[154] an announcement that Novatel "identified" key "MiFi" patents,[155] and a report of good annual financial results for pharmaceutical firm Sanofi despite the expiry of important patents.[156]

[152] *See* PR Newswire, *Dow and Fuji Zerox Join Eco-Patent Commons*, Oct. 20, 2008, http://www.prnewswire.com/news-releases/dow-and-fuji-xerox-join-eco-patent-commons-64939502.html.

[153] *See* Press Release, *InterDigital Appoints Lawrence Shay President of Patent Licensing*, Jan. 18, 2008, http://ir.interdigital.com/releasedetail.cfm?ReleaseID=321933.

[154] *See* News Release, *DuPont Addresses Patent Protection at Solarbuzz China Conference*, Jul. 19, 2012, http://www2.dupont.com/Photovoltaics/en_US/news_events/article20120719.html.

[155] *See* Press Release, *Novatel Wireless Identifies Key MiFi Intelligent Mobile Hotspot Patents*, Jul. 29, 2009, http://investor.novatelwireless.com/releasedetail.cfm?releaseid=399698.

[156] *See* Press Release, *Sanofi delivers solid 2012 results despite patent expirations*, Feb. 27, 2013, http://www.multivu.com/mnr/60150-sanofi-results-2012.

*H. First-Level Coding: Industry/Technology*

Chart 3.1 shows the first-level coding of press releases by Industry/Technology categories.

Chart 3.1 – First-Level Industry / Technology

| Industry/Technology | Number | Percentage |
|---|---|---|
| Pharmaceuticals | 49 | 11.8% |
| Biotechnology | 47 | 11.4% |
| Internet/Software | 41 | 9.9% |
| Telecommunications | 39 | 9.4% |
| Clean Technology | 38 | 9.2% |
| Medical Devices | 35 | 8.5% |
| Medical Data, Systems and Diagnostics | 25 | 6.0% |
| Computer Hardware | 17 | 4.1% |
| Financial | 16 | 3.9% |
| Healthcare, Nutrition and Health Management | 11 | 2.7% |
| Consumer Electronics | 10 | 2.4% |
| Media and Marketing | 7 | 1.7% |
| Smart Devices / Smart Phones | 5 | 1.2% |
| Digital Imaging | 5 | 1.2% |
| Semiconductors | 4 | 1.0% |
| Pharmacy | 3 | 0.7% |
| Chemical | 3 | 0.7% |
| Gaming / Video Games | 3 | 0.7% |
| Automotive | 3 | 0.7% |
| Infrastructure | 3 | 0.7% |
| Agriculture | 2 | 0.5% |
| Home Appliances | 2 | 0.5% |
| Athletic Gear | 2 | 0.5% |
| Food / Food Science | 2 | 0.5% |
| Laboratory Equipment | 2 | 0.5% |
| Other | 40 | 9.7% |

The Industry / Technology analysis finds that the top six industries together account for just over 60 percent of all the patent PR generated by

patentees. Also, the top six form a tight cluster in which the sixth place industry (Medical Devices) is separated from the first place industry (Pharmaceuticals) by just 3.3 percentage points. The second tier of industries forms another cluster from Medical Data, Systems and Diagnostics to Consumer Electronics, separated by 3.6 percentage points. After that, the volume of patent PR drops to under two percentage points for each industry, with many under one percent.

The analysis shows that pharmaceutical firms generate the largest proportion of press releases, a finding consistent with the importance of patents to the industry. The biotechnology sector, too, generates a large proportion of patent PR, and is neck and neck with pharmaceuticals, just two press releases out of the top spot. Internet/Software firms are a close third, with just under 10 percent of press releases, and Clean Technology, Telecommunications, and Medical Devices fall in the range between 8.5 and 10 percent of press releases.

In the following sections, each of the top six industries (Pharmaceuticals; Biotechnology; Internet/Software; Telecommunications; Clean Technology; and Medical Devices) is cross-coded with the first-level subject matter categories. The proportions of press releases generated by each industry relating to each subject matter category is analyzed and compared to the proportions of the full data set, i.e., all firms generally. One finding from this analysis is that, like in the full data set, the Prosecution and Litigation categories are first and second, respectively, for each of the top six industries analyzed. For some industries, however, Transaction press releases fall from third place to the fourth place slot in a switch with Post-Grant Procedure releases.

1. Cross-Coding: First-Level Subject Matter with Pharmaceuticals

Chart 3.2 shows cross-coding of First-Level Subject Matter with the Pharmaceuticals Industry.

Chart 3.2 – First-Level Subject Matter, Pharmaceuticals

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 25 | 51.0% |
| Litigation | 12 | 24.5% |
| Transaction | 3 | 6.1% |
| Post-Grant Procedure | 3 | 6.1% |
| Honors/Accolades | 0 | 0% |
| Patented or Patent Pending Product | 0 | 0% |
| ANDA Patent Challenge | 4 | 8.2% |
| Miscellaneous | 2 | 4.1% |

Press releases generated by the Pharmaceutical industry roughly match the proportions of the full data set for the Prosecution and Litigation categories (49.2 percent and 24.3 percent, respectively). Pharmaceutical firms are also approximately in line with all firms in reporting on Post-Grant Procedures (5.5 percent). One major difference is in the Transaction category, which comprises just 6.1 percent of pharmaceutical firms' press releases compared to 14.9 percent of all firms' releases. Not surprisingly, a significant proportion (8.2 percent) of pharmaceutical industry PR are ANDA Challenge press releases, which account for all of the ANDA Challenge releases in the full data set.

2. Cross-Coding: First-Level Subject Matter with Biotechnology

Chart 3.3 shows cross-coding of First-Level Subject Matter with the Biotechnology Industry.

Chart 3.3 – First-Level Subject Matter, Biotechnology

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 31 | 66.0% |
| Litigation | 6 | 12.8% |
| Transaction | 4 | 8.5% |
| Post-Grant Procedure | 6 | 12.8% |
| Honors/Accolades | 0 | 0% |
| Patented or Patent Pending Product | 0 | 0% |
| ANDA Patent Challenge | 0 | 0% |
| Miscellaneous | 0 | 0% |

The Biotechnology industry generates a significantly larger proportion of Prosecution press releases than all firms, with about two-thirds of releases in this category compared to about half in the full data set. Litigation, by contrast, is only about half of the number for all firms, at 12.8 percent for Biotechnology firms and 24.3 percent in the full data set. There is also a substantially lower proportion of Transaction releases than the 14.9 percent figure for all firms. By contrast, Biotechnology firms' press releases report on Post-Grant Procedure more than twice as often as the general firm population (5.5 percent).

3. Cross-Coding: First-Level Subject Matter with Internet/Software

Chart 3.4 shows cross-coding of First-Level Subject Matter with the Internet/Software Industry.

Chart 3.4 – First-Level Subject Matter, Internet/Software

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 17 | 42.5% |
| Litigation | 11 | 27.5% |
| Transaction | 6 | 15.0% |
| Post-Grant Procedure | 5 | 12.5% |
| Honors/Accolades | 0 | 0% |
| Patented or Patent Pending Product | 1 | 2.5% |
| ANDA Patent Challenge | 0 | 0% |
| Miscellaneous | 0 | 0% |

Internet and Software firms have a tighter spread between the proportion of Prosecution and Litigation press releases than all firms, with Prosecution lower than the figure in the full data set (49.2 percent) and Litigation slightly higher than the 24.3 percent figure for all firms. The percentage of Transaction releases is nearly identical to that for the general firm population (14.9 percent), while Internet and Software firms report on Post-Grant Procedures more than twice as often as all firms (5.5 percent). Internet and Software firms also generat press releases on a patented or patent pending product at more than twice the rate of the general firm population (1.1 percent).

4. Cross-Coding: First-Level Subject Matter with Telecommunications

Chart 3.5 shows cross-coding of First-Level Subject Matter with the Telecommunications Industry.

Chart 3.5 – First-Level Subject Matter, Telecommunications

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 13 | 33.3% |
| Litigation | 9 | 23.1% |
| Transaction | 9 | 23.1% |
| Post-Grant Procedure | 3 | 7.7% |
| Honors/Accolades | 3 | 7.7% |
| Patented or Patent Pending Product | 0 | 0% |
| ANDA Patent Challenge | 0 | 0% |
| Miscellaneous | 2 | 5.1% |

Press releases generated by Telecommunications firms are much more evenly distributed among the top three subject matter categories than most technology/industry groups and in the full data set. Telecommunications firms report on Prosecution at a much lower rate than the general firm population, with just one third of press releases in this category compared to 49.2 percent for the full data set. The proportions of Litigation and Transaction press releases are equal for Telecommunications firms. At 23.1 percent, Litigation press releases by telecommunications firms are slightly under the overall figure of 24.3 percent, and Transaction press releases are substantially higher than the figure for the full data set (14.9 percent). This may reflect that licensing is more important in the telecommunications industry than other industries. The proportion of Post-Grant procedure releases is higher than that for the full data set (5.5 percent). Finally, telecommunications firms announce honors and accolades around their patents at a much greater rate (7.7 percent) than does the general firm population (2.2 percent). Indeed, the telecommunications industry accounts for 30 percent of all the Honors/Accolades press releases.

5. Cross-Coding: First-Level Subject Matter with Clean Technology

Chart 3.6 shows cross-coding of First-Level Subject Matter with the Clean Technology Industry.

Chart 3.6 – First-Level Subject Matter, Clean Technology

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 26 | 68.4% |
| Litigation | 4 | 10.5% |
| Transaction | 1 | 2.6% |
| Post-Grant Procedure | 3 | 7.9% |
| Honors/Accolades | 0 | 0% |
| Patented or Patent Pending Product | 1 | 2.6% |
| ANDA Patent Challenge | 0 | 0% |
| Miscellaneous | 3 | 7.9% |

The Clean Technology industry has the largest spread between the Prosecution and Litigation categories (57.9 percent) and the smallest proportion of Litigation press releases of the industries analyzed. More than two thirds of Clean Technology firms' releases relate to prosecution as compared to about half for firms generally, while the percentage of press releases relating to litigation is well below that of the general firm population (24.3 percent). This may reflect the fact that the Clean Technology industry is relatively young compared to the other industries analyzed. In addition, the Clean Technology industry very rarely reports on patent transactions (2.6 percent of releases) compared to 14.9 percent in the full data set. Post-Grant Procedures, however, are reported at a higher rate by Clean Technology firms than the general firm population (5.5 percent).

Finally, press releases generated by Clean Technology firms fall into the Miscellaneous category at a much higher rate than those of firms generally, which may mean that the relatively young industry is experimenting or still gaining its footing with patent PR. In addition, the variety of subject matter may reflect the fact that Clean Technology is something of an umbrella term for a diverse array of subsectors such as, *inter alia*, wind, solar, biofuels, energy storage, and energy efficiency technologies.

6. Cross-Coding: First-Level Subject Matter with Medical Devices

Chart 3.7 shows cross-coding of First-Level Subject Matter with the Medical Device Industry.

Chart 3.7 – First-Level Subject Matter, Medical Devices

| Subject | Number | Percentage |
|---|---|---|
| Prosecution | 25 | 71.4% |
| Litigation | 9 | 25.7% |
| Transaction | 1 | 2.9% |
| Post-Grant Procedure | 0 | 0% |
| Honors/Accolades | 0 | 0% |
| Patented or Patent Pending Product | 0 | 0% |
| ANDA Patent Challenge | 0 | 0% |
| Miscellaneous | 0 | 0% |

Of the top six industries analyzed, Medical Devices has the highest proportion of Prosecution press releases, much higher than the general firm figure of 49.2 percent. Medical Device firms generate Litigation releases at close to, but slightly greater than, then all firms (24.3 percent). The proportion of Transaction press releases is much lower than that of firms generally (14.9 percent). It should be noted that the Medical Device industry does not appear to generate PR content in any other category.

## IV. BUILDING FROM THE FOUNDATION: FURTHER RESEARCH AND INTERPRETATION

This Part takes stock of the baseline of patent PR data provided in this study and explores how we might build upon this foundation. First, this Part suggests ways in which the current data set and results might be further interpreted and explained. It also proposes additional branches of patent PR and media coverage of patent issues for study to expand our understanding of patent matters in the media. Most importantly, this Part lays out specific inquiries to explore whether and how patent PR and media coverage of patent issues might influence patent policy and public opinion of the patent system.

### *A. Further Interpretation of the Results*

While the data analyzed and presented in this study provide some answers about which patent-focused PR content patent holders communicate through the media, it also raises further questions. As an initial matter, therefore, future research might delve into the data to better interpret the results and explain their meaning.

An important general line of inquiry is whether the percentages of press releases in the various subject matter categories reflect the actual underlying activity in each category or instead signal that technology firms are placing greater PR emphasis on particular subjects. In other words, does the greater proportion of press releases relating to prosecution than to litigation simply reflect the reality that all patents are prosecuted while very few are litigated? Alternatively, can the disparity be accounted for, in whole or in part, by the efforts of technology firms to communicate prosecution milestones more often than litigation events?

This type of inquiry might also probe the results regarding settlement of litigation. As discussed above, Settlement is the largest second-level category under Litigation. Further research could ask whether this result reflects the reality that most patent cases settle or instead suggests that firms are generating more press releases about settlement because they believe it more beneficial to report early resolution of patent litigation than other events such as initiation of enforcement activity or court victories.

One way to investigate this would be to focus on press releases of particular firms active in most or all of the subject matter categories and compare the proportion of subject matter in the PR to the proportion of actual underlying activity in each category. Research of this type could provide satisfying answers to questions about the first-level subject matter categories such as why the Prosecution category is so much larger than the Litigation category and why Litigation is larger than Transaction. Similarly, the relative proportions of certain second-level categories, such as Settlement, Lawsuit Filed, Ruling/Order and Verdict in the Litigation category, and Patent Granted, Notice of Allowance and Application Filed in Prosecution might be given more meaningful interpretations.

A separate line of inquiry might ask whether press releases in certain second-level subject matter categories under Litigation are generated by plaintiffs asserting patents, defendants accused of infringement, or declaratory judgment plaintiffs or defendants. This might help shed light on the potential significance of the Settlement category being greater than the Lawsuit Filed, Ruling/Order, or Verdict categories. Data on whether the Settlement press releases are generated mostly by patent holders enforcing their patents to announce, e.g., a lucrative licensing deal, or rather, by accused infringers that have averted the risk of an infringement verdict and conserved financial resources through settlement, could shed light on this question.

Another potential area for further analysis is information about the patent holders or technology firms themselves. For example, it might be interesting to determine what percentage of patent-focused press releases is generated by non-practicing entities. By digging deeper into the data set of

this study, we might find more details that would provide a more nuanced understanding and put some of the results into context.

### *B. Studying Other Patent PR and Media Coverage of Patent Issues*

Once the baseline data on patent PR generated by patent owners is more fully interpreted, further research on patent content in the media would be helpful to continue to fill the gaps in our understanding of such media content. The logical next step would be to use the taxonomy established in this study to analyze patent-focused press releases generated by players in the patent field other than patent holders. For example, law firms, licensing administrators, and other providers of patent-related services such as Ocean Tomo and ICAP are no strangers to patent PR. Indeed, as discussed in Part II.B.1, I did encounter press releases generated by these types of firms and purposely removed them from the data set to maintain the focus of this study on patent holders. Other organizations, such as governments, lobbying groups and NGOs, could also be included in this research.

Another study might focus on coverage of patent issues by the mainstream media, including journalists from traditional print sources such as newspapers and magazines, television reporters, radio journalists and internet publishers of online media and blogs. Industry media sources might be included or could be the focus of a separate study. In offering a brief history of patents in the news, Part I of this article provides a small window into the subject matter covered by the mainstream media. These two future studies would round out our knowledge of the coverage of patent issues in the media.

The foundational taxonomy and proportions of subject matter in the patent holders' press releases established in this study could be used as a baseline to compare mainstream media coverage of patent issues. Comparisons of the percentages of different subject matter categories of press releases by non-patent holder firms and articles by the mainstream media with the category breakdown of releases generated by the patent holders analyzed here could reveal interesting information. For instance, it would be interesting to see whether the patent subjects the mainstream media view as important enough to cover comport with the favored subjects of patent holders or whether the two cohorts diverge in their notions of what content is important.

### *C. Influence of Patent PR and Media Coverage of Patent Issues*

With the full picture of patent content in the media established as proposed immediately above, there would be new opportunities to explore

its implications. Probably the most interesting and important avenue of further research is to determine what, if any, influence patent PR and media coverage has on patent policy and public opinion of patents, patent rights, and patent owners. Questions we could pose are:

(1) What effects, if any, does patent PR generated by patent holders / technology firms have on public opinion of the patent system?
(2) What effects, if any, does patent PR generated by patent holders / technology firms have on patent policy?
(3) What effects, if any, does patent PR generated by non-patent holder firms and organizations have on public opinion of the patent system?
(4) What effects, if any, does patent PR generated by non-patent holder firms and organizations have on patent policy?
(5) What effects, if any, does mainstream media coverage of patent issues have on public opinion of the patent system?
(6) What effects, if any, does mainstream media coverage of patent issues have on patent policy?
(7) What effects, if any, does all patent PR and media coverage of patent issues have on public opinion of the patent system?
(8) What effects, if any, does all patent PR and media coverage of patent issues have on patent policy?

Over the years, Congress and the U.S. Patent and Trademark Office ("USPTO") have proposed and enacted policy changes in response to problems and debates discussed, at least in part, in the media.[157] Legislation to curb the effects of patent "trolls" was introduced in 2008[158] during a period of intense media scrutiny of the issue after the BlackBerry case and the eBay case involving the standard for imposing patent injunctions.[159] Similarly, a change in USPTO evaluation procedures for internet business

[157] *See* Ted Frank, *There Is a Role for Congress in Patent Litigation Reform*, AEI Online, Feb. 21, 2008, http://www.aei.org/article/politics-and-public-opinion/legislative/there-is-a-role-for-congress-in-patent-litigation-reform/ ("Impetus for new patent legislation came in response to the growing problem of 'patent trolls'—holders of weak patents, often purchased in the open market and used solely for the purpose of litigation against successful companies."); *see also* Sabra Chartrand, *Federal Agency Rethinks Internet Patents*, New York Times, Mar. 30, 2000, *available at* http://www.nytimes.com/2000/03/30/business/federal-agency-rethinks-internet-patents.html ("Facing accusations that it has been too ready to issue patents for Internet business methods, the Patent and Trademark Office said today that it was changing its evaluation procedures to ensure that such patents cover true innovations….It is not the first time the agency has made changes after being criticized for lagging technology; a similar controversy arose several years ago over its processing of software-related inventions.").

[158] *See supra*, note __ [Ted Frank AEI Online article].

[159] *See supra*, Part I.C.

method applications coincided with media stories on the Amazon "one-click" patent and associated litigation and coverage of the debate over the patentability of e-commerce innovations and business methods.[160] Increased knowledge of patent PR and media coverage of patent issues might enable us to determine whether there is any causation in these and other correlations between media attention and patent policy.

Secondary questions about the influence of patent content in the media might include whether it has ancillary effects on technology firms that own patents. For example, does media scrutiny of patent issues such as "troll" behavior or coverage of litigation involving questionable patents like the Amazon "one-click" patent affect the reputations of the firms involved? Does it put pressure on them to protect their reputations, perhaps through generating reactive patent PR?

One thing we know is that PR generated around patent litigation can directly lead to additional lawsuits.[161] In a recent declaratory judgment action, Du Pont, which had previously sued Heraeus for infringement of patents relating to solar paste and solar cell manufacturing and issued a press release announcing the lawsuits, sought a judgment that the press release was not false or misleading or in violation of the Lanham Act.[162] In 2007, Japanese LED manufacture Nichia sued its Korean rival Seoul Semiconductor for false advertising and unfair competition in connection with a Seoul press release that allegedly mischaracterized a design patent infringement verdict for Nichia in a previous lawsuit.[163] Research into the influence, effects, and other implications of patent PR and media attention could reveal these as important factors motivating the activities and behavior of technology firms and policymakers alike.

### *D. Miscellaneous Research*

One miscellaneous question that could be addressed is whether the proportions of patent PR content in the various subject matter categories have any correlation with the intellectual property budgets of the technology firms generating the content. In other words, do technology firm press releases correspond with firm priorities as reflected in budgetary

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[160] *See supra*, Part I.B.

[161] *See, e.g.*, Compl., *E. I. Du Pont De Nemours and Co. v. Heraeus Precious Metals N. Am. Conshohocken LLC*, Case No. 13-cv-346 (D. Or. Feb. 28, 2013) (seeking declaratory judgment that a Du Pont press release announcing that the company had filed two patent infringement law suits against Heraeus is not false or misleading and does not violate the Lanham Act).

[162] *See id.* at ¶ 22.

[163] *See* Compl., *Nichia America Corp. v. Seoul Semiconductor Co.*, Case No. 07-cv-8354 (C.D. Cal. Dec. 27, 2007).

decisions about how much money to allocate to patent prosecution, litigation, and licensing efforts?

Another potentially provocative inquiry concerns differences in patent PR among technology firms headquartered in different countries. For example, it is well known that emerging market nations such as China, India and Brazil and developing countries such as the Philippines, Bolivia and Indonesia hold very different views about intellectual property rights than does the United States. It would be interesting to see whether press releases generated by Chinese and Indian patent holders differ in substance and tone from those of U.S. firms. Research as to whether patent PR in developing countries influences public opinion and patent policy might also reveal interesting connections.

## V. CONCLUSION

Media coverage of patent law and the patent system is more common today than ever before. Mainstream media outlets such as newspapers, television, and online publications produce much of this content. In addition, patent holders, i.e., technology firms, and their licensees generate much of this media content through issuance of press releases. However, we know very little about patent media content or its effects, if any, on patent policy and public opinion of the patent system.

This study begins to fill these gaps by analyzing technology firms' patent PR. More particularly, this study compiled a data set of patent-focused press releases generated by patent holders or their licensees and catalogued the subject matter therein. It offers a taxonomy of patent-focused PR content and calculates the relative proportions of defined patent-related subject matter categories and subcategories. This study also analyzes the data set of patent-focused press releases by industry. The results of this study illustrate which subject matter patent holders deem important enough to announce to the public, and the subject matter preferences of different technology industries. Using the results of this study as a baseline and a foundation for further research, we can explore further lines of inquiry, particularly important questions such as whether and how patent PR and coverage of patent issues in the media may affect policy and public opinion of the patent system.