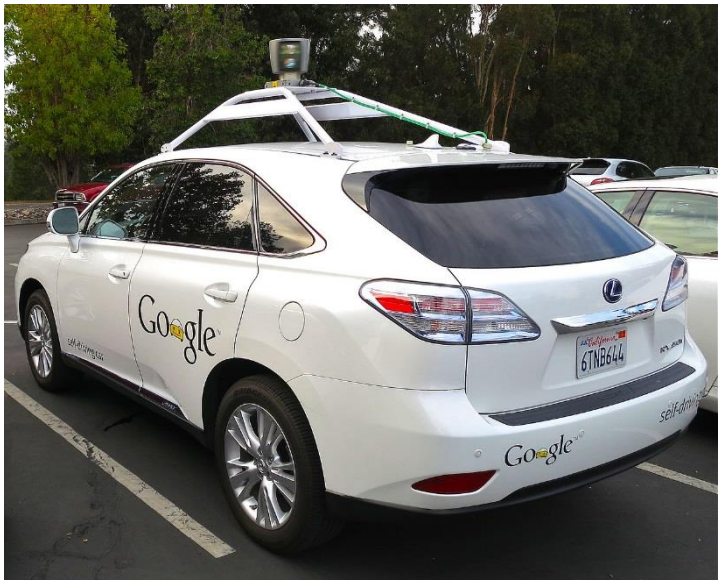
MAY 2017

HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON INDUSTRY, INNOVATION, SCIENCE AND RESOURCES

SUPPLEMENTARY SUBMISSION

INTELLECTUAL PROPERTY AND SELF-DRIVING CARS: WAYMO VS UBER



DR MATTHEW RIMMER

PROFESSOR OF INTELLECTUAL PROPERTY AND INNOVATION LAW

FACULTY OF LAW

QUEENSLAND UNIVERSITY OF TECHNOLOGY

Queensland University of Technology

2 George Street GPO Box 2434

Brisbane Queensland 4001 Australia

Work Telephone Number: [redacted]

SUPPLEMENTARY SUBMISSION

INTELLECTUAL PROPERTY AND SELF-DRIVING CARS: WAYMO VS UBER

Matthew Rimmer

While the Australian Parliament has been inquiring into social issues relating to land-based driverless vehicles in Australia since February 2017, intellectual property litigation has erupted in the courts between Waymo (Google's Self-Driving Car Project) and Uber in the United States. The case has attracted much public attention. Alex Davies has reflected:

> Until today, the race to build a self-driving car seemed to hinge on who had the best technology. Now it's become a case of full-blown corporate intrigue. Alphabet's self-driving startup, Waymo, is suing Uber, accusing the ridesharing giant of stealing critical autonomous driving technology. If the suit goes to trial, Apple's legal battle with Samsung could wind up looking tame by comparison.[1]

The intellectual property dispute could have significant implications for competition in respect of self-driving cars and autonomous vehicles. The *New York Times* has noted that 'companies in Silicon Valley and Detroit are betting big on self-driving car technology' and 'the intense interest has spawned a string of expensive investments and lawsuits.'[2]

---

[1] Alex Davies, 'Google Accuses Uber of Stealing Its Self-Driving Car Tech', *Wired*, 23 February 2017, https://www.wired.com/2017/02/googles-waymo-just-dropped-explosive-lawsuit-uber-stealing-self-driving-tech/?mbid=social_twitter

[2] Daisuke Wakabayashi and Mike Isaac, 'Google Self-Driving Car Unit Accuses Uber of Using Stolen Technology', *The New York Times*, 23 February 2017, https://www.nytimes.com/2017/02/23/technology/google-self-driving-waymo-uber-otto-lawsuit html?smid=tw-nytimesbusiness&smtyp=cur&_r=0

Waymo LLC is a subsidiary of Alphabet Inc. (Google's holding company), and it is based in Mountain View California. The self-driving technology company holds a range of intellectual property – including trade secrets, confidential information, and patents. Google prides itself of being pioneering in the self-driving car space. The company initiated its self-driving car project in 2009. Google made its self-driving car project public in 2010:

> Larry and Sergey founded Google because they wanted to help solve really big problems using technology. And one of the big problems we're working on today is car safety and efficiency. Our goal is to help prevent traffic accidents, free up people's time and reduce carbon emissions by fundamentally changing car use. So we have developed technology for cars that can drive themselves.[3]

The company observed: 'We've always been optimistic about technology's ability to advance society, which is why we have pushed so hard to improve the capabilities of self-driving cars beyond where they are today.'[4] Google hoped: 'While this project is very much in the experimental stage, it provides a glimpse of what transportation might look like in the future thanks to advanced computer science.'[5]

The complaint of Waymo LLC was filed against Uber Technologies, Inc., Ottomotto LLC, and Otto Trucking LLC in the United States District Court for the Northern District of

---

3 Sebastian Thrun, 'What We're Driving At', Google Official Blog, 9 October 2010, https://googleblog.blogspot.com.au/2010/10/what-were-driving-at html

4 Ibid.

5 Ibid.

California, San Francisco Division, on the 23rd February 2017.[6] The complaint alleged (1) violation of Defense of Trade Secrets Act; (2) Violation of California Uniform Trade Secret Act; (3) patent infringement; and (4) violation of the California business and Professional Code Section 17200. There was a demand for a jury trial.

In the complaint, Waymo accused Uber of engaging in trade secrets 'theft', patent infringement, and unfair competition:

> This is an action for trade secret misappropriation, patent infringement, and unfair competition relating to Waymo's self-driving car technology. Waymo strongly believes in the benefits of fair competition, particularly in a nascent field such as self-driving vehicles. Selfdriving cars have the potential to transform mobility for millions of people as well as become a trillion dollar industry. Fair competition spurs new technical innovation, but what has happened here is not fair competition. Instead, Otto and Uber have taken Waymo's intellectual property so that they could avoid incurring the risk, time, and expense of independently developing their own technology. Ultimately, this calculated theft reportedly netted Otto employees over half a billion dollars and allowed Uber to revive a stalled program, all at Waymo's expense.[7]

It is striking that a Google company like Waymo should use the language of intellectual property maximalism in this complaint – with its accusations of theft and stealing. This is a stark contrast to other public policy contexts – wherein Google talks about the importance of fair use, open innovation, and the sharing of intellectual property. This is perhaps indicative of the evolution of Google from a small start-up to dominant, mature player in information technology.

---

6 *Waymo LLC* v. *Uber Technologies, Inc.; Ottomotto LLC, and Otto Trucking Ltd. Case* 3:17-cv-00939 (23 February 2017).

7 Ibid., 2.

At stake in the dispute is Waymo's LiDAR system. The company explains the technology thus:

> Waymo developed its own combination of unique laser systems to provide critical information for the operation of fully self-driving vehicles. Waymo experimented with, and ultimately developed, a number of different cost-effective and high-performing laser sensors known as LiDAR. LiDAR is a laser-based scanning and mapping technology that uses the reflection of laser beams off objects to create a real-time 3D image of the world. When mounted on a vehicle and connected to appropriate software, Waymo's LiDAR sensors enable a vehicle to "see" its surroundings and thereby allow a self-driving vehicle to detect traffic, pedestrians, bicyclists, and any other obstacles a vehicle must be able to see to drive safely. With a 360-degree field of vision, and the ability to see in pitch black, Waymo's LiDAR sensors can actually detect potential hazards that human drivers would miss. With a goal of bringing self-driving cars to the mass market, Waymo has invested tens of millions of dollars and tens of thousands of hours of engineering time to custom-build the most advanced and cost-effective LiDAR sensors in the industry.[8]

The company maintained that 'Waymo remains the industry's leader in self-driving hardware and software.'[9]

In terms of evidence to substantiate its allegations, Waymo points to an email that was inadvertently sent to the company:

> Waymo was recently – and apparently inadvertently – copied on an email from one of its LiDAR component vendors. The email attached machine drawings of what purports to be an Uber LiDAR circuit board. This circuit board bears a striking resemblance to Waymo's own highly confidential

[8] Ibid., 2.

[9] Ibid., 3.

> and proprietary design and reflects Waymo trade secrets. As this email shows, Otto and Uber are currently building and deploying (or intending to deploy) LiDAR systems (or system components) using Waymo's trade secret designs. This email also shows that Otto and Uber's LiDAR systems infringe multiple LiDAR technology patents awarded to Waymo.[10]

Furthermore, Waymo argued that there was evidence that Anthony Levandowski had downloaded over 14,000 confidential and proprietary files from Google, before his departure:

> Waymo has uncovered evidence that Anthony Levandowski, a former manager in Waymo's self-driving car project – now leading the same effort for Uber – downloaded more than 14,000 highly confidential and proprietary files shortly before his resignation. The 14,000 files included a wide range of highly confidential files, including Waymo's LiDAR circuit board designs. Mr. Levandowski took extraordinary efforts to raid Waymo's design server and then conceal his activities.[11]

Moreover, Waymo alleged: 'A number of Waymo employees subsequently also left to join Anthony Levandowski's new business, downloading additional Waymo trade secrets in the days and hours prior to their departure.'[12]

Accordingly, Waymo pleaded: 'In light of Defendants' misappropriation and infringement of Waymo's LiDAR technology, Waymo brings this Complaint to prevent any further misuse of its proprietary information, to prevent Defendants from harming Waymo's reputation by misusing its technology, to protect the public's confidence in the safety and reliability of self-

10 Ibid., 3.

11 Ibid., 3.

12 Ibid., 4.

driving technology that Waymo has long sought to nurture, and to obtain compensation for its damages and for Defendants' unjust enrichment resulting from their unlawful conduct.'[13]

Waymo 'developed its patented inventions and trade secrets at great expense, and through years of painstaking research, experimentation, and trial and error.'[14] The company maintained: 'If Defendants are not enjoined from their infringement and misappropriation, they will cause severe and irreparable harm to Waymo.'[15] Waymo discussed the nature of the market of self-driving cars:

> The markets for self-driving vehicles are nascent and on the cusp of rapid development. The impending period of drastic market growth, as autonomous car technology matures and is increasingly commercialized, will set the competitive landscape for the industry going forward. The growth, profitability, and even survival of individual firms will likely be determined by what happens in the next few years. Defendants' exploitation of stolen intellectual property greatly harms Waymo during this embryonic market formation process and deforms the creation of a fair and competitive industry. Allowing the conduct to continue, and awarding monetary compensation after the fact, will not sufficiently unravel the harm caused to Waymo directly and indirectly by Defendants' conduct.[16]

Waymo has said that, with this action, it hopes 'to vindicate its rights, prevent any further infringement of its patents, preclude any further misuse of its confidential, proprietary, and trade secret information, and obtain compensation for its damages and for Defendants' unjust enrichment resulting from their unlawful conduct.'[17]

---

13 Ibid., 5.

14 Ibid., 15.

15 Ibid., 15.

16 Ibid., 16.

17 Ibid., 16.

In response, Uber has denied the allegations of trade secrets theft, patent infringement, and unfair competition: 'We have reviewed Waymo's claims and determined them to be a baseless attempt to slow down a competitor and we look forward to vigorously defending against them in court.'[18]

Professor Robert Merges from Berkley Law School wondered whether 'Google could win a "head-start" injunction against Uber, preventing the company from working on the disputed LiDAR technology for as long as it took Google to develop.'[19] He observed that it would be a 'very significant setback' for Uber to 'sit on the sideline' for three to five years while its competitors race to market.[20] As such, the litigation could pose an existential threat to Uber.

At this stage, there have been various procedural conflicts between the parties.

On the 3 April 2017, Google further accused Levandowski of creating 'competing side businesses', even when he earned $120 million from Google.[21]

---

[18] Julia Carrie Wong and Olivia Solon, 'Google Lawsuit could be a Fatal Setback for Uber's Self-Driving Dreams', *The Guardian*, 26 February 2017, https://www.theguardian.com/technology/2017/feb/25/uber-google-lawsuit-self-driving-car-threat-anthony-levandowski?CMP=share_btn_tw

[19] Ibid.

[20] Ibid.

[21] Joe Mullin, 'Uber Exec Accused of Stealing IP From Google Made $120m, but worked on the Side', *ArsTechnica*, 5 April 2017, https://arstechnica.com/tech-policy/2017/04/uber-exec-accused-of-stealing-from-google-made-120m-while-working-on-the-side/

On the 29 March 2017, Anthony Levandowski, the engineer at the centre of the case, has invoked his Fifth Amendment rights, and has refused to answer questions about whether or not he downloaded confidential files from Google. On the 4 April 2017, Levandowski filed a public motion, invoking his Fifth Amendment rights.[22] His lawyers argued: '[R]equiring disclosure of these facts would separately violate Mr. Levandowski's Fifth Amendment right not to be compelled to reveal the existence, location, possession, or identity of any documents that might furnish a link in a chain of possible incrimination.'[23] His lawyers contended: 'Plaintiffs are certainly free to use any legitimate tools of civil discovery to locate evidence they deem relevant to their civil lawsuit'.[24] They maintained: 'But they are not free to use the power and authority of this Court to order disclosures that are protected under Mr. Levandowski's Fifth Amendment rights.'[25]

On the 6th April 2017, United States Judge William Alsup expressed the view that he would likely rule against Levandowski on the Fifth Amendment issue. On the 25th April 2017, an appeals court ruled against Levandowski, upholding Alsup's decision. The United States Court of Appeals for the Federal Circuit rule:

> Mr. Levandowski argues that he is entitled to relief under the Fifth Amendment because production of the unredacted privilege log could potentially incriminate him. We are not persuaded that the district court erred in its ruling requiring defendants to produce an unredacted privilege log. Mr.

---

22 Joe Mullin, 'Uber's Levandowski really doesn't to talk about any Waymo Documents', *ArsTechnica*, 5 April 2017, https://arstechnica.com/tech-policy/2017/04/ubers-levandowski-really-doesnt-want-to-talk-about-any-waymo-documents/

23 Ibid.

24 Ibid.

25 Ibid.

> Levandowski has therefore failed to establish that he has a "clear and indisputable" right to the issuance of a writ of mandamus.[26]

As a result, Levandowski has been left in a precarious position in the litigation.

The judge also ordered Uber to search its services to find Waymo's 14,000 files.[27] The judge commented:

> He's not denying it. You're not denying it. No one on your side is denying he has the 14,000 files. Maybe you will. But if it's going to be denied, how can he take the 5th Amendment? This is an extraordinary case. In 42 years, I've never seen a record this strong. You are up against it. And you are looking at a preliminary injunction, even if what you tell me is true.[28]

Uber's lawyers protested that they had searched 12 terabytes of data in two weeks, and were looking hard for the material.

---

[26] *Waymo LLC* v *Uber Technologies Inc., Otto Trucking LLC, and Ottomotto LLC*, United States Court of Appeals for the Federal Circuit, 25 April 2017 https://arstechnica.com/wp-content/uploads/2017/04/CAFC.Waymo_.Uber_.order_.pdf

[27] Joe Mullin, 'Judge Orders Uber to Search Servers, Work Harder to Find Waymo's 14,000 Files', *ArsTechnica*, 6 April 2017, https://arstechnica.com/tech-policy/2017/04/judge-orders-uber-to-search-servers-work-harder-to-find-waymos-14000-files/

[28] Ibid.

Uber has pleaded with the judge to move the case into arbitration.[29] Uber's attorney, Hamish Hume, argued: 'Waymo doesn't get to pretend these contracts don't exist in order to avoid arbitration.'[30] He maintained: 'Waymo chose to have a contract, that talks about information, about inventions, and about who owns what.'[31] By contrast, Waymo's lawyer Charles Verhoeven sought to reassure the judge that leaving Levandowski out of the case was not a ruse designed to avoid arbitration. He said: 'You have a competitor of Waymo attempting to escape the district court by citing to an agreement it had nothing to do with.' In his view, 'Our claims do not depend on any reference to this agreement at all.'[32]

In the face of the litigation, Anthony Levandowski has stepped down from his role as the head of Uber's self-driving car program.[33] He will remain at Uber in a lesser role. Eric Meyhofer will take over the role as head of the program. Levandowski commented that 'this organizational change means I will have absolutely no oversight over or input into our LiDAR work.'[34] He observed: 'Going forward, please make sure not to include me in meetings or email threads related to LiDAR, or ask me for advice on the topic.'[35]

---

[29] Joe Mullin, 'Uber Pleads with Judge to Move Waymo Case into Arbitration', *ArsTechnica*, 28 April 2017, https://arstechnica.com/tech-policy/2017/04/uber-pleads-with-judge-to-move-waymo-case-into-arbitration/

[30] Ibid.

[31] Ibid.

[32] Ibid.

[33] Priya Anand, 'Uber's Self-Driving Head Steps Aside Amid Allegations He Stole Technology from Waymo', *Buzzfeed*, 28 April 2017, https://www.buzzfeed.com/priya/ubers-self-driving-head-steps-aside-amid-allegations-he?utm_term=.tqPLaMr02#.vu6Aw3z4y

[34] Ibid.

[35] Ibid.

There has also been discussion about the possibility of criminal action. Chris Swecker, an attorney specializing in corporate espionage and cybercrime, commented: 'I would be very surprised if there wasn't criminal investigation behind this.'[36]

The dispute between Waymo and Uber raises larger public policy questions about intellectual property and self-driving cars.

There has been a significant debate over trade secrets, confidential information, and employment. Professor Orly Lobel from San Diego Law School has argued that 'talent wants to be free' and that the sharing of information and employee mobility promotes innovation.[37] Others contend that there is a need for commercial protection of trade secrets and confidential information to protect innovation. Professor Tyler Ochoa, from Santa Clara University School of Law, observed of the litigation between Waymo and Uber: 'The trade secret case by itself is a blockbuster.'[38] Leonid Bershidsky reflects upon the larger significance of the dispute:

> Google appears to be doing just that with the Waymo vs. Uber case. Though such litigation is expensive and outcomes are far from assured, few engineers want to find themselves on the receiving end of big corporation fury. But there's a flip side: If Google establishes a reputation for going after

[36] Alex Davies, 'Google Accuses Uber of Stealing Its Self-Driving Car Tech', *Wired*, 23 February 2017, https://www.wired.com/2017/02/googles-waymo-just-dropped-explosive-lawsuit-uber-stealing-self-driving-tech/?mbid=social_twitter

[37] Orly Lobel, *Talent Wants to Be Free: Why We Should Learn to Love Leaks, Raids, and Free Riding*, Yale University Press, 2013.

[38] Mark Bergen and Kartikay Mehrotra, 'Alphabet's Waymo Alleges Uber Stole Self-Driving Secrets', *Bloomberg*, 24 February 2017, https://www.bloomberg.com/news/articles/2017-02-23/alphabet-s-waymo-sues-uber-for-stealing-self-driving-patents

> former employees, it will have a harder time attracting major talent and buying further promising startups. If it wants to grow more of its talent in-house, that's a trade-off worth making. But if poaching continues to be the preferred mode of operation, the litigiousness may cost Google more than one future breakthrough.[39]

Ironically, a decade ago, Google was the target of lawsuits by competitors, such as Microsoft, who accused Google of poaching their key talent.

As Director-General of the World Intellectual Property Organization Francis Gurry has observed, there has been a dynamic evolution of confidential information and trade secrets in recent years. There has been a concerted push by the United States Trade Representative to provide for criminal penalties and procedures for trade secrets disclosure – in addition to civil remedies.

Mike Masnick of *TechDirt* questioned aspects of the lawsuit brought by Waymo.[40] He was disappointed that Google had shifted from using patents defensively to deploying patents offensively. Masnick observed: 'Even given the presence of the potential smoking gun of the downloads of documents, there's still something to the idea that the market would be a lot better off if everyone were just building the best possible self-driving car tech they could find, even if that means copying one another'.[41] He questioned the need for litigation in the

---

[39] Leonid Bershidsky, 'What Google Hopes to Gain By Suing Uber', *Bloomberg*, 24 February 2017, https://www.bloomberg.com/view/articles/2017-02-24/what-google-hopes-to-gain-by-suing-uber

[40] Mike Masnick, 'Disappointing to see Google's Waymo Sue Over Patents', *TechDirt*, 27 February 2017, https://www.techdirt.com/articles/20170224/17193636784/disappointing-to-see-googles-waymo-sue-over-patents.shtml

[41] Ibid.

nascent market of self-driving cars: 'Fighting over trade secrets and patents in a market that barely even exists feels silly.'[42] Masnick recognized that 'from a purely profit maximizing standpoint, you can understand the argument: the larger share of the market you can capture early can make a huge difference.'[43] However, Masnick wondered whether the companies might be better off 'executing in the marketplace and fighting the battles that are blocking the adoption of self-driving cars, rather than fighting back and forth with each other.'[44]

The intellectual property litigation between Waymo and Uber will no doubt have a significant bearing upon the future evolution of the marketplace for self-driving cars and autonomous vehicles.

42 Ibid.

43 Ibid.

44 Ibid.

Biography

Dr Matthew Rimmer is a Professor in Intellectual Property and Innovation Law at the Faculty of Law, at the Queensland University of Technology (QUT). He is a leader of the QUT Intellectual Property and Innovation Law research program, and a member of the QUT Digital Media Research Centre (QUT DMRC) the QUT Australian Centre for Health Law Research (QUT ACHLR), and the QUT International Law and Global Governance Research Program. Rimmer has published widely on copyright law and information technology, patent law and biotechnology, access to medicines, plain packaging of tobacco products, intellectual property and climate change, and Indigenous Intellectual Property. He is currently working on research on intellectual property, the creative industries, and 3D printing; intellectual property and public health; and intellectual property and trade, looking at the *Regional Comprehensive Economic Partnership*, the *Trans-Pacific Partnership*, the *Trans-Atlantic Trade and Investment Partnership*, and the *Trade in Services Agreement*. His work is archived at SSRN Abstracts and Bepress Selected Works.

Dr Matthew Rimmer holds a BA (Hons) and a University Medal in literature (1995), and a LLB (Hons) (1997) from the Australian National University. He received a PhD in law from the University of New South Wales for his dissertation on *The Pirate Bazaar: The Social Life of Copyright Law* (1998-2001). Dr Matthew Rimmer was a lecturer, senior lecturer, and an associate professor at the ANU College of Law, and a research fellow and an associate director of the Australian Centre for Intellectual Property in Agriculture (ACIPA) (2001 to 2015). He was an Australian Research Council Future Fellow, working on Intellectual Property and Climate Change from 2011 to 2015. He was a member of the ANU Climate Change Institute.

Rimmer is the author of *Digital Copyright and the Consumer Revolution: Hands off my iPod* (Edward Elgar, 2007). With a focus on recent US copyright law, the book charts the consumer rebellion against the *Sonny Bono Copyright Term Extension Act* 1998 (US) and the *Digital Millennium Copyright Act* 1998 (US). Rimmer explores the significance of key judicial rulings and considers legal controversies over new technologies, such as the iPod, TiVo, Sony Playstation II, Google Book Search, and peer-to-peer networks. The book also highlights cultural developments, such as the emergence of digital sampling and mash-ups, the construction of the BBC Creative Archive, and the evolution of the Creative Commons. Rimmer has also participated in a number of policy debates over Film Directors' copyright, the *Australia-United States Free Trade Agreement* 2004, the *Copyright Amendment Act* 2006 (Cth), the *Anti-Counterfeiting Trade Agreement* 2011, and the *Trans-Pacific Partnership*. He has been an advocate for Fair IT Pricing in Australia.

Rimmer is the author of *Intellectual Property and Biotechnology: Biological Inventions* (Edward Elgar, 2008). This book documents and evaluates the dramatic expansion of intellectual property law to accommodate various forms of biotechnology from micro-organisms, plants, and animals to human genes and stem cells. It makes a unique theoretical contribution to the controversial public debate over the commercialisation of biological inventions. Rimmer also edited the thematic issue of Law in Context, entitled *Patent Law and Biological Inventions* (Federation Press, 2006). Rimmer was also a chief investigator in an Australian Research Council Discovery Project, "Gene Patents In Australia: Options For Reform" (2003-2005), an Australian Research Council Linkage Grant, "The Protection of Botanical Inventions (2003), and an Australian Research Council Discovery Project,

"Promoting Plant Innovation in Australia" (2009-2011). Rimmer has participated in inquiries into plant breeders' rights, gene patents, and access to genetic resources.

Rimmer is a co-editor of a collection on access to medicines entitled *Incentives for Global Public Health: Patent Law and Access to Essential Medicines* (Cambridge University Press, 2010). The work considers the intersection between international law, public law, and intellectual property law, and highlights a number of new policy alternatives – such as medical innovation prizes, the Health Impact Fund, patent pools, open source drug discovery, and the philanthropic work of the (Red) Campaign, the Gates Foundation, and the Clinton Foundation. Rimmer is also a co-editor of *Intellectual Property and Emerging Technologies: The New Biology* (Edward Elgar, 2012).

Rimmer is a researcher and commentator on the topic of intellectual property, public health, and tobacco control. He has undertaken research on trade mark law and the plain packaging of tobacco products, and given evidence to an Australian parliamentary inquiry on the topic.

Rimmer is the author of a monograph, *Intellectual Property and Climate Change: Inventing Clean Technologies* (Edward Elgar, September 2011). This book charts the patent landscapes and legal conflicts emerging in a range of fields of innovation – including renewable forms of energy, such as solar power, wind power, and geothermal energy; as well as biofuels, green chemistry, green vehicles, energy efficiency, and smart grids. As well as reviewing key international treaties, this book provides a detailed analysis of current trends in patent policy and administration in key nation states, and offers clear recommendations for law reform. It considers such options as technology transfer, compulsory licensing, public sector licensing, and patent pools; and analyses the development of Climate Innovation Centres, the Eco-

Patent Commons, and environmental prizes, such as the L-Prize, the H-Prize, and the X-Prizes. Rimmer is currently working on a manuscript, looking at green branding, trade mark law, and environmental activism.

Rimmer has also a research interest in intellectual property and traditional knowledge. He has written about the misappropriation of Indigenous art, the right of resale, Indigenous performers' rights, authenticity marks, biopiracy, and population genetics. Rimmer is the editor of the collection, *Indigenous Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2015).

Rimmer is currently working as a Chief Investigator on an ARC Discovery Project on "Inventing The Future: Intellectual Property and 3D Printing" (2017-2020). This project aims to provide guidance for industry and policy-makers about intellectual property, three-dimensional (3D) printing, and innovation policy. It will consider the evolution of 3D printing, and examine its implications for the creative industries, branding and marketing, manufacturing and robotics, clean technologies, health-care and the digital economy. The project will examine how 3D printing disrupts copyright law, designs law, trade mark law, patent law and confidential information. The project expects to provide practical advice about intellectual property management and commercialisation, and boost Australia's capacity in advanced manufacturing and materials science.

Cover Picture Credit

Steve Jurvetson

Creative Commons licence CC-By 2.0

https://commons.wikimedia.org/wiki/File:Driving_Google_Self-Driving_Car.jpg