



Book Review

Patent Law and Women, Tackling Gender Bias in Knowledge Governance

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Jessica. C. Lai, Patent Law and Women, Tackling Gender Bias in Knowledge Governance, Routledge, Taylor and Francis group, Routledge, 2022, [ISBN No: 978-0-367-65227-2]

People often tend to think that Intellectual property laws should not be judged through the gender lens as they are more technical and objective in nature. Will gender be a matter of importance in technical subjects like intellectual property, specifically patent, is something which many of us wonder. Research in the area of patents as to know the reason why there is a dearth of women inventors as compared to the male counterparts, or do the women inventors actually face issues before the grant of patent or how far have the women inventors been successful in utilising the patent granted to them - all these come under the purview of discussion in Jessica's book. World Intellectual Property Organization (WIPO) had reported that the ratio of male inventors is higher than women at the international level. These observations were the relevant reasons why the book was referred to. It is a well-researched work that deals with gender biases in knowledge governance.

The book's introductory chapter begins with the rhetorical question as to whether women are aware about the fact that patents are a type of intellectual property. Research proves more men opt for Science,

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Technology Engineering and Mathematics (STEM). This book focuses on why is the situation such that the women inventors are less and the attrition rate among the existing women inventors is also more, compared to those of their male counterparts. One of the reasons could be the disproportionate division of work where women would be burdened with more administrative work compared to men. Another reason could be the biological role played by women as mothers and care takers. With the first wave of feminism, women were entitled to property rights and hence capable of holding patents. The author focuses on the inception of patents as an intellectual property and stresses on the fact that it developed during times of western masculine centric modes of invention and innovation. This section proceeds to understand the difference between sex and gender where sex refers to the biological difference and gender to that of social identity. People ought to behave according to the defined roles assigned to them, be it masculine or feminine. Instead of focussing on binaries the need is to focus on knowledge governance system that is less gendered.

The next chapter is as interesting as its title 'Gendered patenting', and general statistics shows the differences across the world. The gender patent gap is seen in the international filing system. Statistics from 2015 reveals a rise in the male inventors as they all file patent applications. Even European Union patent office has a record of more male members filing. On the contrary less than 10 percent of women come forward to file for patents. United States Patent and Trademark Office (USPTO) also shows a decrease in women inventors.

The other interesting part of this study is that women are seen more in teams than men. Generally, few applications show women as the first inventor, though the name, will be there in the list. In a scenario where the first inventor always has an edge over the other inventors, women inventors are not taken seriously. Applications from female inventors are encouraged by the universities as compared to industry. However, over a period of time the gap in national and international data is decreasing. The author highlights the example of STEM and is disappointed that the number of female scientists are less. Kugele's chart of comparative analysis of female inventors and researchers in Europe, indicates that the percentage of women

researchers are shown more as compared to women inventors. It is in the field of electrical and optical equipment that both women inventors and researchers are less. With the available data and inputs, the author emphasizes that patenting is gendered and adds that it all depends on the country, field, institution as well as the socio-cultural background of the place.

Under the title, 'The organising force of gender', the author focuses on the issues of importance for the masculine gender as compared to that of the feminine. It is appreciated that the technicalities of patent law are dealt with by the author in between the chapters of the book, like the history of patent, filing of patent application and so on. While discussing the Novelty, Usefulness and Non-obviousness test (NUNs Test) in the chapter, the author emphasizes on 'prior art' and explains the presumption that feminine knowledge automatically falls into the public domain and is consistent with the constructed dichotomy of social institution being either private or public, and that women have traditionally occupied solely the private sphere, while men were privy to both the public and the private spheres. Women generally confine to household chores or stick to the gendered role of 'nurturer'. Her work is never considered as new, but as an extension of the traditional homemaker's role. This mindset leaves feminine knowledge open to be used and filtered through the masculine lens, where it is turned into scientific inventions and patented by those formally educated and working in STEM, who are mostly males. Thus the author continues that if females were to be disproportionately excluded from the masculine constructed business and industry and do not develop practical knowledge but are relegated to home making and care giving, fewer opportunities will be there for women to create useful inventions. This chapter presents a picture of the patent regulated knowledge governance through a gender frame. It comprehensively analyses why there is a gender gap, how it affects and is affected by commercialisation.

The third chapter titled, 'Feeding the cyborg'. examines the role of a cyborg in gender and patent related issues. The author mentions the fact that women enter STEM and face marginalisation, ostracization and innumerable biases. Further analysing the gendered nature of the western notions of 'science', 'invention', 'innovation', 'inventor'

and the 'entrepreneur', the author highlights institutional, structural and organisational biases that affect women's ability to invent, patent and commercialise. The problem highlighted as feeding the cyborg is that there are women in minority in a discipline and when they are in minority, men continue to behave badly as they retain their old misogynistic culture which affects women as well. As there aren't enough women to be mentors, the junior women researchers feel isolated and dissatisfied. It is women themselves who are responsible for this age-old patriarchal behaviour.

The next chapter titled, 'The consequences of gendered patent law and patenting' deals with the consequences of patent law and patenting being gendered in light of patent law theory. The chapter is organised into two parts. The first looks into the roles of patents relating to the process of invention dealing with the theories, and second on commercialisation of patents. The author analyses theories like labour theory and incentive theory and puts forward the negative consequences of gendered patent law, wealth distribution, reputational gain and the kinds of inventions. It is mentioned that World Trade Organization (WTO) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) does not recognise that women take different risks as compared to men and are not duly rewarded. TRIPS does not reflect the inequality that women experience in the communication of information and skills, education and selection due to the socially embedded nature of national policy making and thus women use, adapt, and adopt technology very differently from men. The author concludes the chapter by suggesting expansion of patent law and to make provisions to incorporate and promote feminine inventions.

The fifth chapter "Deconstructing the lore" closely looks at the mythology around the 'public domain' and its binary relation. Public domain has different meanings, but generally includes knowledge no longer protected by intellectual property. The author gives examples about the change in the concept of patentability like plants, chemical products etc. The author further refers to, 'limited common property' as a property type that is neither individualistic nor entirely public and gives the example of indigenous communities and women as groups of unrecognised social status whose knowledge governance is taken as example. Inventors and scientists

under the existing knowledge governance system rely on feminine and non-western knowledge as a free resource. The chapter concludes with the contention that patent law is by no means a perfect knowledge governance system.

The chapter, 'Of monsters and men' explains that there is a need to identify knowledge, free from binaries as embedded in patent law and its mythology. Instead of asking people to stop using masculine and feminine differences, there is a need to design a knowledge governance system that values multiple contributions and contributors along the chains of production. The author blames colonisation for the same. The gendered body is a cyborg- the monster that represents the others responsible for it. Further, she introduces the standpoint theory. It is a post-modern theory that attempts to overcome the universalistic nature of the modern construction of knowledge. While there are many versions and interpretations of the theory, it generally holds that knowledge is created by and for a class of socially situated knowers. This theory denies that humans can discover, generate or express any universal truth. Nature and matter are purely the objects of human subjectivity. The author has applied another theory known as 'actor network theory'. This theory is used in social science to describe relationships between people and all other things as networks. The author, through this chapter, has tried to convey different ways of theorising knowledge which can be used to develop a new knowledge governance system free from binaries and biases. The chapter concludes by addressing the need for techno-social network descriptions of the diverse range of people across multiple social locations so that they develop more objective knowledge. In such relational networks there is interdependence and constitution of the individual and the community, the subject and the object, human beings and knowledge.

The seventh chapter deals with 'Reconstructing the law' and it begins with John Stuart Mill's quote that, "the legal subordination of one sex to the other is wrong in itself" and it should come to an end. Hence the feminine gender should be motivated to participate in disciplines of science, technology, engineering and mathematics. This chapter starts by discussing various aspects of the public domain. It tries to explain the issues with distributive justice. Can

public domain be feminine? The author quotes Malla Pollack to state that public domain is inherently feminine. There are certain reasons that is put forward for public domain to be in favour of women like for example public domain is not commodified. The communal roots of creation is recognised. Tera Gearhart Sema speaks about how public domain can be a good framework for indigenous women's knowledge. Their suggestions rely on the binary. Further the author mentions about copyleft movement that involves creative commons project which creates standardised licences. Arguments are there for expanding the creative commons approach to address the concerns and needs of the indigenous people. Open access models are considered as more feministic in nature. The author further explains about "*domaine public payant*" i.e, paying public domain[†] which creates a liability rule that allows artistic expressions that are in the public domain to be used without restriction, subject to the payment of fee. It furthers throws light on the concept of "*public domain plus*"[‡], where the use of women's traditional knowledge would require attribution or acknowledgement of women and the source community. The concept of attribution is less used in patent and more in copyright is what the author further claims. This chapter concludes with the statement that western men have created a knowledge governance system that primarily protects the western and the masculine. As a consequence, it is the western and the masculine that is valorised, disseminated and built upon, and it is men who chiefly benefit from the financial and reputational gains of patenting. There is a need for feminisation of the work. The author states that law is a reflection of hegemonic power.

Gender has its impact on everything around us is what can be gathered from this book. The author has named the chapters with catchy titles and to understand the title and the essence of the chapter is quite difficult. She has succeeded in highlighting small nuances like access and benefit sharing mechanism or prior informed consent and its effect on the aspect of gender. The entire

[†] Jessica. C. Lai, Patent Law and Women, Tackling Gender Bias in Knowledge Governance, Routledge, Taylor and Francis publication, pp.177.

[‡] Ibid pp.179.

book begins with the patriarchal problems in the field of invention, specifically explaining about STEM as an example. The inventions of women do not get the same importance as that of men. Women are not able to contribute due to other responsibilities like marriage, child bearing and so on. Overall, the idea of introducing this study should be applauded, but the author could have focussed on certain topics in detail and should have avoided repetition of ideas. However, the author has tried to think differently by putting gender and patent together.