INTELLECTUAL PROPERTY IN ARCHITECTURE: BETWEEN LEGISLATIONS AND ETHICAL MANIFESTATIONS WITH SPECIAL REFERENCE TO THE EGYPTIAN CASE

Nehad Mohamed Eweda

Abstract
Several international and local legislations have been enacted to protect intellectual property rights. Nevertheless, legislations cannot alone provide protection for architects, and defend the right of owners over architectural products. The importance of this research paper is derived from the hypothesis that accepting, fostering and valuing intellectual property in architecture education and practice are similarly essential to enacting laws. This paper is an analytical discussion of intellectual property in general and particularly in architecture, it is structured in four sections; the first provides a conceptual foundation about intellectual property; the second discusses the issue from an ethical point of view; the third demonstrates various opinions about intellectual property rights; and the last reviews some manifestations in the Egyptian society which affect the intellectual property rights in both the architectural education and practice. Finally, the paper concludes that the lack of awareness among students of architecture as well as practicing architects about intellectual property rights might lead -unintentionally- to violations, infringements, and consequently disputes. In addition, respecting intellectual property would rather begin during the years of architectural education as an ethical behavior which will continue to regulate the architectural professional practice. Besides, architects need to understand their rights which are granted by the intellectual property legislations in order to consequently secure an atmosphere of fair competition among architects.

Keywords

Introduction
Encouraging intellectual property protection fosters creativity and invention; it also increases productivity of architects. Nowadays, in Egypt the number of architects has apparently increased which raises the competence in the architectural profession. Recent enactments of legislations protecting intellectual property rights gave architects rights on their original work. However, does enacting legislations merely provide the protection? Or there are other societal aspects which affect the intellectual property? This paper aims to provide a critical review about the situation of intellectual property in both the architecture education and practice in Egypt. It investigates the protection of intellectual property...
rights offered to Egyptian architects; also it discusses and analyzes the ethical issues and manifestations which affect this protection in an attempt to highlight the obstacles that hinder the realization of intellectual property protection in Egypt. This paper applies an analytical methodology in discussing intellectual property in architecture within four parts as follows; part one is a conceptual foundation; part two discusses intellectual property from an ethical point of view; part three demonstrates various opinions about intellectual property rights in architecture; and part four reviews and analyzes some manifestations in the Egyptian society which affect the intellectual property rights in both the architectural education and practice.

Conceptual Foundation

What is Intellectual Property?
The word ‘intellect’ is defined in the dictionary as the capacity for rational or intelligent thought especially when highly developed, the adjective ‘intellectual’ it refers to what involves serious study and thought. ‘Property’ is something owned or possessed by a person or group. The term ‘Intellectual Property’ refers to something (an idea, invention, or process) that derives from a person’s mind or intellect. While the notion of tangible property is familiar to most people, the idea of owning something intangible is more confusing (Martin, 1998). Lately, the concern about intellectual property rights (IPRs) and its impact on development had increased; this concern had been guided by the U.S. and Europe by enacting legislations, establishing organizations, making treaties and agreements, to balance the benefits of the right holders versus the public. Most of the developing countries started joining these treaties by the 1950s (Xuan, 2009) The World Intellectual Property Organization (WIPO) defines intellectual property as follows: “Intellectual property refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce.” Intellectual Property is divided into two categories; the industrial property; and the copyright (WIPO).

Another classification divides it into four categories (see figure 1) which are; copyright; patent; trademark; and trade secrets (Hansen, 2003). Developments in human endeavor will probably cause continual refinements and additions to the categories protected by IPRs. Copyright is a group of rights granted exclusively to the author of an original work to...
keep others from unauthorized use of this work; these are basically moral and economic rights. Unauthorized use is prohibited and considered an infringement. A copyrighted work should be; original; and presented in a tangible medium of expression; and must have at least some creativity (WIPO). Copyright legislations protect original expressed architectural works and not ideas which are in mind.

A patent is the exclusive right granted for an invention that introduces a new way of doing something, or a new technical solution to an existing problem. It allows its owner to sustain a monopoly for a limited period of time on the use and development of his/her invention (Hansen, 2003). While a trademark is a distinctive sign or indicator used to identify the source of a product or service to distinguish it. Finally, a trade secret is information that has commercial value and has been maintained in confidence by a business; it is secret known only by employees and not by competitors (Hansen, 2003). The basic differences among intellectual property categories are shown in (see table 1).

<table>
<thead>
<tr>
<th>What is protected?</th>
<th>Copyright</th>
<th>Patent</th>
<th>Trademark</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literary &amp; artistic works</td>
<td>The original expression of an idea</td>
<td>The process – or a product</td>
<td>Customer’s notion of a good or service</td>
<td>the Know-How</td>
</tr>
<tr>
<td>Criteria for Providing Protection</td>
<td>1. Originality. 2. Expressed in a tangible form</td>
<td>1. Novelty. 2. Practicality. 3. Usefulness.</td>
<td>Signs, symbols &amp; indicators of goods or services</td>
<td>Technical secrets of a person or an organization</td>
</tr>
<tr>
<td>The right prohibits others from:</td>
<td>Copying the expression or a substantial part of it</td>
<td>Using the invention without having a license</td>
<td>Using the mark or, confusing the consumer with very similar marks</td>
<td>Unauthorized, use of the secret information</td>
</tr>
</tbody>
</table>

Table 1: Comparison among Categories of Intellectual Property (Source: Author).
Intellectual Property in Egypt

By approaching the status of IPRs in Egypt, it has been mentioned in a report there is an awareness of the importance of protecting IPRs in general, in the past, although the Egyptian law did not regulate IPRs until the thirties of the 20th century, but the judicial system protected IPRs according to the principles of natural law and the rules of justice (Awad et. al, 2009). In 1939, the first intellectual property legislation was enacted as the Trademark Law 57/39 (Awad et. al, 2009). Egypt has enacted its law on the protection of IPRs 82/2002 not only to comply with its obligations in international agreements but also with awareness that economic development can only be achieved with adequate protection of IPRs (Raslan, 2004). The law includes architecture as one of the categories protected by legislation (4). Figure 2, summarizes the history of activities in Egypt of the protection of IPRs. Therefore it has been concluded that there is a concern on the legislative milieu to provide protection for intellectual property in Egypt. The question raised now, is what is the effect of society on the establishment of IPRs protection?

Intellectual Property and Ethics

According to the International Intellectual Property Alliance report, there are numerous infringements to IPRs and the problem of piracy is relatively pervasive in Egypt, despite the legislative copyright protection and the enactment of the law, which causes losses to right holders (IIPA, 2010). This is a remarkable fact, as why should these practices be pervasive in our country? The terms related to violating IPRs such as infringement, piracy and theft imply that these acts are unethical, and are unacceptable under any religion or tradition. However, some people may violate intellectual property unintentionally or by ignorance?

Figure 2: The development of IPRs protection in Egypt. (Source: Author).

So, is the notion of intellectual property new for the Muslim communities? Protecting property is a value in accordance with the ethics
and ‘Share’a’ (5). The principles of personal property whether tangible or intangible are respected in Islam and should not be violated; this conception serves the general scope of protecting IPRs. Moreover, falsely attributing someone’s saying is condemned as cheating; the person is fully responsible before Allah and the society for his ideas and deeds which urge a person to be careful about his duties. (Raslan, 2004). Islam encourages individuals to work and exert physical or intellectual efforts to produce something useful, in reward these should be allowed to have property rights over their production (Raslan, 2004). Also, Islam encourages learning and respects the laws of ownership; plagiarism, piracy, misquotation, taking other people’s property etc. are considered theft, and deception from an ethical point of view.

Secular dealings among humans are guided by contracts; the sanctity of contracts is emphasized in Islam. Muslims are to be bound by their stipulations and contracts (Beltrametti, 2009). However, some opinions reject the conception of exploitation of IPRs holders, because this allows for a monopoly which is an immoral usage of benefits and rights. In conclusion, IPRs is not derived from Share’a, however there is no conflict between both, the Fatwa Committee of Al-Azhar in 2001 clarified that, “Islam gives the owner the freedom to dispense of the property owned thereby as he wishes; no other person may dispose of, copy, enjoy, use, or attribute such property thereto without the prior consent of the owner, whether for a compensation or not.” (Raslan, 2009: 503) Therefore infringing IPRs is unacceptable not only from a legal perspective, but also from ethical and religious perspectives. Infringements, counterfeit, theft and piracy harm the right owners and Islam forbids causing harm. If we are keen to ensure that all actions are consistent with Share’a, therefore this ethical view for IPRs should be supported to promote for the protection of intellectual property.

**Intellectual Property in Architecture**

Despite the common conception about the benefits of IPRs, there are some opinions that oppose the idea of exclusive rights and monopolies, and support the freedom and accessibility of knowledge. In a recent movement known as ‘Copy Left’ its proponents argue that ownership of intellectual property deprives the public from accessing information freely, and they believe that for example artists could not claim that they are not influenced by the prior work in the past. This may apply on the accumulative knowledge such as architectural design and building construction which are a collective body of wisdom accumulated over the ages.

Therefore, who will be impacted by IPRs in the field of architecture? There are three major branches of the relationships within architecture, the first is education, it comprises the mutual relations among students and instructors, the second and the third branches concern the professional practice, the second is the relationship of architects towards their colleagues and employers, and the third is about the societal responsibility of architects towards clients and developers, the classification is shown in (see figure 3).
**Architectural Education**

There is a continual exchange of teaching/learning reference materials among instructors and students; the usage of these materials is controlled by IPRs. There are common questions involved such as; what is the right in accessing information? Or when is copying a work allowed? Or when preparing a derivative work from an original one permitted? The collective work of architecture students produced under the supervision of instructors is - in terms of IPRs - a shared responsibility and property of both them both, they both share the moral rights over these productions. Therefore, reusing, publishing, or copying this work requires permission, or a precise confirmation from its author/s prior to being published by any means of publication in order to respect IPRs. One of the disputes occurred between two architects when the first claimed that a project he has presented while he was a student had been afterwards copied by the second who was one of his jurors. The affected architect sued the juror for copyright infringement to secure his rights, to have a fair recognition of his contribution, and to have a compensation for his original work. This dispute is considered one of the remarkable cases of intellectual property in architecture (Tankard, 2008).

Architecture students rely on previous projects whether built or unbuilt, this is a key educational method for deriving design ideas, however, students become afraid of admitting their reliance on other projects, and disregard mentioning their references either in design
projects or in research, thisimpliestheirignorance of the principles of academic citation, and their expected effort in deriving rather than copying ideas. From an ethical point of view, the ‘copy-paste’ technique in learning results in plagiarism and violations to intellectual properties.

Therefore, there has been a tendency to teach courses aiming at promoting for the value of intellectual properties and the consequences of its violation. The WIPO has initiated an academy in 1998, to help promote for knowledge and skills regarding intellectual property, thus, to benefit from this model some principles of IPRs protection could be injected in the educational curriculums in architecture.

Architects towards Architects
The second relationship involved in IPRs classification is the relationship between an architect towards other architects, which is either; towards colleagues; or towards employers being under hire or consultancy. The regulation of these relationships is governed by the codes of ethics for the profession worldwide. If the style of an architect could be recognized as displayed in some of his/her designs, it will be unaccepted for another architect to copycat his buildings in other projects. The UIA standards for professionalism in architecture mention that, “Architects shall not appropriate the intellectual property of nor unduly take advantage of the ideas of another architect without express authority from the originating architect” (UIA, 2006).

The Egyptian Syndicate of Engineers code confirms respecting the intellectual property of architects, and it prohibits an architect from claiming the attribution of a project which he/she did not design. The fair use doctrine gives allowance for cultural knowledge exchange, thus architects could benefit from building on previous design ideas by borrowing and not by directly copying these designs (6), as copying leads to infringements. An example of copying is in the case of the entrance for the Disney Studios which is a replica of the older Pan Pacific auditorium in California which was completed in 1935 (Cometet, 2009), the images of both buildings display a substantial resemblance between both (see figure 4).

In the past, during the eras of architectural

Figure 4: The Pan Pacific Auditorium, in California (left), and the Disney Hollywood Studios in Florida (right) source (Cometet 2009)
styles architecture was considered as form of art produced by divine inspiration, there was no existence for the idea of copyright. Architecture has for long depended on borrowing and derivative works. However, in later eras such as the Renaissance the names of architects and artists started emerging and attributed to their designs. In the 19th century, established architects mentored beginners to teach them thoughts, approaches, styles, and techniques, this practice extended into modem architecture in the beginnings of the 20th century where pioneering architects governed the architecture market place. Mies Van Der Rohe had many followers throughout the world; their designs imply that they had been inspired by the thoughts and architecture of Mies. Thus, it has been recognized that architects announce their belongings to different architectural schools. The same case applies to the followers of the designs and principles of Hassan Fathy’s vernacular designs.

Rem Koolhaas acknowledges the dependence of his work on references; he describes his reliance on the designs of Mies Van Der Rohe in one of his projects (see figure 5). He rather argues that it is difficult to imagine that any work of art could claim absolute originality and isolation from precedents - which is the same claim of the proponents of the ‘Copy Left’ - Koolhaas believes that borrowing gives opportunities to enhance cultural heritage, and to serve as a source of inspiration for future generations of architects. He sees that in order to facilitate creativity and innovation in the field open learning freely from the past should be supported (Tankard, 2008).

Is there direct copying in architecture? Comparing architecture to other artistic fields will be imprecise, the purpose of copyright is generally integrated with mass production or distribution of a work, but architecture is a custom oriented service with a product
tailored to an exact situation with its bundle of constraints affecting each specific project. Thus, replicating an architectural work is unusual; it is a highly intensive effort in terms of time, effort, and economic resources (Tankard, 2008).

After that, we now review the relationship among architects and their employers, which is a form of work controlled by contracts and terms of agreement. In this case, the economic right of the architectural work is transferred to the employer, but depriving an architect of his/her moral right over work is against IPRs. The problems resulting from this deprivation may cause false attributions to architectural works, so employers ignore the contribution of smaller architects, and on the other hand, smaller architects exaggerate or cheat about their real contribution in projects. This case depicts a major violation to IPRs in architecture, which needs to be regulated to secure rights.

Another issue is the case of trade secrets, and how they should be protected and secured for each firm or office, examples of trade secrets include programs, libraries, techniques, methodologies, and all other information available in offices for employees which should be reviewed as a property needing protection, owners as well as employees are responsible for this protection. A dispute of copyright infringement resulted from a violation to a trade secret, when an employee had stolen a design from the architectural firm and presented it to another developer for reusing (Weinberg, 2004).

Besides, architectural competitions involve some issues related to intellectual property, for example; sometimes there are deficiencies in securing the rights of contributors; other times designers of the winning projects are not commissioned to continue the project which leads to infringements to moral rights; or most frequent cancellation of some prizes. In one of the international competitions, a winner of the first prize was informed that she is commissioned with the project; however after negotiations on contracts without reaching agreements, she discovered that another architect who won another prize in the competition was commissioned with her project (Weinberg, 2004). The protection of the intellectual
property of competition contributors - moral and economic - requires to be reviewed as a significant factor in encouraging the progress of architectural competitions.

One of the raised debates about intellectual property in architecture is the judgments in cases of infringements, the evaluation is based on substantial similarity - between the original work and the allegedly infringing work - with a high level of relativity, this evaluation depends on the quantity of the portion being copied from the original work, and despite that the procedures of judging has been a concern for many scholars mainly law specialists and architects as well, with the aid of experts it will be an unproblematic topic.

Finally, there is no doubt that protecting IPRs is a crucial safeguard for motivation which leads to energetic societal participation, and development of our built environment. Meanwhile, the protection should not extend to result in monopolies and exploitation by right holders, and cause stagnation in the architectural progress. Progress in its conception relies on the past to find the way to a better advanced future.

Intellectual Property: The Situation in Architecture in Egypt

The following section of the paper discusses some manifestations regarding the IPRs in the architectural education and profession in Egypt.

Architectural Education
One of the most common assignments in education is research which is required in the design studios as well as theoretical courses, however the students do not learn research methodologies particularly in their first years, so the principles of gathering data, analyzing data, and honest citation is missing in their minds, not until the postgraduate level when the courses of research methodologies are taught. Accordingly, teaching these courses early and introducing the principles of academic integrity will enhance respecting IPRs.

Respecting the author’s property on his/her work is sometimes unclear to students, they are not aware of the difference between infringing the intellectual property and allowable usage. Students should be guided to ask for the instructor’s permission to use learning materials such as, handouts, written or audio lectures and references; and to understand the allowed scope of using them in education purposes. Therefore, having a copy of a copyrighted work for personal or educational purposes is allowed - due to the fair use doctrine - but it is prohibited to publish this work without approval of its author and even gain profit from publishing. This means that students are not permitted to publish any learning material without permission from its author. Establishing authorized methods of publishing the production in educational institutions of students and instructors will aid to conserve the intellectual property.

The right of attribution is sometimes missing in educational institutions, since the instructors as supervisors together with their students share the authorship and responsibilities of course work; as a result all contributors should be mentioned as authors of this work. The declaration of contributors promotes for the protection of IPRs.
Borrowing architectural ideas from previous projects should be accompanied by acknowledgement of the moral rights of the original architects of the projects. To support students in respecting intellectual property they should be encouraged to perform honest research and appropriate data analysis, such as evaluating the advantages and disadvantages of the projects, thus being capable of forming a broader vision, and derive their own points of view. Students might be trained to be inspired by a previous idea rather than merely copy it. Finally this allows for the fruitful exchange of knowledge, the benefit from built projects and published ones, and enhancing the skills of evaluation to support the students' characters and confidence. As a result, the intellectual property will be respected.

**Architect towards Architects**

Many architects yield their moral rights despite the protection secured by the IPRs legislation, while economic rights can be sold and bought thus transferred from an architect to another party who will be the owner, moral rights are eternal and cannot be transferred to others but remain with the author even after he has transferred all of his economic rights.

Architects who are sole practitioners have the chance to interact directly with their clients, so their architectural designs are simply attributed to them. However, many architects in Egypt practice as subcontractors, where they work as designers for other architects or organizations; this leads them to sacrifice their moral rights because their projects are completely attributed to others. Subcontractor becomes satisfied only by economic rewards. The broadening of this situation implies that those architects are ignoring the dignity of their moral rights and the value of building up their own careers and reputations, when this situation continues—in many cases for years and becomes their major source of earning, practicing architecture settles as a source of money only without the need for a societal recognition to trigger their creativity.

Valuing intellectual property involves admitting the contribution of every member in a team who shared to produce a portion of the final architectural work, so the work displays all the names of contributors together associated with their tasks, Probably this might guarantee that the work is attributed properly in an official document, and will secure that no one can attribute a project to himself without actually contributing in it. This supports the protection of moral rights.

**Architect towards Society**

How many buildings in Egypt which are devoid of any reference to their architect? In many buildings we can find the names of owners, the date of inauguration, the official names, attendees of inauguration, but without any reference to the architect. This is a violation to the moral rights of the architect, and a deprivation from promoting his/her career, the Egyptian syndicate code of conduct prohibits architects from publishing advertisement for their work, meanwhile it gives the right to have a permanent note in a remarkable place in the building referring to the architect.

Another closely related problematic issue is architectural advertising, real estate
corporations advertise for their projects, and mention its merits and design principles yet the most of the advertisements ignore mentioning the architect of the project. This is also another violation to the architects' moral rights. The architect is a reference in this case and his presence should be dignified and announced.

Architectural competitions involve some deficiencies and disputes about IPRs. It is most likely for associated groups of architects or organizations to share an entry in a competition. But do the competition regulations guarantee the rights of all participants? This does not occur in many situations, as in one of the local competitions sponsored by an organization, in which a group of architects shared an entry and won a prize, this group was commissioned to continue the project, but the organization insisted on addressing only one of the architects as a representative, which deprived the rest of the group from any official documentation mentioning their contribution.

One of the common problematic matters in the architectural profession is that sometimes projects are attributed to consultants who are not architects like civil engineers or others, whereas the name of the architect is not mentioned officially, this prevailing practice is an intrusion in the architectural profession by non-architects, it displays a violation of the architects' moral rights, and affects the career of the real designers of such kind of projects, and lastly confuses the society who can hardly differentiate between an architect and a civil engineer.

**Conclusion**

Despite the enactments of legislations of IPRs in Egypt, however our society involves many infringements. Scholars in the field of law view that remedies should be raised and application of laws must be activated. But in addition, dealing with intellectual property rights from an ethical point of view will also improve the broadening of the protection.

In architecture there are three major branches of the relationships who involve intellectual property issues, the first is education, the second and the third branches concern the professional practice, which are the relationship of architects towards other architects and the societal responsibility of architects towards developers and clients.

Protecting intellectual property as a right safeguards motivation, leads to energetic societal participation, and consequently the development of our built environment. However, monopolies and exploitation by right holders are undesirable as they may cause stagnation in the architectural progress. Some principles of IPRs protection could be introduced in the educational curriculums in architecture to promote for the value of respecting intellectual properties and the consequences of its violation. Enhancing the skills of evaluation supports the students' characters and confidence, and indirectly protects intellectual property of the authors by encouraging for honest research and data analysis, by deducing the advantages and disadvantages of the projects, and training the students to be inspired by a previous idea rather than merely copying it.
Respecting the right of attribution needs to be initiated in the architectural profession practices, by admitting the contribution of all the team members who shared to produce the architectural work, also by resisting the trend of ignoring the contribution of architects who are working under non-architect consultants in projects, and demanding for a permanent existence of the designers' name on built projects. In addition, architects who practice as subcontractors must be aware of their moral rights on their work and the value of building up their own careers and reputations.

References


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Nehad Mohamed Eweda

Nehad Eweda has a Doctor of Philosophy in Architecture earned in 2003 from the Faculty of Engineering, Cairo University. Currently, she is a Full-time Associate Professor of Architecture at Cairo University. She can be contacted at nehad_eweda@yahoo.com.