THE IMPLICATIONS OF INTELLECTUAL PROPERTY LAW PROVISIONS IN NIGERIA
COPYRIGHT AND SOFTWARE PROTECTION

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Abstract
Protecting software using intellectual property law provisions in Nigeria is becoming more challenging. This is consequent to the criteria provided by the law in order to qualify for copyright, patent and trade secret protection. Factors determining qualification include the extent to which the information is known to employees within an organisation and measures taken by an inventor to guard the secrecy of the information under consideration. These factors are ambiguous, being inexplicit and imprecise. Unfortunately the uniqueness of computer software and databases made them susceptible to easy access as well as difficulty in detecting the activities of interlopers. In the light of these, it has become imperative for the potency of these protective laws to be revisited. This will help to determine how best they apply to current trends in software piracy and how well they accommodate the peculiarities of software products in order to qualify for legal protection.

Keywords: Acts, Copyright, Databases, Patent, Proprietary, Piracy and Software.

Introduction
Local and international laws afford some measures of protections to intellectual property from unauthorized persons. The current Nigerian Copyright law, metamorphosed from the Copyright Act 61 of 1970, the Patents and Designs Act of 1970 and Trademarks Act 1970. The efficacy of these laws were marked with lots of administrative bottleneck and unnecessary bureaucracy but managed to survive until the 1970s mainly due to residuary laws e.g. by-laws, judicial decisions etc (LFN, 1990).

These laws confer protection on the inventor/patentee both economic and moral rights inclusive on his invention or patent. Economic, being rights that could be exploited in exchange for economic remunerations (i.e. earning a livelihood through the various forms of disposal of his rights granted to him by law) and moral rights being the right to claim ownership of his work and a right to object to distortion and similar acts affecting the work. In recent times and by extrapolation, computer software and databases, a specie of intellectual property have been afforded trade secret protection under this definition because of their special value and intrinsic worth. In addition, the owner must treat invention as a valuable trade secret and must have complied with all statutory provisions.

Broadly speaking the intellectual property protective laws for our convenience can be compartmentalized into two subheads, namely: Industrial property and Copyright (Asein, 1994). The sphere of industrial property comprise of patents, trademarks, and industrial design while copyright distinctively stand apart. Granted that each have its peculiarities, nevertheless, the possibility of an overlap cannot be ruled out. Computer programs, databases and other software products *prima facie* tails within the sphere of industrial property in features and characteristics but are practically subjects of copyright protection (CSA, 1990).

The statement of Justice Karibi Whyte, the then Justice of the Supreme Court, confirms these assertions when he remarked *inter-alia*.
"there is the erroneous notion that copyright is separate from patents, design and the rest of the body of rights, which falls within the general description of intellectual property" (Karibi. 1993).
This implies that the subject matter enjoys protections from the trade secret law. copyright law and the industrial property law e.g. an artistic work which enjoy protection under the copyright law can be applied in the industry much more later in a way the owner had not intended i.e. there is always a nexus between copyright work and other work of industrial property (BLR. 1976).

It is important to elucidate the peculiarities of software programs and databases. This will assist in showing their susceptibility to ease of access and manipulations by unauthorized users. It is no gainsaying that software development tools have become increasingly complex in recent years. Most early tools performed a single function and were complex to describe. Tutorial papers usually classified these tools by their actions e.g. compilers, debuggers, dump analyzers, flow chart plotters, editors and more recently complex tools such as software development systems, application- generators, workstations, program-generators and programming environments. The above including the money, effort, time, energy, perseverance and denials etc. put together has software programs (both at the application and system level i.e. Wordprocessors (MS-Word), graphical packages (corelDraw), operating systems (Windows XL) and databases as its result. Information assessed in computer programs and databases must be made confidential to qualify for legal protection.

Limitation on information access must be seriously considered. This includes limiting access to that part of any organisation where such secret information are located. However, the effectiveness of proprietary protection depends somewhat on those who had lawful access to the work. In large organisations, the loyalty of employees cannot be expected to be scrupulous in observing their obligation towards the protected information except where managerial leadership fosters strong and effective employer-employee interaction. Against the nature of software applications and programs to vulnerability to unauthorized user, programs for safeguarding information resources would have to be designed to prevent the most vulnerable disclosure possibilities with minimal interference in operational activities. The index of the above thrust is simply to emphasize the need to safeguard proprietary software and databases. That in itself requires a combination and implementation of numerous precautionary measures in other to qualify for legal protection.

**Protective Laws Simpliciter**

Software and databases enjoy the protection of protective laws essentially from trade secret, copyright and patent laws, howbeit, more substantially from copyright law. It becomes necessary to examine briefly the position of the law vis-a-vis the subject matter they sought to protect beginning with the copyright law. The law defines ‘literary, work’ *inter-alia* as follows:

“... works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, periodicals, manuscripts, phonorecords, films, tapes, disks or cards in which they are embodied” (NCA, 1990).

Databases are simply considered as “*compilations*” or “*collective works*”. Thus, computer software and databases are eligible for copyright protection where they conform to the statutory definitions and other requirements.

Basically, copyright protection is available only for original works of authorship fixed in any medium of expression, now known or later developed, or otherwise communicated, either directly or with the aid of a machine or any other device. It follows that any work that had not satisfied the above does not quality for protection under this law. To be original, the author must create it, with novelty and uniqueness. Software and databases come under the definition of "Literary Work", it contrasts with the mechanical equipment called hardware. The law in this regard definitely deserves a revisit for reasons of the flexibility of the subject matter as
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intellectual properties. The Law Reform Commission owes the society a duty to fashion out the borderline of these qualifications.

It is also expected that the author of the work in question must have contributed extra* ordinarily such that the work will be recognisable as a creation of that author. Creating a database may encompass organisation, selection, collation or classification of information to the extent that the work must be more than a trivial variation to warrant copyrights protection. The computer software protection Act, also vest in the author exclusive right to deal with his work in any manner including sale, rent license, lease and other form of distribution. However, licensing agreement should be express and specific (NCA. 1990). It implies that computer software and databases is transmissible by assignment, testamentary disposition (bequeathed to a Legatee on death) or by operation of law (CSPA. 1990).

Registration of work is not a requisite under the Act to qualify for protection. In *Impact Co. (Directory Publishers)' Ltd Is EKKO DELTA (Nig) Ltd and others*, the Federal High Court held in that case that the deposit of copies of a work with the National library of Nigeria is not registration of copyright or any evidence thereof. It means that conferment of copyright in Nigeria is automatic upon the author's due compliance with the requirement set out in the Act (FHCR. 1977).

The exception to this rule is that any change on a copyright or a license under a copyright created by a 'Company' is registerable by the Corporate Affairs Commission. Copyright does not rest in the author in perpetuity, it subsist only during the lifetime of the author and for another seventy years after the end of the year in which the author dies. Ownership of copyright is not synonymous with authorship though both may co-exist in the same person (natural or artificial). The author being the creator (maker) and the owner being the person vested with the right to control the doing of any restricted acts in relation to the copyright work (PDA. 1990).

Peculiar Problem of Ownership in Relation to Software Products

One peculiar problem of ownership as it relate to software and databases is that in other cases, copyright attaches to a work from the moment of creation (i.e. the moment the work is fixed in tangible form) but copyright of software does not automatically vest in the author. It is important to identify the author particularly where the author is an employee and the work was developed within the scope of his employment. The issue is in whom will the right vest? This in itself is a subject of serious consideration under contractual agreement. It has to be settled at the point of employing software development staff. There are no hard facts or rule which governs such situation. In the absence of express contractual agreement between the employee and the employer it could go either way (Rasheed. 2003).

The Concept of “Fair Use”

One other specific area that requires urgent attention is in the area of “lawful user” or 'fair use'. This is a defence commonly invoked by trespassers and copyists as justification for their act. Of Course copyright should not be infringed merely because a copyright work is used to obtain source of references. However, the defence of 'lawful user' should also not be used as an engine of fraud. To slavishly use an author's work as a reference source is to say the least robbing Peter to pay Paul.

This defence should only avail a copyist who although copies from a source but show that he had expended some labour, skill, or judgment by adding original element to his work, not just a usurper.

This position is supported by Anyagbunan J in the case of *Impact Co. (Directory Publishers) Ltd Vs EKKO DELTA NIGERIA LTD*, where he remarked after a careful review of the defence of 'lawful user'.

“This, in our opinion is a good shield in an action for breach of copyright but certainly not a sword” (FHCR. 1977).

This, on the merit is on all fours with the very essence of copyright protection,
thus, it deserves a revisit. It is difficult to know when something is “fair use”. The best strategy is to contact the publisher to find out if a license is available for one's specific needs. Another rule of thumb is to assume that “fair use” does not apply. Determining whether “fair use” exist depends on particular circumstances. To assist educators in evaluating whether their intended copying of copyrighted works will violate the law, the legislative history of the Copyright Act include a set of guidelines. “agreement on guidelines for classroom copyright in not-for-Profit Educational Institutions” that help define what constitutes “fair use” for classroom copying. However, these guidelines only cover the reproduction of books, periodicals and musical compositions, not software!

Abridgements and Adaptation

One other area of note is the concept of adaptation and abridgment of a computer software invention. Adaptation connotes the modification of a pre-existing work from one genre of work to another and consist of altering work within the same genre to make it suitable I or different condition of exploitation, and may also involve altering the composition of the work. technically, this is referred to as “reverse engineering” (Longe. 2003).
This appeared to have protected the abridgement of a work (although impliedly). Lord Atkinson in the case of MACMILLAN & CO LTD vs COOPER frowned at the blanket right to abridge a work where he remarked *inter alia* 

"...to copy certain pages and omit others so as to reduce the volume of work in bulk is such an abridgement as the court would recognise as sufficiently original to protect the author"(Derrick, 1992).

This situation amount to nothing but an infringement of the author's rights and should be expunged from the act. Furthermore, an author cannot make claims under an abridged work imported into the country without his consent, since the law gives credence to an abridged work thus rendering I'ds (the author's) consent unnecessary. Profit from an abridged work may in many cases surpass that made from the original work. This is nothing but exploitation and condonation.

**The Definition of Trade as Applicable**

The Act forbids the distribution of a work by way of trade, hire or otherwise for any purposes prejudicial to the author ". The word "Trade" in this context is not defined by the Act. The word "Trade" except when it is applied technically is capable of diverse meanings, particularly now that computer software and databases are capable of being treated through networked computers, distributed systems and the Internet. Any claim under this arrangements based on a technical definition of the word 'Trade' without more will likely fail. We suggest a definition of the word, which will accommodate the peculiarities of a literary work such as computer software and databases, which substantially exist in abstract form. These aspects desire very seriously the attention of the newly constituted Law Reform Commission.

**Patent and Design Act**

The Patent and Design Act defines both patent application and patentee but not patent. However patent had been simply defined as a monopoly in respect of an invention. Section 1(1) of the Act provide that an invention is patentable if:

It is new or results from inventive activity and capable of industrial application; and a) It constitutes an improvement upon patented invention and also is new, resulting from inventive activity and is capable of industrial application.

Novelty, the essential ingredient of patent distinguishes it from copyright. The Act exclude from patent rights, principles and discoveries of scientific nature. Since any invention intended for and capable of industrial application is patentable, it means that any work not intended to be applied industrially at the time it was made becomes a subject protectable by copyright otherwise than by patent. Software and databases that are capable of industrial application enjoy protection under the patent law. To enjoy patent protection, unlike copyright, a patent must be registered. Every patent application shall be made to the patent registry under the control of Registrar of Patents and Design (PDA, 1990).

The law as it stands had not extended enough protection to software substantially because of its implied application. It has also not taken into consideration the evolutionary trends in the development of information technology where the technology of today serves as a springboard for the applications of the future.. It thus denies software developers the right to patent their products if in the future they become applicable to industrial uses.

**Infringement**

Infringement of a software product occur when any person without license or permission of the author does or causes any other person to do any of the restricted or prohibited acts in relation to the work i.e. there is an infringement where a person without the license of patentee (owner) tampers with any right conferred on the
patentee by the law. Where there is evidence of substantial similarity between the two works the patent author is entitled in law to claim by way of damages, injunction or otherwise. The fact that there is an allegation of existence of substantial similarity between the work's patent, coupled with evidence of access to the work's patent raises a rebuttable presumption of infringement and a prima facie case for the defendant to answer.

Evidence of Infringement
Ignorance of the original work does not absolve the defendant from liability. However, the approach adopted more often by the court in determining whether there is copyright infringement is the purposive approach i.e. examination of the copyright work as a whole vis-a-vis the alleged infringement, so do this technical measures to establish infringements will have to be adopted. These are referred to as program identification techniques. They include fingerprinting, watermarks and monitors (HI, R. I 963).

Fingerprinting, Watermarking and Monitoring
Fingerprinting refers to identification methods which do not occur by chance but which are carefully constructed in order to identify the author or owner of the copyright so as to track illegal copying or piracy. One of the proofs of copying is the copying of a mistake, on the basis that it is very unlikely that an exact replica would be made independently that include the same mistake. A program lends to contain a degree of redundant information, such as routines that are generated in the course of development and then overlooked when the program is modified (Longe, 2003).

Watermarking, as a method of identifying counterfeiting, is a special case in so far as it is used to prevent a pirate making an exact copy which the user cannot distinguish from the legitimate article. Software stored on CDs can be protected against piracy through disc watermarking which is an effective anti-piracy measure. It introduces advanced copy management information that cannot be copied by any known piracy process (Longe, 2003).

Monitors for logging events, procedures and data access are more likely to be employed in a computer centre as part of the general system of security, but they have a contribution to make to the protection of both programs and data. Authentication of a program can assume several roles, ranging from determining that the program is operating in accordance with its original design to verifying that protective measures have not been deleted. The former role is especially important in regards to secure financial transactions, the latter is important if less secure protection devices are used where otherwise it would be possible to patch a program in order to bypass the check on protective methods or devices. In this age of massive computer networks and of course the Internet, it is very difficult to find in the physical possession of an infringer, software items. All he needs to do is save information in the hard disk with coded identity and continue to download at his convenience. It is only when the item in dispute is made available that technical measures of establishing infringements such as watermarking and fingerprinting can be used (Derrick, 1992).

The Criticality of Partial Protection
The deficiency noted in patent is more glaring. It makes low software programs qualify for patent protection based on the requirement that they must be capable of industrial application (PDA, 19V0) Based on the Supreme Court rulings to date, only computer software that is a component of a patentable larger process or a part of machinery (e.g. firmware) qualifies as patentable subject matter.

from the foregoing, it is obvious that the qualification on which computer program enjoys protection is prejudicial to others since it is sometime very difficult to detach one from another, one sometime is a fore-runner to the other or a derivative of another. An invention begins from the pragmatic stage, which is then theorised resulting to general formulated principles. What patent law has done in this case is
nothing but protecting a part and leaving other parts either unprotected or to copyright protection.

Conclusion

What this paper attempt to elucidate is definitely not the outright condemnation of the protective laws but to call into focus the peculiarities of the computer software, application programs or packages and databases when it comes to the application of protective laws. We have been able to show that Software and databases are mostly intangible, flexible and abstract. They are not simply ‘literary’ as posited by the present law but unique inventions, which deserves unique legislation. The peculiarities of the subject matter and the inadequacies of the laws have exposed them to a lot of abuses. This critical appraisal is to call for a review of the existing laws.

To this end, any attempt to create an enabling and just environment for all involved in the use and design of intellectual properties must take into consideration public and private interest — the
interest of the society as a whole in its economic, social, educational and cultural development and the interest of authors (individual and corporations involved in software development) to secure a "lair" value for their intellectual effort on capital and labour. We therefore advocate for special attention by respective law-making bodies to recognise these peculiarities and legislate along these lines. Failure to do this will make efforts towards software development diminish. The effect of this is better imagined than real for any nation.

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