Property Rights vs. Right to Knowledge: The Multi-Faceted Dilemma (Case Study: Software Piracy in Developing Countries)

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The European Conference on the Social Sciences 2017
Official Conference Proceedings

Abstract
Innovation is often described as key factors of competitiveness, as the driving force of the economy or as the basis of growth. This may be somewhat exaggerated, but it must be admitted that there cannot be any scientific advances without innovations, both are somewhat synonymous and correlated by a causal link. However, a paradox lies behind this reasoning: *property rights*, measures to protect innovation and creativity and aims to encourage more innovations and creativity. However, do these protective become a shovel that serves to deepen the know-how gap between the South and the North? It is widely known that, only, those who pay have the right to educate themselves, while the less fortunate remain held hostage and forced and obliged to follow in order to survive. Indeed, some of the arguments put forward above are pure sophistry, but are often used either by the adepts of the Robin's hood ideal or by the defenders of the sacrosanct right of property. This work aims to ascertain what, why and how not to respect the right to property, and notably software piracy, not to justify the practice, but to confront this phenomenon with the arguments of property rights and to demonstrate the selfishness and deception that lie behind the curtain of each camp, and subjecting them to the socio-cultural and economic realities of the developing countries, and demonstrate with concrete cases, that a consensus is possible.

Keywords: Knowledge, Human rights, Intellectual property, WIPO, Software piracy, Crackers, Robin hood effect.

Introduction:

Human creativity always plays a key role in the evolution of human society, and it is never wrong to highlight that the most creative nations are very often the most successful.

For a half of a century, technological revolution compared to industrial revolution, trembles the foundations of human societies. The spectacular development of Internet greatly alter the classic design trade and relations among men: any form of information flows among billions of users throughout the planet denying the notions of time and space. Despite this evolution and its impact, a digital divide between Northern and Southern countries was clearly noticed: it resulted into a certain inequality to access and use the some numeric knowledge and, especially the economy-based knowledge: In case where users cannot afford to pay, opposition appears between the collective good which consist of giving the means and methods to better process information and the interests of entrepreneurs to privatize most possible dissemination of knowledge in order to derive an added value (Arnaud, 2006). This situation and other factors push millions of users in rich and poor countries to use hacked softwares. Considering what was cited above, we sum up the problem of our research work in the following question: "*Does intellectual property laws, imposed on softwares and online resources, constitute an opposition to the right of people to learn and develop and hence to their fundamental rights?*"

1. Knowledge, Rights and Economy:

1.1. Human rights and knowledge rights:

The universal declaration of human rights in articles 19, and 22, states the right to freedom of opinion and expression for everyone by seeking, receiving and impart information through any media and regardless of frontiers, and also, the right to social security whose cultural rights are a part. Last but not least, we find in art.26, the no less important '*Right to education'*.

Furthermore, to promote good governance, the development of nations and the struggle against poverty ignorance and illiteracy, the international community, and at the end of a meeting held in 2002 in Sofia, established the day of 28th September of each year as '*The International Right day to Know*'.

1.2. Knowledge-based economy:

If the 19th century was characterized by the rise of industrial economy in Western societies, the second part of the 20th century is considered as the era of '*knowledge economy'* (Hargreaves & Shaw, 2006). Actually, the most suitable term is, '*economy knowledge-based'*, and that means for each country, the sectors of production and services based on the intensive activities in knowledge (Foray, 2009).

Every man has the right to live with dignity and to flourish both economically and socially, but to thrive, and especially at this time, one has to acquire and use knowledge, since the term and according to the WTO*, 'knowledge-based economy'* results from a fuller recognition of the role of knowledge and technology in economic

growth (OECD, 1996). However, whatever the support that convey knowledge, material or immaterial, is especially when it comes to knowledge inferred from a basic knowledge (e.g. literary or artistic work and computer software, it is often 'protected' and falls within intellectual property schemes.

2. Intellectual Property Rights:

2.1. *Definition, evolutions and purposes:*

The intellectual property laws, allow the creator, or the owner or patentee, a brand or a protected work by the copyright to benefit from its work or its investment (WIPO, 2013), for a long time, and even after death of the original creator.

In 1970 was created the WIPO '*World Intellectual Property Organization'*, even though copyright laws have existed since the seventeenth century, under the reign of the Queen *Anne of Great Britain* with the legislation called the '*Statute of Anne*' (Scammell, 2003). According the WIPO, without copyright protection consumers may not acquire, safely any products or service and it also dissuades counterfeiters and piracy. (WIPO, 2013).

2.2. *Types of Intellectual Property:*

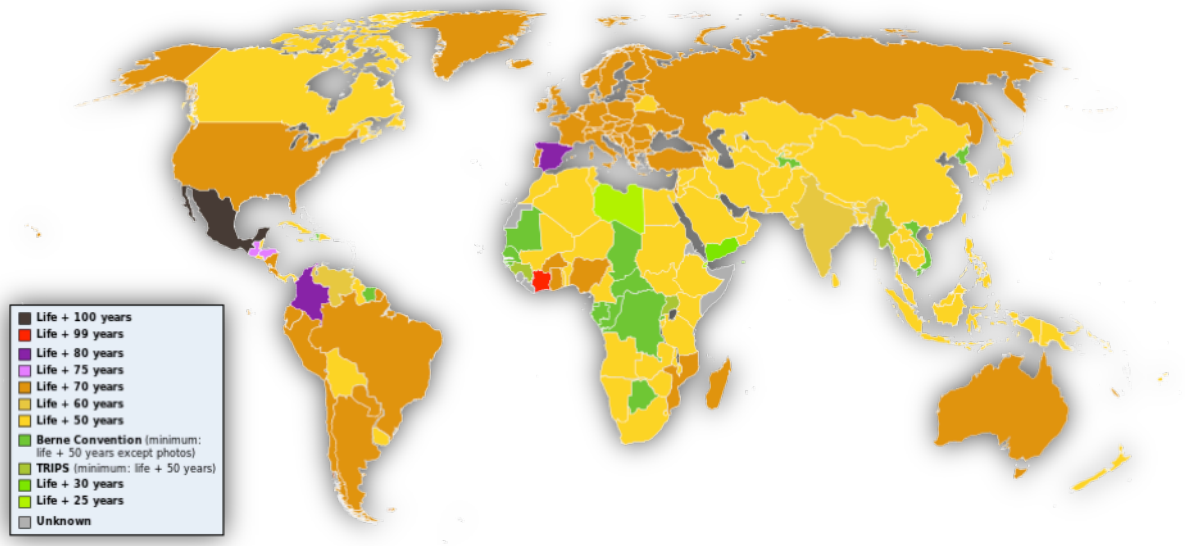
There are different forms of intellectual property, e.g.'*Patents'*; '*Labels'*;… (WIPO, 2013), but the most important in our case, is the '*Copyright'*, which describe the rights of the creators on their works (artistic, cinematographic, computer programs, etc.). These rights confer an economic monopoly of exploitation on work during a certain time before they can be used freely.

2.3. Software rights regimes around the world:

Art.10 of the TRIPS agreements stipulates that: "…*Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)"*.

However, it was only after a global consensus in the 80's, that softwares, computer programs and databases are assimilated to a mind works, protected by literary and artistic property, but if we consider the exponential evolution of computer sciences, in general, and of the internet in particular, the 80's are for the digital era, is what prehistory is in our present era! Then, it's foolish to adopt the traditional regimes to this sector. The following map represent the lengths of copyrights in different countries:

Fig.1: "Map of countries by copyright lengths"



Source: *https://en.wikipedia.org/wiki/List_of_countries%27_copyright_lengths*

Two things challenge us:

- The duration of protection is as much important that the country is developed. This period varies between 25 and 50 years for the developing countries, according to the Berne Convention, and it is 70 years and more, in developed countries.
- Software creations benefit from the same regimes (duration of protection) in all countries what matter the artistic or intellectual creations.

To conclude, the international community, led by WIPO, did not ask so many questions and did not consider it necessary to adapt to digital era or to question the technological obsolescence.

3. Counterfeiting and software piracy: Forms, causes and prevalence

3.1. Software piracy and its forms:

'Software piracy' is commonly defined as illegal copying, downloading, sharing, selling or installing of copyrighted software. The most common forms listed by SIIA[1] and BSA[2] are:

- ***Internet piracy:*** millions of sites propose softwares to downloading, and provide even 'Cracks' or a 'Key Generator'. This form of piracy increased considerably with the advent of high-speed connection and the proliferation of 'torrent clients' (like Utorrent) and websites proposing a torrent links to be exploited, who offer with or without a free inscription, millions of files to download in peer to peer.
- ***Softlifting:*** If a person has a single license, and if he download it on other machines or provides a copy of it to other person, it's regarded as an act of

[1] Software & Information Industry Association.
[2] The Business Software Alliance

software piracy. That is the case which one encounters more within the organizations, which are often satisfied with the purchase of only one specimen of a software and duplicate it on other machines (Korhonen, 2015)

- ***Software counterfeiting:*** Or *'CD-R Piracy'*, which consists in selling illegal copying of softwares. At least 50% of the software are installed on the PC's in the United States by way of counterfeits (SIIA, 2008).

3.2. Worldwide software piracy prevalence:

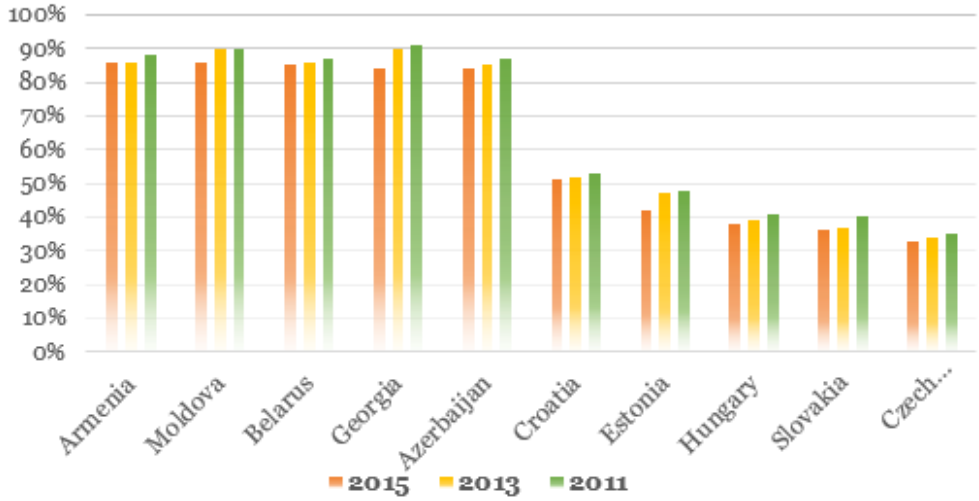
The development of the classical counterfeit, is supported by licit or illicit spaces that promote international trade. Regarding the software piracy (except the CD-R piracy), for the counterfeiters, the matter is so easy: the virtual confrontation of supply and demand does not require a direct confrontation. According to a study carried out by the BSA, the following maps show the number of PC's which uses softwares without licenses (or '*warez'*). We selected, for each area of the world, the 5 countries with the largest percentages of uses of unlicensed software, as well as the 5 countries the least affected:

Fig.2: "Rates of unlicensed software installation in some countries of Asia-Pacific"

Source: Established by authors and based on BSA report: "*Seizing Opportunity Through License Compliance*", May 2016, p6.

This figure illustrates an interesting phenomenon. On the left countries where the prevalence of the unlicensed software is very important that are countries where GDP per capita is relatively low like Bangladesh ($3,339.6), Pakistan ($5,010.8), Indonesia ($11,057.6), etc. The right side of the figure shows rich and technologically developed countries, where GDP per capita stretches between $34.647 (South Korea) and $85,382.3 (for Singapore). Whilst, China is not represented in Fig.2 (although it is considered as the Eldorado of the counterfeit), not because of a low rate of warez (around 70%), but because the high rates in others Asian countries relegate it further down the ranking.

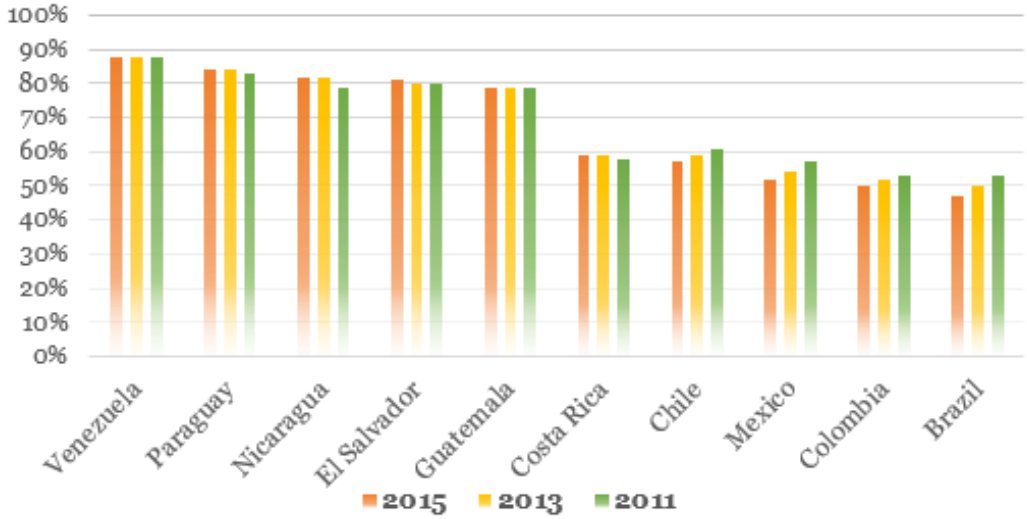
Fig.3: "Rates of unlicensed software installation in some countries of Central and Eastern Europe"



Source: Ibid.

Regarding Eastern Europe, the rates are also high; countries at the left of the figure often exceed 80% and those of the right side exceed 40%. Here, we notice again the relationship between GDP and the rates of installed warez: In the 5 countries above, the least affected countries are those where the average GDP per capita, in 2015, exceeds $28,300 whereas countries on the left have a high rate of installed warez and their GDP per capita is less than $11,800. Russia comes in the 20th position on a list which account 24 countries of Eastern Europe although this country is known for its very gifted and very active hackers and crackers (the rate in Russia, was of 64% in 2015.)

Fig.4: "Rates of unlicensed software installation in some countries of Latin America"



Source: Ibid.

In South America, the top of ranking is held by countries with rates approaching 80%. However, Venezuela which comes at the top with regard to the rate of unlicensed software installation, has a per capita GDP of $15,000

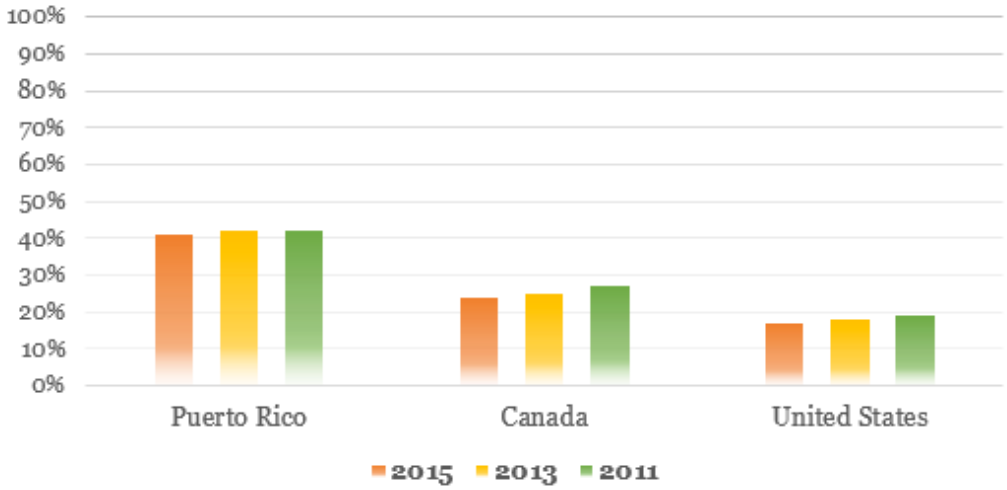
(Venezuela), which is triple of Nicaragua ($5,200) or the same in as that of Mexico ($16,988) .

Fig.5: "Rates of unlicensed software installation in some countries of Middle East and Africa"

Source: Ibid, p7.

For Africa and the Middle, we notice two interesting aspects that are: first, we find at the right, countries with high rates but with a low per capita GDP like Zimbabwe ($1,787) and Yemen ($2,821), with others where per capita GDP are higher than $14,000 like Iraq and Algeria. The second aspect, among the 'lower' affected countries, as Saudi Arabia and Qatar, which in spite of high GDP per capita ($53,539 for the first one and $141,543 for the second, the highest of the world), the rates are too high comparatively to the other 'low rate countries' in the other regions of the world: it's approaching 50%, nearly 20 points higher than the least affected countries in the group (Israel and South Africa)

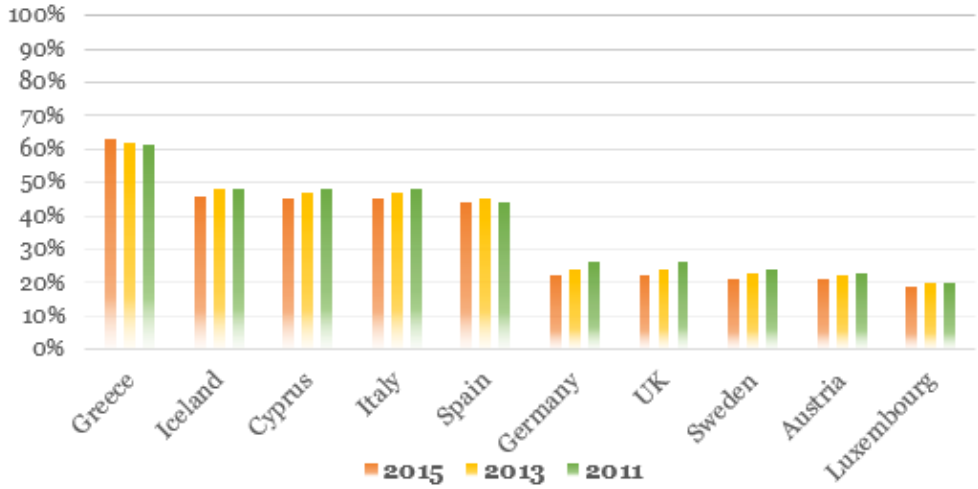
Fig.6: "Rates of unlicensed software installation in some countries of North America"



Source: Ibid.

In North America, the rates of unlicensed softwares are relatively very low, e.g. in the United States, the rate of installed warez was 17% in 2015, the lower rate of the world. The case of Puerto Rico (41%) is different: since this state, although attached to the USA, has economic, social, political, and even cultural conditions, rather different from those of USA.

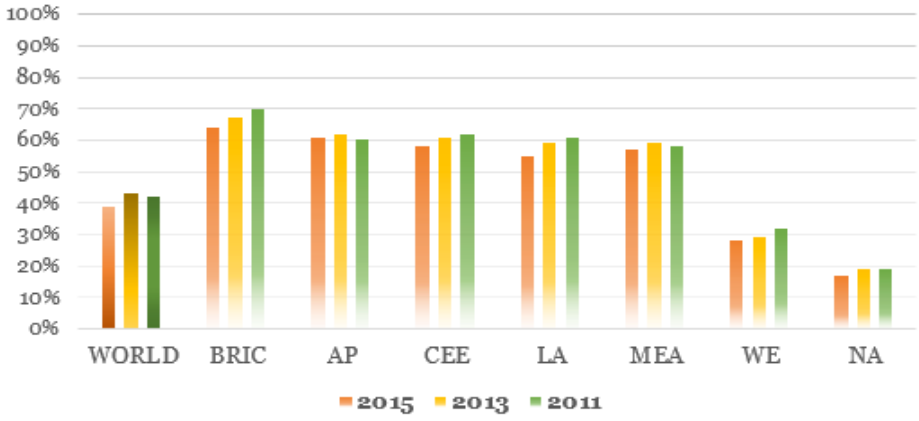
Fig 7. "Rates of unlicensed software installation in some countries of Western Europe"



Source: Ibid.

Western Europe know as well, a relatively weaker ratio of software piracy compared to other areas. The more affected countries are Greece (46%) and Iceland (23 %). This may be linked to the financial crises that these two countries underwent, and in particular in Iceland, where a distrust to the established order was identified and that translated (with other behaviours) by a resurgence of the use of warez (Stephens, 2017). Note that in left of the figure, we find Italy and Spain, which are far from being poor (respectively $37,217 and $34,727 $ per capita GDP.) This is maybe related to cultural aspects, or to specifications of Mediterranean mentality. Other countries with low rates follow the trends observed above.

Fig.8: "Rates of unlicensed software installation in the world"



(BRIC= *Brazil, Russia, India, China*); (AP= *Asia-Pacific*); (CEE= *Central & Eastern Europe*); (LA= *Latin America*); (MEA= *Middle East & Africa*); (WE= *Western Europe*); (NA= *North America*).

Source: Ibid.

More generally, the means of unlicensed softwares installation in the world was about 39% in 2015. However, and as mentioned above, even if there is a close relationship between GDP per capita and software piracy, it is not always obvious; and it's confirms the existence of factors other than economic or pecuniary ones.

3.3. Main causes of the software piracy:

Regarding the factors fostering the phenomenon, first, we have to separate the motivations that encourage some to cracking softwares (the offer), from the demand or factors that push peoples to use pirated softwares (the demand).

a. Factors favouring the offer:

The typology used to distinguish different types of hackers, is actually based on the motivations that prompt them to act. Thus we find:

- ***The Script-Kiddie:*** lambda users who use tools created by others in order to harm peoples. They are very dangerous by their incompetence (ACC, 2012) and their mains motivations are often a search of belongingness and recognition.

- ***The Hackers:*** '*Passionates of networks'* (Dejour & Souville , 2006), which have a very high level in computing, wishing to understand the information systems functioning mechanisms in every details, in search of knowledge, but also to identify vulnerabilities and eventually exploit them. However, we find among the hackers some sub-types (e.g. *White*, *Grey* and *Black hats*). There a last kind of hackers, called '*Hacktivists'*, (e.g the group '*Anonymous'*) whose objectives are political and ideological.

These categories of pirates, and even if they use any warez, they are not like the main creators or broadcasters. This is more the niche of *Crackers*.

- ***The Crackers*** : are computer specialists, working mainly in the breaking of the softwares protection, neutralizing or bypassing the protection measures of softwares by creating a ***'****Patch' (or 'Crack') or a 'Keys generator'*. Sometimes, the crackers act in groups, called into the piratosphere "*Warez Groups*", involved in creating and/or distributing warez. Their exploit is the breaking of the protections of games, like '*DENUVO'* protection (deemed infallible). Among the best known of these groups, we have '*DEVIANCE', 'CPY'* and '*CODEX'*, very appreciated by *gamers* around the world, they act more by altruism or by '*Robin Hood effect*'[3]. There exist also, the fact that the crackers, often, put the emphasis on the technical difficulty of their exploits, provide information on some of their major motivations: the challenge, the excitement that accompanies the transgression of the rules and the competition between developers of softwares and crackers or between warez groups to prove who the better are. Some other crackers are motivated by purely monetary considerations, and even more are those who take advantage of warez by offering compressed files to download for

[3] It's exist an economic occurrence called "*The Robin Hood effect*", a phenomenon where the less well-off gain at the expense of the better-off, but the effect that we talked about here, concern another type of acts, which consist to give without waiting for anything in return, if not recognition.

free, but which require for their opening password to pay or that you can get only by overcharged SMS or after clicking on a number ad banners.

b. Factors favouring the demand of warez:

- ***Price of legal softwares*:** One of the mains arguments of the users of warez. In countries where the purchasing power is low or fluctuating because of inflation, users have everything to gain by downloading and using unlicensed softwares. Regarding inflation, a positive correlation was found between it and the rate of use of warez. , while the relation may be negative with income: generally speaking, economic development is negatively and significantly related to software piracy rates. According to some studies, a ten percent increase in per capita GDP is associated with nearly 3% decrease in software piracy rates.

  The table below takes the average wages in some countries and prices of '*Office Home and Student 2016*', sold on the '*Microsoft store',* in June 2017:

Table.1: "Comparison between wages and Office price countries"

Country	Average Monthly Wage (in 2016)	Price of "*Office Home & Student*", on Microsoft store (June 2017)	Share of Price from Average wage
United States	$5,013	$149.99	3.0%
Canada	$4,034	$149	3.7%
Germany	$3,866	$166.92	4.3%
France	$3,583	$166.87	4.7%
United Kingdom	$3,570	$152.73	4.3%
Italy	$2,950	$149	5.1%
Greece	$2,094	$149	7.1%
Mexico	$1,276	$94.19	7.4%
China	$656	$109.56	16.7%
Russia	$549*	$149	27.1%
Algeria	$359	$119.18	33.2%
Paraguay	$356**	$100.71	28.3%
Zimbabwe	$353***	$119.99	34.0%

** In 2015 **Mean from May 2016 to December 2016 ***In 2017*

Source: Established by authors from different sources.

For example, in Algeria the GMI, is $165 and the average salary $359 per month, while the price of a legal version Of MS Office Home & Student 2016, costs about $120, approximately 33% of the average wage or 72% of the GMI, so what about professional softwares such as *AutoCAD* or *Adobe After Effect*? It is clear that even

for those who earn double or triple the average wage, download a pirated version is more profitable. The behaviours are not different in rich nations: The 'free' has an irresistible attraction, in front of which fade many inhibitions!

- ***Laxness of the authorities and/or weaknesses of anti-counterfeiting legislation*:** In several countries, developers, sellers, distributors and even users of warez, are subject to quite severe fines and even imprisonment. Of course, it's too dissuasive actions: a negative correlation was found between IPR enforcement, piracy practices and uses. However, many countries have a whole arsenal of legislation protecting intellectual property, despite, the warez are present on almost every PC's in the country, even on computers of top executives of the state. As a result, if laxness there is in some countries, it is often not because of deficiencies in legislation, but because it suits everyone even to the State, which finds itself unloaded to offer payed services to the population, while they can serve themselves and free of charges.

- ***Ignorance of the concept of property rights***: Several studies have shown that millions of users and during the process of installation of softwares, few are those who take the trouble to read pages and pages of terms of the license, and click the button "*I agree to terms*" mechanically. This ignorance or laziness, contributes widely to the increasement of the prevalence of warez use (Fang & Lee, 2016). Otherwise and in the case of warez, they do not even realize that by clicking on the *I agree* button, they are doing a perjure.

- ***Social and cultural factors:*** Refers to the prevailing social structure of a country and the attitudes shared by the members of that society and the collectivist-individualist aspects of the society affect the piracy rate in any country (Khadka, 2015, p. 7)

Finally, other studies have identified other factors, like the gender effect (Fang & Lee, 2016), the effect of the absence of legal softwares in local markets (Fossbytes, 2017)...etc. Otherwise, some authors proposed a behavioural model about the motivations of individuals and the use of warez (Peace, Galletta , & James , 2003).

3.4. The impacts of software piracy:

For warez vendors, the profit margin exceeds the 90%. For users, and despite the risks of infecting their machines with viruses and malware, for each illegal download, they saves the equivalent of the legal copy. But the profits of some are the losses of others:

- ***A lack a win for companies and developers*:** Software piracy takes industries in direct competition with counterfeiters suffer a direct loss in sales. In 2015, if we calculate losses due to software piracy at the cost of used illegal softwares, we get by order descending the following losses: $19 billion for the Asia-Pacific region; $10 bn for Western Europe; $10 bn in North America; $5 bn for Latin America; $3bn in Africa-Middle East and $3bn for Central and Eastern Europe region. In total, the aggregate value is estimated at $52 billion (BSA, 2016), so that the 'International Chamber of Commerce' (ICC) estimate the overall value of digital piracy in movies, music and softwares in 2015 to $213 billion: $160 bn in films, $29 bn in music and $24 bn in softwares (Frontier-Economics, 2017).

- ***The increase of the expenditures*****:** related to the protection of rights property, additional costs which increase in parallel the prices of softwares, and the first sufferers are the purchasers of legal copies (OECD, 1998).

- ***The deterioration of the enterprise reputation*****:** Often illegal copies have bugs and the users can wrongly believe that the malfunctions comes from the creators. This could be seriously harmful for the companies' reputation producing softwares, and may negatively overflows the future products.

- ***The slowdown in innovation*****:** The proliferation of pirated softwares, discourages investment and therefore hinders innovation. This last is also hampered by the discouragement of the creators of softwares, who see much of their efforts transferred without consideration of any kind.

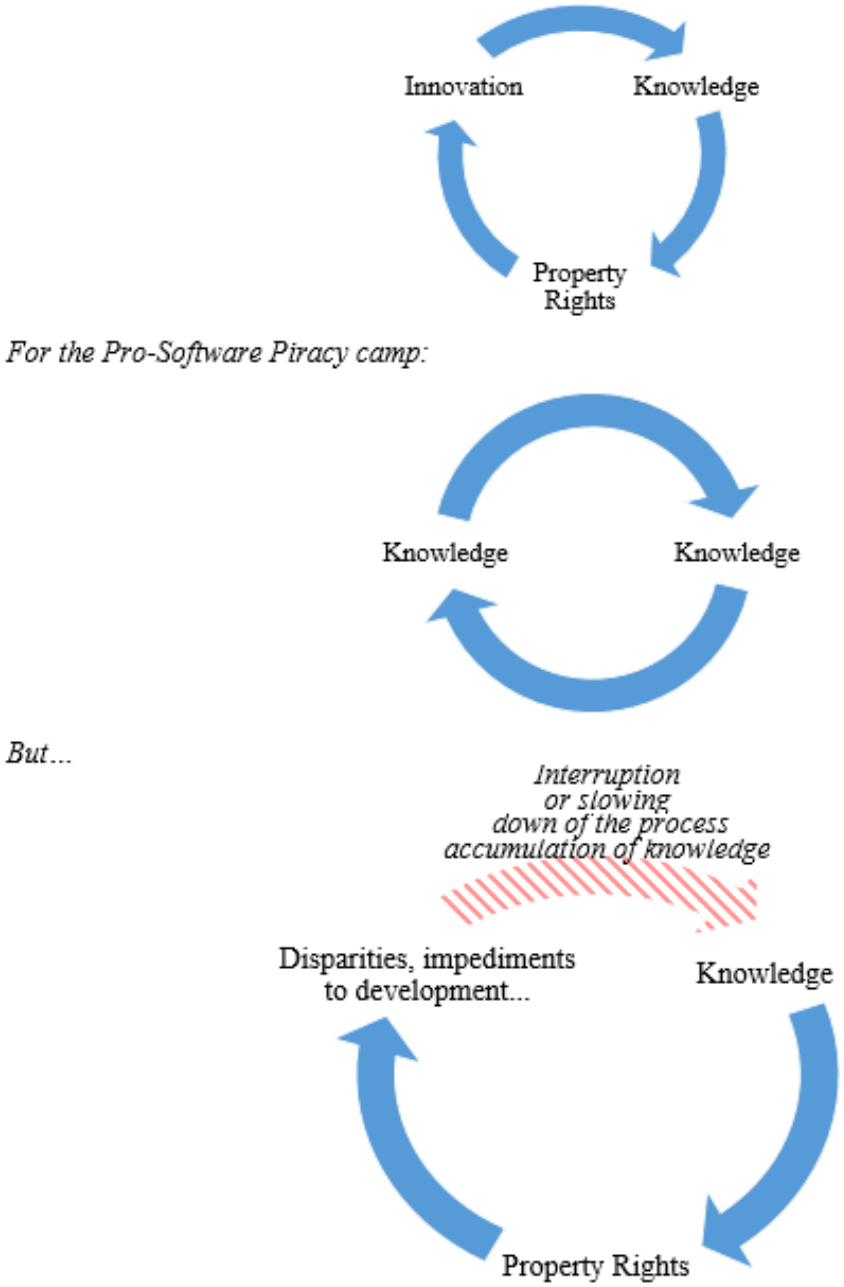
- ***A tax shortfall for States:*** counterfeiting in general represents a considerable tax shortfall through VAT, corporate excise tax and the income tax: it was estimated that if the software piracy rate declines by only 10%, for the period (2010-2014), and only in the United States, it is then $7 trillion of tax revenue that could be recovered (UNIFAB & IRPI, 2010).

- ***Link between unlicensed softwares and cyber security threats****:* malware can be embedded in the softwares. The resulting costs are huge: In March 2013 it was estimated that during the year consumers would waste 1.5 billion hours dealing with malware from counterfeit softwares; direct costs to enterprises would amount to $114 billion (Frontier-Economics, 2017, p. 35).

4. Confrontation of the arguments of the pro and anti-piracy, and some propositions:

In simple terms, the positions of the two group can be illustrated by these schemes:

Fig.9: "Positions against property rights of pro and anti-software piracy"



Sources: Established by authors

It is a paradoxical situation, as each of the two camps has more or less strong arguments, but justifying half-truths sometimes:

- For the anti-piracy software camp, it's the cause of losses close to $24 billion, and the loss of thousands job opportunities, noting that it is a shortfall and not a loss. There is no guarantee that warez users will change their behaviours immediately and buy legal copies, in the unlikely event that a trick is found to

eliminate software piracy. But vendors of illegal copies are the most noxious: they do a handling of stolen goods.

Concerning the impact on employment: the big impact of software piracy, seems to be exaggerated. In 2016, there are 1,114,000 software developers employed in United States (estimating), with incomes evaluated at $49,17 per hour or $102,280 per year, and an increase of 186,000 jobs from 2014 to 2024 (BLS, 2015). These statistics proof that this sector is far from crisis.

- In addition, many people claim falsely that the use of warez is exclusive because of poor people without resources. Certainly, it is more common in less developed countries, but the statistics shows that no country is away from that. In developing countries, imposing outdated, inadequate and sometimes contradictory rules and setting prices of the softwares on these bases, lead to exorbitant prices and responsibility sharing of that, pushes many PC's users to the 'dark side' in other words, the remedy is partly the cause of evil.

- As to the negative impact of software piracy and the spread of warez on innovation, it is true that those who cry wolf do not hesitate hack and copy, not even to evolve knowledge, but for purposes purely mercantilist. *Samsung* the Korean giant, was in open conflict with Apple for several years for violating three patents. In 1988, Apple filed a historic lawsuit against *Microsoft*, because *Windows* used a parts too similar to those of *Apple IOS*. However, Bill Gates had stated at the time: "*We're saying that these graphic interface techniques, the ideas, are not copyrightable*"… trials brought by Steve jobs, then that he even claimed in a televised interview that "G*ood artists copy; Great artists steal"* (Farber, 2014)...as the saying goes "*This is the pot calling the kettle black*".

  Moreover, does this facts not proofs that the property rights that are supposed to encourage innovation, are sometimes an impediment to innovation? What to do to solve this dilemma? Here are some propositions:

- By means of the table data 1, it is shown that the software was generally sold at nearly the same in different countries. In the USA for example, the average income is 15 times higher than that in Bangladesh, but the price of the *MS Office* is just 1.25 more expensive in USA than in Bangladesh… it is thus a question of selling the software at more accessible prices and more or less in keeping with the purchasing power of each country. The pricing by using relative prices is perhaps an option to take into consideration :

  To avoid complication due to the numbers of hours worked in each country, the numbers of days per month, the numbers of public holidays paid, etc., hence we use the following formula:

  Months of work necessary to acquire a good Z= (Price of Good Z/Monthly wage)
  To obtain the volume of work in hours, it is necessary to multiply the result by 24 (hours) and then by 30 (days). In the USA for example, we have:

  149.99/5013 = 0.03 months
  = 0.03 x 24 x 30= 21.54H

Then, it takes 21.54 work hours to buy *MS Office Home and Student Edition*. If we carry out calculations starting from the data of the tab.1, we will find that in the countries of G7 (except Russia), it is necessary to have between 21 and 36 work hours to acquire the product of *Microsoft*, that is to say 30 hours approximately on average or 4.17 percent of the Monthly wage. If we put this value of 30H as standard to evaluate the prices of the software in the developing countries. If we do it, we obtain more equitable prices:

Table.2: "Prices of MS Office in some countries after Indexation"

Country	***Normal* price of MS Office H&S**	***Indexed* Price of MS Office H&S**	**Share of Indexed Price from Average wage**
China	$109.56	$27.32	4.17% (=30h of work)
Russia	$149	$22.87	
Algeria	$119.18	$14.95	
Paraguay	$100.71	$14.83	
Zimbabwe	$119.99	$14.70	
Bangladesh	$120.17	$13.66	

Source: Established by authors

Maybe the values given above seems utopian, but the idea to establish prices of softwares according to the purchasing power; is realistic option.

- On another hand, to adopt industry business plans of the gaming on Android and iOS platforms seems a good track to reduce piracy and prevalence of warez. Let us take two examples, the *Free to Play* and the *Freemium* : For the *Free to Play* (*F2P*), many applications on tablets are based on this principle, and they make it possible to their owner to earn millions of dollars, like *Candy Cush Saga* with his $569 million sales turnover in 2015 (Takahashi, 2015) or *Angry Birds* and its owner, *Supercell,* that realized, in 2014, more than 2.4 million dollars incomes per day (Bonvin, 2014). Certain softwares adopts also this principle, like the *Avast antivirus*, which can be downloaded free in basic version, but which becomes paying if one wants to go to the *Premier* version. *Youtube* has adopted an alternative way: before October 2015, all the contents were free, but now advertisements often precede the videos you want to see, however, if you subscribe to *YoutubeRed* and pay $9.99 dollars per month, the inopportune advertisings are removed. Concerning the *Freemium,* from *free* and *premium*, this a practice is found in *Sharewares*, however, the freemium softwares continuous to function after the fateful time, whereas the sharewares are blocked automatically.

Obviously it is not claimed that the these measures are the panacea to the software piracy, and it will always have vicious people who will try; and may be succeed to crack a freemium or free to play softwares, but at least, these businesses plans can reconcile the *Robins Hood*, defensors of the '*all free'*, and the *Kings John*, bugles of the '*all paid'*.

Conclusion:

It is in the name of human rights to knowledge that pirates divert the labour of others, and it is with the name of copyrights and property rights where multinationals block the propagation of knowledge. For many warez groups, property rights on softwares, under their present form, are a shovel that further digs the digital divide and piracy another serves to bridge the gap.

So what to do? Continue with the actual regime of rights on softwares? Support pirates and the users of warez? Classical measures have their limits and software piracy has good days ahead. So, claiming to eradicate the phenomenon is purely fanciful but it's possible to be contained, by making an effort on prices and index them according to average purchasing power for example, or by the adoption of certain techniques like business plans used by many creators of games for tablets and smartphones; all we need to do, is a little more of will and a little less egotism from each part.

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