



PhD in Electrical and Computer Engineering



2018 Seminars – Entrepreneurship Methods

IP Topics for Engineering: I - Intellectual Property and Innovation

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1. What's *Intellectual Property*?

For a start, **it's not a “property”**, strictly speaking

- **it's not the same as the ownership of an estate** (*real property*) **or of any other thing** (*personal property*), meaning that:
 - it has to do with **ideas and communication**, only
 - is **artificial, relying completely on an attribution**, and an enforcement, **by the Law**, National and International
 - it's use by a given person **does not prevent the use by any other**
 - it has always been **a temporary privilege**
 - **so**, as in many other cases, **the wording is**, basically, **ideological**

- in short, it's a **concept that describes several clusters of exclusive rights**, related to:
 - **Intellectual Works**, including **computer programs and databases**
 - **New Creations**, with *know how*, **inventions**, utility models, designs or models, **topography of semiconductor products** and plant varieties
 - **Distinctive Signs**, as trade names (and logos), trademarks, domain names and geographical indications
- **most of these institutes**, regulated by International Instruments, **are under administration by an agency with the system of the United Nations, the World Intellectual Property Organization (WIPO)**, placed in Geneva

2. Why Intellectual Property?

(a) So, what's the reason for this attribution of exclusive rights to ideas, and it's communication, so relevant?

- currently, **we live**, not just, within an Information Society, where wealth is represented by information, but **with in a Knowledge Society, where**, economic and political, **power comes from the access and use of information to create**, physically or symbolically, **new wealth**
- **then, the exclusive control of information is ancillary in any chain of value**
- **both, for inducing innovation and in order to prevent competition from free riders, as well as to prevent the arrival of new competitors** by heightening the entry barriers to the market
- **always having in mind that all innovation requires investment...**

- **as a consequence**, mostly in **developed countries**, an ever greater share of the **revenue is coming from sectors related to the**, so called, **Creative Economy**, the same for well paid jobs
- in the last few years, **with Globalization** and the delocalization of manufactures developing countries, **developed**, post-industrial, **countries**, namely the **European Union**, **became quite aware of this:**
 - **starting with the Communication** from the Commission, “**Europe 2020 ‘Flagship Initiative - Innovation Union’**”, COM(2010) 546 final, of 6 October **2010**
 - **followed by the Communication** from the Commission, “**A Single Market for Intellectual Property Rights Boosting creativity and innovation to provide economic growth, high quality jobs and first class products and services in Europe**”, COM(2011) 287 final, of 24 May **2011**

(b) Therefore, Intellectual Property issues became central to Global Trade Negotiations

- it happened **from** the 8th round of multilateral trade negotiations conducted within the framework of the ***General Agreement on Tariffs and Trade*** (GATT), the ***Uruguay Round***
- differently from previous *rounds*, **this time negotiations where connected** and the resulting *package deal* had to be accepted by each party
 - in short, the ***Agreement on Trade Related Aspects of Intellectual Property Rights*** (TRIPS), Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization, of 15 April **1994**, was a **counterpart to market access by developing countries manufacturers and farmers**

- as **main traits of *TRIPS Agreement***, we have:
 - the **reception of previous International Instruments** on Intellectual Property, **namely** the ***Paris Convention for the Protection of Industrial Property***, of **1883**, the ***Berne Convention for the Protection of Literary and Artistic Works***, of **1886**, and the ***Treaty on Intellectual Property in Respect of Integrated Circuits***, of **1989**
 - the **Principles of National Treatment (Art. 3) and Most-Favoured Nation Treatment (Art. 4)**
 - **provisions on computer programs and compilations of data (Art. 10), trademarks (Art. 15 to 21), geographical indications (Art. 21 to 24), industrial designs (Art. 25 and 26), inventions (Art. 27 to 34), topographies of integrated circuits (Art. 35 to 38) and undisclosed information (Art. 39)**

(c) At about the same time, **was felt the full impact of digital technologies:**

- **so, legal innovations**, sometimes just by pouring “new wine into old wineskins”, **took place regarding Intellectual Works mostly**, even if a new creation, design of a semiconductor product, was regulated
- the **main idea** was to **enhance the protection of the property rights holders in the new digital environment**, always keeping a balance favouring them, as a way of promoting investments in the, so called, *New Economy*, **that**, beyond the TRIPS Agreement, **was done from:**
 - the ***WIPO Copyright Treaty***, of **1996**, internationally
 - **but**, also and specially, at an **European Level**, since the **Green Paper on “Copyright and Related Rights in the Information Society”**, COM(95) 382 final, of 19 July **1995**