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**IPR and the Dynamics of Creation:**  
**the cases of videogames and of music industry**

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**Abstract**

There is growing evidence that the process of creation is generally a collective effort that necessitates the interaction and coordination of a multitude of economic actors. More precisely we suggest that two main phases should be distinguished in the creative process: 1) a phase of *emergence*, where the creative idea needs to come equipped with shared codes, tests, and “grammar of usage” before being considered as having an economic potential. Without the building of this public or semi-public “codebook” that firstly occurs during the phase of emergence of the creative process, most of the creative ideas would not be economically viable; 2) a phase of *stabilisation*, where the creative idea is ready to enter the market, and where the characteristics of the novelty are fully understood, and described in codes and procedures that every agent can access and use.

The purpose of this paper is to analyse the role that IPR play in the creative process, by focusing on the phase of emergence. Two main hypotheses are exposed: first the IPR system facilitates the *coordination* between heterogeneous “stakeholders” of the emerging phase (talented individuals, firms and communities). Second, the IPR system in the creative process also plays its classical role of *exclusion*, but such a perspective the IPR system tends to burst into different components (copyrights, patents, secrets, creative commons, etc.). Each of the “stakeholder” which participates to the phase of emergence claims for a “reward” of his/her participation to the creative process. As a result, the

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phase of emergence can be viewed as a critical period of time where the “rules of the game” of the distribution of property rights during the economic phase that will follow.

In this perspective, the case of creative processes in two so-called Creative Industries will be examined (video games and music industry), extending from an approach initially developed for innovation dynamics in standard industry, e.g ranging from semi-conductors to pharma.

To be more precise, as Callon (1999) emphasised that in the phase of emergence of the creative process the production of knowledge tends to exhibit exactly the reverse properties than the one postulated by the traditional economic approach (Arrow, 1962): knowledge is essentially rival (it is extremely difficult to reproduce the new knowledge in a place that is not the place where the creation has been first realised) and exclusive (the novelty relies heavily on the tacit knowledge of creators). In this context of emergence, knowledge is also essentially specific (it can be absorbed and used by a few other agents only) which is the opposite of the traditional vision that postulates that knowledge has a high degree of generality (knowledge with a high degree of generality can be potentially used in various contexts by a large variety of agents: all the agents of the economy have the full capability to absorb the innovative idea emitted by the producer of knowledge).

The logical conclusion therefore is that in the phase of emergence of the creative process, there are important reasons to support a hypothesis of strong appropriability by the first agents at the origin of the creative idea. It is not the issue of appropriability that matters the most during this phase, but the issue of the building of a quasi-public good: the critical mass of understanding between the different agents involved in the creative process from which codes and grammar of usage of the novelty will progressively be developed, in order to reproduce, extend, and make the initial creative ideas viable.

What the above vision also suggests is that the process of creation is far from being restricted to the sole role of talented individuals, or far from being controlled by the strategic vision of institutions (as firms or labs in standard industries). Institutions are instances where contracts are signed, where people are hired or fired, where broad competences are managed. They are not the active units of elaboration of this common base indispensable for the development of innovation. The active units which undertake the codification process are in our view also the diverse knowing communities that participate in the process of invention

The story of the production of new knowledge could thus be interpreted as a process where individuals, institutions and knowing communities interact, each contributing through its activities of knowledge to mitigate the limits and possibilities of failure of the others.

It is only at the next stage, at a later phase of the overall creative process which can be described as the “*phase of stabilisation*”, that the characteristics of the novelty are fully understood, and described in codes and procedures that every agent can access and use. Then we reach a situation corresponding to the traditional context of production of

knowledge as described by Arrow, and during which appropriability and exclusion become key elements.

This view supports the hypothesis of the existence of *adiversity* of motives to claim for property rights (Cohendet, Farcot, Pénin, 2006). Among the motives, and besides the right to exclude, property rights are also fundamental instruments of *signalling* allowing the producers of a piece of knowledge to have their competencies to innovate recognised by others. In that case, property rights play a fundamental role of *coordination* of innovative activities. As a label of recognition of competencies, they offer possibilities to be accepted in innovative networks or certificates of guarantee for firms to receive seed money from banks or specialised institutions. Moreover, we argue that the signalling motive is in general the highest motive in the phase of emergence of innovation, when the actors do not know each other. Paradoxically, it is also when tacit knowledge is dominant that this role appears to be the most useful. The importance of tacit dimension is often crucial in this emergent phase, but also depends on the sector or the domain of creation and innovation. As the process of innovation matures and tends to reach the phase of stability, the signalling motive relatively weakens, while the exclusion motive increases. Other modes of coordination are then brought to the scene. To a large extent the process of creation could be seen as the one leading a creative idea from a stage where it relies on purely appropriable knowledge with a minimal economic potential to a stage where it is patentable with a strong economic potential.

Attempts have already been made to analyze the innovation process of different industries using this view, such as semi-conductors, pharma and biotech. In this paper, we propose to make a further step by testing the relevance of such framework of analysis in the context of the creative process of Creative Industries, using the two specific cases of videogames and music industry. Both of them are notably characterized by the splitting-up of IPR. The design of IPR architecture structures and mirrors the architecture of relations between stakeholders (basically individuals, knowing communities and firms, as well as some specific institutions) and their respective position in the distribution of economic value. Part of the coordination role of IPR in the phase of emergence is related to the anticipations made by these stakeholders about their position in the stabilisation phase. In both cases, digitalization entails the development of an increasing variety of communities, which play a role not only in the phase of emergence but also in the stabilization phase.

In the case of videogames, the analyse will extensively rely on the deep knowledge of the development around the Canadian-based Ubisoft company, where one of the co-author of the proposed contribution has spent three years for his Ph.D. All videogames, regardless of their type, content, country of origin, target platform or supporting media, comprise some combination of copyrights, trademarks, patented technology and trade secrets.

A finished game often contains many different intellectual properties, owned by many different parties. The IP "ingredients" or assets in a game generally fall into basic categories: code, art, audio, and design. Within each category, some assets are created "from scratch" while others are licensed from others, whether for reasons of efficiency or publicity. The individual assets may be protected by copyrights, trademarks, patents,

trade secrets, or some combination of the above. The contribution aims at explaining how the IPR system is logically distributed through the different participants to the creative process (this includes recent “hot” debates such as developer-publisher as author). This analysis includes the role of communities, since IPR in community based videogames (raising issues such as the use of creative commons) is a growing tendency in the domain.

In the case of music, the paper will propose a more exploratory analysis, given the existence of many different types of music and associated specific creative processes. In our perspective, the first innovation phase is assumed to be interpretable as the emergence of a *music style*. The role of IPR will be investigated taking into account the extremely complex architecture of rights, their ability to cover various specific aspects of musical creation, and the correspondingly intricate network of connections between the actors involved at different stages of the creative process (composers, songwriters, musicians, recording personal, producers, agents, editors, labels, majors, etc but also to some extent entertainment industry, music instruments industry, etc). It will also be argued that the impact of digitalisation has probably a more pervasive and diverse influence on the economy of the music industry than the traditionally mediatized (and debated) eviction of CD sales by illegal internet download. One of the consequences is the increasing variety of communities, for instance based on the Creative Commons principle.