**ONTOCOMMONS BRIDGE-CONCEPT**

**INTELLECTUAL ARTICLE (COMMERCIAL)**

**[Commercial Product CLUSTER]**

**General Concept Info:**

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| **IRI:** | *Suggested entity new IRI.* |
| **OWL Type:** | *Class* |
| **Concept Elucidation:** | An Intellectual Article is something which is -or has been- explicitly offered on the market for purchase or barter, whose ownership is transferred to the purchaser as a condition for the completion of the transaction, and which is not associated with a specific material entity, if not to one acting as a legal placeholder or as a contingent concretisation to the end of completing a transaction.  Intellectual Articles are the outcome of some kind of practical and/or intellectual activity which needn’t have been performed, directly, or indirectly, by the organization or individual offering the Article on the market, and which needn’t involve any alteration of the item which is then offered for purchase.  Intellectual Articles can either belong to the purchaser for an indefinite, or predetermined, period of time after the completion of a transaction; the ownership can be transferred at any point during the transaction and needn’t grant full legal rights over the owned article. They are generally considered to be intangible and conceptualised as reified legal rights or knowledge (semantic, factual, true data), though said characteristics do not pertain to the domain of economics, and are at most derivative.  Intellectual Articles can be generically associated with intellectual properties, provided that the latter are playing the specified economic roles in a certain context.  Domain: Economics - Business – Marketing |
| **Labels:** | *Labels used to address the concept, ordered as:*  *skos:prefLabel:* Intellectual Article (Commercial)  *skos:altLabel: Intellectual Article; Intellectual Article (Economic); Purchasable Intellectual Property*  *skos:hiddenLabel: Product; Good; Service; Article; Purchasable; Transactable Entity; Merchandise; Commodity; Ware; Intangible Article* |

**Knowledge Domain Resources:**

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| **Related Domain Resources:** | *-Wikipedia:* “Intellectual property (IP) is a category of property that includes intangible creations of the human intellect. There are many types of intellectual property, and some countries recognize more than others. The best-known types are copyrights, patents, trademarks, and trade secrets. The modern concept of intellectual property developed in England in the 17th and 18th centuries. The term "intellectual property" began to be used in the 19th century, though it was not until the late 20th century that intellectual property became commonplace in the majority of the world's legal systems. The main purpose of intellectual property law is to encourage the creation of a wide variety of intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create, usually for a limited period of time. This gives economic incentive for their creation, because it allows people to benefit from the information and intellectual goods they create, and allows them to protect their ideas and prevent copying. These economic incentives are expected to stimulate innovation and contribute to the technological progress of countries, which depends on the extent of protection granted to innovators. The intangible nature of intellectual property presents difficulties when compared with traditional property like land or goods. Unlike traditional property, intellectual property is "indivisible", since an unlimited number of people can "consume" an intellectual good without its being depleted”.  -*ISO 9000:* “output of an organization that can be produced without any transaction taking place between the organization and the customer”; “production of a product is achieved without any transaction necessarily taking place between provider and customer, but can often involve this service element upon its delivery to the customer”; “the dominant element of a product is that it is generally tangible”; “Hardware is tangible and its amount is a countable characteristic (e.g. tyres). Processed materials are tangible and their amount is a continuous characteristic (e.g. fuel and soft drinks). Hardware and processed materials are often referred to as goods”; “software consists of information regardless of delivery medium (e.g. computer programme, mobile phone app, instruction manual, dictionary content, musical composition copyright, driver's license)”.  -ISO 14040: “any goods or service”; “the product can be categorized as follows: — services (e.g. transport); — software (e.g. computer program, dictionary); — hardware (e.g. engine mechanical part); — processed materials (e.g. lubricant)”; “services have tangible and intangible elements. Provision of a service can involve, for example, the following: — an activity performed on a customer-supplied tangible product (e.g. automobile to be repaired); — an activity performed on a customer-supplied intangible product (e.g. the income statement needed to prepare a tax return); — the delivery of an intangible product (e.g. the delivery of information in the context of knowledge transmission); — the creation of ambience for the customer (e.g. in hotels and restaurants). Software consists of information and is generally intangible and can be in the form of approaches, transactions or procedures. Hardware is generally tangible and its amount is a countable characteristic. Processed materials are generally tangible and their amount is a continuous characteristic”; “adapted from ISO 14021:1999 and ISO 9000:2005”.  -ISO 56006: “Intellectual property ("IP") refers to unique, value-adding creations of the human intellect that result from human ingenuity, creativity and inventiveness. IP is a type of property while intellectual property rights (“IPR”) are the rights arising from different forms of IP. IP enables the granting of property-like rights over new knowledge and creative expressions. For example, IP relates to scientific or technological products or processes, software, data, know-how literary and artistic works, designs, symbols and names. There are various types of IPRs that protect different innovation outputs”. |
| **Comments:** | *This engineered OntoCommons bridge-concept aims to provide a detailed notion which can fill a conceptual gap in golden standards’ coverage of business practice’s logical space, circumscribing problematic cases which would otherwise escape the classical categorisations and thus result in ambiguities and confusion. This bridge-concept was developed in accordance with both explicit requests from MLOs’ stakeholders given OntoCommons’ survey and pragmatic alignment needs.*    *The definitory trait of Commercial Products and Articles (Commercial) will not be discussed here; the discussion can be found in the relevant templates.*  *The defining trait of the OntoCommons bridge-concept, Intellectual Article (Commercial), was chosen in a way that would ensure a common-sense & golden-standards friendly subdivision of the logical space without giving up domain-specificity entirely: association with a material entity. The specification, excluding material entities which act as legal placeholder or contingent concretisations (mediums) to the end of completing the transaction, avoids possible sources of doubt for the users, eliminating ambiguities.*  *The OntoCommons bridge-concept, Intellectual Article (Commercial), arguably covers products which escape a partition of the logical space in two camps of tangible goods and intangible services, in line with ISO 9000 and ISO 14040’s approaches. While according to ISO 14040 tangibility is only a paradigmatic trait (not a defining one), no more detailed accounts are offered. It should be noted that software are explicitly stated to be intangible and distinguished from services though.*  *The identified trait is reminiscent of tangibility, and, as such, it should appear quite intuitive and unproblematic. However it should be noted that the trait is used to discern among types of articles, and not among articles and services. The distinction is reinforced by focusing on the activities having the product as an outcome in the different scenarios.*  *The concept is explicitly linked to the notion of intellectual property, which underlies the relevant class. Again, intellectual properties cover quite a varied range of possible products (among which crucially figure softwares, depending on the method of distribution): addressing the latter is especially important in the NMBP area as a relevant portion of the stakeholders actively engages in research, creation and knowledge trade, with patents and trade secrets playing core roles in industry. In line with that, there is an ongoing effort to legislate that area of the business landscape.* |

**Concept’s Cluster:**

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| **Cluster:** | *Commercial Product* |
| **Cluster Relations:** | *The Engineered OntoCommons bridge-concept Commercial Product is the core of the Cluster: Commercial Product.*  *Article (Commercial) and Service (Commercial) are engineered in a way such that they jointly exhaust Commercial Product’s logical space; as a result of that, Article (Commercial) and Service (Commercial) are rdf:subClassOf Commercial Product, and Commercial Product is rdf:equivalentTo the union of Article (Commercial) and Service (Commercial). Likewise, Good (Commercial) and Intellectual Article (Commercial) are engineered in a way such that they jointly exhaust Article (Commercial)’s logical space; as a result of that, Good (Commercial) and Intellectual Article (Commercial) are rdf:subClassOf Article (Commercial), and Article (Commercial) is rdf:equivalentTo the union of Intellectual Article (Commercial) and Good (Commercial).*  *The bridge-concepts belonging to the cluster are organized hierarchically focusing on core traits and traits-values, to the end of engineering strong semantic links capable of supporting mediated alignments. The traits are chosen in a way which maximizes coherence with existing standards and ease of alignment with ontologies, given commonly employed ontological theoretical choices/background assumptions.*  *Specifically, the first partition of Commercial Product’s logical space -by means of the bridge-concepts Article (Commercial) and Service (Commercial)- attempts to capture the common-sense-friendly distinction between services and other things that can be purchased, often identified by means of labels such as ‘goods’ and ‘merchandise’. The trait chosen to distinguish the two pertains to economics, in line with the concepts’ domain: ownership transference upon purchase. An Article’s ownership is transferred to the purchaser upon completion of a transaction, while Services needn’t involve ownership transferences not pertaining to legal rights. As a result of that, Articles can e.g., be fully returned to the seller, and can be separated from the latter, while that does not hold for Services. Yet these further traits/trait-values are to be considered derivative and indicative: not such as to characterise the distinction. It is often common to further distinguish between Services and Products which are not Services by means of another trait: tangibility. Services are said to be intangible, while Products which are not Services are said to be tangible. While, as a rule of thumb, this might appear prima facie correct, the characterisation is problematic when it comes to certain Articles, and the trait is not overall neutral given different possible ontological background assumptions. As such, tangibility has not been deemed a trait capable of providing a rigorous and neutral partition.*  *The second partition of the logical space (of Article) -by means of the bridge-concepts Good (Commercial) and Intellectual Article (Commercial)- attempts to capture the common-sense-friendly distinction between intellectual and material assets (“properties”, in the economic sense). The trait chosen to distinguish the two partitions is quite complex, in order to avoid counter-examples while preserving neutrality: association with a specific material entity which doesn’t merely act as a legal placeholder or as a contingent concretisation to the end of completing a transaction. Goods are associated, and often appear entirely reducible, to material entities which do not merely act as legal placeholders or as contingent concretisations to the end of completing transactions, while Intellectual Articles aren’t. as a result of that, the OntoCommons bridge-concept, Intellectual Article (Commercial) arguably covers all the so-called intellectual properties (which are explicitly offered on the market for purchase and whose ownership is transferred to the purchaser upon completion of a transaction).*  *The resulting engineered cluster of bridge-concepts, hinged on the OntoCommons bridge-concept Commercial Product -covering and organising the logical space of core concepts in business practice- is arguably de facto aligned with golden standards (as explicitly argued for in the comments to the knowledge domain resources for each of the particular bridge-concepts), while at the same time being respectful of possible discrepancies in the background assumptions which do not strictly pertain to the economic domain the concept cluster belongs to. The partitions should be conductive to conceptual clarity while at the same time facilitating alignments which would have otherwise been hardly possible, at least in some cases, as argued for in (some of) the mapping elucidations for the bridge-concepts belonging to the concept cluster, and Commercial Product & Article (Commercial) in particular: in fact, the bridge-concept Commercial Product, much like many broad concepts belonging to the business/legal areas, is trans-categorical given partitions of the logical space commonly employed by most Top Level Ontologies, and some of the ontologies belonging to the OntoCommons EcoSystem for what concerns us here (BFO and DOLCE). The conceptual cluster has thus the further benefit of ensuring more precise and informative mappings, automatically connecting single ontologies to a well-defined conceptual architecture.* |