**ONTOCOMMONS BRIDGE-CONCEPT**

**ARTICLE (COMMERCIAL)**

**[Commercial Product CLUSTER]**

**General Concept Info:**

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| **IRI:** | *Suggested entity new IRI.* |
| **OWL Type:** | *Class* |
| **Concept Elucidation:** | An Article is something which is -or has been- explicitly offered on the market for purchase or barter, and whose ownership is transferred to the purchaser as a condition for the completion of the transaction.  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 a transformation of the item which is then offered for purchase.  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 can indifferently be either tangible or intangible, artefacts or not artefacts. Likewise, they can indifferently be e.g., raw materials, processed materials, goods, intellectual properties.  Domain: Economics - Business – Marketing |
| **Labels:** | *Labels used to address the concept, ordered as:*  *skos:prefLabel:* Article (Commercial)  *skos:altLabel: Article; Article (Economic)*  *skos:hiddenLabel: Product; Good; Service; Purchasable; Transactable Entity; Merchandise; Commodity; Ware* |

**Knowledge Domain Resources:**

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| **Related Domain Resources:** | -*ISO 9000:* [product] “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: [product] “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”. |
| **Comments:** | *This engineered OntoCommons bridge-concept aims to provide a useful notion focused on few defining traits which can help to better navigate business practice, yet retaining some generality in its scope of application. This bridge-concept was developed in accordance with pragmatic needs to better satisfy the requests coming from MLOs’ stakeholders given OntoCommons’ survey.*  *The definitory trait of Commercial Products (i.e. their being actually, and explicitly offered for purchase or barter on the market) will not be discussed here; the discussion can be found in the relevant template.*  *The defining trait of the OntoCommons bridge-concept, Article (Commercial), was chosen in a way that would ensure a domain-specific common-sense & golden-standards friendly subdivision of the logical space: ownership transference. In fact, while both ISO 9000 and ISO 14040 revolve around tangibility, focusing on the latter leads to a problematic partition of the logical space when it comes to e.g. patents, trade secrets, and softwares.*  *The OntoCommons bridge-concept, Article (Commercial), is arguably extensionally aligned with ISO 9000, while avoiding its ontological background assumptions which do not strictly pertain to the domain of economics, and which lack neutrality. While, at first, it might be questioned whether ownership transference is truly a constitutive characteristic, capable of ensuring extensional appropriateness, the trait has the expected derivative consequences, and arguably properly captures the core economic aspects of the investigated phenomena. A further distinction is the following: it was decided to allow the concept to cover individuals resulting from the activity of individuals, beside organisations, and explicitly state that they needn’t be the legal agents taking part in the marketing phase.*  *Since the OntoCommons bridge-concept, Commercial Product, part of the same concept cluster, followed ISO 14040 more closely, both ISOs are thus properly represented.*  *The concept revolves around a well-defined economic trait, capable of partitioning rigorously the logical space. As such, it avoids ISO 14040’s vagueness caused by the focus on prototypical, non-necessary, characteristic, ensuring ease of classification and the rigidity of the taxonomy.*  *To avoid unwanted consequences due to the strict requirement, it is explicitly specified that, while the Article’s ownership has to be transferred to the purchaser as a condition for the completion of the transaction, the ownership transference can happen at any time during the transaction. Other value gaps are likewise specified to avoid ambiguities and common pitfalls in ontological categorisation.*  *Contrary to the other bridge-concepts belonging to the Cluster:commercial product, the choice of linguistic label associated with this concept is purely pragmatic, as there isn’t a shared consensus on the terminology, and, in line with what has been said above, “product” is re-used at different levels.* |

**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.* |