**OAI-PMH**: See *Open Archives Initiative Protocol for Metadata Harvesting*.

**OAN**: See *Optical-Access Network*.

**ObCS**: See *Object Control Structure*.

**Object**

1: A data structure that encapsulates behavior (operations) and data (state). (Alhajj & Polat, 2005)

2: An abstraction of a set of real-world things that has state, behavior, and identity. An instance of its class where the values of the attributes determine the state, and the operations the behavior. (Rittgen, 2005)

3: An entity (e.g., “person”) or a value (e.g., “phone number”). In object-oriented models, it is the instance of a class. (Galatescu, 2005)

4: A software bundle of related variables and methods. Generally, something is an object if it has a name, properties associated with it, and messages that it can understand. Object-oriented programming involves modeling the software system as a set of interacting (conceptual) objects in object-oriented design, then implementing (coding) the design using an object-oriented programming language with (programming-language) objects. (Wong & Chan, 2006)

5: Something conceivable or perceivable. This subsumes the object-oriented notion of object. (Gillman, 2006)

**Object Constraint Language (OCL)**

1: A notational language for analysis and design of software systems. It is a subset of the industry standard UML that allows software developers to write constraints and queries over object models. (Riesco et al., 2005)

2: A language used to express side-effect-free constraints. (Favre et al., 2005)

**Object Control Structure (ObCS)**

A behavioral description of objects and classes. (Bastide et al., 2006)

**Object Identifier (OID)**

1: In the object-oriented data model, each object is given an object identifier. The importance of an OID is that it makes the model work by reference and not by value (i.e., if an object changes the values of all its attributes, it still is the same object because of its OID). In the relational world, an object that changes the value of one attribute is a different object. Unlike keys, OIDs are immutable. (Badia, 2005d)

2: An unchangeable value that uniquely identifies that object and distinguishes it from all other objects. It is separate from the state and invisible to the user. OIDs can be used to represent associations between objects. (Polese et al., 2005)

**Object Modeling of Relational Applications (OMAR)**

A software engineering methodology for the object modeling of applications to be implemented over an RDBMS. (Polese et al., 2005)

**Object Orientation**

A view of the world based on the notion that it is made up of objects classified by a hierarchical superclass-subclass structure under the most generic superclass (or root) known as an object. For example, a car is a (subclass of) vehicle, a vehicle is a moving object, and a moving object is an object. Hence, a car is an object as the relationship is transitive and, accordingly, a subclass must at least have the attributes and functionality of its superclass(es). Thus, if we provide a generic user-presentation object with a standard interface, then any of its subclasses will conform to that standard interface. This enables the plug and play of any desired subclass according to the user’s encoding and decoding needs. (Polovina & Pearson, 2006)

**Object Partitioning**

The method to divide an object into smaller segments. (Tse, 2006)
Object Recognition
A supervised labeling problem based on models of known objects. (Swierzowicz, 2005)

Object Resolution
The amount of detail of a digital image or object. This is usually specified as the number of pixels and number of frames per second. (Tse, 2006)

Object Type
1: A specification of a type of entity; both structure (attributes) and operations (functions) are specified for object types. The notion of object type is a design notion being implemented as a “class.” (D. Brandon, Jr., 2005a)
2: In ORM, an object is either an entity (non-lexical thing) or a value (lexical constant, such as a character string), and an object type is a kind of object (e.g., Person, CountryCode). In UML, the term “object” is restricted to entities (instances of classes), while the term “data value” is used for instances of data types. (Halpin, 2005)

Object Wrapping
Adding code to convert an existing set of software procedures into an object class. The procedures can then be used as methods in an object-oriented software environment. (Westin, 2005)

Object-Oriented Analysis (OOA)
Software engineering approach to constructing software systems by building object-oriented models that abstract key aspects of the target system. (Fettke, 2005)

Object-Oriented Database
1: A database in which the operations carried out on information items (data objects) are considered part of their definition. (Alhajj & Polat, 2005a)
2: A database system offering DBMS facilities in an object-oriented programming environment. Data are natively stored as objects. (Darmont, 2005)

Object-Oriented Design (OOD)
A design method in which a system is modeled as a collection of cooperating objects and individual objects are treated as instances of a class within a class hierarchy. Four stages can be discerned: identify the classes and objects, identify their semantics, identify their relationships, and specify class and object interfaces and implementation. Object-oriented design is one of the stages of object-oriented programming. (Singh & Kotzé, 2006)

Object-Oriented DFD
A variant of Data Flow Diagram (DFD) introduced in FOOM methodology which includes object (data) classes rather than data stores. (Shoval & Kabeli, 2005)

Object-Oriented Knowledge Model
The knowledge model for knowledge representation which applies powerful object-oriented modeling technologies such as class, methods, inheritance, envelopment, and so forth. (Ma, 2006)

Object-Oriented Programming (OOP)
Emphasizes the hiding or encapsulation of the inner state of objects and the specification of these objects by an interface. OOP languages support objects, classes, and inheritance. (Fettke, 2005)

Object-Relational Data Model
Extends the relational data model by providing a richer type system, including complex data types and object orientation. (Zendulka, 2005b)

Object-Relational Database
1: A database system where the relational model is extended with object-oriented concepts. Data are still stored in relational structures. (Darmont, 2005)
2: Database that is developed using the object-oriented concept and is implemented in a relational environment. This database was introduced in the 1990s and since then has been widely used for database applications. (Taniar et al., 2005)

Object-Relational Modeling
Modeling of an object-relational database schema. It requires using model elements that are available in neither classic data models nor object models. (Zendulka, 2005b)

Object-Role Modeling (ORM)
A fact-oriented approach for modeling information at a conceptual level, using language that is easily understood by non-technical domain experts. ORM includes rich graphical and textual languages for modeling facts and business rules, and provides procedures for creating conceptual models and transforming them to lower-level models for implementation. (Halpin, 2005)

Objective Function
A positive function of the difference between predictions and data estimates that are chosen so as to optimize the function or criterion. (Beynon, 2005a)
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