

Definitions of Terms Related to Identifiers

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actionable identifiers	<p>To the extent that a computational process can allow a user to move from the occurrence of an identifier to accessing the object being identified, identifiers become actionable.</p> <p>Cliff Lynch, <i>Identifiers and Their Role In Networked Information Applications</i>, 1997: http://www.arl.org/newsltr/194/identifier.html</p> <p>Actionability is the ability to go with a single click from the identifier to a useful URL, be it to a metadata record, a service provided by the IS, or the identified resource itself.</p> <p>Vitiello, Giuseppe. "Identifiers and Identification Systems: An Informational Look at Policies and Roles from a Library Perspective." <i>D-Lib Magazine</i>, 10:1 (January 2004) http://www.dlib.org/dlib/january04/vitiello/01vitiello.html</p>
derivability	<p>The ability to generate an identifier from the resource it identifies or from the resource metadata.</p>
dumb identifier	<p>A dumb identifier has no inherent meaning and can only be resolved by looking it up in a database.</p> <p>Powell, Andy. "Unique Identifiers in a Digital World." <i>Ariadne</i>, 8 (March, 1997) http://www.ariadne.ac.uk/issue8/unique-identifiers/</p>
Globally Unique Identifier (GUID)	<p>A Globally Unique Identifier or GUID is a pseudo-random number used in software applications. While each generated GUID is not guaranteed to be unique, the total number of unique keys (2128 or 3.4028×10^{38}) is so large that the possibility of the same number being generated twice is very small.</p> <p>Wikipedia: http://en.wikipedia.org/wiki/Globally_Unique_Identifier</p>
granularity	<p>The size of the units of code under consideration in some context. The term generally refers to the level of detail at which code is considered...</p> <p>Free Online Dictionary of Computing (FOLDOC) http://foldoc.org/</p> <p>Granularity is the extent to which a system contains discrete components of ever-smaller size.</p> <p>Wikipedia: http://en.wikipedia.org/wiki/Granularity</p> <p>With regard to the intellectual property doctrine, granularity is the communication package that enjoys copyright protection.</p> <p>Vitiello, Giuseppe. "Identifiers and Identification Systems: An Informational Look at Policies and Roles from a Library Perspective." <i>D-Lib Magazine</i>, 10:1 (January 2004) http://www.dlib.org/dlib/january04/vitiello/01vitiello.html</p>

<p>identifier</p>	<p>(a) Identifiers (IDs) are lexical tokens that name entities. The concept is analogous to that of a "name". Identifiers are used extensively in virtually all information processing systems. Naming entities makes it possible to refer to them, which is essential for any kind of processing. Wikipedia: http://en.wikipedia.org/wiki/Identifier</p> <p>(b) (1) A single unambiguous string or "label" that references an entity (e.g. ISBN 0-19-853737-9) (2) A numbering scheme: a formal standard, an industry convention, or an arbitrary internal system providing a consistent syntax for generating a series of labels (identifiers (1)) denoting and distinguishing separate members of a class of entities (e.g. ISBN, or DOI Syntax NISO Z39.84). (3) An infrastructure specification: a syntax by which any identifier (1) can be expressed in a form suitable for use with a specific infrastructure, without necessarily specifying a working mechanism (e.g. URI). (4) A system for implementing labels (identifiers (1)) through a numbering scheme (identifiers (2)) in an infrastructure using a specification (identifiers (3)) and management policies (e.g. DOI System). <i>DOI Handbook</i>: http://doi.org/handbook_2000/intro.html#1.3</p> <p>(c) An identifier is an association between a string (a sequence of characters) and an information resource. That association is made manifest by a record (in the case of this service, a METS record) that binds the identifier string to a set of identifying resource characteristics. California Digital Library. <i>Archival Resource Key (ARK)</i>. http://www.cdlib.org/inside/diglib/ark/</p> <p>(d) An identifier is an unambiguous name for a resource. W3C Glossary: http://www.w3.org/TR/ws-gloss/</p> <p>(e) Any label, symbol or token that names or identifies an entity or a collection of data. <i>Techweb</i> http://www.techweb.com/encyclopedia/</p> <p>(f) Identifiers are names or strings adhering to certain conventions that, if properly employed, ensure uniqueness. Amy Brand, Frank Daly, Barbara Meyers. <i>Metadata Demystified</i>. NISO, July 2003. http://www.niso.org/standards/resources/Metadata_Demystified.pdf</p>
<p>intelligent identifier</p>	<p>Intelligent identifiers contain some meaning. Powell, Andy. "Unique Identifiers in a Digital World." <i>Ariadne</i>, 8 (March, 1997) http://www.ariadne.ac.uk/issue8/unique-identifiers/</p>

<p>metadata (in the context of identifiers)</p>	<p>An item of metadata is a relationship that someone claims to exist between two entities. Rust, Godfrey and Mark Bide. <i>The indecs Metadata Framework</i>, June, 2000. http://www.indecs.org/pdf/framework.pdf</p>
<p>opaque (and transparent) identifiers</p>	<p>In computer software, functions or data are opaque if their internal mechanisms or data structures cannot be accessed or utilised. Wikipedia: http://en.wikipedia.org/wiki/Opaque</p> <p>Location transparency: Names used to identify network resources are independent of both the user's location and the resource location. Wikipedia: http://en.wikipedia.org/wiki/Location_transparency</p> <p>Transparency (computing): In human-computer interaction, computer transparency is an aspect of user friendliness which relieves the user of the need to worry about technical details (like installation, updating, downloading or device drivers). Wikipedia: http://en.wikipedia.org/wiki/Transparency_%28computing%29</p> <p>... readability, also known as human-friendliness or lucency. The opposite of lucency is opacity. <i>Can the real-world subject be identified from the value of the identifier? -- Identifiers, Authentication, and Directories: Best Practices for Higher Education:</i> http://middleware.internet2.edu/internet2-mi-best-practices-00.html</p>
<p>persistent identifier</p>	<p>[URI Persistence]. The social expectation that once a URI identifies a particular resource, it should continue indefinitely to refer to that resource. W3C. <i>Web Architecture</i>: http://www.w3.org/TR/webarch/</p> <p>A persistent identifier is a name for a resource which will remain the same regardless of where the resource is located. Therefore links to the resource will continue to work even if it is moved. National Library of Australia: http://www.nla.gov.au/initiatives/persistence.html</p> <p>It is important to note that persistence is a function of organizations, not technology. Keith Shafer, Stuart Weibel, Erik Jul, Jon Fausey. <i>Introduction to Persistent Uniform Resource Locators</i>. OCLC. http://purl.oclc.org/docs/inet96.html</p>
<p>registration agency</p>	<p>(a) An organization appointed by the Registration Authority to assign ISTC and to maintain a register. International Standards Organization. <i>International Standard Text Code</i>. ISO/DIS 21047</p> <p>(b) [V-ISAN Registration Agency] Entity appointed by the V-ISAN Authority for the purpose of conveying V-ISANs to registrants and providing facilities for the registrants' interactions with the V-ISAN system (excluding the metadata maintained by the resolution service providers). International Standards Organization. <i>International Standard Audiovisual Number, Version Identifier</i>. ISO/DIS 15706-2</p>

registration authority	<p>Organization appointed by ISO for the purposes of administering the ISTC system and managing its deployment.</p> <p>International Standards Organization. <i>International Standard Text Code</i>. ISO/DIS 21047</p>
resolution	<p>The process in which an identifier is the input (a request) to a network service to receive in return a specific output of one or more pieces of current information (state data) related to the identified entity: e.g. a location (such as URL) where the object can be found.</p> <p>DOI web site FAQ: http://www.doi.org/faq.html#9</p>
resolution service	<p>The service identifiers that make up the 'rs' production are generic for both URI and URN resolution since the input value types itself based on the URI scheme. The list of valid services are defined in [11].</p> <p>Examples of some of these services are:</p> <p>I2L: given a URI return one URI that identifies a location where the original URI can be found.</p> <p>I2Ls: given a URI return one or more URIs that identify multiple locations where the original URI can be found.</p> <p>I2R: given a URI return one instance of the resource identified by that URI.</p> <p>I2Rs: given a URI return one or more instances of the resources identified by that URI.</p> <p>I2C: given a URI return one instance of a description of that resource.</p> <p>I2N: given a URI return one URN that names the resource (Caution: equality with respect to URNs is non-trivial. See [6] for examples of why.)</p> <p>RFC 3404 http://www.faqs.org/rfcs/rfc3404.html</p>
resolver	<p>The term "resolver" is used in this document to indicate a service that translates URNs to URLs (Uniform Resource Locators) or URCs (Uniform Resource Characteristics). Some resolvers may provide direct access to resources as well.</p> <p>RFC 2276 http://rfc.net/rfc2276.html</p>
unique identifier	<p>Uniqueness quantification: In predicate logic and technical fields that depend on it, uniqueness quantification, or unique existential quantification, is an attempt to formalise the notion of something being true for exactly one thing, or exactly one thing of a certain type.</p> <p>Wikipedia: http://en.wikipedia.org/wiki/Uniqueness_quantification</p>