The Linked Content Coalition (LCC) is a not-for-profit global consortium of standards bodies and registries. LCC members are organizations who create and manage data standards associated with content of one or more types, particularly for identifiers, metadata and messaging.

The purpose of the LCC is to facilitate and expand the legitimate use of content in the digital network through the effective use of interoperable identifiers and metadata.

The LCC supports interoperability between the computer systems of any and all legitimate participants in the digital network, including creators, rightsholders, publishers, aggregators, rights and content exchanges, retailers, consumers, cultural institutions (including libraries, museums and archives) and their agents and associations. Participation may be on any scale, from that of private individuals to multi-national organizations.

The LCC facilitates and support the legitimate use of copyright, public domain and "orphan" works, under any business model, including “free use” where enabled by law or rightsholder choice.

LCC projects do not compete with the activities of its members, but deal with matters of common interest across existing standards bodies. These can include

- interoperability between existing standards
- the development of specific all-media standards or tools, and
- collective input to, and collaboration with, related activities in other domains.

The LCC has set out **Ten targets for the rights data network** which describe those developments in identifier and metadata interoperability which it believes will best ensure that the digital network operates in future as effectively as possible. LCC projects will general relate to the furtherance of one or more of these Targets, and LCC will support initiatives by other organizations which do the same.

The LCC owns and maintains **LCC specifications**¹ and makes these generally available under free use licensing arrangements.

The LCC is partnered with the **LCC Forum**, whose members are organizations and individuals who are not standards bodies but wish to show their support for the goals of the LCC, and where appropriate participate in its activities.

Membership of the LCC or the LCC Forum indicates support for LCC principles in general as expressed in this manifesto, but member organizations are not required to make a commitment to support or implement any particular LCC standard or specifications.

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¹ Currently these comprise the **LCC Rights Reference Model (RRM)**, the **Common Rights Format (CRF)** XML schema, and the two ‘best practise’ guides **Principles of Identification** and **Principles of Messaging**.
Ten targets for the rights data network

The effective operation of the digital content market relies on the establishment of a global identifier network (described here as the rights data network) in which parties, creations and rights are identified and linked in the internet in a way that enables the automated discovery of rightsholdings, and the licensing and reporting of usage.

This may be described as a network of authoritative linked data in which

- all key entities in the rights data network have standard, resolvable identifiers;
- these identifiers are linked in standard ways; and
- the management of the identifiers and links is under registry procedures\(^2\) which ensure that they are under appropriate authority, and that parties with a legitimate interest in an entity can make sure that interest is correctly and publicly recognised.

The goal of this is to enable the widest possible access to appropriate rights information, and the widespread automation of rights trading, whether for commercial or “free use”.

The Linked Content Coalition has identified what it understands to be essential elements of this network, and sets out below ten targets for data standards which, if fully implemented, would provide the necessary infrastructure. Most, though not all, of these are partly in place at the beginning of 2014. The primary role of the LCC is to promote their implementation as fully as possible.

The targets here are focussed on the declaration (or publication) of data in the network: there is arguably a need for parallel targets for the consumption and use of the data, though solutions there are inherently more likely to be technology- and market-driven. The ten LCC targets do not address standards of usage reporting or financial reporting.

LCC’s ten targets

Terms with initial capital letters (eg “Party”, “Creation”) are used as defined in the LCC Rights Reference Model.

1. A global Party ID “hub”. Rightsholders and “asserters” should be identified with an identifier linked to the ISNI “hub”.

   A Party is a person or an organization (this includes different “public identities” of Parties, such as pseudonyms adopted by creators). Unambiguous identification of Rightsholders and those who assert Rights declarations is the most basic building block of the rights data network. The ISNI (International Standard Name Identifier) is a relatively new ISO standard identifier which can be used as an ID in its own right, but whose main role is to be a global “hub” where different IDs for the same party can be linked.

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\(^2\) “Registry procedures” does not necessarily mean that there have to be managed “registry databases”, although of course these play a major role. In some cases the procedure may be a standard way of declaring data within a distributed network, as is described in target 8, the Digital Content Declaration.
together so that they can be automatically matched to or substituted for one another in systems when necessary. ISNI does not therefore replace other IDs, but enables them to interoperate with one another.

2. **Creation IDs for all.** Creations of all types should be identified to any required level of granularity.

Public identifiers, supported by minimum metadata, are essential for Creations of all types in which Rights are asserted (physical and abstract works as well as digital, because Rights in all these are assigned in the digital network). Identifiers are needed at whatever level of granularity (sets, parts, fragments or derivations) specific Rights are assigned for. Not all types of Creation have public ID standards, and those which do are not all as fully implemented as needed.

3. **Right IDs.** Content rights should be identified distinct from, but linked to, the Creations to which they relate.

A “Right ID” which identifies a Right as a distinct data entity, separate from the Creation(s) it applies to and the agreements or policies which bring it into existence, is the most significant gap in the network’s data. Because Rights data is changeable, it cannot be reliably embedded into digital content itself, but should be accessible separately via linked identifiers.

4. **Resolvable IDs.** Identifiers should have a URI form so that where they may be persistently and predictably resolved to multiple services within the internet.

A resolvable identifier is one that enables a system to locate the identified resource, or some information about it, such as metadata or a service related to it, elsewhere in the network. URI-based resolution requires both a URI format for the identifier and an implementation of suitable protocols (such as http or Handle). Some identifiers already have a URI form, but many standard IDs do not yet have a URI expression, and this is the scope of this target.

5. **Linked IDs.** “Cross-standard” links between identifiers should use interoperable terms and be authorised by interested Parties at both ends of the link.

Where one Creation (for example, a sound recording identified by an ISRC) has a dependent relationship with another (for example, a musical work which it contains, identified by an ISWC) then the vocabulary term describing that relationship should be standardised in some public schema, and it should be possible for Creators or Rightsholders of either of the identified Creations to agree or dispute the validity of the link under some registry procedure.

6. **Interoperable metadata.** Standard content and rights metadata schemas and vocabularies should have authorised, public mappings which enable terms and data to be automatically transformed from one standard into another.

As with other identifiers³, it is neither possible nor necessary for everyone to use the same schemas and terms, although the more common usage there is, the better. What is needed is for authoritative mappings (authorised by those who govern the schemas) available as services supporting automated “translation” of metadata.

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³ Note that terms in controlled vocabularies are identifiers, as they are unique names within their domain and type. When expressed as URIs they just become more identifiers in linked data.
7. **Provenance of Rights data.** The provenance (“Asserter”) of Rights declarations should be made explicit.

In a distributed data network like the internet, the provenance of Rights declarations must be explicit if systems or users are to be able to trust it (or not). The asserter of a statement of Right may or may not be the same Party as the rightsholder. Without the ability to identify the asserter of a Right (with or via an ISNI), there is no basis for secure automated identification of Rights in the network, or for the identification and management of conflicts (see target 9).

8. **Digital Rightsholder Statement (“DRS”).** Anyone should be able to make standardised, machine-interpretable public statements about rightsholdings in Creations.

Using the elements described in 1-7 above, rightsholders and their agents require a means by which any Party can simply identify and describe themselves, their content and their rightsholdings in a Web or other network environment. This is especially useful for the huge volume of “direct-to-Web” publishing which now takes place, but can be applied by anyone. Such a DRS standard should be built into services which support the publication and management of content and related Intellectual property in the network.

9. **Dispute management.** Conflicts between public Rights declarations should be automatically identifiable so that their resolution can be managed.

Conflict or dispute management has always been an important task for CMOs (collective rights management organizations) because they receive conflicting rights claims from different Parties. As Rights data becomes more publicly accessible within the network, the same issues occur, but will be on a larger scale and not always under control of a single organization. Standard ways are needed of identifying and tracking these.

10. **Linked fingerprints.** Where digital “fingerprints” or embedded “watermarks” exist, they should be mapped to registered Creation identifiers.

Proprietary digital content recognition systems provide the means for a variety of functions, including the tracking of digital usage. Linking the fingerprints created by these systems to registered Creation identifiers ensures that such functions can be fully integrated with the rights data network.

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For example, proprietary systems such as Content ID (video), PicScout (images), Soundmouse (audio) and Digimarc Guardian (text)