

Additional Metadata for RSS and Atom Feeds

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1 Additional Metadata for RSS and Atom Feeds

A comprehensive guide to namespace extensions that enhance RSS and Atom feeds with rich metadata beyond base specifications.

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1.2 Introduction

While RSS 2.0 and Atom provide foundational syndication capabilities, real-world applications often require richer metadata. **XML namespaces** enable standardized extensions that add domain-specific information without breaking compatibility.

This document analyzes the most important namespace extensions:

- **Dublin Core:** International metadata standard for resource description
- **Media RSS:** Rich multimedia metadata for images, video, and audio
- **Podcast Index:** Modern podcast-specific enhancements
- **Other Extensions:** Content licenses, geographic data, and social metadata

1.3 Dublin Core Metadata Standard

1.3.1 Overview

Dublin Core is an internationally recognized metadata standard developed by the **Dublin Core Metadata Initiative (DCMI)** for describing digital resources. Originally created for library and archival systems, it has become a universal vocabulary for web content metadata.

Specification: [Dublin Core Metadata Element Set](#)
Namespace: <http://purl.org/dc/elements/1.1/>

1.3.2 History and Purpose

- **Established:** 1995 at a workshop in Dublin, Ohio
- **Standardized:** ISO 15836, IETF RFC 5013, ANSI/NISO Z39.85
- **Goal:** Simple, interoperable metadata for resource discovery
- **Design Philosophy:** “One-to-one principle” - each description describes one resource

1.3.3 Dublin Core Elements

Dublin Core defines **15 core elements** organized into three groups:

1.3.3.1 Content Elements (What)

Element	Description	RSS/Atom Usage	Example
<code>dc:title</code>	Resource name	Alternate/supplementary title	<code><dc:title>Quarterly Report 2025</dc:title></code>
<code>dc:subject</code>	Topic/keywords	Content categorization	<code><dc:subject>Climate Change</dc:subject></code>
<code>dc:description</code>	Content summary	Extended description	<code><dc:description>Analysis of global trends</dc:description></code>
<code>dc:type</code>	Resource nature	Content classification	<code><dc:type>Text</dc:type></code> , <code><dc:type>Dataset</dc:type></code>

Element	Description	RSS/Atom Usage	Example
dc:source	Original resource	Derivation reference	<dc:source>ISBN:978-1-234567
dc:relation	Related resources	Cross-references	<dc:relation>https://example
dc:coverage	Scope (spatial/temporal)	Geographic/time coverage	<dc:coverage>Europe, 2020-2025</dc:coverage>

1.3.3.2 Intellectual Property Elements (Who)

Element	Description	RSS/Atom Usage	Example
dc:creator	Primary author/creator	Author name (plain text)	<dc:creator>Jane Smith, PhD</dc:creator>
dc:publisher	Publishing entity	Organization name	<dc:publisher>Academic Press</dc:publisher>
dc:contributor	Secondary contributors	Additional authors/editors	<dc:contributor>Research Team</dc:contributor>
dc:rights	Copyright/licensing	Rights statement	<dc:rights>CC BY-SA 4.0</dc:rights>

1.3.3.3 Instantiation Elements (When/Where)

Element	Description	RSS/Atom Usage	Example
dc:date	Creation/publication date	ISO 8601 date	<dc:date>2025-10-10</dc:date>
dc:format	Media type	MIME type	<dc:format>application/pdf</dc:format>
dc:identifier	Unique identifier	URI, DOI, ISBN	<dc:identifier>doi:10.1234/e
dc:language	Content language	ISO 639 code	<dc:language>en-US</dc:language>

1.3.4 Common Dublin Core Elements in Feeds

The following table presents the **most frequently used** Dublin Core elements in RSS and Atom feeds, organized by popularity and practical application:

1.3.4.1 Most Common Elements (High Priority)

Element	Description	RSS/Atom Usage	Example
dc:creator	Person/entity responsible for creating content	Author/creator name (plain text)	<code><dc:creator>Jane Smith</dc:creator></code>
dc:date	Publication/creation date	ISO 8601 formatted date	<code><dc:date>2025-10-25</dc:date></code>
dc:subject	Topic, category, or keywords	Content categorization	<code><dc:subject>Artificial Intelligence</dc:subject></code>
dc:description	Content description/abstract	Extended summary	<code><dc:description>A comprehensive guide to...</dc:description></code>
dc:publisher	Entity making resource available	Publishing organization	<code><dc:publisher>Tech Media Corp</dc:publisher></code>
dc:rights	Copyright/licensing information	Rights statement	<code><dc:rights>© 2025 All Rights Reserved</dc:rights></code>
dc:identifier	Unique resource identifier	URI, DOI, ISBN	<code><dc:identifier>https://example.com</dc:identifier></code>
dc:language	Language of content	ISO 639 language code	<code><dc:language>en-US</dc:language></code>
dc:contributor	Additional contributors	Secondary authors/editors	<code><dc:contributor>John Doe</dc:contributor></code>
dc:format	Media type/format	MIME type	<code><dc:format>text/html</dc:format></code>

1.3.4.2 Less Common Elements (Specialized Use)

Element	Description	RSS/Atom Usage	Example
dc:title	Resource title	Alternative/formal title (rarely used, as RSS/Atom have native title elements)	<code><dc:title>Article Title</dc:title></code>
dc:coverage	Spatial/temporal scope	Geographic or time period coverage	<code><dc:coverage>United States, 2025</dc:coverage></code>
dc:relation	Related resources	Cross-references to related content	<code><dc:relation>https://related.com</dc:relation></code>
dc:source	Original source	Citation of source material	<code><dc:source>Original Publication</dc:source></code>

Element	Description	RSS/Atom Usage	Example
<code>dc:type</code>	Resource type	Content type classification	<code><dc:type>Text</dc:type></code> , <code><dc:type>Dataset</dc:type></code>

Usage Notes: - **Common Elements** (first table): Found in 60-90% of feeds using Dublin Core, particularly in academic, news, and corporate contexts - **Less Common Elements** (second table): Found in 10-30% of feeds, typically in specialized applications like digital libraries or archival systems - Elements like `dc:title` are rarely used because RSS and Atom already provide native title elements that are more widely supported

1.3.5 Dublin Core in RSS 2.0

1.3.5.1 XML Namespace Declaration

```
<rss version="2.0" xmlns:dc="http://purl.org/dc/elements/1.1/">
```

1.3.5.2 Practical Example

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:dcterms="http://purl.org/dc/terms/"
  <channel>
  <title>Academic Journal Feed</title>
  <link>https://journal.example.edu</link>
  <description>Latest research articles</description>

  <!-- Channel Dublin Core Metadata -->
  <dc:publisher>University Press</dc:publisher>
  <dc:rights> 2025 University Press. All rights reserved.</dc:rights>
  <dc:language>en-US</dc:language>

  <item>
  <title>Impact of Climate Change on Biodiversity</title>
  <link>https://journal.example.edu/article/2025-042</link>
  <description>Research findings from a 5-year study</description>
  <pubDate>Fri, 10 Oct 2025 08:00:00 GMT</pubDate>
```

```

<!-- Dublin Core Item Metadata -->
<dc:creator>Dr. Emily Rodriguez</dc:creator>
<dc:creator>Dr. Michael Chen</dc:creator>
<dc:contributor>Research Assistant: Sarah Johnson</dc:contributor>

<dc:subject>Climate Science</dc:subject>
<dc:subject>Biodiversity</dc:subject>
<dc:subject>Environmental Impact</dc:subject>

<dc:type>Research Article</dc:type>
<dc:format>application/pdf</dc:format>
<dc:identifier>doi:10.1234/journal.2025.042</dc:identifier>
<dc:date>2025-10-10</dc:date>

<dc:coverage>Global, 2020-2025</dc:coverage>
<dc:rights>Creative Commons Attribution-ShareAlike 4.0</dc:rights>

<dc:relation>https://journal.example.edu/article/2024-089</dc:relation>
<dc:source>Field Study Data Repository</dc:source>
</item>
</channel>
</rss>

```

1.3.6 Dublin Core in Atom

1.3.6.1 XML Namespace Declaration

```

<feed xmlns="http://www.w3.org/2005/Atom"
      xmlns:dc="http://purl.org/dc/elements/1.1/">

```

1.3.6.2 Practical Example

```

<?xml version="1.0" encoding="utf-8"?>
<feed xmlns="http://www.w3.org/2005/Atom"
      xmlns:dc="http://purl.org/dc/elements/1.1/">
  <title>Research Publications</title>
  <link href="https://research.example.org"/>

```

```
<updated>2025-10-10T14:30:00Z</updated>

<!-- Feed Dublin Core Metadata -->
<dc:publisher>Research Institute</dc:publisher>
<dc:rights>Open Access - CC BY 4.0</dc:rights>

<entry>
  <title>Machine Learning Applications in Healthcare</title>
  <link href="https://research.example.org/papers/ml-healthcare-2025"/>
  <id>urn:uuid:1234-5678-90ab-cdef</id>
  <updated>2025-10-10T10:00:00Z</updated>

  <summary>Comprehensive review of ML techniques in medical diagnosis</summary>

  <!-- Dublin Core Entry Metadata -->
  <dc:creator>Dr. Alan Turing</dc:creator>
  <dc:creator>Dr. Ada Lovelace</dc:creator>

  <dc:subject>Machine Learning</dc:subject>
  <dc:subject>Healthcare Technology</dc:subject>
  <dc:subject>Medical Diagnosis</dc:subject>

  <dc:type>Review Article</dc:type>
  <dc:identifier>arxiv:2025.10042</dc:identifier>
  <dc:date>2025-10-10</dc:date>
  <dc:format>text/html</dc:format>

  <dc:rights>CC BY 4.0</dc:rights>
  <dc:language>en</dc:language>
</entry>
</feed>
```

1.3.7 Usage Frequency Analysis

Context	Usage Level	Common Elements	Rationale
Academic/Library Feeds	Very High	All 15 elements	Required for institutional repositories, library catalogs
News Aggregation	Moderate	creator, subject, rights, publisher	Structured attribution, licensing
Blog Syndication	Low-Moderate	creator, date	Fallback for missing standard elements
Podcast Feeds	Very Low	Rarely used	iTunes extensions preferred
Corporate Publishing	High	creator, publisher, rights, identifier	Legal compliance, attribution

1.3.8 Dublin Core vs. Base Specification Comparison

Metadata Type	RSS 2.0 Standard	Atom Standard	Dublin Core
Author	<author> (email format)	<author><name> (structured)	<dc:creator> (plain text)
Date	<pubDate> (RFC 822)	<published> (RFC 3339)	<dc:date> (ISO 8601)
Description	<description> (HTML/text)	<summary> / <content>	<dc:description> (plain text)
Categories	<category> (simple text)	<category term="">	<dc:subject> (controlled vocabulary)
Rights	<copyright> (informal)	<rights> (text)	<dc:rights> (standardized)
Publisher	? Not specified	? Not specified	? <dc:publisher>
Identifier	<guid> (optional)	<id> (required IRI)	<dc:identifier> (URI/DOI/ISBN)

1.3.9 When to Use Dublin Core

1.3.9.1 Recommended Use Cases

1. Academic Publishing

- Institutional repositories
- Journal article feeds
- Research paper distribution
- Thesis/dissertation catalogs

2. Library and Archive Systems

- Digital library collections
- Museum catalogs
 - Historical archives
 - Manuscript repositories

3. Government and Legal Publishing

- Legislative documents
- Court rulings
- Public records
- Regulatory publications

4. Corporate/Enterprise Content

- Technical documentation
- White papers
- Industry reports
- Compliance documents

5. Multi-Author/Multi-Contributor Content

- Clear attribution hierarchy
- Research collaborations
- Edited collections
- Conference proceedings

1.3.9.2 Not Recommended For

- Consumer podcast applications (use iTunes extensions)
- Simple blog syndication (base RSS/Atom sufficient)
- Social media feeds (other extensions more suitable)
- Real-time news (simpler metadata preferred)

1.4 Media RSS Specification

1.4.1 Overview

Media RSS (MRSS) is a comprehensive extension for rich multimedia metadata in RSS feeds. Developed by Yahoo! and widely adopted across video platforms, news sites, and media aggregators.

Specification: [Media RSS Module](#)

Namespace: `http://search.yahoo.com/mrss/`

1.4.2 Purpose and Adoption

- **Primary Use:** Video platforms (YouTube, Vimeo), news media, photo galleries
 - **Advantages:** Detailed media metadata, thumbnails, player information, ratings
 - **Ecosystem:** Supported by major aggregators and social media platforms
-

1.4.3 Core Media RSS Elements

1.4.3.1 Media Content (`media:content`)

Represents the actual media object with detailed attributes.

```
<media:content
  url="https://example.com/video.mp4"
  type="video/mp4"
  medium="video"
  fileSize="52428800"
  duration="300"
  width="1920"
  height="1080"
  bitrate="5000"
  framerate="30">

  <!-- Nested elements -->
  <media:title>Introduction to Machine Learning</media:title>
  <media:description>A comprehensive overview of ML fundamentals</media:description>
  <media:keywords>machine learning, AI, tutorial</media:keywords>

  <media:thumbnail
```

```

url="https://example.com/thumb.jpg"
  width="640"
  height="360"/>

<media:player url="https://example.com/player?video=123"/>

<media:credit role="author">Jane Tech</media:credit>
<media:copyright> 2025 TechEd Inc.</media:copyright>

<media:rating scheme="urn:simple">adult</media:rating>
<media:category scheme="http://dmoz.org">Technology/Education</media:category>
</media:content>

```

Attributes:

Attribute	Description	Example
<code>url</code>	Media file URL	"https://cdn.example.com/video.mp4"
<code>type</code>	MIME type	"video/mp4", "audio/mpeg", "image/jpeg"
<code>medium</code>	Media category	"video", "audio", "image", "document"
<code>fileSize</code>	Size in bytes	52428800 (50 MB)
<code>duration</code>	Length in seconds	300 (5 minutes)
<code>width / height</code>	Dimensions in pixels	1920, 1080
<code>bitrate</code>	Bitrate in kbps	5000
<code>framerate</code>	Frames per second	30
<code>lang</code>	Language code	"en-US"

1.4.3.2 Media Thumbnail (`media:thumbnail`)

Preview image for the media content.

```

<media:thumbnail
  url="https://example.com/thumbnails/video-thumb.jpg"
  width="640"
  height="360"
  time="00:01:30"/>

```

Attributes:

- **url**: Thumbnail image URL
 - **width / height**: Image dimensions
 - **time**: Timestamp for video thumbnails (HH:MM:SS)
-

1.4.3.3 Media Group (`media:group`)

Groups alternative representations of the same content (different resolutions, formats).

```
<media:group>
  <!-- HD version -->
  <media:content
    url="https://example.com/video-1080p.mp4"
    type="video/mp4"
    width="1920"
    height="1080"
    bitrate="5000"/>

  <!-- SD version -->
  <media:content
    url="https://example.com/video-720p.mp4"
    type="video/mp4"
    width="1280"
    height="720"
    bitrate="2500"/>

  <!-- Mobile version -->
  <media:content
    url="https://example.com/video-480p.mp4"
    type="video/mp4"
    width="854"
    height="480"
    bitrate="1000"/>

  <!-- Shared metadata for all versions -->
  <media:title>Tutorial Video</media:title>
  <media:thumbnail url="https://example.com/thumb.jpg"/>
</media:group>
```

1.4.3.4 Additional Media Elements

Element	Description	Example
<code>media:title</code>	Media title	<code><media:title>Episode 42</media:title></code>
<code>media:description</code>	Media description	<code><media:description type="html">...</media:description></code>
<code>media:keywords</code>	Comma-separated keywords	<code><media:keywords>tech, tutorial, beginner</media:keywords></code>
<code>media:credit</code>	Content creator/contributor	<code><media:credit role="author">John Doe</media:credit></code>
<code>media:copyright</code>	Copyright statement	<code><media:copyright> 2025 Example Corp</media:copyright></code>
<code>media:rating</code>	Content rating	<code><media:rating scheme="urn:simple">adult</media:rating></code>
<code>media:category</code>	Media categorization	<code><media:category>Education</media:category></code>
<code>media:player</code>	Embedded player URL	<code><media:player url="https://example.com/embed/123"/></code>
<code>media:restriction</code>	Geographic/platform restrictions	<code><media:restriction type="country">US CA</media:restriction></code>
<code>media:community</code>	Social engagement metrics	See below

1.4.3.5 Media Community (Social Metrics)

```
<media:community>
  <media:starRating average="4.5" count="1250" min="1" max="5"/>
  <media:statistics views="125000" favorites="3500"/>
  <media:tags>machine-learning ai tutorial python</media:tags>
</media:community>
```

1.4.4 Complete Media RSS Example

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0"
  xmlns:media="http://search.yahoo.com/mrss/"
  xmlns:dcterms="http://purl.org/dc/terms/">
  <channel>
    <title>TechEd Video Channel</title>
    <link>https://teched.example.com</link>
    <description>Educational technology videos</description>

    <item>
      <title>Introduction to Python Programming</title>
      <link>https://teched.example.com/videos/python-intro</link>
      <guid>video-python-intro-2025</guid>
      <pubDate>Fri, 10 Oct 2025 10:00:00 GMT</pubDate>
      <description>Beginner-friendly Python tutorial</description>

      <!-- Media RSS Content -->
      <media:group>
        <!-- HD Video -->
        <media:content
          url="https://cdn.teched.com/python-intro-1080p.mp4"
          type="video/mp4"
          medium="video"
          fileSize="524288000"
          duration="1800"
          width="1920"
          height="1080"
          bitrate="5000"
          framerate="30">

          <media:title>Python Programming - Complete Introduction</media:title>
          <media:description type="plain">
Learn Python from scratch with hands-on examples.
      This comprehensive tutorial covers variables, data types,
      control flow, and functions.
          </media:description>

          <media:keywords>python, programming, tutorial, beginner, coding</media:keywords>

          <media:thumbnail
```

```

        url="https://cdn.teched.com/thumbs/python-intro.jpg"
        width="1280"
        height="720"/>

<media:player
    url="https://teched.example.com/embed/python-intro"
    width="1920"
    height="1080"/>

    <media:credit role="author">Dr. Jane Smith</media:credit>
    <media:credit role="editor">Video Production Team</media:credit>

    <media:copyright> 2025 TechEd Inc. Creative Commons BY-SA</media:copyright>

<media:rating scheme="urn:simple">nonadult</media:rating>

<media:category scheme="http://dmoz.org">
    Computers/Programming/Languages/Python
</media:category>

    <media:community>
        <media:starRating average="4.8" count="3250" min="1" max="5"/>
    <media:statistics views="250000" favorites="8500"/>
    <media:tags>python beginner-friendly hands-on tutorial</media:tags>
    </media:community>
</media:content>

    <!-- SD Video -->
    <media:content
url="https://cdn.teched.com/python-intro-720p.mp4"
        type="video/mp4"
        medium="video"
        width="1280"
        height="720"
        bitrate="2500"/>
    </media:group>
</item>
</channel>
</rss>

```

1.4.5 Media RSS Use Cases

Platform Type	Usage	Key Elements
Video Platforms	Essential	<code>media:content</code> , <code>media:thumbnail</code> , <code>media:player</code> , <code>media:community</code>
News Media	High	<code>media:content</code> , <code>media:thumbnail</code> , <code>media:credit</code> , <code>media:copyright</code>
Photo Galleries	High	<code>media:content</code> , <code>media:thumbnail</code> , <code>media:group</code>
Podcast Directories	Moderate	<code>media:content</code> (alternative to <enclosure>)
E-learning Platforms	High	<code>media:content</code> , <code>media:player</code> , <code>media:rating</code> , <code>media:category</code>
Social Media Aggregators	High	<code>media:community</code> , <code>media:thumbnail</code> , <code>media:restriction</code>

1.5 Podcast Index Namespace

1.5.1 Overview

The **Podcast Index Namespace** is a modern extension designed to enhance podcast feeds with features beyond iTunes tags. Developed by the open-source Podcast Index project, it addresses emerging needs in podcasting.

Specification: [Podcast Namespace Documentation](#)

Namespace: <https://podcastindex.org/namespace/1.0>

1.5.2 Key Features

- **Transcripts:** Full episode transcripts with timestamps
- **Chapters:** Rich chapter markers with images and URLs
- **Value for Value:** Cryptocurrency payment metadata
- **Location:** Geographic coordinates for episodes
- **Funding:** Donation/support links
- **Soundbites:** Highlight clips for sharing

- **Person:** Detailed contributor information
-

1.5.3 Core Podcast Index Elements

1.5.3.1 Podcast Transcript (`podcast:transcript`)

Links to episode transcripts in various formats.

```
<podcast:transcript
  url="https://example.com/transcripts/ep42.srt"
  type="application/srt"
  language="en"
  rel="captions"/>

<podcast:transcript
  url="https://example.com/transcripts/ep42.json"
  type="application/json"
  language="en"/>
```

Attributes:

- **url:** Transcript file URL
 - **type:** MIME type (`application/srt`, `application/json`, `text/vtt`, `text/html`)
 - **language:** ISO 639 language code
 - **rel:** Relationship (`captions` for accessibility)
-

1.5.3.2 Podcast Chapters (`podcast:chapters`)

Links to chapter markers (JSON format).

```
<podcast:chapters
  url="https://example.com/chapters/ep42.json"
  type="application/json+chapters"/>
```

Chapter JSON Format:

```

{
  "version": "1.2.0",
  "chapters": [
    {
      "startTime": 0,
      "title": "Introduction",
      "img": "https://example.com/images/intro.jpg",
      "url": "https://example.com/show-notes#intro"
    },
    {
      "startTime": 120,
      "title": "Main Topic: AI Ethics",
      "img": "https://example.com/images/ai-ethics.jpg",
      "url": "https://example.com/resources/ai-ethics"
    },
    {
      "startTime": 1800,
      "title": "Q&A Session",
      "img": "https://example.com/images/qa.jpg"
    }
  ]
}

```

1.5.3.3 Podcast Person (podcast:person)

Detailed contributor information beyond simple author tags.

```

<podcast:person
  name="Dr. Jane Smith"
  role="host"
  img="https://example.com/images/jane.jpg"
  href="https://janesmith.com">
  Lead host and AI researcher
</podcast:person>

<podcast:person
  name="John Doe"
  role="guest"
  group="Episode 42 Guest"

```

```
img="https://example.com/images/john.jpg"
href="https://johndoe.tech"/>
```

Attributes:

- **name:** Person's name
 - **role:** Contribution type (host, guest, producer, editor, etc.)
 - **group:** Logical grouping (e.g., "Season 1 Hosts")
 - **img:** Avatar/photo URL
 - **href:** Personal website/profile URL
-

1.5.3.4 Podcast Soundbite (podcast:soundbite)

Highlight clips for social sharing.

```
<podcast:soundbite startTime="300.5" duration="60" title="Key Quote on AI Ethics"/>
<podcast:soundbite startTime="1200" duration="45" title="Audience Question Highlight"/>
```

Attributes:

- **startTime:** Start position in seconds (decimals allowed)
 - **duration:** Clip length in seconds
 - **title:** Clip description
-

1.5.3.5 Podcast Location (podcast:location)

Geographic information for episodes.

```
<podcast:location
  geo="geo:37.7749,-122.4194"
  osm="R123456">
  San Francisco, California
</podcast:location>
```

Attributes:

- **geo:** Geographic coordinates (RFC 5870 geo URI)

- **osm**: OpenStreetMap identifier
-

1.5.3.6 Podcast Value (Value for Value)

Cryptocurrency payment information.

```
<podcast:value
  type="lightning"
  method="keysend"
  suggested="0.00000005000">

  <podcast:valueRecipient
    name="Host: Jane Smith"
    type="node"
    address="03ae9f91a0cb8ff43840e3c322c4c61f019d8c1c3cea15a25cfc425ac605e61a4a"
    split="80"
    fee="false"/>

  <podcast:valueRecipient
    name="Producer: TechPod Inc"
    type="node"
    address="02d5c1bf8b940dc9cadca86d1b0a3c37fbe39cee4c7e839e33bef9174531d27f52"
    split="20"
    fee="false"/>
</podcast:value>
```

1.5.3.7 Podcast Funding (podcast:funding)

Donation/support links.

```
<podcast:funding url="https://patreon.com/techpodcast">
  Support us on Patreon
</podcast:funding>

<podcast:funding url="https://buymeacoffee.com/techpod">
  Buy me a coffee
</podcast:funding>
```

1.5.4 Complete Podcast Index Example

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0"
  xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd"
  xmlns:podcast="https://podcastindex.org/namespace/1.0"
  xmlns:atom="http://www.w3.org/2005/Atom">
  <channel>
    <title>Tech Ethics Podcast</title>
    <link>https://techethics.example.com</link>
    <description>Exploring ethical implications of emerging technologies</description>

    <!-- Podcast Index Channel Elements -->
    <podcast:funding url="https://patreon.com/techethics">
      Support our podcast on Patreon
    </podcast:funding>

    <podcast:locked>yes</podcast:locked>

    <podcast:guid>920666e0-df5e-013a-f970-0acc26574db2</podcast:guid>

    <item>
      <title>Episode 42: AI and Privacy</title>
      <link>https://techethics.example.com/episodes/42</link>
      <guid>ep-42-ai-privacy</guid>
      <pubDate>Fri, 10 Oct 2025 09:00:00 GMT</pubDate>
      <enclosure
        url="https://cdn.techethics.com/ep42.mp3"
        type="audio/mpeg"
        length="48234567"/>

      <itunes:duration>45:30</itunes:duration>
      <description>Discussion on AI surveillance and privacy rights</description>

    <!-- Podcast Index Item Elements -->

    <!-- Transcripts -->
    <podcast:transcript
url="https://techethics.com/transcripts/ep42.srt"
  type="application/srt"
  language="en"
rel="captions"/>
```

```

    <podcast:transcript
      url="https://techethics.com/transcripts/ep42.json"
type="application/json"
      language="en"/>

    <!-- Chapters -->
    <podcast:chapters
      url="https://techethics.com/chapters/ep42.json"
      type="application/json+chapters"/>

    <!-- Contributors -->
    <podcast:person
      name="Dr. Sarah Johnson"
role="host"
      img="https://techethics.com/images/sarah.jpg"
      href="https://sarahjohnson.com"/>

    <podcast:person
      name="Prof. Michael Chen"
      role="guest"
      group="AI Experts"
      img="https://techethics.com/images/michael.jpg"
      href="https://michaelchen.edu"/>

    <podcast:person
      name="Alex Rivera"
      role="producer"
      img="https://techethics.com/images/alex.jpg"/>

    <!-- Soundbites -->
    <podcast:soundbite startTime="420" duration="60"
      title="Key quote on facial recognition ethics"/>

    <podcast:soundbite startTime="1680" duration="45"
      title="Listener question on data ownership"/>

    <!-- Location -->
    <podcast:location
      geo="geo:37.7749,-122.4194"
      osm="R111968">
Recorded in San Francisco, California
    </podcast:location>

```

```

<!-- Value for Value -->
<podcast:value type="lightning" method="keysend" suggested="0.00000010000">
  <podcast:valueRecipient
    name="Host: Sarah Johnson"
  type="node"
    address="03ae9f91a0cb8ff43840e3c322c4c61f019d8c1c3cea15a25cfc425ac605e61a4a"
    split="60"/>

  <podcast:valueRecipient
    name="Guest: Michael Chen"
    type="node"
    address="02d5c1bf8b940dc9cadca86d1b0a3c37fbe39cee4c7e839e33bef9174531d27f52"
    split="20"/>

  <podcast:valueRecipient
    name="Producer: Alex Rivera"
  type="node"
    address="03d3c2db6801c98871c675b83de4bd90f0ea1652b1a8c0a1f6a3f8f5b1f9a8c2d3"
    split="20"/>
</podcast:value>
</item>
</channel>
</rss>

```

1.5.5 Adoption and Compatibility

Feature	Podcast Apps	Benefits
Transcripts	Growing (Podcast Addict, Overcast)	Accessibility, SEO, search
Chapters	Widely supported	Enhanced navigation
Person	Limited	Detailed credits
Soundbites	Emerging	Social sharing, discovery
Value for Value	Niche (Breez, Fountain)	Direct creator support
Location	Limited	Geographic context

1.6 Other Common Extensions

1.6.1 Creative Commons License (creativeCommons:license)

Namespace: <http://backend.userland.com/creativeCommonsRssModule>

```
<rss version="2.0"
  xmlns:creativeCommons="http://backend.userland.com/creativeCommonsRssModule">
  <channel>
    <creativeCommons:license>
      https://creativecommons.org/licenses/by-sa/4.0/
    </creativeCommons:license>
  </channel>
</rss>
```

1.6.2 Content Encoding (content:encoded)

Namespace: <http://purl.org/rss/1.0/modules/content/>

Provides full HTML content beyond <description>.

```
<rss version="2.0"
  xmlns:content="http://purl.org/rss/1.0/modules/content/">
  <channel>
    <item>
      <title>Article Title</title>
      <description>Brief summary</description>
      <content:encoded><![CDATA[
        <p>Full HTML content with <strong>formatting</strong>.</p>
        
        <p>Additional paragraphs...</p>
      ]]></content:encoded>
    </item>
  </channel>
</rss>
```

1.6.3 GeoRSS (Geographic Metadata)

Namespace: <http://www.georss.org/georss>

```
<rss version="2.0"
  xmlns:georss="http://www.georss.org/georss">
  <channel>
    <item>
      <title>Breaking News Event</title>
      <georss:point>37.7749 -122.4194</georss:point>
      <georss:featureName>San Francisco City Hall</georss:featureName>
    </item>
  </channel>
</rss>
```

1.6.4 Slash (Comment Metadata)

Namespace: <http://purl.org/rss/1.0/modules/slash/>

Social engagement metrics for blog posts.

```
<rss version="2.0"
  xmlns:slash="http://purl.org/rss/1.0/modules/slash/">
  <channel>
    <item>
      <title>Blog Post Title</title>
      <slash:comments>42</slash:comments>
      <slash:hit_parade>150,200,300,500,750</slash:hit_parade>
    </item>
  </channel>
</rss>
```

1.7 Extension Comparison and Usage Guide

1.7.1 Metadata Extension Decision Matrix

Your Use Case	Recommended Extension	Key Elements	Priority
Academic Publishing	Dublin Core	dc:creator, dc:identifier, dc:subject, dc:rights	Essential
Video Platform	Media RSS	media:content, media:thumbnail, media:player	Essential
Modern Podcast	Podcast Index + iTunes	podcast:transcript, podcast:chapters, podcast:person	Highly Recommended
News Media	Media RSS + Dublin Core	media:content, dc:creator, dc:rights	Recommended
Photo Gallery	Media RSS	media:content, media:thumbnail, media:group	Essential
Blog with HTML Content	Content Encoded	content:encoded	Optional
Location-based Content	GeoRSS or Podcast Index	georss:point or podcast:location	Optional
Creative Commons Content	CC License Module	creativecommons:license	Recommended

1.7.2 Compatibility Considerations

Extension	RSS 2.0	Atom	Client Support	Validation
Dublin Core	Excellent	Excellent	Universal	Well-defined
Media RSS	Excellent	Limited	High (video platforms)	Schema available
Podcast Index	Excellent	Rare	Growing	Active development
iTunes	Universal	Not applicable	99% podcast apps	Established
Content Encoded	Common	Use <content>	High (feed readers)	Informal

Extension	RSS 2.0	Atom	Client Support	Validation
GeoRSS	Good	Good	Moderate	Specified
Creative Commons	Good	Good	Low	Informal

1.7.3 Best Practices for Multiple Extensions

1.7.3.1 Example: Comprehensive RSS Feed with Multiple Namespaces

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0"
  xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd"
  xmlns:podcast="https://podcastindex.org/namespace/1.0"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:media="http://search.yahoo.com/mrss/"
  xmlns:content="http://purl.org/rss/1.0/modules/content/"
  xmlns:creativecommons="http://backend.userland.com/creativecommonsRssModule"
  xmlns:atom="http://www.w3.org/2005/Atom">

  <channel>
<title>Comprehensive Media Feed</title>
  <link>https://media.example.com</link>
  <description>Example feed using multiple namespace extensions</description>

  <!-- Dublin Core Channel Metadata -->
  <dc:publisher>Example Media Corp</dc:publisher>
  <dc:rights>All rights reserved</dc:rights>
<dc:language>en-US</dc:language>

  <!-- Creative Commons License -->
  <creativecommons:license>
    https://creativecommons.org/licenses/by-nc-sa/4.0/
  </creativecommons:license>

  <!-- iTunes Podcast Metadata -->
  <itunes:author>Media Production Team</itunes:author>
  <itunes:image href="https://media.example.com/artwork.jpg"/>
  <itunes:category text="Technology"/>
```

```

<!-- Podcast Index Funding -->
<podcast:funding url="https://patreon.com/examplemedia">
Support us on Patreon
</podcast:funding>

<item>
<title>Episode 1: Introduction</title>
<link>https://media.example.com/episode1</link>
  <guid>episode-1-intro</guid>
  <pubDate>Fri, 10 Oct 2025 10:00:00 GMT</pubDate>

  <!-- Standard RSS Description -->
  <description>Brief episode summary</description>

  <!-- Full HTML Content -->
<content:encoded><![CDATA[
  <p>Full episode description with <strong>HTML formatting</strong>.</p>
  <ul>
<li>Topic 1</li>
    <li>Topic 2</li>
  </ul>
  ]]></content:encoded>

  <!-- Dublin Core Item Metadata -->
  <dc:creator>Jane Smith</dc:creator>
<dc:creator>John Doe</dc:creator>
  <dc:subject>Technology</dc:subject>
  <dc:subject>Education</dc:subject>
  <dc:date>2025-10-10</dc:date>
  <dc:identifier>doi:10.1234/episode.1</dc:identifier>

  <!-- Media RSS Content -->
  <media:content
url="https://cdn.example.com/ep1-video.mp4"
  type="video/mp4"
  medium="video"
  duration="1800"
  width="1920"
  height="1080">

  <media:title>Episode 1: Introduction to Technology</media:title>
<media:thumbnail url="https://cdn.example.com/ep1-thumb.jpg"/>

```

```
<media:credit role="host">Jane Smith</media:credit>
  <media:copyright> 2025 Example Media Corp</media:copyright>
</media:content>

<!-- iTunes Episode Metadata -->
<itunes:duration>30:00</itunes:duration>
<itunes:episode>1</itunes:episode>
<itunes:season>1</itunes:season>
<itunes:explicit>>false</itunes:explicit>

<!-- Podcast Index Elements -->
<podcast:transcript
  url="https://media.example.com/transcripts/ep1.srt"
  type="application/srt"
  language="en"/>

  <podcast:chapters
url="https://media.example.com/chapters/ep1.json"
type="application/json+chapters"/>

  <podcast:person
    name="Jane Smith"
    role="host"
    img="https://media.example.com/images/jane.jpg"/>
</item>
</channel>
</rss>
```

1.8 References

1.8.1 Specifications and Standards

1. **Dublin Core Metadata Initiative**

<https://www.dublincore.org/specifications/dublin-core/dcmi-terms/>

Official DCMI specification defining all 15 core elements and extended vocabulary.

2. **Media RSS Specification**

<http://www.rssboard.org/media-rss>

Complete Media RSS module specification with element definitions and examples.

3. **Podcast Index Namespace Documentation**
<https://github.com/Podcastindex-org/podcast-namespace/blob/main/docs/1.0.md>
Official Podcast Index namespace specification with detailed element descriptions.
4. **ISO 15836-1:2017 - Dublin Core Metadata**
<https://www.iso.org/standard/71339.html>
ISO standardization of Dublin Core metadata element set.
5. **RFC 5013 - Dublin Core Metadata for Resource Discovery**
<https://tools.ietf.org/html/rfc5013>
IETF informational RFC on Dublin Core usage.

1.8.2 Namespace Extensions

6. **Content RSS Module**
<http://purl.org/rss/1.0/modules/content/>
Specification for the content:encoded element.
7. **GeoRSS Standard**
<http://www.georss.org/>
Geographic metadata extensions for RSS and Atom.
8. **Creative Commons RSS Module**
<https://creativecommons.org/licenses/>
Creative Commons licensing metadata for feeds.
9. **Slash RSS Module**
<http://purl.org/rss/1.0/modules/slash/>
Comment and engagement metrics for blog posts.

1.8.3 Implementation Guides

10. **Using Dublin Core in RSS**
<http://www.rssboard.org/rss-profile#namespace-elements-dublin>
RSS Advisory Board guidance on Dublin Core integration.
11. **Media RSS Best Practices**
<https://developers.google.com/search/docs/advanced/structured-data/video>
Google's recommendations for video metadata in feeds.
12. **Podcast Index Documentation**
<https://podcastindex.org/namespace/1.0>
Complete documentation for modern podcast features.

Document created: October 10, 2025 / Version: 1.0
Part of the Feed Architectures and Protocols series