COESIONE ITALIA 21-27 PIEMONTE

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REGIONE PIEMONTE

Web Developer

HTML, CSS e Strumenti di Digital Marketing (SEO, SEM, SEA)

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Intervento realizzato da ITS TECNOLOGIE DELL'INFORMAZIONE E DELLA COMUNICAZIONE

Structured data

Technical seo

Shadi Lahham - Web development

Structured data

Structured data

Structured data refers to information organized in a predictable and understandable format for search engines, aiding in the interpretation and effective presentation of content within the context of SEO

This organized data plays a crucial role in Technical SEO by enhancing search engines' perception of webpage content, ultimately contributing to improved visibility and representation in search results

Structured Data - Seobility Wiki

Schema markup

Schema markup is a powerful tool in technical SEO that involves adding specific tags to a website's HTML code, providing search engines with detailed information about the content and helping them better understand and categorize web pages, potentially leading to improved visibility in search results

By implementing schema markup, website owners can enable rich snippets in search engine results pages (SERPs), which may include additional details such as star ratings, product prices, or event dates, making the content more appealing and informative to potential visitors, ultimately increasing click-through rates and driving more targeted traffic to the website

Schema markup types

Article schema
details news articles, blog posts, and similar content types

Local business schema
includes information about local businesses, such as address, phone number, and business hours

Product schema
features information about products, including name, image, description, price, and availability

Breadcrumb schema
helps search engines understand the page structure within your website

FAQ schema
offers a structured Q&A format for frequently asked questions

Event schema
describes events, including event name, date, location, and other relevant information

Schema markup types

Organization schema
provides details about organizations, including name, logo, and contact details

Person schema
profiles individuals, including name, job title, and contact information

Review schema
features reviews, detailing reviewer name, rating, and review text

Recipe schema
provides information about recipes, including ingredients, cooking time, and nutritional information

These are the most commonly used types of schema markup for SEO; full list on Schema.org

JSON-LD

JavaScript Object Notation for Linked Data, or JSON-LD, is a format that provides structured data to search engines in a way that's easily readable by both humans and machines. It can be embedded anywhere in a page's HTML, typically in a `<script>` tag, without altering the existing HTML structure. This flexibility allows JSON-LD to work effectively with dynamic content and makes implementation straightforward, especially when using tools that generate the necessary code

JSON-LD annotates web page elements to provide more context and structure, helping search engines like Google better understand and index content. By leveraging schema.org vocabulary, it creates meaningful linked data across the web. Proper implementation can help websites appear in rich snippets and potentially improve search rankings, though it's crucial to use allowed schema.org vocabulary and include only information present on the page

Quick Intro to JSON-LD
JSON-LD Playground - useful for experimentation

Schema.org vs JSON-LD

Schema.org provides the vocabulary for structured data that can be used with JSON-LD

JSON-LD is the format used to implement structured data using the vocabularies provided by Schema.org

Other formats include Microdata and RDFa, which embed the structured data directly within HTML tags but these are less common in present due to the flexibility and ease of JSON-LD

Article schema

```
{
  "@context": "http://schema.org",
  "@type": "Article",
  "headline": "How to Make the Perfect Cup of Coffee",
  "author": {
    "@type": "Person",
    "name": "John Doe"
  },
  "datePublished": "2024-08-01",
  "publisher": {
    "@type": "Organization",
    "name": "Coffee Lovers",
    "logo": {
      "@type": "ImageObject",
      "url": "https://example.com/logo.png"
    }
  },
  "description": "A detailed guide on making the perfect cup of coffee every time."
}
```

Local business schema

```
{
  "@context": "http://schema.org",
  "@type": "LocalBusiness",
  "name": "Joe's Pizza",
  "address": {
    "@type": "PostalAddress",
    "streetAddress": "123 Main St",
    "addressLocality": "Springfield",
    "addressRegion": "IL",
    "postalCode": "62701",
    "addressCountry": "US"
  },
  "telephone": "+1-555-555-5555",
  "openingHours": "Mo,Tu,We,Th,Fr 11:00-22:00",
  "priceRange": "$$"
}
```

Product schema

```
{
  "@context": "http://schema.org",
  "@type": "Product",
  "name": "SuperWidget",
  "image": "https://example.com/superwidget.jpg",
  "description": "The best widget you'll ever need.",
  "brand": {
    "@type": "Brand",
    "name": "WidgetCo"
  },
  "offers": {
    "@type": "Offer",
    "priceCurrency": "USD",
    "price": "29.99",
    "availability": "http://schema.org/InStock"
  }
}
```

Breadcrumb schema

```
{
  "@context": "http://schema.org",
  "@type": "BreadcrumbList",
  "itemListElement": [
    {
      "@type": "ListItem",
      "position": 1,
      "name": "Home",
      "item": "https://example.com/"
    },
    {
      "@type": "ListItem",
      "position": 2,
      "name": "Products",
      "item": "https://example.com/products"
    },
    {
      "@type": "ListItem",
      "position": 3,
      "name": "SuperWidget",
      "item": "https://example.com/products/superwidget"
    }
  ]
}
```

Faq schema

```
{
  "@context": "http://schema.org",
  "@type": "FAQPage",
  "mainEntity": [
    {
      "@type": "Question",
      "name": "What is SuperWidget?",
      "acceptedAnswer": {
        "@type": "Answer",
        "text": "SuperWidget is a versatile tool for all your widget needs."
      }
    },
    {
      "@type": "Question",
      "name": "How do I use SuperWidget?",
      "acceptedAnswer": {
        "@type": "Answer",
        "text": "Simply attach it to your device and start using it for your projects."
      }
    }
  ]
}
```

Event schema

```
{
  "@context": "http://schema.org",
  "@type": "Event",
  "name": "Annual Tech Conference",
  "startDate": "2024-09-15T09:00:00-05:00",
  "endDate": "2024-09-15T17:00:00-05:00",
  "location": {
    "@type": "Place",
    "name": "Tech Convention Center",
    "address": {
      "@type": "PostalAddress",
      "streetAddress": "456 Tech Ave",
      "addressLocality": "Metropolis",
      "addressRegion": "CA",
      "postalCode": "90210",
      "addressCountry": "US"
    }
  },
  "description": "Join us for the Annual Tech Conference where industry leaders discuss the latest trends."
}
```

Organization schema

```
{
  "@context": "http://schema.org",
  "@type": "Organization",
  "name": "Tech Innovators Inc.",
  "url": "https://techinnovators.com",
  "logo": "https://techinnovators.com/logo.png",
  "contactPoint": {
    "@type": "ContactPoint",
    "telephone": "+1-800-555-5555",
    "contactType": "Customer Service"
  }
}
```

Person schema

```
{
  "@context": "http://schema.org",
  "@type": "Person",
  "name": "Jane Doe",
  "jobTitle": "Software Engineer",
  "telephone": "(555) 555-5555",
  "email": "mailto:jane.doe@example.com"
}
```

Review schema

```
{
  "@context": "http://schema.org",
  "@type": "Review",
  "reviewRating": {
    "@type": "Rating",
    "ratingValue": "5",
    "bestRating": "5"
  },
  "author": {
    "@type": "Person",
    "name": "John Smith"
  },
  "reviewBody": "This is the best product I've ever used!"
}
```

Recipe schema

```
{
  "@context": "http://schema.org",
  "@type": "Recipe",
  "name": "Chocolate Chip Cookies",
  "image": "https://example.com/photos/cookies.jpg",
  "recipeIngredient": [
    "2 cups flour",
    "1 cup sugar",
    "1 cup chocolate chips"
  ],
  "recipeInstructions": [
    "Mix all ingredients.",
    "Bake at 350 degrees for 12 minutes."
  ],
  "totalTime": "PT30M",
  "recipeYield": "24 cookies"
}
```

HTML integration

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>SuperWidget</title>
  <script type="application/ld+json">
    {
      "@context": "http://schema.org",
      "@type": "Product",
      "name": "SuperWidget",
      "image": "https://example.com/superwidget.jpg",
      "description": "The best widget you'll ever need.",
      "brand": {
        "@type": "Brand",
        "name": "WidgetCo"
      },
```

HTML integration

```
      "offers": {
        "@type": "Offer",
        "priceCurrency": "USD",
        "price": "29.99",
        "availability": "http://schema.org/InStock"
      }
    }
    </script>
</head>
<body>
  <h1>SuperWidget</h1>
  <img src="https://example.com/superwidget.jpg" alt="SuperWidget">
  <p>The best widget you'll ever need. Only $29.99!</p>
</body>
</html>
```

Embedding strategies

Embedding in <head>
this method is considered best practice as it ensures the structured data is loaded early, improves search engine crawling, and maintains a clean separation between content and data with no significant drawbacks

Embedding in <body>
useful for dynamically generated data, especially when content changes based on user interaction, however, it can delay data parsing by search engines and make the code harder to maintain by mixing it with visible content

Dynamic JSON-LD with JavaScript
this approach is useful when structured data depends on user interactions or needs to be fetched asynchronously

Schema markup benefits

Rich snippets
one of the primary benefits of using schema markup is the ability to generate rich snippets, which are enhanced search results displaying extra information like ratings, images, or event dates directly in the SERPs, making your listing more attractive and potentially increasing the click-through rate (CTR)

Improved click-through rates (CTR)
by providing additional context and details directly in the SERPs, schema markup can significantly improve CTR, as search results with features like star ratings and product prices are more likely to attract clicks than plain text results

Enhanced search engine understanding
schema markup helps search engines understand the relationships between different pieces of information on your page, such as associating the price with a product rather than just a random number, leading to more accurate indexing and better search visibility

Here is a list of the official structured data types that google supports and that contribute to the appearance of rich snippets

Tools

Creation
Google's Structured Data Markup Helper assists in the automatic creation of structured data for various types of web pages using a visual tool. Here is a guide on how to use it

The Schema Markup Generator by Technical SEO simplifies the process of creating JSON-LD by allowing data input and automatically generating the correct markup

Validation
Schema Markup Validator is a generic schema validator that tests all types of schema.org markup to ensure proper implementation, independent of Google-specific validation

Testing for Google
Google’s Rich Results Test determines if structured data is eligible for rich results in Google's SERPs, ensuring schema markup correctness by highlighting any errors or warnings that could affect content display

Resources

What are rich snippets & how to get them in 2024

a clear and useful guide

The ultimate guide to structured data for seo

a comprehensive guide to understanding and implementing structured data on a website

How to add structured data to your website

a step-by-step approach to effectively adding structured data to a website

What is a serp feature? common types and how to win them - moz

list of SERP features and info on how to get them

Resources

Everything You Need to Know About JSON-LD for SEO

a detailed exploration of json-ld and its importance in seo, including practical implementation tips

Schema Markup Best Practices: JSON-LD vs Microdata

a comparison of json-ld and microdata, with insights into best practices for schema markup