Liferay DXP Web Content Management

Product Guide



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Introduction

The ability to allow users to easily author and publish engaging content is a critically important part of any Digital Experience Platform (DXP). Web content and web experience management features are equally vital elements of Liferay DXP 7.2. The platform provides a breadth of capabilities that can be used to support the way you need to author content and pages, irrespective of whether your content authors are developers, marketers or business users and whether they are experts with HTML or completely non-technical.

This product guide will introduce the basic features in Liferay DXP that support authoring and publishing web content. It is broken into two main sections: explaining the basic components included in Liferay's WCM and addressing general how-to topics. Think of this guide as a map; use it to better understand the basic stages of content creation, management and publication, with the basic building blocks acting as a legend. Ultimately, these stages may vary and become more complex than those detailed in the guide as organizations are able to leverage the flexibility of Liferay DXP to support their own unique use cases.

Building Blocks of a WCM

Web Content Management (WCM) helps users who are not web developers publish content through a user-friendly interface, while enabling developers to create complex templates with dynamic elements. Here are a few of the basic building blocks that are provided out-of-the-box in Liferay DXP but can be extended for custom use cases:

Content Structures (Content Models)

In Liferay DXP, web content is defined by a structure and template. As an administrator, you can create any number of Web Content Structures, using a dragand-drop interface, adding any number of fields of almost any type. Think of a Web Content Structure as a form which is completed by the content author.

Basic Web Content Structure

The Basic Web Content Structure is the only structure provided out-of-the-box with Liferay and is deliberately basic, consisting of a single "HTML" field, along with standard metadata, such as Title (which is mandatory), Summary, Display Date and so on. The HTML field provides content authors with a Rich-Text WYSIWYG editor called Alloy Editor, which allows users to enter text and format it as needed. This text is stored as HTML and the editor allows the author to toggle between Text and Source modes so they can directly write the underlying HTML if they can or want to.



Creating a New Basic Web Content Article

Beyond providing a title and writing the actual content, there is nothing else that a Content Author has to do here to enable the article to be published. However, a series of optional settings are provided on the right-hand-side of the screen. These additional settings enable the author to choose things like the Web Content Template that will be used to render the article (if one is needed), the friendly URL that will be generated, the Display Page Template (more on that later) that will be used, if this is wanted, the Dates that the article will be eligible to be shown in pages and so on. Once the author has finished editing their content they can choose to Save as Draft, Publish (if a workflow is not enabled) or Submit for Publication (if a workflow has been assigned to Web Content).

Additionally, these basic Web Content Structures can be configured to include plain text, dates, numbers, images, links to pages, links to other web content, radio buttons, check boxes, drop-down lists and so on, resulting in repeating groups of fields. Depending on the fields provided by the structure, the author may not need to know anything about web design or HTML and may not even see the content in its finished form. For example, you could create a carousel structure where the user provides details for the Title, Text and Background Image and a link to a page and can have any number of items in the carousel as needed.

	Edit Carousel 🕡	٤
en-US Carousel		Cancel Save 🛞
View Source		
Default Language: English (United States) + Add	Translation 👻	
Fields Settings	Title	
Image: Color Date Boolean Color Date Image: Color Image: Color Date Image: Color Image: Color Image: Color Decimal Docume Geolocati	Text	
HTML Image Integer	Link to Page	
Control Control Link to P Number Radio Reading Reading Reading	Select	
Select Separator Text	Background Image	

Web Content Structure

In the above example, content authors need to know nothing about the HTML and nothing about how the content item will be presented; they just need to fill in the provided fields and publish the content.

Templates

In order to display any Web Content Structure, a Template needs to be created so that you can apply styles and logic to create complex or interactive content. There are two ways in which to do this, both of which ultimately allow the content to be rendered as HTML, but with different construction methods and usages: Web Content Templates and Display Page Templates.

Web Content Templates

Web Content Templates are, as the name would suggest, templates used to present web content articles. Web Content Templates are constructed through the Liferay UI generally with the Freemarker scripting language, although Velocity or Extensible Style Sheet scripts also work. These scripting languages allow for the incorporation of both HTML elements (including CSS and JavaScript) and basic programming structures such as If statements, Loops, etc. and allow access to Liferay's underlying services. This allows developers to create almost any presentation for the Content Structure that the template is based on. The Template Editor exposes all of the fields of the Structure so the developer can easily incorporate these variables into their HTML during design. At run-time only the actual values entered by the author when they published the Web Content Article, are displayed on screen.

Web Content Templates can be assigned when the article is authored (either by default or manually) and when the article is displayed in a Web Content Display widget.



Web Content Template Editor

Display Page Templates

Display Page Templates allow non-technical users to decide how content should be displayed in full page view. Display Page Templates can be defined for web content articles, blog entries and documents.

Display Page Templates can be associated by default for all content of a certain type or individually for specific content pieces. Either way, any content piece that has an associated Display Page Template automatically gets its own unique URL and page to display the content. This page will be used to display the content, for example, when a user clicks on the content in a list displayed through Asset Publisher, in an RSS feed, etc.

Display Page Templates are created using an easy-to-use editor. Non-technical users can drag and drop fragments onto a page, using predefined layouts or customizing them at will. Since a Display Page Template can be re-used for

many content pieces, its creators can specify where in the page each content's field should be displayed. This is often referred to as "mapping", through which users can decide for each field of a type of content where it should be displayed.

Widget Templates

Widget Templates are used widely throughout Liferay DXP and provide a way of overriding the default look and feel provided by various widgets including Navigation, Blogs and amongst others, Asset Publisher. You'll want to create your own Widget Templates for Asset Publisher since it's useful to display dynamic and personalized content, when used with Content Sets.

Widget Templates are constructed in the same way as Web Content Templates, using a scripting language like Freemarker. With an Asset Publisher widget template, you are likely to be iterating through a collection of results, each of which might get some level of presentation through an associated Web Content Template or which might be entirely styled by the Widget Template itself.

Structured and Inline Web Content

Now that we understand how content is displayed in Liferay DXP, let's examine what types of web content are available. The two main types are Structured Web Content and Inline Content. While both are similar in allowing web content to be presented on pages, they are fundamentally different in the way that they are constructed and in their intended use.

Structured Web Content is created within a predefined content structure and then added to pages as needed. The structure defines the fields and a template defines its styles. That content is then saved, ready to be added to any page.

By contrast, Inline Content is content that is created directly within a page. Rather than filling in fields to create content that's added to a page later, you have a completed page design where you edit the text directly.

Some key differences between the two include the authoring experience and placement. When a content author adds Inline Content (Fragments), they are seeing the finished design for that page and all they do is replace the placeholder text, images, links and so on with the actual content. However, when a content author uses Structured Web Content, they may not be able to see the finished look and feel and there may be multiple presentations available for an individual article depending on where and how it is styled and displayed. Additionally, Inline Content solely exists on the page in which it has been configured, whereas Structured Web Content is stored in a repository on Liferay DXP, so it can be placed as many times as you want on any number of pages or accessed purely by searching without having been placed on any page at all.

Web Content Articles

Additionally, you can use Web Content Articles as a solution to develop and display web content. Unlike Inline Content, Web Content Articles are displayed through suitable widgets, such as the Web Content Display Widget and the Asset Publisher Widget, which means they can be deployed to both Content and Widget pages which is discussed in more detail on page 14.

Fragments

A fragment is a self-contained set of UI components that can be used to empower non-technical users to compose layouts. Fragments can be designed with editable elements and configured to allow users the flexibility to change text, links, images and even styling. Content is not defined in the fragment; fragments have to first be placed onto a page, then content can be edited in designated editable elements. Alternatively, fragments can be used as a template by mapping structured content fields to the text elements. Fragments are not in and of itself a web content template though, because they can't be directly associated to a structure like a web content template. Liferay DXP now provides fragments out of the box but these fragments can also be customized according to your business needs.

OUT-OF-THE-BOX FRAGMENTS

One of the big new initiatives in Liferay DXP 7.2 is the addition of out-of-the-box Fragments, along with the new Section Builder. These new features benefit both the non-technical user as well as the front-end developer. For non-technical users it is now possible to build sophisticated content pages without the need to involve developers at all. Because we've provided a palette of fragments for common website use cases, front-end developers save time by not developing these common building blocks time and time again.

Footer Nav Dark + Banner Slider Banner Center + + Highlights Center Footer Nav Light + • -+ Banner Highlights Banner Cover Center + Header Dark +• -Header Light + Feature + Banner Cover

Details of the supplied fragments are provided below:

Out-of-the-box Section Fragments

			_	Button	
Card Basic	Card	Image	Line	Link	Slider
Heading	Heading	Button	Ð	000	<u>.</u>
Heading 1	Heading 2	Link Center	Link	Social	Spacer 2x
Heading	Heading	≡	Button	<u>.</u>	<u> </u>
Heading 3	Heading 4	Text	Link	Spacer 4x	Spacer 8x

Out-of-the-box Component Fragments

There are three types of page fragments provided in Liferay DXP 7.2: Sections, Components and Layouts. For more information on these, see page 15.

NO CODE FRAGMENTS (INLINE CONTENT)

Using Fragments to Author Inline Content

As indicated earlier, Fragments are not content themselves but rather are a type of template used to create new content or display existing content. Adding a fragment to a page in the Page Editor is just the start but moving from there to the finished article is just as straightforward.

Fragments contain inline editable elements, allowing images to be selected, text to be applied, links to be added and rich-text zones to allow formatting of any amount of text. You simply click on the elements in the added fragment and then select from the options available. In the example below, two "Card" components have been added to a page. The card on the left below is in the process of being configured, while the one on the right is fully configured.



Configuring Fragments

What you see as you are edit these fragments is essentially what your end users will see once the page has been published. The look and feel of the page, which is controlled by the theme that is applied to it, is applied during design and once a page is published, you can move between the published version and the editor with a single click.

FOR THE FRONT-END DEVELOPER

Custom Fragments

Like almost everything in Liferay, you can extend the out-of-the-box features with custom developed elements.

Once these fragments are built, they are available for use immediately by content and page authors, using exactly the same interfaces as out-of-the-box capabilities. While other extensible areas of Liferay DXP may require Java development, custom Fragments are built entirely of HTML, CSS and JavaScript. Liferay supports creation of these custom fragments both through the Fragment Editor within Liferay's UI and also through a new command-line based tool, the Liferay Fragments Toolkit.

Fragment Editor

As noted above, Fragments are built from HTML and optionally from CSS and/ or JavaScript. Liferay's Editor provides a multi-pane view that allows each of these to be entered individually and provides a real-time preview of the resulting fragment with the option to toggle between Mobile, Table and Desktop previews.

The bare minimum that is needed to create a new custom fragment is the addition of some HTML. Liferay automatically generates a unique ID for each Fragment that developers create and assigns this ID to a new CSS class, which in turn is applied to a parent DIV tag. It is recommended that this basic structure is maintained to ensure different developers do not conflict with one another. If no additional CSS is supplied, the HTML will be styled based on the theme that has been applied to the page that the fragment has been added to. Alternatively, developers can add their own CSS directly through the editor.



Fragment Editor

Adding Editable Elements

One of the most powerful features of Liferay fragments is the ability for them to be configured in-line by non-technical users. It is important to remember that Fragments are not intended to be content themselves, rather they are templates from which non-technical users can author content without needing to know anything about HTML, web development or web design.

Editable elements are added to custom fragments through the use of a number of Liferay custom tags included with the HTML that you write. You can choose from four custom tags, along with an auto-complete tool to make adding them to a fragment as simple as typing <lfr.

The four custom tags available for defining editable zones are:

- lfr-editable:image
- lfr-editable:link
- lfr-editable:rich-text
- lfr-editable:text

When applied using the auto-complete tool, the full custom tag will be added to the HTML panel. All you need to do is add a unique ID and whatever HTML needs to be nested inside the tag. For example, the full "text" tag looks like this:

<lpre><lfr-editable id="" type="text"></lfr-editable>

Note that this particular tag allows no formatting to be applied inline by users adding the fragment to the page, they can only change the text. If you want users to apply their own formatting, you should use the "rich-text" option. If you want to control formatting, you can simply add the relevant HTML outside of the custom tag. For example, to use this as a heading, customize the tag as follows:

```
<h1>
<lfr-editable id="heading_12345" type="text">
Click to set heading
</lfr-editable>
</h1>
```

As described above, "text" allows the user to replace the text that you supply.

"Rich-text" meanwhile, allows the user to replace text and apply formatting such as styles, colors, links, bulleted lists and so on.

While rich-text enables users to insert links within their text, the "link" tag allows specific links to be incorporated into the content. This not only allows the user to define the page or URL they want to link to but also provides options for whether the link is displayed as text or a button and whether it will open in a new page, tab or replace the current page.



Custom "Link" Tag Inline Editing Options

The final custom tag "image" allows the user to replace the image supplied with the one they want for their content. In this case, you need to ensure that an HTML tag is included within the custom tag. Ideally you should supply a sample image, one that is clearly designed to be replaced so that content authors understand the concept of the fragment.

Embedding Widgets

As described above, the page builder allows end users to drag any Liferay Widget onto a Content Page but what if you want to include widgets within custom fragments? This is also fully supported, even for custom widgets, through another set of custom tags which can be applied to fragments. To access the list of widgets that are available for embedding in a Fragment simply type <lfr-widget within the HTML editor.

A typical example for when you might want to do this is when designing sections for the footer of a page where you want to include standard text along with a page navigation capability. While you could do this through the addition of "link" tags, or "rich-text", you are far more likely to allow users to get the results they need by embedding the Liferay Navigation widget in your custom fragment, which is done simply with the following:

<lfr-widget-nav></lfr-widget-nav>

There's no need to add anything else, Liferay does all the hard work and when the fragment is displayed to the content author they can configure the widget exactly as if it were a widget deployed in any other way.

Liferay Fragments Toolkit

While the Fragment Editor provides the quickest way to get started with building, we understand that the people most likely to be building Fragments will be front-end developers who most likely have a preferred HTML or Text Editor, whether that is VSCode, Atom, Sublime or something else. To support these users, we've build a new command line tool called the Liferay Fragments Toolkit.

The Fragments Toolkit is accessible through a new link in the Fragment Editor toolbar and directly via GitHub. Once installed, the toolkit lets you create Fragments and Collections from scratch, export existing Fragments from Liferay DXP and import new or modified Fragments developed outside of Liferay into the platform.

In addition to this, you can run the import:watch command to allow changes made in your chosen editor to be reflected in the platform almost as if you were working directly within Liferay. Liferay Fragments Toolkit uses Node, JS, npm and Yeoman, tools that Frontend Developers will be familiar with.



Accessing the Fragments Toolkit through the Fragment Editor

Other Content Types Available in Liferay DXP

While this guide is primarily focused on web content, Liferay supports many different types of content and even contains an asset framework that allows developers to create their own content types. Most of these content types are displayed on pages through the use of Widgets, which can be deployed to both Content and Widget pages. The exception to this are Page Fragments, which can only be added to Content Pages.

Content types available in Liferay DXP include, but are not limited to:

- Web Content: Web Content Articles and Page Fragments once they've been added to pages and inline edited.
- Social Content: Blogs, Wikis, Message Boards (Forums).
- Structured Content: Forms, Dynamic Data Lists.
- · Documents and Media: Images, Office Documents, Audio, Video.

It is assumed that this content is designed to be rendered on a web page as HTML. While other Liferay DXP content types are rendered in HTML and displayed on web pages, the ability to author content in HTML is limited to Web Content. Web Content Articles and Page Fragments, on the other hand, provide capabilities that allow the underlying source code (HTML, CSS, and JavaScript) to be authored directly if needed, while allowing non-technical or non-developer users to author and edit content, even if they know nothing about web development, HTML, web design and so on.

Sites, Pages and Layouts

Liferay DXP provides the ability to host any number of sites within a single instance of the software, with each site supporting any number of pages. Each page can consist of both content and applications mixed and matched as needed to meet the requirements of the site. Liferay DXP 7.2 features two main types of pages: Content Pages and Widget Pages.

Sites

Liferay DXP provides the ability to host any number of sites within a single instance, with each site supporting any number of pages. These sites can work together to create one complete website, or you can simply have one site that contains all your pages and content—or anything in between.

Pages

With Liferay DXP 7.2, the primary type of page used for building sites is the Content Page. Content Pages, as the name suggests, are the perfect place for displaying content and fully support the deployment of Liferay's out-of-thebox Widgets, along with any custom Widget developed for your application.



What is a widget page used for, if a content page is the perfect way of delivering pages that are rich in content and applications? Widget pages have been a part of Liferay since it's earliest releases so they may be important to anyone upgrading from a previous version of Liferay.

Widget Pages primarily come into play in use cases where content may not be the most important part of a page. For example, a forum page of a customer self-service application where the primary requirement is to display Liferay's Message Board widget. In this case, a Widget Page might be a better choice than a Content Page; however, in most cases any page will be made more engaging and interesting with relevant and potentially personalized content, so a Content Page may still be the better approach.

Generally speaking, we recommend using Content Pages wherever possible, as they represent our preferred direction going forward.

Page Layouts

Content can be laid out and displayed on any Site Page in Liferay with an intuitive drag-and-drop interface. The following features help users to easily visualize and build a page based on how they want it to appear.

SECTIONS AND LAYOUTS

Sections

Sections are a type of fragment that fills the entire width of a page, stretching from left to right.

Layouts

Layouts are provided out-of-the-box and unlike regular Sections and Components, users cannot custom develop their own Layouts. Layouts divide a horizontal row into one or more columns. While the Section Builder contains four of these, for one, two, three and four columns respectively, once added to a page the designer can freely configure the number (up to six) and width of each column.

Liferay DXP uses Bootstrap to provide responsive design and uses the Bootstrap grid system to support up to 12 columns across a page. Each Liferay column must have a width of one or more Bootstrap columns but the page designer has total control within those constraints.

FRAGMENTS

Easily create your own fragments by dragging-and-dropping components, layouts and sections. Because Fragments are not just a type of content, but also a form of template, users can easily design and layout pages with Fragments that can then be further fleshed out with inline content.

COMPONENTS

Component fragments cannot be added to a page directly, instead they must reside within a special section called a Layout. Rather helpfully, when a user drags a component onto a page, a section is automatically created as a wrapper for that component. Components are designed to hold simple content elements, such as titles, text, buttons, etc. and combinations of those. Components will generally feature inline editable elements so a "Card" component might feature an Image which can be replaced with a real image, placeholder title, text, links and so on.

WIDGETS

A widget is any application that you can add to a page and are what compose the Widget Pages we mentioned in the earlier section. A widget could be a Wiki Display or a dynamic publishing tool like the Asset Publisher that can be dragged directly from the Widgets menu to a specific location on the page. Widgets can also be added into fragments and content pages as well. Liferay includes a library of widgets out-of-the-box for you to choose from and you can also create your own to be added.

How-to:

Author Content

AUTHORING WEB CONTENT ARTICLES

Web Content Articles are created from a Web Content Structure and are usually presented using one or more Web Content Templates and/or Display Page Templates.

There are two ways in which Web Content articles can be authored. One is directly through a Web Content Display Widget deployed to the Content or Widget Page that the article is going to be placed on, the other is through the Web Content repository in the Liferay DXP Control Panel. Both approaches ultimately provide the same authoring experience and store the finished article in the Web Content repository. Even if an article is authored through the Web Content Display widget on a specific page, it is still available to be presented on any number of pages throughout the site or even on other sites if content sharing is enabled.

AUTHORING CONTENT IN FRAGMENTS

In addition to using Web Content Articles to author content, you can also use Fragments as a way to build an editable content template, on a page or page template. Fragments can be created with various elements to be editable inline, allowing marketers and content creators the freedom to author beautiful content inline, within the technical guardrails set by front-end developers.

Manage Content

Many content types in Liferay, including Web Content, incorporate version control. Version control ensures that if a change is made to a web content article that breaks it in some way, that change can be reverted. When used in conjunction with a workflow, it also means that a new version of a content article can be in the process of being approved while the previous version is still published.

One of the features of version control for Web Content articles is the ability to compare one version with any other version. This allows the user to view additions, deletions and formatting changes made between the two versions.

Version 1.0 ¢ (First Version)	Version 1.3 ¢ (Last Version)	
TT 4 Hours Ago Version 1.1 Test Test	Pages, as the name suggests, are the perfect pla	sed for building sites is the Content Page. Content ce for deploying content – however they fully suppo ets – along with any custom Widget developed for y
TT 4 Hours Ago Version 1.2 Test Test		*=
TT 8 Seconds Ago Version 1.3 Test Test	Widget Page Build a page by adding	content Page Build a page by adding
	widgets and content.	sections, components, and widgets.
	you might be wondering what Widget Pages are Liferay since its earliest releases, while Content It important to anyone upgrading from a previous Secondly, there are many uses for Liferay DXP w of a page – either for applications that are not p pages within a site that don't have a need for a self-service application where the primary requi	g pages that are rich in <u>both</u> content and application used for? Well, firstly, Widget Pages have been pai Pages are relatively new – so Widget Pages may well version of Liferay. ⁴ here content is not necessarily the most important p articularly content rich as a whole, or for individual to of content – perhaps the Forum page of a custon rement is to deploy Liferay's Message Board widget. see is perfectly named!) will be a more logical choice
	Added Deleted Format Changes	

Version History for Web Content

It's useful at this point to note that only published content is subject to version control and not templates such as Web Content Templates, Widget Templates or Fragments.

Other management options for Web Content include configuring the Display, Review and Expiry dates.

By default, a content article's display date is the date and time they were created. Users are able to set specific dates to review the content and even mark it to expire, at which point Liferay DXP will no longer display the content even if it has been previously added to pages.

There are many more management features available to users, for example indexing content with tags and/or categories, marking other content items that they are related to using the Related Assets feature and so on.

Allow for Content Collaboration

CONTENT WORKFLOWS

Liferay DXP includes a powerful Workflow engine, which can be used for Content Approval Workflows, along with business process types of workflows. Any number of different workflows can be designed using the graphical Process Builder, with different workflows assigned to different types of Content. For Web Content Articles, a default workflow can be assigned for all articles, with the option to assign unique workflows for each Folder if needed. It's not mandatory to use Workflow if it is not needed and depending on the configuration applied the user will see different buttons when authoring content. If no workflow is assigned they will simply see a "Publish" button, while if a workflow has been assigned they will see a "Submit for Publication" button.

USERS AND PERMISSIONS

In order to enable content collaboration, users must first be assigned specific roles with certain permissions. Within Liferay DXP, you can have public or private sites and pages. Administrators have the option to manage users and assign them particular roles and permissions. Default roles are included out-of-the-box but you can configure unique roles based on your own need. Users can then easily create and edit documents according to their permissions.

In addition, users can now comment and share documents with other registered users using P2P asset sharing. This allows for faster coordination without the need to assign custom permissions and for multiple users to work on a single asset.

Reuse Content and View Content Usages

Once a content article has been published, it is possible to view the item in the context of any page it has been published on using the new Content Usages feature. This enables an administrator to quickly understand exactly where any content article has been published and features the option to directly open that page and view the article.

USAGES All (1)	All (1)			
Pages (1) Page Templates (0)	Filter and Order ▼ ↑↓			
Display Page Templates (0)	Name	Туре	Where	Modified Date
	Content Display	Page	Web Content Display Widg	View in Page

Tracking Content Usage

Preview Content

Irrespective of whether an article has been saved as a draft, submitted to an approval workflow or published, it may be previewed without displaying it first on a page, assuming either a Display Template or a Display Page Template has been applied. Preview can be initiated when editing the article itself by clicking on the "eye" icon from the context menu in the Content Repository, even if the content article itself is in draft and hasn't been published to any pages yet.

DISPLAY PAGE TEMPLATE	~
Specific Display Page Template	\$
Basic Web Content	٩
Select	

Content Preview While Edition



Content Preview While Browsing the Repository

Build Templates

Page Templates

In the above sections, we covered the processes needed to add fragments to a Content Page and configure those fragments as content. This was done in the context of a single page but what if you want to define a page to use as a repeatable template for other pages or even create an entire site from a predefined set of pages? Liferay DXP has you covered here as well!

Liferay DXP enables you to create new Page Templates which can then be used when you add a new Page. Creating a Page Template is exactly the same as creating a new page; you add the Fragments, Sections and Components you need to build the page and then when you publish this page, it becomes available for use in new pages. In most cases involving Page Templates you'll skip the configuration of fragments as content should be different for each page created from the template.

Another type of Page Templates are Display Page Templates, which let you create a default method allowing users to display Web Content articles, even if those articles have not been added to any pages.

Site Templates

In a similar fashion, you can create Site Templates, which can then be used to create new Sites. Site Templates are built in exactly the same way as a normal Site; you add the pages you need with the content items just waiting to be configured. If you're using Liferay DXP for an intranet solution, you might want to use this feature to enable each department to have their own site. For example, a Public Education Department may want each school to have their own website. In either case, the structure, look and feel, navigation and applications provided should be consistent. A combination of Site and Page Templates will give you everything you need to get started quickly and efficiently.

Build Sites, Layouts and Pages

You have the freedom to create as many different sites as you like within the context of a single Liferay instance. Sites can be created through the Control Panel by a Liferay administrator. However, without pages, sites are not particularly useful since they exist primarily for the sake of organizing pages and content. From there you have the option of adding any of the types of pages previously mentioned and a few other options including Full Page Applications, Page Sets, etc.

Personalize Content Display and Delivery

Take your pages and content to the next level with personalization. Personalization and segmentation capabilities have been moved into the core Liferay DXP platform so all content and applications can leverage segmentation to provide personalized experiences. Users can easily create segments based on session rules, such as cookies, geolocation, locale and profile. Those segments can then be targeted with customized content.

Deliver customized content by using Content sets, which are collections of content, that can be configured for multiple pages and targeted to any specific visitor on your page. Content sets help fulfill use cases where more than one piece of content is needed, such as a content feed or a carousel of rotating content pieces. Additionally, Liferay provides the functionality to create different variations of Content pages and target those different versions to specific segments using the Experiences functionality. Provide different text, images, widgets and even layouts based on the segment criteria of the user viewing the page.

Optimize for SEO

Liferay DXP optimizes updates to site map information and other metadata so that new pages are searchable by external search engines. SPA technology also provides dynamic page loading without hurting SEO.

SEO settings can be managed at the page level across all Liferay sites. Users can choose meta tags for description and keywords. Additionally, a separate Robots field will tell robots and crawlers how frequently the page is updated and how it should be prioritized. If the page is localized, users can also generate canonical links by language.

Localize

Liferay DXP comes with out-of-the-box support for many languages, including rightto-left language support. To create localized versions of content, users simply choose the language or region they want to localize for, which generates a duplicate of the content that is still tied to the original asset. This helps to ensure that content is being localized consistently and that content localizations are still tied together, keeping all versions in a single location for easier management.

Publish and Display Content

There are two methods to publish and display a Web Content Article: statically and dynamically.

Statically

Once a Web Content Article has been published to the site, it is available to be presented to users in a number of different ways. An individual article can be presented to a user on a specific page by displaying it through the Web Content Display widget. Once configured, this widget will display the same article each time the page is displayed.

Dynamically

The Asset Publisher widget provides an alternative approach for publishing content, generally used for publishing multiple content items at the same time. Asset Publisher can publish any type of Liferay content, not just Web Content. However, the Asset Publisher application must be configured so only the content items you want to display are shown. This configuration can be manual, where you select exactly the content you want displayed or dynamic, where you select one or more types of content, categories and/or tags that content has been classified with and more. The final option is to display content that has been included in a Content Set. Content Sets are effectively decoupled versions of the manual or dynamic configuration options available but with the added benefit of supporting personalization so that each user will see content relevant to them based on their membership of User Segments.

It is also possible for Web Content articles to be accessible to users without being displayed on a page through the use of Display Page Templates. When a Display Page Template is assigned to a Web Content Article, the presentation of the content is controlled by the Display Page Template and the article gets a unique URL, even though an actual page doesn't exist.

Additionally, it is possible to display Web Content Articles, as well as Blogs and Documents, within a fragment, by mapping content fields onto the fragment's editable elements. This approach is also used to define Display Page Templates, as discussed on page 4.

Conclusion

While not fully comprehensive, we hope this guide has been helpful in showing what features are available on Liferay DXP and how you can utilize them to create, display and publish your content in engaging ways for your audience. We encourage you to leverage the flexibility of the platform to further extend these features to accommodate your unique use case.

To see these capabilities in action, sign up for a free 30-day trial here.

For any questions, please contact Sales at sales@liferay.com.



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