

Accessible Collaboration with Lightweight DITA

*An Intelligent Content Format
for DITA-curious Technical Writers*

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Streamlined LwDITA Is Easier to Learn and Use

Intelligent content is a term originally defined by Ann Rockley. Any content that is “automatically discoverable, reusable, reconfigurable, and adaptable” is intelligent content (qtd. in “What Is”).

Technical writers often consider DITA the industry standard, but the needs of both writers and the industry seem to be growing. Lightweight DITA (LwDITA) is an extremely streamlined version of DITA, created as a reaction to emerging needs in the technical writing industry. LwDITA’s name leaves nothing to the imagination: its design focuses on being easy to learn and easy to use (Giffin). While many technical writers may know a markup language or two, some writers may be less technically inclined. The hope is that technical writers can use LwDITA as “DITA training wheels” and that ultimately LwDITA will “ease DITA implementation and adoption” (White; Schengili-Roberts, “Where”).

Reusable content is an important feature for many writers who use DITA. From a best practices standpoint, it is inefficient for technical writers to spend their time copying and pasting information from one document to another (qtd. in Evia, *Creating*, ch.1). Both DITA and LwDITA enable the reuse of content through its map files, which list the topics that make up the content of a document. Map files are similar to a shopping list—the writer is simply dictating what items to gather and show to the viewer. While the subcommittee note states that LwDITA has “fewer reuse mechanisms,” it is still capable of creating intelligent content (“Lightweight” 11).

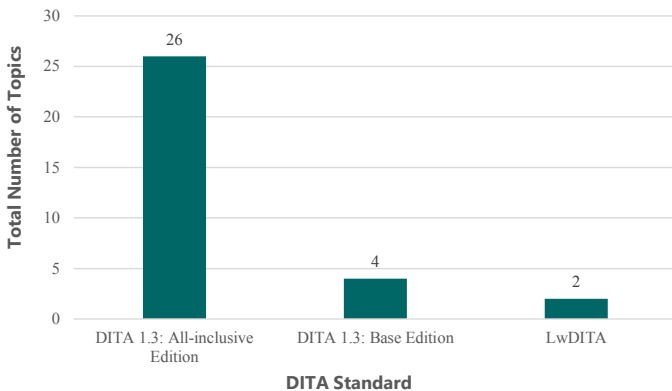
DIFFERENCES AT A GLANCE

Technical writers can create intelligent content with both DITA and LwDITA. However, LwDITA is not “nearly as flexible” as DITA because of LwDITA’s limited scope of topics and elements (Giffin). Currently, LwDITA has just two topic types and 48 elements, nine of which are media elements designed to match HTML5 (“Lightweight” 9). Comparing the reduction of elements between DITA versions, LwDITA has 74.6% less elements than the Base Edition, and 92.3% less elements than the All-inclusive Edition. This makes LwDITA easier to learn, which means it is highly accessible to technical writers.

Imagine the all-inclusive edition of DITA as a motorcycle. An inexperienced rider might find it hard to control, but it is also sleek, shiny, fast, and can travel wherever needed (as long as no one needs to travel across an ocean). The base edition of DITA is like a bicycle—easier to control and can still travel places, just not as far. LwDITA is a tricycle. The rider does not need to learn much in order to ride it. The only downside is the rider cannot go very far with it.

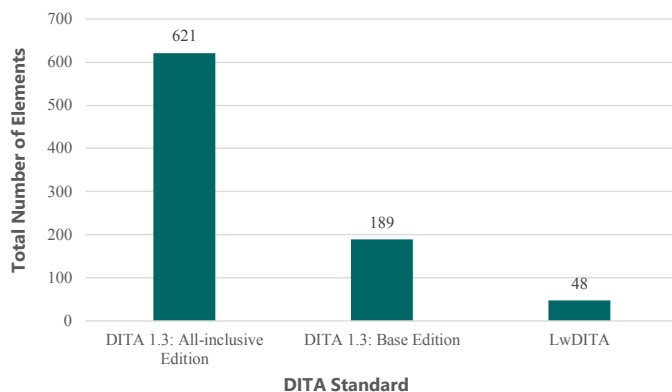
LwDITA is also highly accessible to some other audiences. Technical writers are most likely to use the XML-based version of LwDITA. Other writers and subject matter experts (SMEs) can collaborate with technical writers via LwDITA’s different formats.

LwDITA Has the Lowest Amount of Topic Types



The differences are not too drastic between the Base Edition and LwDITA.

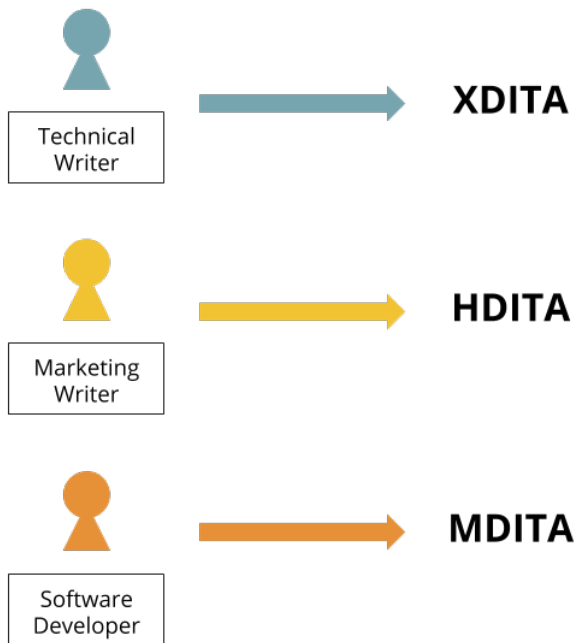
LwDITA Has the Lowest Amount of Elements



LwDITA provides just the basics in terms of elements.

Three Different Formats Make LwDITA Accessible to Many Writers

The LwDITA Formats Each Have a Primary Audience.



Although the different LwDITA formats have primary audiences, technical writers can pick whichever format they are most comfortable with.

A comprehensive listing of anticipated users for the three LwDITA formats

XDITA	MDITA	HDITA
Technical Writers	Software Developers	Marketing Writers
	API Documentation Writers	Web Content Developers
	Content Curators	Software Developers
	Technical Editors	Teachers & Trainers
		Bloggers
		Content Strategists

Sources: Evia, "Authoring," p. 2; "Lightweight," p. 17-18, p. 19.

What makes LwDITA so accessible is how users can choose between three different markup languages. These include XDITA (based on XML), HDITA (based on HTML), and MDITA (based on Markdown) (Evia, Creating, ch. 1). LwDITA lowers the barrier of entry for technical writers (and others) by providing options that they might already know how to use. Each of these formats has a primary intended audience, but anyone can use them.

For example, maybe a technical writer has been working at a company that primarily uses HTML for content formatting. If that writer got a new job at a company that uses LwDITA, they could immediately get to work using the HDITA format with little additional training. If they get a job at a company that uses DITA, things get a little more complicated. Because there is built-in compatibility with DITA, the writer could still use LwDITA, but it would really depend on how flexible their new employer is.

Most of the LwDITA formats are cross-compatible out of the box, and are convertible to DITA 1.3 documents ("Lightweight", 17, 22). Technical writers who want to use the Markdown variety of LwDITA should keep in mind that compatibility depends on the version used. Two different versions are available for MDITA: the Core profile, which is most similar to "GitHub Flavored Markdown", and the Extended profile, which has a greater variety of features "to enable a more consistent DITA-like experience" (19). The MDITA Core profile is unable to use content and key references, limiting its cross-compatibility (22).

In addition to opening up LwDITA to a wider audience, the multiple formats are the key to enabling better collaboration between technical writers, SMEs, and other content writers.

LwDITA Brings Many Benefits to the Workplace

Unless they are a freelancer, technical writers do not usually have the power to choose what tools they use. That is usually more of a company decision based primarily on cost-effectiveness and efficiency. Not all companies can afford to implement a full DITA system, especially if there is already a massive amount of data that would need to be converted. LwDITA can be a viable option for these companies, especially small businesses.

EASIER COLLABORATION REDUCES DOCUMENT CYCLING AND COSTS

One of the best reasons to implement a LwDITA system in the workplace is collaboration. No technical writer is an island; creating effective technical documentation requires the skills and expertise of both SMEs and technical writers. The accessibility that comes with LwDITA's three format options streamlines and enhances collaboration within a technical publications team (Evia, Creating, ch. 1).

Normally, a technical writer would have to request information from SMEs. LwDITA allows SMEs to contribute written information directly to a project. Mark Giffin explains how LwDITA can ease collaboration with software developers:

Programmers are already used to using Markdown to document their code. And you might get more collaboration out of them if they didn't have anything extra to learn or mess with to give you some information. (Giffin)

Instead of the usual back-and-forth of requesting and verifying information, the SMEs would use MDITA to write their contribution and then share it with the technical writer. This cuts down the time it takes for document cycling to produce a finalized document. Less time spent producing a document could potentially mean reduced costs as well.

What makes LwDITA even greater for collaboration is how the formats are cross-compatible. Technical writers, marketing writers, SMEs, and other content authors can all write in their preferred format, and the resulting documents are all publishable as combined content ("Lightweight", 22). White mentions an example of a LwDITA document cycle

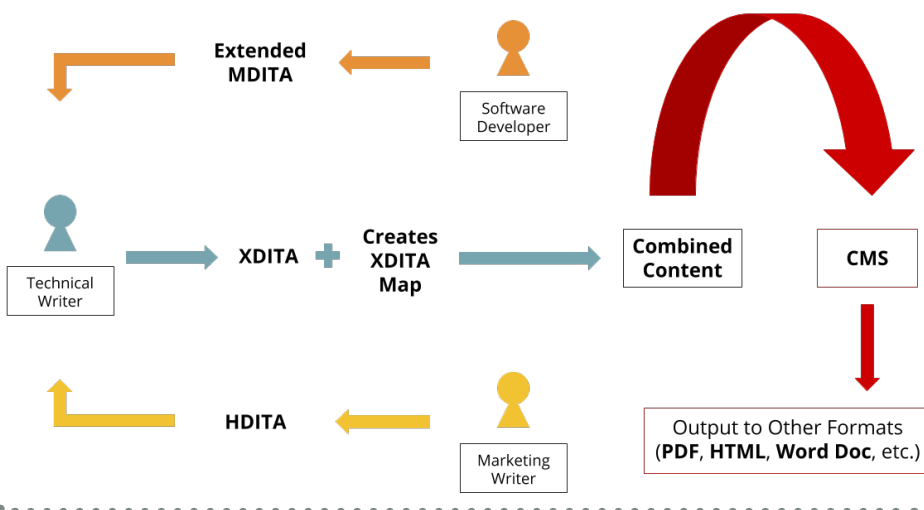
that ends with conversion of the document to DITA 1.3. A technical publications team might need the more advanced features of DITA, such as localization tags. In this case, the technical writer would convert all the collaborated LwDITA documents to DITA 1.3 and then add any necessary DITA 1.3 elements.

If [programmers] required an XML Editor, and knowledge of DITA ... a lot of them will just say, 'forget it!' And probably their management would support them.

—Giffin

Unfortunately, DITA 1.3 documents are not convertible to LwDITA formats, since many of the elements available in DITA 1.3 do not exist in LwDITA.

A Content Management System Can Convert the Combined Content into Other Formats as Necessary.



An example of LwDITA enabling efficient collaboration during the document cycle.

CONTENT REUSE MEANS LESS BUSYWORK AND BETTER CONSISTENCY

Technical writers can create modular content with DITA and LwDITA. For writers working at companies that manage a vast amount of documentation, content reuse is crucial for keeping content both consistent and up-to-date (Evia, *Creating*, ch. 1). As long as content can get into a DITA system—even a LwDITA system—it will open up opportunities to reuse that content in other documents (Giffin).

Writers create each LwDITA topic (a chunk of written content) as a standalone unit. These standalone units are understandable without any additional information or context. Writers can then combine topics stored in the system as needed to create new content (Evia, *Creating*, ch. 1). For example, a technical writer working at a computer manufacturing company can write a topic about USB slot troubleshooting. The writer can include that topic in all of their computer manuals since the information is universal and written to be standalone. No need to waste time copying and pasting text from one document to another! If a writer makes changes to a topic stored in the system, all of the documents that use that unit will reflect those changes (Evia, *Creating*, ch. 1).

A LIMITED SCOPE MEANS FASTER PRODUCTION AND TRAINING

Consider the number of elements that DITA has—over 600 in the All-inclusive edition. Many people find an excessive amount of choices daunting, and it can take a while to come to a decision. In DITA's case, trying to decide on “which valid element to use in a given context” can be difficult for writers, especially those without a DITA background (White). LwDITA, on the other hand, has only 48 elements. LwDITA's limited scope essentially eliminates the possibility of choice overload, and technical writers can produce documents faster.

LwDITA's limited scope makes learning much easier for technical writers and content authors without a technical or DITA background (White). In a feasibility study produced by Evia and Priestley, novice technical writing students at an unidentified university took on the task of producing an HDITA document as a class assignment. The results of the study concluded that the students “did not find the HDITA authoring process particularly difficult” (23). They also noted that students with previous HTML and programming experience “quickly embraced” vital concepts for creating LwDITA content (35).

LwDITA can also reduce costs. The LwDITA Subcommittee note states that lower costs would stem from the “learning curve [being] shorter” and the system “[involving] less change management” (9). If it is easier to learn, it is not too much of a stretch to infer that the training period for LwDITA is shorter. Any costs associated with training would therefore be much lower when compared to DITA training.

LwDITA brings many benefits to technical writers and to the workplace. However, those benefits do not necessarily make LwDITA the best option.

If you just have all your content in a bunch of Word files or Google Doc files, it's hard to do anything else with them.

—Giffin

LwDITA Cannot Fulfill the Needs of Every Technical Writer

LwDITA is not for everyone.

—Evia

Should technical writers look to LwDITA as the latest and greatest addition to their toolbox? It really depends! DITA is not the perfect solution for every technical writer's needs—and it certainly isn't the perfect solution for every company's needs. LwDITA is also not the perfect solution, especially considering some of its limitations and lack of flexibility.

THE RELEASE OF LWDITA IS NOT QUITE HERE YET

The LwDITA Subcommittee has not officially released the LwDITA specification yet. The release date of the LwDITA specification is currently unknown. When asked for a possible timeframe, Giffin guessed that an official release would probably be “sooner than two years”. However, it is quite possible for technical writers to set up a LwDITA system and start using it now (Giffin).

Depending on the desired format, implementing a LwDITA system might require a bit of work with DTD maps. Technical writers who want to use XDITA can download the DTD maps available on GitHub (Giffin). Setting up the HDITA and MDITA formats require creating the DTD maps based on the specification in the subcommittee note (Giffin). Once the LwDITA system is up and running, technical writers can use the DITA Open Toolkit to convert LwDITA documents into other formats such as PDF or HTML files (Giffin).

Unfortunately, this means that implementing HDITA and MDITA formats requires knowledge of how to create DTD maps. Implementation may not be currently feasible for many potential LwDITA users. However, if a technical writer or company wants to implement LwDITA and has the resources to create the DTD maps, then there is no reason to wait for the official release.

Some companies are already using LwDITA or similar systems for content creation. Oracle has implemented a custom system that is similar to LwDITA (Giffin). Adobe has added support for LwDITA to FrameMaker and have used it to create some of their documentation (Giffin). Other tools with built-in support for LwDITA include the recent releases of Oxygen XML and the DITA Open Toolkit—however, text editors are always an option (Giffin; “LwDITA-aware”).

LWDITA CANNOT FULFILL THE NEEDS OF EVERY PROJECT

In the workplace, senior technical writing staff will probably be the ones with the power to voice opinions on implementation options. Companies will decide between implementing LwDITA, DITA, etc., based on their current content needs. One of the main concerns is the cost of implementation. Depending on a company's documentation needs and the format of its current content, the cost of DITA implementation could be prohibitive. O'Keefe states that if content is not currently “topic oriented”, it would mean “a significant shift” in the way technical writers produce documentation (35).

Localization features are not currently present in LwDITA, and the LwDITA subcommittee has not “talked a whole lot about localization” (Giffin). If a technical writer works with and produces a lot of localized documentation, then they should consider DITA instead. Currently, LwDITA is not a feasible option for localization, although it is possible to add localization features via DTD map customization (Giffin).

If somebody needed a lot of the features that full DITA has, then I probably wouldn't be mentioning LwDITA. If they had a bunch of programmers they wanted to get info from, in as smoothest way as possible, into their DITA system, then I'd definitely try to implement LwDITA.

—Giffin

LWDITA CANNOT FULFILL THE NEEDS OF EVERY PROJECT (CONT.)

The consensus is that LwDITA can fulfill simpler needs, and technical writers with more complex documentation needs should consider implementing DITA instead (Evia, Creating, ch. 1; Giffin; O’Keefe; White). Larger businesses that need content reuse systems and a lot of control over their documentation will benefit more from DITA implementations (Giffin). Smaller businesses might only need a static site generator, such as Jekyll, and Markdown to fulfill their documentation and web publishing needs (Giffin).

The Technical Writing Industry Is Trending Towards Simplification

It could be that people will, down the road, [say], “Why would I spend all that time and money getting a full DITA system setup, when there’s all these other easier ways to do things?”

—Giffin

Even if DITA 2.0 was to be released tomorrow, the basics of content reuse—which is the underlying strength of the standard—are unlikely to be changed in any fundamental way.

—Schengili-Roberts

DITA 2.0 will not be backwards compatible with older versions.

—Schengili-Roberts

LwDITA fulfills the need for a tool that is easier to learn and use in the technical documentation community. Other companies have already created similar solutions. For example, IBM uses their own custom system for their marketing content, and Microsoft is moving from their custom XML system to a combination of Markdown and GitHub (Giffin). The industry seems to be moving to simpler solutions, such as LwDITA, that fulfill their documentation needs.

FUTURE IMPROVEMENTS

As previously stated, the Subcommittee has not heavily discussed the addition of localization features to LwDITA at this time (Giffin). The Subcommittee could potentially add localization and conditional tags sometime in the future to meet the needs of technical writers. “Based on community interest and development resources,” the Subcommittee will consider additional mappings for other popular content formats such as “JSON, AsciiDoc, or MS Word” (“Lightweight”, 10). These additional formats could potentially open up accessibility even further, especially with the possible MS Word option. Every college student has to learn how to use MS Word, so new technical writing graduates would not require markup language training to get started.

THE RELEASE OF DITA 2.0

A concern that some technical writers might have is how the release of DITA 2.0 could affect LwDITA (based on DITA 1.3). The good news is that DITA 2.0 will not make DITA 1.3 or LwDITA content obsolete (Schengili-Roberts, “Don’t”). In fact, anyone who has already implemented a DITA 1.3 or LwDITA setup would not necessarily have to upgrade to DITA 2.0 at all. Not unless there is a feature in DITA 2.0 that they need (Schengili-Roberts, “Don’t”). The LwDITA Subcommittee and the DITA Committee will work out any major differences between the two specifications so that they are not “going in two different directions” (Giffin). The recently added LwDITA media elements are a good example of the parity between the two specifications.

CONCLUSION

LwDITA has great potential as a tool that enables smoother collaboration between technical writers, SMEs, and other writers. It will also be easier to learn and implement than a full DITA system. Intelligent content has been an important trend in the technical writing industry for some time, but there has always been a steep barrier to entry. LwDITA, with its simpler approach, will offer a way to break that barrier and give technical writers an accessible tool for collaboration.

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