

CMS Team Collaboration Discovery

14 May 2018, Created by Paul Clarke, Benn Crawford, Sacha Judd

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Research Summary

The SilverStripe community (Common Web Platform, SilverStripe Ltd, developer community) aims to create and provide a great user experience for everyone using the SilverStripe content management system (CMS). We want to enable teams to achieve great results and provide an easy to use, intuitive interface for website administrators and content authors.

Over the last few years, SilverStripe has heard from CWP (Common Web Platform) participating agencies that there were several obstacles to effectively managing content workflow processes. This feedback initiated a more in-depth review to look at how to improve the content creation and collaboration processes.

In March 2018 on behalf of the CWP community, SilverStripe completed a discovery initiative to better understand the relationship between CMS features, user behaviour and organisational dynamics, helping us to understand how these elements impact on content creation and collaboration processes for users. The results of the initiative will be used to guide future development of the CMS used by CWP.

Future investments to improve the CMS can be validated through the results of this research and will help to focus on high-value, high impact features and refinements.

The discovery initiative looked to identify:

- Existing modules/features that CMS users are using to support collaboration practices
- Common pain-points for creating content and collaborating
- Workarounds that users develop because the CMS does not have the features they require to collaborate effectively
- Potential gaps in common collaboration processes that could be addressed by enhancements to the CMS
- Ways to improve the interface and cater to current day workflow processes

This report outlines the results of in-depth user interviews with content teams across five organisations: four from the public sector, one from the private sector. In addition to the interviews, an online survey was created to consult with the broader SilverStripe audience through the [SilverStripe Research Panel](#) (source of statistics used in this report).

Key findings

- The success of content teams depends on their ability to **communicate** and **coordinate** effectively with each other. Likewise, wider stakeholder groups require more visibility of content throughout the creation process, and these groups would also benefit from communication methods to provide oversight and input.
- For many organisations there is an overall lack of **visibility** around what changes are being made within the CMS for large or complex websites. This creates unnecessary friction in the content collaboration process.
- There is a need for flexible and **easily maintained content approval workflows** which do not have a steep learning curve or high cost to maintain. In many cases, a 'soft-approval', such as a thumbs up or down (commonly found in social networking software), would be sufficient. This is especially true if this single step or soft-approval made it easy to include those in the wider stakeholder group who do not typically use the CMS.
- **Content control** functionality, such as scheduled publishing, adding review and embargo dates, were commonly asked about by interviewees, despite this functionality already existing as add-on SilverStripe modules. This lack of awareness suggests that feature/module discovery in the CWP ecosystem could be improved.
- Content teams require the flexibility to stay in-touch no matter what **environment** they are in. As organisations more commonly support a flexible work environment, people are able to take their work with them outside of traditional office spaces. As a result, content professionals need the tools to carry out their work in a mobile setting, and remain cost-effectively connected with their team. The CMS and support tools need to be able to cater for this.

Note:

Quotes used in this document are examples of things that have been said rather than exact quotes. This has been done to keep confidentiality for those taking part in this research.

All images presented in this report are from the Team Collaboration and Content Creation Survey with 57 participants, see report appendices for more details.

Research Findings

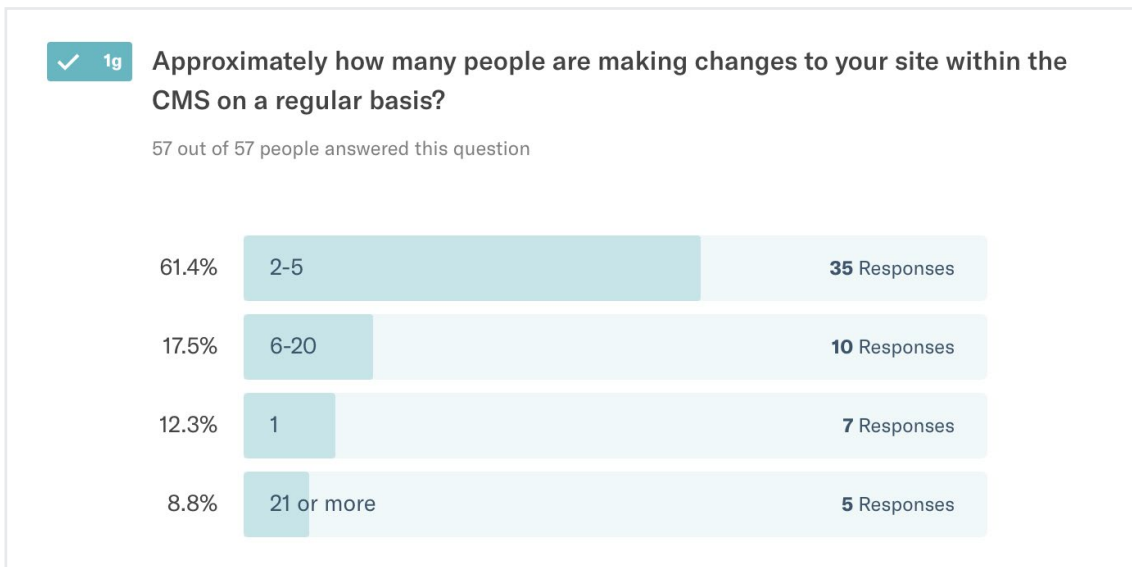
General findings

[F1] Flexibility is key

Recommendation A

Although there are commonalities between the processes, modules, and tools people use, we found there is no single way that web teams work. In fact, content creators and content managers thrive when there is the flexibility to tailor their processes based on individual projects or team needs. What works for one team might not work for another.

The size of CMS content teams tend to consist of 2-5 people for 61% of cases ([consistent with our 2014 research](#)). Even though small teams are more common, it is important to recognise that over 26% have more than 6 people, with nearly 9% of that having teams larger than 21 people interacting within their CMS.



It is clear from our interviews that some teams consist of a broader range of people/ roles which extend to a wider reach of people. For instance in the public sector, content teams will often work with Subject Matter Experts (SMEs) and/or the wider business to create and compile content. In contrast there are organisations where they limit CMS access and content creation to a few key moderators to maintain control of the message, tone and voice of their brand.

Although we haven't created a specific recommendation in this report to understand the different personas/archetypes in play, through each discovery initiative we can work towards breaking down the team structures/roles involved to build out a better understanding of content/web teams.

[F2] Content collaboration for fast-paced organisations with complex websites is very challenging

Recommendations A, B, D

For organisations in this situation, the need to change content outweighs the need to communicate all changes to every content author. This is particularly true when content authors are dispersed across multiple teams/locations, or when content requires input from SMEs or third-parties (e.g. translation services, advertising partners, content designers/marketers).

These organisations cannot rely on auto-generated system notifications or emails due to the high-volume of changes, and often resort to overriding workflows when critical content updates need to be made. This can be further complicated when content authoring and content marketing functions are managed separately.

"...for us, content collaboration becomes an issue because the workflows aren't just between content authors in Wellington and content authors in Europe, but that content has to go through an approval process. So if you're waiting for it to go through multiple levels nothing will ever get done."

[F3] When content teams experience high turnover, content management and collaboration is impacted

Recommendations A, B, Ea

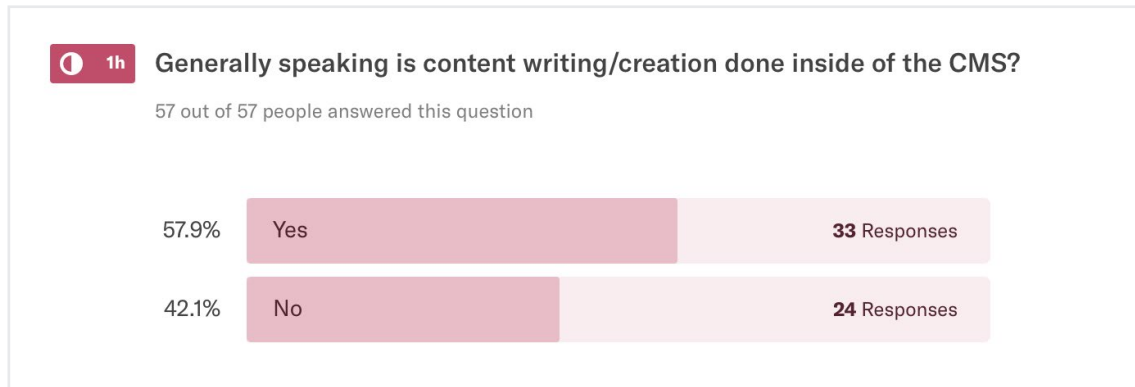
When content teams create collaboration workflows and practices that are maintained outside of the CMS, the departure of a team member often means particular practices stop. This suggests that for effective collaboration to be regarded as a best-practice approach to content management, it needs to be integrated into the CMS interface and therefore resilient to personnel changes.

"The team has a really high turnover. So often someone comes and puts a process in place like "we're going to put something in a calendar so we can review it in 12 months"... we've avoided having a process in place where you can flag content for review."

[F4] The project stages of website “build” and “upkeep” require different collaboration tools and workflows

Recommendations A, B, E, Ea, F, Fa, Fb, Fc, H, I

Content creation and the design/build of a website are heavily tied together and will often be done at the same time. However, it is a common occurrence that the CMS is not ready to be used for content authoring during the early build stage. So to progress content development, organisations sometimes use alternative content creation and management tools external to the CMS.



“From a content creation point of view, creating content happens outside of the CMS.”

When a website project moves to content upkeep and maintenance, teams generally work within the confines of the CMS. These teams rely on the built-in permission levels, with some using additional modules to extend the basic permission model. Almost half of the content professionals surveyed make some sort of CMS edit everyday in this upkeep stage.



[F5] There is a lack of visibility of installed CMS modules and the additional available modules in the CWP ecosystem

Recommendations H, I

Amongst interviewed teams, there was a lack of understanding of which modules are supported by SilverStripe, which modules were community created open source modules. There was also confusion about what is default SilverStripe CMS functionality and what is bespoke to their own site.

“One of the main issues we’re finding is that part of CWP modules can be customised in so many different ways—it’s not just plug in and it goes, because people will change them to suit individual needs, and they have to work with lots of other modules as well.”

During our research, interviewees often described features they desired, without knowing the functionality already existed as either supported modules or community modules. It was apparent that there is a lack of understanding of what is available outside of their own CMS instalment. There seems to be a disconnect between content and development teams as to what functionality can be provided.

When issues arise on a site, it is difficult for CMS admins/authors to know where they should raise those issues. There is no CMS feedback channel for simple recurring issues, especially if the organisation has no active Product Owner, website support or developers working on the site. For many content teams they learn to live with issues as the barrier to resolve them is too high.

Collaboration findings

[F6] Communication happens outside of the CMS

Recommendations A, B

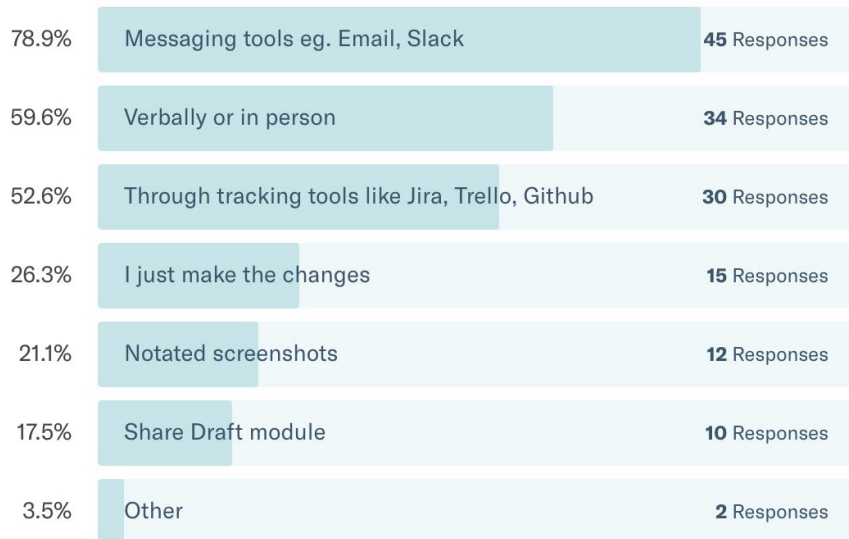
It was evident that vast majority of communication about content creation took place outside of the CMS for the majority of users. This correlates to the limited channels built in to the CMS that support the collaboration process.

The use of the Share Draft Content module was well received by content teams as an addition to the use of external communication tools like email. However, the module lacks additional features which might typically accompany this type of feature, such as the ability to acknowledge that a content preview has been received, or if any feedback is necessary.



How do you communicate website issues/changes that you have made or would like to make with co-workers?

57 out of 57 people answered this question (with multiple choice)



New website builds (or re-developments) of large, complex sites require a lot more collaboration and flexibility to include SME's from across a business. The structured and permission-based user experience of the CMS is seen as a barrier to rapid content collaboration in this phase. Therefore, content teams generally opt to work outside of the CMS until they have a complete strategy and structure for their content. This includes putting the content through an approval process. In this context, the CMS is used for final publishing and ongoing maintenance of content.

External tools like Microsoft Word and Excel, GatherContent, and Google Docs play a significant part in the content creation process for most teams*. They provide in-context commenting which allows for content to be verified by SMEs for approval prior to content entering the CMS, and helps to avoid CMS workflows. These word processing tools are easy go-tos for content collaboration as they are typically used in other areas of the business (their features therefore being familiar to content contributors) and generally require little additional permission setup or training.

* This often applies to the build stage. In the maintenance stage content teams rely on the CMS to support their work

[F7] Communication and visibility of work-in-progress between different content roles is insufficient

Recommendations A, B, D, E, Ea, F, Fa, Fb

It was evident that there were insufficient ways for content teams to provide more context and visibility to their work within the CMS.

Typical workarounds to this would be to use external communication channels e.g. email and messaging, issue tracking tools. However, due to the nature of these tools, context is lost over time and content teams struggle to manage the amount of detail or frequency of changes required.

“We’ve got a separation between the digital teams. There’s people who publish and keep an eye on accessibility and then there’s the people who own and typically paste into the website who don’t have as much knowledge about these things, and they haven’t had writing training for the web.”

As organisations place more emphasis on user-centred design, plain English writing and marketing roles within the CMS have also become more specialised. Although this specialisation is still maturing in the public sector, our research suggests there is often a disconnect between these specialised roles when collaborating on content. An example of two common roles include content authors (those entering and maintaining content) and content designers (those crafting the content and ensuring it is effective for target audiences).

Our research shows that the ability to communicate and provide visibility of work-in-progress between different content roles is insufficient for the upkeep and maintenance of a typical website.

[F8] Where a content team exists, sign-off/approval workflow is needed with the preference for something lightweight

Recommendation A

“Some of the other teams have to go through multiple layers of approval to get things on the website, so it goes into a document which then gets reviewed and only the final version gets added to the website.”

Ensuring the right content is published is a concern for all organisations regardless of size. The common approach is the goldilocks standard—sufficient approval workflow as to allow critical content to go live without being signed off first, but not too much that approval workflow becomes an obstacle when content is not of a critical nature. In the majority of cases, sign-off was two or three-steps, with the Business Owner or Marketing/Comms Manager sign-off required before publishing.

“Until recently we actually had a physical sheet that people needed to sign off. So the SME would say, “yeah this information is correct” and a peer reviewer who would say “I’ve reviewed the documents” so that we have two set of eyes across it.”

The most complex sign-off process encountered included dozens of people in various roles (i.e. Content Designers and Authors, Subject Matter Experts, Business Managers, and Legal Teams) with unlimited rounds of edits until sign-off was achieved. In this

particular case, Legal sign-off was considered to signal the last and final sign-off before publishing.

The simplest process from our research saw very little collaboration within the CMS. Content was authored by a large team where individual team members acted independently before a single person took charge of quality assurance (content sign-off) and the final publishing step within the CMS.

[F9] Advanced Workflow Module (AWM) has a high barrier to entry

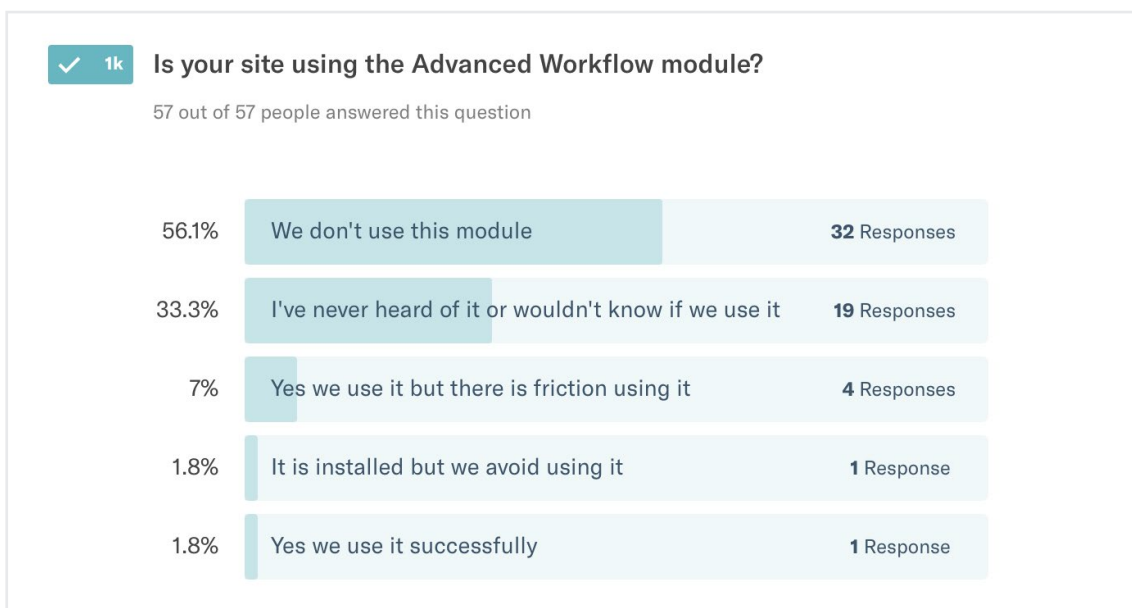
Recommendations A, G

There are several concerns with the module in its current form based on our conversations with research participants. Users find AWM hard to align with an organisational content workflow, often resulting in unwanted steps to their workflow.

“We don’t have CMS based workflows. One, it’s too many loops to go through and two, you get so many email notifications. “Oh I changed an image”, “oh, I changed a line of text”, at what point are the notifications relevant? We decided it was something we could solve through an internal workflow as opposed to a CMS solution.”

The interface often results in unintuitive labelling and actions due to the extreme customisability of the module. This in turn makes support documentation hard to follow. Even when approval workflows have initially been created to align with a businesses needs, as businesses evolve these built in workflows fall out of sync and become more of a hindrance. AWM based workflows were said to be too complicated to modify without developer assistance, and could result in excessive amounts of emails “spam”.

“I don’t actually read what the emails are... but I can see there’s ten new emails and instead of opening them I’ll just go into the CMS because I know there are approvals waiting for me.”



The cost and overhead to setup and run the AWM successfully is relatively high and there are only a few who are able to uphold the cost and training to use it, and therefore seems better suited to larger sites with larger teams working within the CMS.

Users found the module hard to grasp because of the cluttered UI, with no clear path the user should take with too many options for choosing workflows. Described as being built from a “developers perspective” it is not clear to the publisher what the editor has changed and what content on the page is being submitted for approval. The visual flow of content through the workflow model is difficult to understand as it often isn’t linear as depicted within the configuration.

“I heavily rely on instructions to use it”

“I’m kind of reliant on what someone writes in the comments to know what I’m looking for on that page.”

Content quality and moderation

[F10] Current collaboration practices do not support non-content specialist to contribute quality content

Recommendations A, B, F, Fa, Fb

Content Designers are invariably the standard bearers for content quality. Ensuring plain English, quality content that is tailored to key user personas is a significant challenge for government agencies with content teams that rely on contributions from Subject Matter Experts or business owners. Though there are some specialist tools that exist to support this, none are known to have a public sector focus or appear to be commonly adopted in the New Zealand Public Sector.

From our research SMEs lose engagement or availability to provide additional context and details about their content which is challenging for web teams. SMEs often don’t get to see their content in the context of the experience users will encounter. Furthermore, their content is often composed as if it was for a print context. This reflects a traditional publication mindset to content creation which is still prevalent in the public sector.

[F11] Accessibility is under prioritised, or too difficult

Recommendation F, Fa, Fb

Though the New Zealand Web Accessibility Standard 1.0 it is mandatory for all Public Service departments and Non-Public Service departments in the State Services to ensure accessibility is achieved and maintained for the lifetime of a web project. Although this standard exists, there are some agencies which still struggle to maintain,

or even have a good idea where they sit within the spectrum of having an accessible site. It is often seen as under prioritised, or too difficult.

“We realise that we’re non-compliant when it comes to accessibility by government web standards because we don’t have an accessible version to upload. There’s just no resources to make that accessible”

Currently there is no straight forward/standardised way for site administrators to monitor or report on the accessibility standard of a website on CWP that is available to all site administrators. This impacts the following users:

1. Developers who build (or make adjustments to templates) but overlook the appropriate checks to ensure that their code is accessible.
2. Content authors, as they need to consider the accessibility impact of content created and entered into the CMS.
3. Site administrators, as they need to be able to report on the accessibility standards of their website.
4. All users of the website, if issues aren’t reported on, and actioned, quickly by content authors the site won’t be in an accessible state for this period.

This issue does not just sit at a content level but is the responsibility of entire teams, including developers and support developers who work on these sites. Without a common tool or visibility of how the site is performing over the life of a website, the team would find it hard to have a common view of how they are tracking, or improving the experience.

With increasingly advanced content structures, and rich media like infographics being used on sites, web admins struggle to maintain an accessible standard, especially when the site has not been setup in an accessible format in the first place.

“If everything was just plain text it would be great. But a lot of organisations are going down that infographic quick snippet visual route.”

Often content is created for a print context (like infographics), with the expectation it will be made public through the web. The effort to turn this content into an accessible format can be impractical, and often there is a lack of knowledge on how to make such content accessible. To be able to achieve a suitable standard, all parties involved need to be aware of the impact their work has on the overall accessibility and overall quality of a site.

[F12] Embargo, expiry and scheduling controls were often asked for by content teams

Recommendation C

As organisations mature their content creation practices, they often want to manage their content in an asymmetrical way .i.e. they want the ability to publish/unpublish content independently from the time content is added to the CMS. Though the drivers are often varied (e.g. a government agency with legislative responsibility v.s. a Crown Entity charged with promoting a sector), the ability to schedule content publishing/unpublishing in coordination with business owners, legal teams, and/or marketing functions was sought after.

“Once an embargo feature is in SilverStripe, it’s going to solve a lot of problems.”

“Expiry controls is something we will need.”

From our community survey, scheduled publishing was the highest ranked feature (from the 9 provided) which could improve the content collaboration experience within the CMS. But through our interviews we discovered there was a lack of awareness that certain modules supported this functionality.

Other notable findings

[F13] Being able to view multiple/all draft items in context of each other

An issue raised by a participant using SilverStripe version 3 is that they find it hard imagine all draft content on a site when they can only view a single draft page in context of other published pages (without other draft items appearing in the menus, or being surfaced on landing pages). Their workaround is to re-mock these draft pages in UAT as published pages to view them all in the same context. Unfortunately the amount of work to maintain the UAT content is extensive for a large site.

“I think having the ability to view all draft pages, so they can be viewed in the navigation would be fantastic, not having to mock it up in UAT...”

The soon to be released version of CWP 2.0 includes a Campaigns section within the CMS which should provide the functionality to view multiple draft pages through the preview panel to some degree. Some investigation to understand the limitations, and ensure the experience is suitable to cater to user needs would be ideal. Promoting this functionality within the CMS user help, and via the SilverStripe blog so that CMS users are aware of, and can utilise the inbuilt functionality.

[F14] The Better Buttons Module has the highest satisfaction rating from the 10 modules we surveyed

Recommendations G

As part of our survey, we researched the satisfaction rating of the top content/collaboration modules.

From the list of modules the Better Buttons Module had the highest satisfaction rating while Advanced Workflow had the least:

1. **Better Buttons:** adds additional CMS actions which let users skip through monotonous steps for a faster experience when authoring data within the CMS (e.g. Next, Previous, Save and add another, Save and close). Some of this functionality is planned to be added to the core offering of SilverStripe outside of CWP ([view progress on GitHub](#)).

“Adding this level of efficiency and convenience will be beneficial to all CMS users.”

2. **Content blocks or block modules**
3. **Translations**
4. **Share draft content**
5. **Content widget**
6. **Taxonomy**
7. **Content review**
8. **Multi-user edit alert**
9. **Edit lock**
10. **Advanced workflow**

[F15] The current CMS page archive functionality is difficult to use and hard to find

Recommendations E

In 2014 we researched the [main page actions and states](#) and uncovered that archived pages were difficult to find. This continues to be a pain point for CMS users.

Government agencies must comply with public record legislation and need to be able to access, retrieve and report on content on their website whether it is current or historic. An easy-to-use archive function is therefore crucial for CWP to help government organisations be compliant.

“Instead of using the page archive, we just unpublish the page and move it to a section in the sitetree of unpublished page, in case we want to refer back them... it just seems to be easier for us content editors to be able to find them within the sitetree. There’s tons of stuff in the archive and it times out when you’re trying to find things.”

Note:

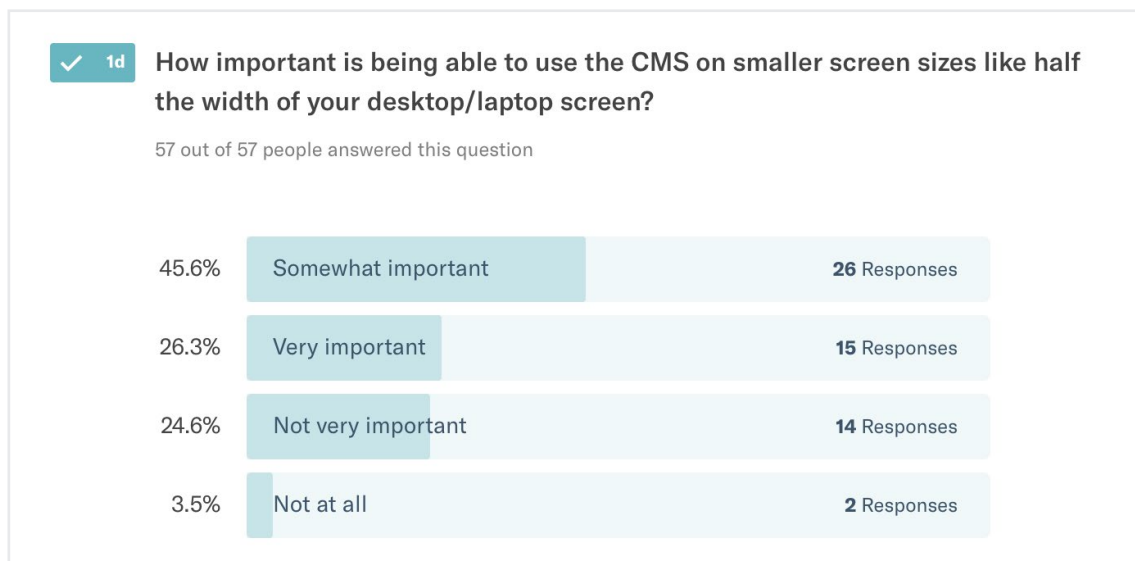
As part of SilverStripe 4 work is underway to have a global archive (aka. “trash”). This work aims to improve the experience of using the archive functionality.

[View issue on GitHub.](#)

[F16] CMS responsiveness is important

A key part of maintaining a site is to have access to the CMS in different situations or locations, to ensure the CMS is inclusive to all users, and for it to work on varying screen sizes. Keeping the usability of the interface top of mind, responsiveness should remain an important consideration for all future enhancements.

With over 70% of survey respondents saying that CMS responsiveness was either *somewhat* or *very important*, we should keep aiming for a flexible interface which can cater to the varying needs of CWP agencies in the delivery of their web experiences.



This type of flexibility will only increase as a digitally raised generation takes over the workforce in the next 10 years. Working outside of the office space, or via mobile devices is increasing, and therefore content teams require technology to allow them to do so. It is increasingly common for people to work outside of the office space or via mobile devices, and therefore require technology to allow them to do so.

Appendices

[Interview script](#)

[Community survey as at 8 May 2018](#) | [Web version](#) (will modify over time)

Research Recommendations

[A] Provide the ability to share draft content and request/receive approval or feedback

Based on findings F1, F2, F3, F4, F6, F7, F8, F9, F10

Throughout our research, the Shared Draft Module was well received for its ability to share work-in-progress with those external or not logged into the CMS. Even though this was seen as a useful addition to the collaboration process, it requires the use of external communication channels such as email. This means that any communication between team members is not recorded with the resulting changes of content. There is a lack of context for those not directly included in conversations, or those requiring historic context to changes within the CMS.

Currently there are alternatives to creating content workflows by using modules like the Advanced Workflow Module (AWM), although through our research we discovered that this module does not allow for the flexibility that the majority of teams require when going through the content creation process. For example, one of the main requirements we saw is that content needs input/approval from multiple people rather than a single person tasked with the approval step [G].

We see that by allowing teams to share “draft content” with their wider teams, coupled with ways to communicate on the status of what’s being shared, collaboration within teams will be greatly improved. This ensures tasks like receiving approval from the wider business are kept simple.

Potential recommendations for consideration:

- Allow a message, or instructions when sharing draft content e.g. what do you think of the footer colour?
- Allow the person sharing the link to choose the type of feedback they would like to receive on the page, for example:
 - I would like to receive **approval**—allowing it to be marked as approved or declined.
 - I would like to receive **general feedback**—providing commenting or a quick way to signify a reaction to what is being shared e.g. “Like”.
- Allow those who receive draft previews the ability to reply with written feedback e.g. “I noticed a spelling mistake ‘they’ instead of ‘they’re””.
- Minor module updates so the interface of the module aligns to SilverStripe 4 interface.

Benefits to team members:

- Increased visibility of who made contributions to the content—even if they weren't the person who entered the content.
- Increased visibility of what decisions were made to shape the direction of content.
- Additional context and ease when collaborating/communicating with wider team members who don't have CMS access.

For consideration:

- Adding a “copy link to clipboard” for draft links.
- Being able to send the draft to other admins of the CMS.
- Integrations with commonly used communication tools like Slack, Yammer.
- With the recommendations mentioned above added to the module, renaming it to better reflect its new functionality could be considered.

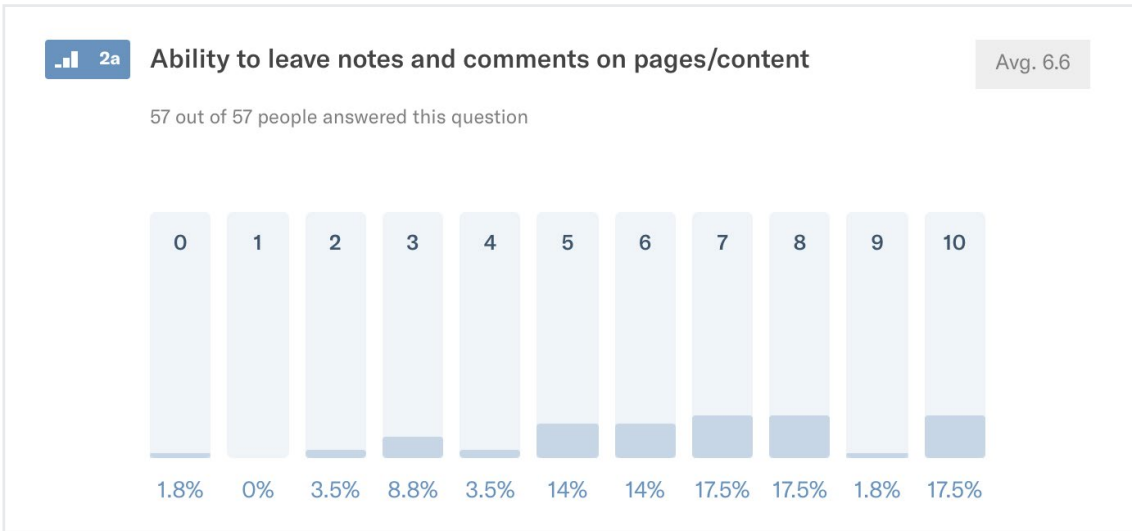
[B] Provide the ability to add context and details to content within the CMS

Based on findings F2, F3, F4, F6, F7, F10

It's clear from our interviews, many content teams consist of a broad range of people/ roles which need to work together in the creation of a website. Often context is lost as to the reasoning behind the direction of content or who was involved in its creation external to the CMS. By adding the ability to add simple notes to a page (private to CMS users) teams would be able to decide on the level of information which should support the content, and for whichever case is better suited to them.

Use case:

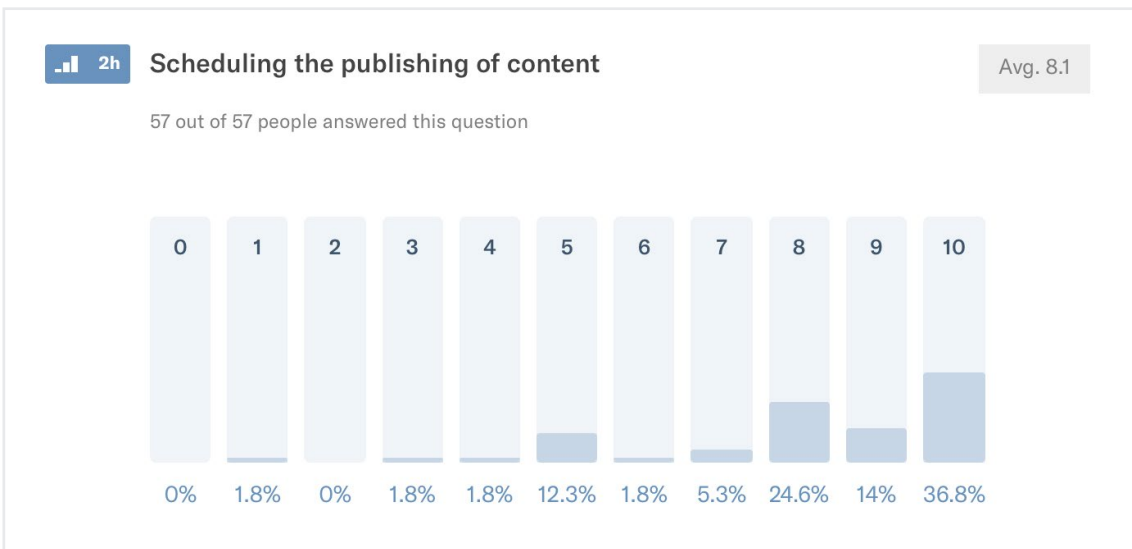
- Setting up reminders (e.g. Needs moving to new staff page by 17/3/2018)
- Security notes
- Passing on information and details to the wider team
- Simple approval process (e.g. Review done by Tessa Jackson 12/3/2018)
- Staff handover
- Adding to-do checklists



[C] Scheduled publishing of content

Based on finding F12

Based on our community survey, scheduled publishing of content was the highest rated feature from the 9 provided. Although some modules already support this functionality for pages, we recognise there would be value in integrating this feature to manage bulk publishing of content through the Campaigns area of the CMS.



Content authors tend to go out of their way to publish content at certain times e.g. events or blog posts which are required to go live during a meeting, or outside of business hours.

This will benefit content authors who want to have a predetermined launch date of specific pages on their website, or want to set anticipated “go-live” dates.

This recommendation is limited to the scheduling of publishing but could be coupled with the functionality to set an expiry or embargo as these are often paired.

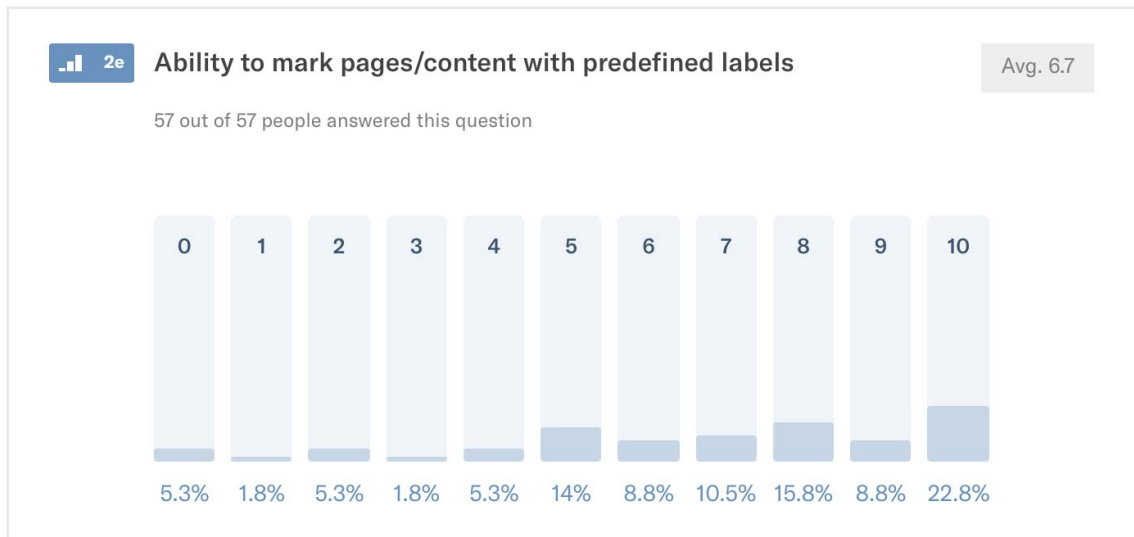
[D] User-defined workflow status:

Based on findings F2, F7

Through our interviews, we provided different options to participants for how we could improve collaboration and the content creation process. One option involved content creators/maintainers being able to tag content to communicate what stage in a workflow the content might be in. We provided examples like: Work in progress, Needs approval, Approved, Ready for publishing. This could act as a simple form of content workflow for teams, or as a simple reminder to individuals.

With the survey task to rank 9 features which might improve the collaboration or content creation process for individuals. Having the ability to add a content status such as “Needs approval” ranked in the middle of the other options. In itself this doesn’t signify a huge need, but as this type of feature would be relatively small and easy to implement it could still be a consideration as an added feature.

Through our in-person interviews, we learnt that although this feature might improve people’s understanding of the stages that content could be in, this feature felt more like an addition to other solutions like recommendation B (ability to add context and details to content via a comment field). It would therefore be recommended that we look for opportunities for how this feature might be coupled with other feature enhancements in the future.



[E] Discovery: System notifications

Based on findings F4, F7, F15

Due to the lack of visibility of changes that have taken place within the CMS, there is the potential to highlight relevant changes which might interest CMS users. It would be recommended to understand which notifications and configurations would be practical and desired for teams to remain informed before going into the development phase.

Notifications can help people engage with co-workers through the systems they are using. They also increase efficiency by providing direct paths to deeper areas of an interface which might normally go unnoticed.

Some typical notifications might include:

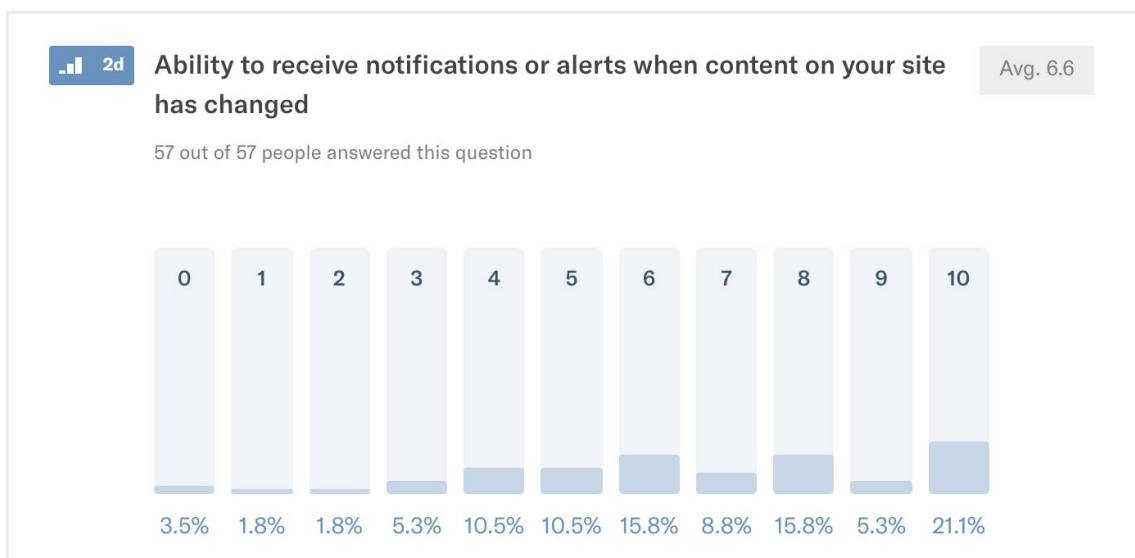
- Your permission levels have been updated from Editor to Administrator
- Two pages which you created have been archived since your last login
- You have received a new website query
- There have been changes to pages you are watching
- System alert: i.e. “There was an outage of this site...”

Potential functionality:

- Generic notifications which cater to roles defined in the CMS
- Configurable notifications to personal or agency needs
- Notifications within email digests
- Ability to watch/follow certain changes within the CMS
- Connections between CWP dashboard and CMS

Recommended approach:

- Survey
- Prototype testing
- Development of a few essential notifications to act as a proof of concept
- Feedback



[Ea] Site/page activity feeds

Based on findings F3, F4, F7

It's hard for content teams to get an overview of what's changed on a site without having to dig into the history of each page. Even then, page content does not represent the only changes which can be applied to a site, for example: files added to system, added/removed CMS members, sitewide permission level changes. By showing an activity feed of what's been happening across a site, teams will have a better indication of activity within their sites.

On a page level, content approvers and publishers could have more visibility of what they are approving/publishing. With the adoption of content blocks, the complexity of content structures have increased, making it harder to see what's changed on deeper content structures. Surfacing individual changes from within a page into a simple, easy to read list would mean approving and publishing changes can be done with more confidence of what changes have been made and by who.

A few examples of changes which might require visibility:

- New content
- Edited content
- Deleted content
- Member details change

A few reasons why users might need more visibility:

- They need to catch up because they've been away.
- It's their responsibility to know what's been happening within the CMS e.g. managers.
- When things go wrong with the site, a feed of changes can help users find where the issue was initiated.
- Quality assurance of content going out.

[F] Quality assurance—automated reports dashboard with the ability to track progress over time

Based on findings F4, F7, F10, F11

We have identified three common themes which contribute to the maintainability and quality of content. Although related, we've separated the following recommendations so they can be assessed based on their individual merits.

In order to remove barriers and allow agencies to easily create readable and accessible content on their websites, we see the following focus areas important to the delivery of content assurance from a reporting perspective.

- [Fa] Accessibility diagnostics of a site and its pages
- [Fb] Readability and content quality
- [Fc] Analytics for better visibility of how content is being consumed

[Fa] Site/page accessibility diagnostics status or score

Based on findings F4, F7, F10, F11

Through our research we saw a disconnect between the different groups of people who contribute to the final presentation and makeup of sites, meaning that accessibility levels are hard to maintain. If these accessibility issues go unnoticed or unactioned then ultimately it's the user who suffers.

As of June 2017 all government web pages must conform to the Web Accessibility Standard 1.0, with non-conformance requiring a risk assessment and management plan. Currently there is no straight forward/standardised way for site administrators and developers to report on, nor have a shared view of the accessibility standard of websites built on the Common Web Platform.

Different roles/groups involved:

- Developers who build or maintain template code.
- Content authors who need to ensure that when they create content for the website, consider the accessibility impact of the content they enter.
- Site administrators who need to be able to report on the accessibility standards of their website.

We see that by enabling the different contributing roles to run diagnostic checks throughout the entire life cycle of a site, the accessibility standards of sites would be easier to maintain.

This functionality could possibly take the form of a single recommended tool or process, integrated within the CMS so sites can be easily scanned by teams being alerted of any infractions. By identifying site/page accessibility errors or warnings throughout a sites life cycle, we could provide developers a good way to sanity check the quality of their development. Providing more assurance to admins that a website aligns to the Government Web Accessibility Standard.

[Fb] Report on the readability and quality of content within a site

Based on findings F4, F7, F10, F11

We commonly heard that website content easily becomes out of date, irrelevant or stale, especially with those sites which have a large number of pages/languages with relatively few content maintainers.

With the variety of helpful writing tools now available on the web, there is the potential to integrate/connect to third party tools which would help content creators ensure a certain content quality is maintained.

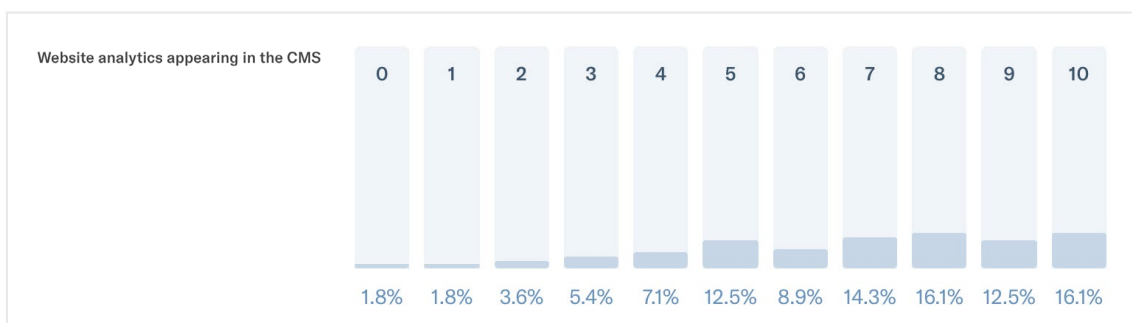
Examples of common types of writing aids which exist external to SilverStripe:

- An identifier for when content is too dense or hard to comprehend
- Reading level indicator (based on everyday consumers)
- Grammar check
- Spell check
- Content freshness/staleness check

From this research we have insufficient data to suggest which report or checker would be most useful, but we would advise that further research is done to understand the technical feasibility of what tools are viable to utilise, and how these features might support government content writers and maintainers.

[Fc] Basic visibility of site analytics data

Based on finding F4



For some interviewees there was limited access to basic web analytics data and what/how content was being consumed. It was suggested that with easier access to some basic analytics, efforts can be prioritised based on page views and click data. There could be modules within the SilverStripe community which may already cater to some of the needs of content teams. Based on our initial findings analytics modules are not utilised or known about. A focused investigation into web analytics and how that plays a part in CWP sites would be beneficial.

From our community survey, website analytics rated midway amongst a total of 9 features which we identified as ways to improve the content creation and collaboration process within the CMS.

[G] Interface improvements to the Advanced Workflow Module (AWM)

Based on findings F9, F14

Prior to this research taking place we had received feedback from CWP agencies that there were difficulties in using the AWM, and this was one of the main drivers for conducting the research piece. We wanted to understand what sort of investment levels were practical from a CWP prospective to remove the friction users experience.

Through our research we found the AWM to have the lowest satisfaction rating [F14] from a total of ten modules we compared. The also found that usage of the Advanced Workflow Module wasn't very high, and therefore didn't seem significant enough to warrant a large investment towards a redevelopment at this stage. Although that it would benefit greatly from some user experience improvements to make it more intuitive to use.

To address some of the issues raised with the interface of AWM we have the following recommendations:

- Review the clarity of the language and labeling used within the module.
- Review interface elements and advise on any minor changes which would be beneficial for admins.
- Apply the CMS pattern library for better consistency.
- Update the documentation to ensure there is more clarity for those using the module.

[H] Discovery: Module findability

Based on findings F4, F5

As there was a lack of understanding around what is available to CWP agencies as part of the Basic Recipe and the wider community modules. This suggests there would be the potential to make the ecosystem easier to understand. There are some complex concepts within the CWP framework for people to understand, and having a clear understanding of how the use of these offerings will benefit a site (and its users) could result in both time/cost savings and more efficiencies for web teams.

This research suggests there is a disconnect between web admins and development teams as to what functionality is available to them. Through focused discovery, we would take a deeper look to understand how we can make modules easier to find and understand for CWP agencies and developers. We would achieve this by presenting the CWP eco-system in such a way that makes it clear how it supports government.

Potential improvements could include:

- Categorising modules into functional groups and common feature sets for increased findability.
- Increased visibility of supported modules and what they offer.
- Ways to support government code sharing, and increase reuse.

[!] Create a summary of what is being used on a site

Based on findings F4, F5

There are three common questions for CMS users:

- A. Which specific modules does my site use?
- B. What is the relative health of those modules?
- C. Where can I find more information about the modules my site relies on?

This is a common recurring theme among product owners, content authors and editors regularly asking these questions to understand what features might require investment or prioritising. For a developer, all this information can be found through inspecting composer files and code repositories. So while the information is there, it is disassociated from the CMS.

- Provide a report of modules used across website, example of functionality:
 - Supported, core and dependant modules and their dependencies
 - Community and bespoke modules
 - Versions of modules including health status/code coverage
 - Recommended newer versions to upgrade
 - Security warnings
 - Recipes
- Access to finding other modules
- New release notifications

Note:

As part of the Co-funded Development Pool a submission “Site Summariser” is scheduled for development (May 2018) which aims to cater to the some of these recommendations.