Biotext

The Biotext guide to effective content

How to turn complex information into clear communication

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The importance of clear content

Content is everything that goes on a website, app or publication: the words, the headings and structure, the photos and diagrams, the graphs and infographics, the animations and videos, the links and buttons.

> Content is the essential link between you and your audience. Great content – a logical structure, plain language and effective visuals – helps people to find and understand information easily.

If your content is dense, muddled or confusing, users may get the wrong message or give up. They might spend time reading the information again, go to other information sources, or call or visit your organisation to have the information explained to them. This affects outcomes and costs the users – and the government or business they are trying to get information from – time, resources and money.

- A 2022 study published in the *Australian Journal of Public Administration* examined the complexity of questions in an NDIS application form. The researchers found that the way questions are constructed can limit people's ability to accurately describe complex circumstances, and therefore limit their ability to access support.
- Research into United States government websites in 2020 found that, of the 10 billion visits to government websites each year, 1.2 billion visitors could not complete the task they came to do. Of these, 372 million people called the agency, and 216 million people visited a local office. Making sure people can find what they need in the first place would save almost US$5.5 billion each year.

The arrival of AI means that content must be designed to ensure AI platforms can detect your information, include it in answers to user questions, and present it accurately. Many users will rely on the synthesised AI summary to answer their questions, and may not visit your website at all. Studies suggest that AI summaries can reduce click-through rates to websites by at least 30%. If your content is not optimised for AI, it may be ignored or misrepresented in AI summaries. This threatens the visibility and credibility of your information and organisation.

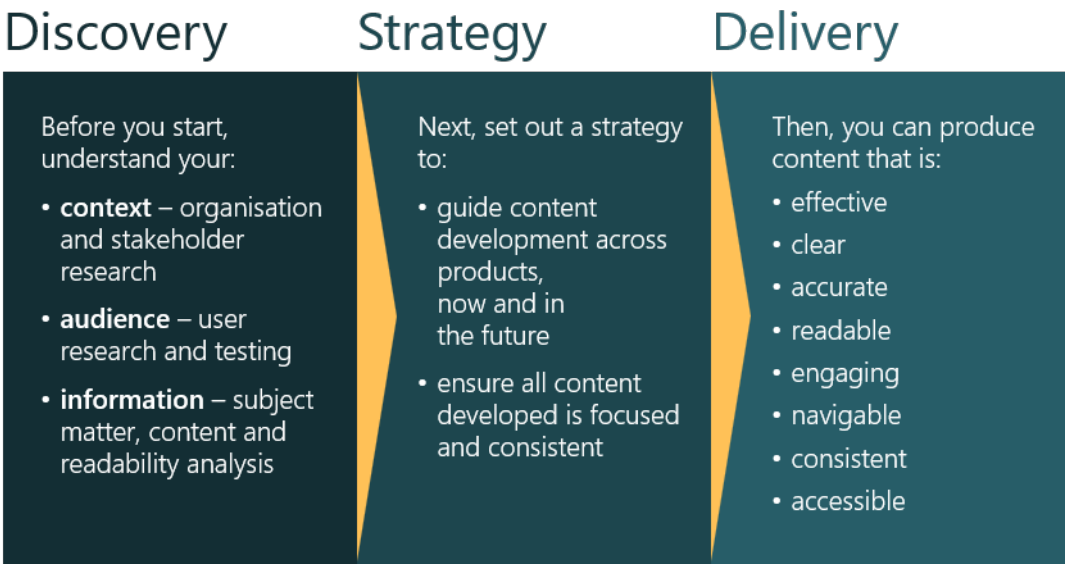
Good content is vital to effective communication, which is important for everyone. Whether you are talking to the public, stakeholders, industry, government departments – or an AI platform – good content is the way to get your message across, engage people and build your reputation. For complex topics such as health, environment and government, clarity is especially important and requires special attention.

Understanding what's involved in creating content about complex topics will help you plan and produce effective content – whether you are creating content yourself, using AI tools or hiring content specialists.

Getting started

Great content is clear and engaging. It meets the needs of those who rely on your information, and supports the goals of your organisation or business.

Great content is guided by strategy and based on research and understanding. Content development therefore involves a considered and iterative process of discovery, strategy and delivery.



Understanding your context

Understanding the context of your content means understanding what the content is trying to achieve, including:

- organisational goals and business needs
- stakeholder needs
- internal and external influences on the content.

It also means understanding how content is usually produced, including:

- current workflow and processes to produce and update content
- roles and ownership – who creates, edits, approves and owns specific products, information or data
- resources available to produce content
- dependencies, opportunities and limitations.

You can develop an understanding of the context by reviewing relevant background documents. Even more helpful is internal and external stakeholder engagement – discussions and workshops to identify aims, needs and existing processes.

Understanding your audience

Effective content considers both what you need to say and what your audience wants to know. It also considers their background, understanding, culture and literacy. By understanding your audiences, you can tailor content to meet their needs and increase their engagement.

Effective content also considers audience feedback. Testing content with members of your main audiences will make all the difference – check the structure, words, visuals, navigation and functionality and adjust until they all work.

Push vs pull

Content planning first considers the topic and key messages. It asks: 'What do we want to tell the audience?' and 'What do we want them to know?' This is the information you want to 'push'.

But if you only think about what you want to say, you miss a major part of the equation. The other side is 'What does the audience want to know?' This is the information the audience wants to 'pull'.

Putting yourself in the audience's shoes can shape what you include in the document and how it is structured. For example, you might want your audience to know that your project involved many organisations. But the audience wants to know more about what your project achieved. That doesn't mean you have to delete all mention of the collaborators, but it does mean that you have 'Achievements' as your first heading, and 'Participants' as a lower priority.

Documents that favour push over pull are especially common in government. If you start talking about what the audience 'should' understand or what they 'have to' know, you are talking about what you want to push.

Think about what the audience is interested in, what they are driven by, and what questions they really want answered.

For example, if you want to present information on healthcare regulation, most audiences are probably not asking 'How does healthcare regulation work in Australia?'. They are really asking 'How do I know my hospital is safe?' You may cover similar material in your answer, but focusing on audience pull will enable you to talk to them directly and produce content that is relevant to their needs.

Balancing push vs pull is critical to producing information that will be well received by – and useful to – your audience.

Meeting audience needs

There's no one right way to meet your audience needs. But thinking about a few key areas and the strategies you might use can help:

- Information – what do your audiences want to know? For example, if you are developing content about the government's immunisation programs
  - content for health professionals might include demographic information about the uptake of vaccines, and details about vaccine effectiveness and vaccine side effects
  - content for parents might be the ages at which their children should have each type of vaccination, the diseases that vaccines protect against and why vaccination is important.
- Voice and style – what should be the tone of your content? This can be
  - formal (abstract and impersonal): Voting papers must be submitted by postal voters at least 5 working days before the election day
  - neutral (familiar words, impersonal but direct): Postal voters should send in their voting forms 1 week before the election
  - conversational (simple language talking directly to the user), such as If you're sending in a postal vote, post it at least a week before the election.

  For government organisations, the best-practice guidance for most content is to use neutral or conversational voice and style.

- Pathways and products – do you need to present the same information to different audiences? You can
  - 'layer' the same information in different formats within the same piece of text (for example, a summary box at the start of a chapter or webpage, and more detailed information further down)
  - provide visual content to help explain concepts and engage audiences
  - develop separate documents (for example, a fact sheet for the general public and a more detailed report for researchers)
  - develop separate navigation pathways (for example, labelling some webpages For patients and others For practitioners).

Australian audiences

Australian audiences come from many social, cultural and educational backgrounds, and these should be considered when developing content.

For example, consider members of your audience who may have lower levels of English competency. Although Australia is officially an English-speaking country, English is not the home language in more than 20% of Australian families. In addition, the average level of literacy in Australia is lower than you might expect. On a scale of 0 to 5 (set by the Programme for the International Assessment of Adult Competencies), almost half the population surveyed (45%) scored below level 3, the minimum comprehension level needed for adult everyday reading.

You also need to consider the diversity of digital literacy and the need for assistive technologies. For example, the styling of your text should support users who use screen readers, and dark modes for improved contrast should be included for users with low vision.

User research and testing

Getting input and feedback from the people who will use your content helps to ensure that it meets their needs. Listening to users allows you to check your ideas and approach in terms of what information should be included, how it should be structured, and the language and tone that you should use.

To ensure your content is AI ready, it is important to think about what users might be looking for and what questions they are asking. AI platforms scan your content to determine if it accurately answers a specific user question, so identifying those questions allows you to tailor your content to match.

You can research and talk to users before developing the content, to inform its development. You can also test developed content with users and continue to refine the content in an iterative process. User research and testing is commonly done for online content, but you can also use it for printed publications.

> User research and testing doesn't need to be a laborious or time-consuming process. You can learn a lot from existing data sources and from small groups of people.
>
> A small investment in user research and testing will save time and money by avoiding having to redo content, products or websites.

Exploring existing data

Depending on the topic and publication, user data may already be available in your systems or free online. You can find:

- site analytics from existing webpages, to see what users are searching for and which pages they are bouncing off (that is, leaving very quickly)
- social media statistics, to see what users have liked and shared
- online search terms, to see the terms or phrases people are searching for – hint: type the search term into your search engine and look at the related search terms and questions for ideas
- online tools such as Google Trends and Answerthepublic
- other feedback, such as user queries, complaints and ideas.

Collecting new data

If you have specific questions about your content, you can collect new data. Talking to or surveying audience groups provides feedback specific to their context and needs.

You can collect data through surveys (phone or online) or focus groups (usually with a facilitator), or from ongoing feedback (with questions and contact details on the product or website).

Usability testing

Usability testing, or user experience (UX) testing, is the process of testing a product, feature or prototype with real users. Most commonly, it is the process of testing different aspects of a website to ensure that users can find and understand content.

For usability testing to be most effective, the users should be members of the target audiences, and testing should be repeated as the content evolves.

At the beginning of the project, users can complete card sorting or tree testing exercises to inform the development of the structure of the publication or website.

When you have a preliminary draft or prototype, you can test it directly with users.

A common method of testing is using scenarios. You give the user a scenario (for example, 'You need to find out how to sell your house. Where would you go?', 'You are worried about a rash on your child. What do you select?') and watch to see what the user does. If users have difficulty completing the task, this tells you that your structure may not work as well as expected (see Logical information architecture).

Try to include draft content in user testing to gain feedback on how clear and useful the content is. Ask questions to get feedback on all content features, including text, calls to action and visuals.

Understanding your content

Developing a deep understanding of your content allows you to see more clearly how it can and should be improved, what can be left out and what new content is needed.

Content analysis

Understanding content means analysing and understanding:

- the subject matter
- content types and formats
- clarity and readability
- completeness

- structure, flow and navigation
- logic and consistency
- appropriateness for users and stakeholders, including the topics, style and tone
- AI readiness.

Understanding the subject matter becomes even more important when the content is complex or scientific. Your content analysis should be done by someone who can fully understand the subject matter as well as the principles of great content development, so they can provide informed advice.

Checking readability

'Readability' means how easy a piece of text is to read.

Content developers are sometimes asked to achieve a certain 'readability level', as calculated by a readability checker. Readability checkers usually provide a rating in terms of the school grade required to read the text – the Australian Government Style Manual recommends that information for the general public should be tailored to grade 7 (aged between 12 and 14) or below.

> Readability checkers often use word and sentence length in a text to judge readability. This is because these are easy to measure, not because they are real indicators of readability.

It is often assumed that fewer letters per word will make the text easier for readers to process. Yet longer, more familiar words can be easier to understand than shorter words: compare Australia (9 letters) with quoin (5 letters). Similarly, it is assumed that short sentences are easier to understand. But variability in sentence lengths can help to engage readers.

Achieving real readability

A document's readability and the comprehensibility of its contents ultimately depend on the coherence of the whole text. It's about:

- how familiar the words are to the reader and whether particular words are repeated to provide threads of meaning
- how familiar the sentence structure and grammar are to the reader
- how individual sentences connect within paragraphs
- how sections and headings are used to break text up into meaningful chunks
- whether meaning is developed through coherent structure and flow of information.

Content developers should pay attention to all of these – and test content with users – to ensure clarity and comprehension.

Taking care with checkers

Most readability checkers are built around common readability tools, such as the Flesch–Kincaid tool built into Microsoft Word and other checkers, or the SMOG tool (simple measure of gobbledegook).

But Biotext research found that different readability checkers deliver different results for the same text. SMOG consistently rated texts as far more difficult to read than Flesch–Kincaid. Further, different brands of checker using the same tool delivered different results. For example, different brands using the Flesch–Kincaid tool rated texts up to 2 grades different, and different brands using the SMOG tool rated texts up to 4 grades different.

The score also depends on whether components like tables, lists and headings are included in the calculation. Some checkers count a table as a single giant sentence!

This result highlights the need for benchmarking. You may need to test your content with members of your audience and refine your content until your checker ratings reflect their needs.

Taking a strategic approach

A strategic approach to content involves thinking through what you are trying to achieve with your website and communication channels, who you want to reach and the best way to do that. Taking this broader strategic view not only makes your content more effective, it can also streamline your processes and use your resources wisely.

Setting a content vision and principles

Setting up a content vision and principles provides a benchmark to check and align content to make sure you are achieving your goals.

The content vision is what you want the content to achieve. It's important to include the outcome or impact you want. For example:

> Our content will help patients understand their options in cancer treatment so that they can make informed choices.
>
> Our content will provide information about government programs so businesses can find appropriate support.

Content principles are the core things that content must address or achieve before it can be considered suitable for publication.

For example:

Content must be:

- user focused – it uses clear language and terminology that users recognise
- findable – it uses a simple structure based on user understanding to make content navigable and searchable
- clear, consistent and concise – it is easy to read and understand, and presents similar information the same way every time
- authoritative and trustworthy – it is scientifically rigorous, and underpinned by data and references
- AI ready – it is structured and tagged to support AI discovery and use
- in line with required standards – it complies with departmental reporting requirements and at least Level AA of the latest version of the Web Content Accessibility Guidelines.

Choosing the right product

You may start a project with a firm idea of what you will produce – a website, a report, a fact sheet or a poster. Often, this idea is based on what a manager or someone on the team has said, what 'has always been done', or what seems the quickest and easiest.

> The product you want may not be the product you need. Taking a step back and thinking about your broader communication needs and goals may suggest other strategies and products that would work better.

Sometimes you may need a different product; sometimes you may need a combination of products and approaches to reach different audiences.

So instead of a single large report for several audiences, you might need a technical report and then a webpage in plain English. Instead of a poster, you might need an interactive online infographic. Instead of a fact sheet telling your staff about procedure changes, you might need an infographic for your intranet, and staff meetings to walk people through the new procedure step by step.

Planning for future needs

As well as planning content now, think about future needs:

- Will the content need to be repeated (for example, is it an annual report)?
- Will the information need to be updated (for example, if guidelines change or new data are collected)?
- Will the content be expanded or cut (for example, if new sections are added)?



If the answer to any of these questions is yes, you can start to plan now to make the process easier in the future. Consider several components:

- Structure: A clear, logical structure will help you to repeat, update or expand content. Make sure web content has a robust information architecture (IA or structure) that can absorb additions without reducing navigability. Can you add, remove or change sections without having to heavily rewrite or rearrange other sections?
- Process: Think about how the process worked this time, and how it could work better next time.
- Schedule: Make a schedule for when information will be collected, drafted, approved and published.
- Documentation: Make sure you document every aspect of the process, especially for complex documents, so others can follow in your footsteps. Your documentation should include
  - where information comes from
  - the writing and editing process
  - the approvals and publication process
  - key contacts for each stage of the process.

Producing a content strategy

A content strategy is a documented guideline and benchmark for content development. It provides a central resource to ensure your:

- content is coordinated, so that all products (web, print) work towards the same goal
- content development is streamlined, to reduce wasted effort and ensure content is kept up to date.

> A content strategy considers business goals and user needs, and lays out everything you require to develop and maintain effective content. It moves away from short-term planning on 'how to get this product out the door' to look at your long-term communication needs.

Developing a content strategy involves:

- understanding your context
- understanding your audience
- understanding your content
- producing a documented strategy that provides a framework for all content production.

A content strategy should be a living document that is updated as your business and content progresses (see also Content Strategy Guide | APS Professions).

Sections and headings in a content strategy may include:

- Aims (Understanding your context)
  - business goals
  - stakeholder needs
- Content governance (Understanding your context)
  - workflow, including review processes
  - roles and ownership
  - editorial and branding guidelines
- Users (Understanding your audience)
  - key users
  - key user tasks
  - information needs
- Current content analysis (Understanding your content)
  - current content audit and ecosystem
  - content gaps
  - analysis of similar or competitor content
- Vision and principles (Setting a content vision and principles)
  - content goals
  - key messages and messaging hierarchy
  - measures of success
- Updating and developing new content
  - information architecture
  - search engine optimisation and AI readiness
  - visual components, including images, diagrams, data visualisation, infographics
  - processes and timelines.

A content strategy versus a communication plan

'Content strategy' and 'communication plan' are sometimes used as interchangeable terms, but each has its own process and purpose.

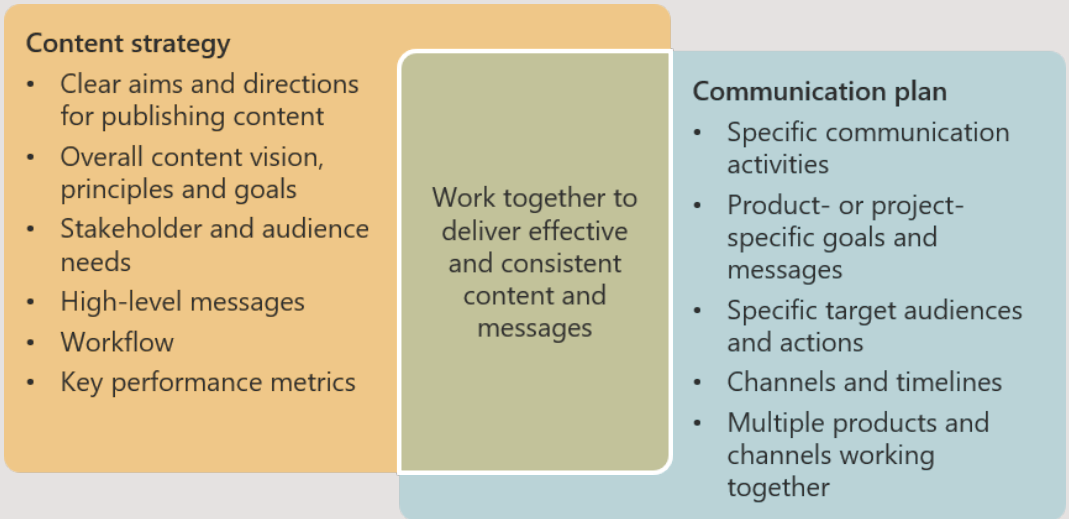
A content strategy is an overarching, evidence-based framework to ensure your content meets the needs of your organisation and audiences. It includes:

- your high-level organisational communications goals and messages
- your audience (and the ways you'll learn about their needs)
- content vision and principles
- a review of your existing content (and gaps)
- your content ecosystem (for example, website, social media, brochures)
- plans for the most effective workflow and outcomes
- performance metrics, to assess whether your content is meeting your needs.

A **communication plan** focuses on specific communications goals, promotional campaigns and product-specific communications. It includes:

- how your communication goals support your content goals
- project-specific goals and messages
- project-specific audiences
- channels and timelines for getting information out.

In organisational terms, the content strategy is like the strategic plan – providing long-term strategy and structure. The communications strategy is like the operational plan – providing short-term goals and activities. Ideally, they work together to deliver effective content across your organisation and across time.



Great content

With any communication product, including a website, content isn't an optional extra. By considering content from the beginning of any project and developing it in line with policy needs, user research, web and graphic design best practice and AI readiness principles, you can make the whole product much more effective.

Great content has effective structure and navigation, and is clear, accessible and engaging. These features are even more important – and can be more challenging to achieve – for complex content.

Effective structure and navigation

If the structure of your website or document is effective, users – including AI platforms – can easily find what they want. Like a good roadmap, pathways are clear, titles are understandable, and key destinations are signposted.

Effective structure is:

- logical – similar topics are grouped together, and the order of the sections and headings is meaningful to users
- understandable – headings use language that the users understand
- intuitive – the groupings, order and language all make sense to users, so they can easily find what they are looking for.

Logical information architecture

Information architecture (IA) simply means the structure of a website, including how information is grouped and labelled. Good IA is usually achieved through an iterative process of drafting, testing, updating and retesting.

Good IA and content are built from 3 complementary perspectives:

- Users. This looks at who the main groups of users are, and at their
  - needs (that is, what they want to know or what they want to do)
  - expectations and understanding (that is, what they might already know about a subject)
  - behaviour (that is, what pathways they are likely to use to find information); user behaviour is usually discovered through user testing.
- Content. This looks at whether
  - the groups and labels will work well for the content (that is, whether they reflect the site's aims and messages, and the breadth, depth and meaning of content)
  - the content is reasonably evenly divided between categories (that is, you do not have 60 pages in one category and 2 pages in another)



  - the structure is robust enough to allow content to be added without decreasing navigability (for example, if a heading is too general, it may accumulate subheadings over time and become a long list of subsections that is hard for users to navigate).
- Context. This is about the goals and constraints for the site, such as
  - what the site owner wants to say or achieve with the site
  - whether there are any rules about content, such as accessibility requirements
  - whether the site will be regularly updated or expanded.

Shallow and deep structures

Content structures can be shallow, deep or mixed:

- Shallow – many categories, few levels. The '3-click rule' suggests that no content should be more than 3 clicks away. Users usually find a reasonably shallow structure easier to use, if category lists are not too long, and are logically grouped and labelled.
- Deep – few categories, but they go down through many levels. A deep structure can work for sites with extensive content. However, users may be sent down 'rabbit holes' as they click down through many levels, and these can be difficult to navigate out of. To manage larger websites, think about other navigation aids such as tagging and multiple menus (for example, a top menu for audiences and a left-hand menu for topics).
- Mixed – some websites can have some categories that are shallow, and some that are deep. The best solution depends on the type of content and the most logical way to categorise it for users.

Relatable categories

Categories are the labels used in web menus. IA categories can be based on:

- topics – these are usually nouns that break the main topic of the website into subsections (for example, services, projects, news)
- tasks – these are usually verbs that guide users to pathways about particular activities (assessing your home, designing for sustainability)
- audiences – these labels usually reflect groups of users (for example, consumers, healthcare professionals, researchers).

You do not have to choose only 1 of these approaches – for example, you can use 2 sets of navigation lists (for example, topics along the top of the web page and tasks in the main menu bar on the left-hand side).

When you are thinking of categories, put yourself in your users' shoes. For example, users may know little about your organisation, so the information or services they are looking for should be organised by their understanding of the topic, not be organised according to the organisation's departmental structure.

User research can help you to find out how your users think and the types of questions they ask. This lets you structure content to meet their needs and the needs of AI platforms that may be summarising your information to answer those questions (see User research and testing).

> Categories are not 'right' or 'wrong', but rather depend on the needs and understanding of your users. Any category that helps the user to find what they need is 'right'.

Some useful tips when choosing categories for general audiences are to:

- use everyday definitions and groupings, not technical ones (for example, tomatoes go in Vegetables, not Fruits)
- use common terminology, not technical (for example, Rain, not Precipitation)
- use concrete terminology, not abstract (for example, Patent applications not Innovation)
- use categories that are specific enough not to become a dumping ground for content (for example, Research projects, Training programs or Community outreach, not Our work)
- check that your categories work well as a set (consistent where appropriate, distinct enough from each other to avoid confusion about where to find information).

Drafting IA

The first step of drafting IA is sorting the content into logical categories. There are various methods to achieve this, including:

- thinking about your content and potential structures, writing likely category labels, and sorting the content into the categories
- open card sorting – put example content on a set of cards and ask users to sort the cards into groups of similar content; label the groups after the users have finished sorting
- closed card sorting – develop a set of categories and put example content on a set of cards; ask users to sort the cards into the predetermined categories.

Meaningful headings

The right headings within content improve navigation. Shorter headings are usually better, especially for web content. However, headings should provide a meaningful description of the content to follow, so should be long enough to provide clear information on the section's contents.

Ideally, your headings will tell the 'story' of your content.

Rationale

becomes

Why is vaccination important?

Building sites

becomes

Safe building site management

Headings break up text. In general, have at least 1 heading every 250 words (for example, 2 or 3 headings on a page of text with about 500 words). However, if the text has a longer section that needs to be kept together – for example, a section that describes a process – you may not want to break up the text with extra headings.

Clear writing

Many books and guidelines have been written about how to make writing clear and engaging. You can go a long way towards achieving clear, engaging content with just 2 techniques: creating a narrative and avoiding the main pitfalls of writing.

If you are writing for the web, understanding how people use the web and what AI platforms are looking for can help make sure your content suits your users, whether they are human or AI platforms.

Creating a narrative

Content developers often talk about the need for narrative, or storytelling. Making content into a story can better engage your audience. It can also make your messages more memorable.

For content developers who are dealing with government, policy or science information, using narrative techniques may seem hard. But a few key techniques can help to bring narrative into information.

Adding flow and links

The easiest, and perhaps the most important, way to build narrative is simply to make links between your pieces of information, so that they become a story rather than a list of facts. Even short additions can improve the flow of your story. So:

> Mercury was used in various applications such as batteries and fluorescent lighting. Mercury poisoning causes severe neurological problems. Many uses of mercury are now being phased out.

becomes

> Mercury was used in various applications such as batteries and fluorescent lighting. **However,** mercury poisoning causes severe neurological problems. **This is why** many uses of mercury are now being phased out.

Think about how each fact leads to the next, and use words to join concepts:

- Does the next fact add to the evidence? Use and, also, further.
- Is the next fact in opposition to the evidence? Use however, but, although.
- Does the next fact provide a reason for the evidence? Use because, since, due to.
- Does the next fact conclude or bring together the previous 2 facts? Use this is why, this means, therefore.

Curating the information

When you are making links in the information, you may find that a piece 'doesn't fit' – you can't link it to the other pieces. If it doesn't fit in the story, think about whether you really need it.

> You may be tempted to include information just because you have it. First consider what you are trying to achieve and what your audience wants to know, and then include the information that builds or supports that message.

For example, if your aim is to explain the process for making a noise complaint, you don't need to include descriptions of relevant legislation and management structures. If you are describing a new education program, you don't need to add descriptions of similar programs unless you are making a specific point about how the new program relates to others.

Including comparisons

Content developers can also use comparisons to illustrate and strengthen their message. For example, which has the clearer message?

> 1 in 250,000 people treated with medicine X will develop blood clots.

or

> 1 in 250,000 people treated with medicine X will develop blood clots. This is very low compared with other common medicines and activities: 1 in 2,000 women each year will develop a blood clot from taking the combined oral contraceptive pill, and 1 in 1,000 people a year will develop a blood clot from air travel.

The second point gives the same information, but it also gives context and allows people to compare the risk of medicine X with those of well-known medicines and activities.

User-focused language

Focusing on the user can make information into a story that relates to them. Take the audience on the journey by including them in the story. For example:

> Application process:
>
> 1 Application submitted
> 2 Application reviewed
> 3 Application accepted or rejected

becomes

> About the application process:
>
> 1 Submit your application online.
> 2 We will review your application.
> 3 We will contact you to tell you whether your application has been accepted.

Scenarios and case studies

Scenarios can help bring content to life. A scenario is an imaginary example of the information or process you are describing. It presents a situation and characters, and describes what happens. For example, if your content is about starting school, you might describe a family and their experience of enrolment and getting ready for school.

Case studies of actual events or projects can also be used to provide real-world examples of the information.

Avoiding the main pitfalls

The idea that official or technical content needs to be wordy and stilted is still common. For governments, shifting to simple language makes your content more relatable for your stakeholders and the public, and helps them understand your message.

Avoiding the main writing pitfalls makes your content more readable.

Long sentences

The ideal average sentence length depends on the audience. In general, the broader the audience, the shorter the sentences should be. Aim for an average of 15 words per sentence for content for a general audience and no more than 25 words per sentence for more technical content.

You can shorten sentences by:

- removing unnecessary words and replacing long phrases with simpler alternatives (for example, due to the fact that becomes because). Try to identify which words add meaning to your writing and which just take up space
- making clauses into sentences (for example, The national reserve system includes protected areas and reserves across Australia, which provide long-term protection for examples of Australia's diverse ecosystems and plant and animal species. becomes The national reserve system includes protected areas and reserves across Australia. These provide long-term protection for examples of Australia's diverse ecosystems and plant and animal species.)
- changing lists within sentences to bullet points. This is especially useful for web content.

Jargon and unnecessarily complex words

Jargon and unnecessarily complex words can make meaning unclear. A few techniques can make your content more readable but still accurate:

- avoid grandiose words (for example, the committee performs a function analogous to becomes the committee has a similar function to)
- replace technical and complex terms (for example, the drug is known to be fungitoxic but not phytotoxic becomes the drug is known to be toxic to fungi but not to plants)
- add definitions (for example, these species are affected by increasing water temperatures and eutrophication (excess nutrients in the water)).

Excessive passive voice

In an active sentence, the agent does something to a person or thing (for example, John developed the test). In a passive sentence, the subject has something done to it by an agent (for example, The test was developed by John).

> The active voice has a strong, direct, clear tone, whereas the passive voice is weaker and often more vague. Active language is often easier to understand, and also makes it clear who is doing what.

A passive sentence can be made active by adding an agent:

The textbook was written.

becomes

The professor wrote the textbook.

Indirect constructions

Indirect constructions of sentences express meaning in a roundabout way, and make writing longwinded and vague. Indirect constructions use indirect nouns and verbs. To fix an indirect construction, you simply turn the indirect words into a direct verb:

Indirect construction: The council has *conducted* [indirect verb] a *review* [indirect noun] into the subcontracting of waste disposal.

becomes

Direct construction: The council has *reviewed* [direct verb] the subcontracting of waste disposal.

Indirect construction: The *development* [indirect noun] of the animal welfare code *was completed* [indirect verb].

becomes

Direct construction: The animal welfare code *was developed* [direct verb].

Using direct constructions not only makes your meaning clearer to the reader, it also removes unnecessary words.

Writing for the web

Writing for the web follows the basic rules of clear, coherent writing. However, web content has some specific requirements in structure and format, mainly due to how people use the web, and how AI platforms interact with online content.

Web users tend to skim content, hunting to quickly find what they need rather than reading every word. Content in headings, buttons, lists and the beginning of sections is prioritised. AI platforms are similar – they prioritise information in headings, at the beginning of content and in lists.

Writing effectively for the web means making content that can be quickly skimmed and parsed.

Web headings and structure

The most important or summary information should be in the first 2 paragraphs (or these paragraphs should at least be compelling enough to keep people reading). This is an 'inverted pyramid' construction – rather than introducing and slowly building the story, load the most important information at the top of the page.

Headings, subheadings, paragraphs and lists should start with keywords (information-carrying words) that users will notice as they scan down the left-hand side. Delete leading articles (such as the or an) and start with keywords.

Answering the question upfront

Users are often searching online for answers to specific questions. AI platforms look for content that matches the questions that users ask. Think about those questions and then structure and write your content to answer them.

The most effective strategy in answering questions is to frontload information. This means having key information and answers at the start of your content, then adding further detail. In other words, answer first in 1 or 2 sentences, then elaborate. Avoid burying the lede (the summary or main point) under long introductions.

Online language and length

Best-practice web writing follows a few rules:

- Write in plain English – use the active voice and simple words that people can relate to (see Avoiding the main pitfalls).
- Summarise – online readers skim content, and will quickly abandon longwinded sites. AI platforms prefer succinct, self-contained content.
- Write for scannability – shorter paragraphs are easier to scan than long blocks of text. Even single-sentence paragraphs are OK because they can draw attention to key points that might otherwise be buried. Dot points are very useful.
- Use numerals (5, 10, 20), not words (five, ten, twenty) – numerals help people scan and identify numbers. When reading online, users scan the page for clues that might answer their question. If the answer they seek is a number, the numerals stand out on the page and are easier to identify.

Actionable content

'Actionable content' is content that users can easily understand and act on. Such content aims to prompt action, tell users how to go about a procedure, or tell them what they need to think about or do in a particular circumstance.

To make your content actionable, talk directly to users and suggest what they can do in a simple way:

> Medical professionals can provide guidance on the equipment available.

becomes

> Talk with your doctor about equipment that could help you.

Accessibility and inclusivity

Web accessibility and inclusivity mean that web content is available to anyone who wants to access it, including people with a disability (such as low vision), and people using limited or mobile technology. All government departments must meet minimum WCAG accessibility standards (see Standards and requirements).

Making your content accessible and inclusive benefits all users, and reflects the values of your organisation. Making your content accessible also makes it easier for AI platforms to find and parse your information.

It is easiest to build in accessibility from the beginning of content development, rather than trying to retrofit it at the end.

Web content formats

Web content can be presented as HTML (webpages), Word or RTF documents, or PDFs. All these formats can be made accessible, but some are more accessible or easier to use than others:

- Webpages are the most accessible content. Content on a webpage can be found by search engines, read by screen readers and parsed by AI platforms.
- Word and RTF documents are accessible if you have styled them in the right way (for example, with tagged heading levels – see Styles and formatting) and added other accessibility features as needed.
- PDFs are accessible if they have been designed that way, but some PDFs may require extra work to make sure screen readers read the information in the right order.

If you have information in a Word or PDF document that you want to put online, it can be tempting to simply put an accessible version of the file on the web. But this can 'lock up' the content, because it sometimes can't be seen by screen readers. Content in PDFs and Word documents is also generally less visible to, and given a lower priority by, AI platforms.

If you do put a file on the web, include an HTML summary of the information on the webpage that hosts the file. This makes the material more findable, and lets users read the key points before they decide whether to delve into the document itself.

The Australian Government recommends that documents online should be presented as accessible HTML content, with an accessible PDF or Word file as optional extras (see PDF (Portable Document Format) | Style Manual).

Styles and formatting

Using defined styles improves document management, visual consistency and accessibility. Consistent formatting and logical structure help *all* readers navigate the text.

Formatting is also a key element of accessibility. Use styles to tag content (rather than manually applying bold, italics, etc.), including Heading 1 (used for section or chapter names), Headings 2 to 5 (used for subsections) and Normal (used for the main text).

Don't skip heading levels (for example, Heading 2 must be followed by Heading 3; don't skip straight to Heading 4). Check this in Outline view or the navigation pane in Word.

Tables

Tables often trip up accessibility. There are a few guidelines:

- Enter your table as a table, not tabbed text, text frames or an image.
- Make sure lists (for example, abbreviations list, glossary) are not formatted as tables.
- Make sure the various parts of a table are tagged correctly (for example, specify column header rows).
- As much as possible, avoid merging or splitting cells. Don't include subheadings as rows; convert to a new column or break the table into several tables.
- Don't leave cells blank – use text or numbers to indicate meaning: nil 0 not applicable not available.

You don't need to include alternative text (alt text) to make a table accessible, but a short summary inserted as alt text can be useful.

Graphs, figures and images

Think about how your graph will appear to users with low vision or colour blindness, and to users who are printing out the graph.

Make sure the colour contrast between figure elements and background is sufficient. Also make sure that colour or shading is not used as the only visual means of conveying information. Any information conveyed by colour differences must also be available as text (or alt text).

Ensure that different series in charts are distinguished by patterns as well as, or instead of, colours.

Attach to the figure alt text that describes the overall message of the figure.

Alternative text

Alt text is read out by screen readers. It conveys what the image is *and* its main messages. Although AI prioritises the text on the page, alt text also helps AI 'see' the image and parse the information.

Provide alt text for all meaningful nontext elements (for example, figures, maps, photos).

Alt text should provide an overall description of the contents and message of the picture. For example, if describing a graph, describe the overall trend of the data:

> Pie sales increased rapidly from 2008, reaching 4,000 per year in 2025

rather than:

> Pie sales were 1,000 per year in 2008, 1,100 per year in 2010, 1,500 per year in 2011 …

If the image contains text, reproduce this text exactly in the alt text. If the image is a flowchart of a process with several decision points, include in the alt text the decision points and options at each point.

Don't leave alt text blank. If the image is decorative, simply check the box 'Mark as decorative'.

Engaging data and visuals

Content includes information that is presented visually. Graphs that allow people to understand data at a glance, infographics that engage your audience, and designs that support and don't clash with your message, all help your audiences understand and connect with your content.

Visual elements alone may not increase the chances that your content will be found and selected by AI. However, images can appear directly in AI summaries if those visuals help answer a user query.

For further guidance on data and visuals, see *The Biotext guide to effective data visualisation and infographics* and other free resources at biotext.com.au.

Identifying the need for visuals

Every visual (graph, diagram, infographic, photograph, animation or video) should be there for a reason. That reason is communication, usually persuasive or informative (or both). To create an engaging visual, begin with its reason for being.

Do you really need a visual?

Think about what you are trying to achieve. Do you want to include information that can only be conveyed visually? To better engage the audience? To just break up text?

Including visuals usually requires additional effort; for example, to gather data and develop a graph, or to source and get permissions for a photograph. Thinking about your aims will help you decide whether the effort is really needed.

For example, a message like Applications to this program increased during the year may not need a graph if detailed understanding is not required. A graph can help you convince the reader – they can see the data for themselves – and can contain information beyond that in the text. But if nothing more need be said, is the graph adding anything?

What do you want to say?

Often your visuals will be based on data. When thinking about presenting some data as a visual – such as a graph or a map – imagine speaking directly to the audience, perhaps while standing in front of a slide presentation with your visual on it, and finish these sentences:

1. The one thing I really want you to remember about this is … – this is the main message, the one that *must* be communicated if the visual is to be worth having.
2. Other things of interest include … – these are the other things that the same visual can show (but not at the expense of the main message).
3. You need to know this because … – this is what value the audience will get out of the visual.
4. You should trust this information because …. – this is what will make the visual trustworthy and influential.

Let's say we are looking at some data about applications to some program. We might come up with:

1. The one thing I really want you to remember is that all the increase in demand came from those younger than 35 years.
2. Other things of interest include an apparent lack of variation with seasons.
3. You need to know this because it's your job to ensure that this service is adequately resourced.
4. You should trust this information because the data were collected using tested, reliable methods and the trend is consistent over the years and shows no sign of slowing down (although there is some scatter in the data).

Identifying the type of visual you need

Graphs, diagrams, photographs, icons and infographics all aim to increase user engagement and aid understanding. Choosing the right type of visual to support your message can help you to better achieve those aims:

- Graphs present data and are a visual way to show trends or comparisons. They allow users to see the 'story' of the data at a glance.
- Diagrams can capture ideas or processes and present them graphically to aid understanding.
- Photographs show users real-life examples of subjects and can influence the tone and emotion of content.
- Icons can break up text and provide a way to 'tag' related content.
- Infographics combine textual and visual representations of information to engage the audience and help them understand complex concepts. They go beyond a simple diagram to present a message, narrative or process.

As well as choosing the visual that will suit your content, you will also need to consider the resources you have available and the time you have for development. A custom-designed infographic may be the best solution, but you may need to use a photograph instead if the content is being published at the end of the week.

Using principles of good design

Whether you are using graphs, diagrams, photographs or infographics in your content, visuals will be much more effective if they are well designed and produced.

In developing visuals, remember to follow these basic principles:

- choose and design visuals based on your audience (for example, their level of knowledge of the subject; what they need to know; their cultural and social backgrounds and personal needs, which may affect how they access, interpret and react to visuals)
- keep it simple (for example, avoid designs with lots of different elements, unnecessary 3D effects or unfamiliar graph types)
- use colour thoughtfully (for example, to highlight the key messages and ensure accessibility)
- reduce clutter (for example, place the legend outside the data area of a graph; choose lines or points to track data – not both).

AI readiness

Great content should also be AI ready. You are not just writing for human users anymore – you are writing to ensure AI can find and accurately include your information when it answers user questions.

The good news

Much of what you need to consider for AI-ready content is what you already need to consider for effective, accessible, user-centred content.

AI is looking for content that:

- matches what users ask – see Understanding your audience
- is easy to grab, which means
  - effective structure with meaningful headings (see Effective structure and navigation)
  - writing that is clear and tailored to the audience (see Clear writing)
  - self-contained sections that don't rely on lengthy context or related links for meaning (see Writing for the web).
- is easy to 'see', which means ensuring content is correctly styled and tagged (see Accessibility)
- has authority, which means linking to evidence and ensuring content is up to date.

There are other things to consider during web development (including page design and schema tagging), but for content development, these are the core criteria. Further guidance for AI-ready content can be found in the free resources at biotext.com.au

Effective processes

Making great content can be much easier if you have the right resources and effective processes in place.

Web project expertise

A web project brings together several disciplines and areas of expertise, including content, business or policy, subject matter, user experience, design and web development.

> Collaboration between these areas is essential to the process. Having everyone in the room means that understanding and challenges from one area can feed into another area, to strengthen overall development in an iterative process.

You may have all the members of the team available inhouse, or you may need to go to market to procure external expertise. Start procurement early so you can bring people together from the outset of a project.

Content

The role of content specialists is to design and create great content, taking into account the business, policy, subject matter, user, design and web development perspectives. Content acts as a pivot point between these essential perspectives. Content specialists also design your content strategy to ensure that your product or service will achieve your goals now and in the future (see Developing a content strategy).

Content deliverables include:

- content strategy, including content vision, principles and measures of success
- content audit, analysis and mapping
- structure and IA
- new or redrafted content.

Content specialists may also have other areas of expertise or deliverables, including subject matter, user experience and visual design.

Business and policy

The role of business or policy experts is to provide the direction and context for the project. They set and monitor overall goals, constraints, resources and deadlines. The business or policy expert on the team is often the product owner.

Business or policy deliverables include:

- project direction and scope
- project budget
- project schedule
- procurement.

Subject matter

The role of subject matter experts is to ensure the content is accurate and appropriate. This is particularly relevant if the content is technical or scientific. Subject matter experts can provide original content, but content specialists are often needed to turn original technical content into engaging content that uses best-practice web delivery principles and that is optimised for search engines and AI readiness.

Subject matter deliverables include:

- first drafts of content
- identification of key facts and messages
- reference lists or citations
- review of content rewrites and edits.

User experience

The role of user experience (UX) or user interface (UI) experts is to provide the user perspective and to test the product with users as it is being developed (see User research and testing). Gaining the user perspective is essential to meeting your users' needs.

UX deliverables include:

- desktop research
- surveys
- focus groups
- usability testing.



Visual design

The role of design experts is to make sure that visual aspects of your website or product help engage users and support navigation and understanding. Design also influences the tone of the whole product. A robust design process is iterative, with most of the time spent planning rather than polishing.

Deliverables throughout the design process include:

- visual concepts and mood boards, to capture high-level ideas and metaphors
- wireframes to map potential layouts, considering placement in the wider product
- draft, and polished diagrams, figures and infographics.

Web development

The role of web development experts and software engineers is to develop and deliver a robust website. They work closely with content, user research and design experts to ensure that the site is functional and usable. Web development experts could either be part of your organisation's IT team or external contractors.

Web development deliverables include:

- prototypes
- front-end and back-end development
- final websites
- performance analytics.

Web project steps

Like any project, web projects go through various stages of planning and development. These can be described and broken up in various ways, but in general, they cover the following steps:

- Discovery is about understanding the issues and opportunities (see also Getting started). It involves
  - business and stakeholder research to find out the goals, context and parameters
  - user research to find out what users need and understand
  - content audit and analysis to identify problems, gaps, and other related products
  - desktop research to explore related and competitor websites, topics and keywords
- Planning and design (or Alpha) is about designing possible solutions. It involves
  - identifying key themes, messages and topics
  - developing, testing and iterating an initial IA and wireframes (see Effective structure and navigation)
  - developing, testing and iterating a design concept
  - drafting initial content

- Development and testing (or Beta) is about developing the real website while still testing solutions. It involves
  - developing a beta version of the website that implements the findings and development from the discovery and alpha stages, and adds content
  - testing the beta version with audiences and iterating based on user feedback
- Launch (or Live) is when the website is complete and is made open to the public. Make sure the site is thoroughly checked before going live, including
  - proofreading content
  - checking that all content has been correctly uploaded
  - checking all internal and external live links to ensure they are correct
- Ongoing. Although launch is a major milestone, it doesn't mean the product or project is final. Regular monitoring and updating is essential to ensure the site continues to meet the needs of your organisation and audiences. Up-to-date content is also important for optimisation in search engine and AI summary results.

Content steps

Content is an integral part of web development, rather than something that is just added at the end. Content specialists have a role at every step of the project.

During Discovery, the content deliverables are:

- content analysis (user analytics and desktop research, content audit and gap analysis, content map, readability, content types and lifecycles)
- user research (desktop research, interviews and surveys with internal and external stakeholders and users)
- the initial version of the content strategy, including measures of success (see Producing a content strategy).

During Alpha, the content deliverables are:

- content IA and wireframes (low-resolution wireframes of webpages, prototypes using real content in proposed layout, iteration)
- initial content (landing and webpage content, metadata, optimisation for search engines and IA readiness, visual elements such as infographics)
- content testing (content reviews and revisions, readability, visual display revisions)
- updated content strategy.

During Beta and Live, the content deliverables are:

- final content (agile content delivery, metadata, quality assurance)
- updated content strategy.

Agile workflow

Web projects often talk about an 'agile' workflow, or 'agile' vs 'waterfall':

- An agile workflow, sometimes known as continuous delivery, is a flexible, incremental approach. It means that the content and website are developed through a series of iterative loops involving development, testing and feedback.
- A waterfall workflow is a linear approach. It means that the project progresses sequentially in set phases from research to development and completion.

An agile or continuous delivery process underpins a user-centred process, because feedback from users and stakeholders, as well as the expertise of all members of the team, feeds into each stage. With an agile process, plans and decisions made at the start of the project are not set in stone; they can adjust to take account of this feedback or any other changes in the project context.

In a traditional publishing model, content is written in a block, then edited, signed off and published. This process is often based on assumptions of what the audience wants, or driven only by what the author wants to get across.

In an agile or adaptive content workflow, content is developed and revised in an iterative process, with the audience considered throughout development. Content is often developed as separate sections or pages, and may go through rounds of testing with audiences before being uploaded. Even when uploaded, content can be revised based on user or stakeholder feedback.

Standards and requirements

Content is often governed by various standards and requirements. Understanding these requirements helps you to build them into your processes, which is faster and easier than having to redevelop, reformat or retrofit later.

Some common standards and guidelines you may need to consider include:

- style guides, which provide advice about recommended or mandatory writing styles, word use, punctuation and presentation.
  - The Australian Government *Style manual* provides guidance focused on government content, particularly digital content. All Australian Government organisations follow this guide.
  - Inhouse style guides provide additional guidance specific to a particular department or agency – for example, the organisation's preferred terms and grammar for its common words and phrases.
- readability targets, which are usually measured against school grades (see Checking readability). Many organisations set a readability target depending on the audience (for example, readability level 7 for the general public and level 10 for professionals).

- accessibility and inclusivity standards, which aim to ensure that content can be found and understood by users with a wide range of abilities and technological capabilities. All Australian Government websites must meet the latest WCAG standards (see Accessibility and inclusivity and Inclusive digital design tips | digital.gov.au).
- Australian Government Digital Experience Policy, which sets agreed benchmarks for digital service design.

Resources

If you would like help with data visualisation, infographics, content development or processes, Biotext can help.

We are content experts specialising in complex content, including health and biomedical science, environment, agriculture, government and policy. We provide content strategy and design, writing, editing, information design, data visualisation and infographics.

We provide practical training in content and information design. Our popular online workshops include *Writing and editing complex content*, *Creating effective infographics* and *Making accessible documents*.

We provide tips and insights on communicating effectively with your audiences and improving your content processes. Quick guides are available in:

- discovery and strategy
- effective content
- quality assurance
- visual communication.

See our free resources at biotext.com.au.

Australian Government Digital Experience Policy

The Australian Government Digital Experience Policy mandates 4 standards.

The Digital Service Standard establishes how government services should be designed and delivered.

- Have a clear intent
- Know your user
- Leave no one behind
- Connect services
- Build trust in design
- Don't reinvent the wheel
- Do no harm
- Innovate with purpose
- Monitor your service
- Keep it relevant

The Digital Access Standard makes sure services are easy to discover and access in a seamless way.

- Understand how your users access services
- Define your service offering
- Use Australian Government Architecture to find reusable elements
- Follow the decision-making framework
- Engage with delivery partners

The Digital Inclusion Standard ensures the people who need government services most won't be left behind.

- Implement a monitoring framework
- Measure the availability of your digital service
- Measure the success of your digital service
- Measure if your digital service is meeting customer needs
- Analyse and report your digital performance

The Digital Performance Standard sets out how to monitor, report and improve on the quality of digital services.

- Embrace diversity
- Motivate digital use
- Protect users
- Make it accessible
- Provide flexibility and choice

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