PĀTAKA KŌRERO

A user guide and system overview through frequently asked questions

MANAAKI
TE AWANUI

NGĀ TOHU

RECLAIMING AND PRESERVING INDIGENOUS KNOWLEDGE OF COASTAL AND MARINE ECOSYSTEMS

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Pātaka Kōrero: A user guide and system overview through frequently asked questions

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This is a resource to demonstrate some of the main functions and elements of the Pātaka Kōrero, which is a digital storehouse currently under development within the T4 Te Tāhuhu Matatau project funded by Sustainable Seas National Science Challenge.

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Developer: Aaron Cole

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What is the pātaka kōrero?

The pātaka kōrero is one of the outputs of Tāhuhu Matatau Te Ao Tangaroa research project, a collaboration between Manaaki Te Awanui (MTA), case study groups based around the country, and a team of developers and testers.

The Pātaka Kōrero has several core concepts and goals:

1. Provide tools to facilitate data ownership

Giving users the tools to upload, store and manage access to their content is built in at every level. Users can decide what they upload, where it is uploaded, how it is held, what users and groups can access, can request access, and whether it should be shown to the public.

2. Support many types of content

Supporting the uploading, storage and display/playback of as many types of content as possible means users aren't restricted in expressing themselves or their content. This provides a rich experience for users who are engaging with the content, too, with inbuilt support for many types of media, including;

- documents (PDF, Word, Excel, Powerpoint)

- media (images, videos, audio recordings

- galleries

- mathematics (raw data, tables, workbooks)

- maps (GIS Layers, vectors)

- resources (websites, archives)

3. Encourage multilingual resources and users

The ability to define resources and content in your own language or variant is built in and allows richer experiences for users engaging with your content in their native language.

4. Allow contextualising content

Users are encouraged to use various contextual reference systems to tag their content - this can include connecting your content with people, places, times or key concepts across as many perspectives as needed. Users can also add references and tags to ensure their content is as contextually relevant as possible.

5. Add value to individual content with collections

Collections are a type of content made up of other content. At its most basic, they are galleries or other resources, but they can be so much more and have many options for display customisation and adding more context and information.

The Pātaka Kōrero is comprised of several parts:

1. The "Portal" or back end

This portal, or "back end", is where users can sign up, add content, configure access and storage, and add other users or groups.

This part of the tool focuses more on the content owners and creators. It provides all the tools and options needed to upload your content, store it safely, configure user access, add references, tags, and connections with people, places and times, and even combine it with other content to create unique "collections".

2. The "UI" or front end

This part of the tool is the shop window for your content; it allows members of the public and other users to see and interact with your content however you have set it up. Users can also interact with you, the creator, including requesting access to resources and contacting you through the site.

This part of the tool is targeted at general users and the public; it provides tools to filter content by type or through connections with people, places and even key dates in an interactive way.

3. The "App" or mobile application

This mobile app is designed as a digital companion for the portal, enabling users and creators to upload content on the fly, easily add or adjust user access and respond to site messages and requests while on the move.

How do I get started?

You can interact with the pātaka kōrero in several different ways. The portal is the main entry point for users wanting to upload and create content, and the front end (UI) is the main entry point for users wanting to view and interact with existing content on the site. It's also where most new users will start. A mobile application currently in development will allow users to browse and upload content on the go.

You don't need an account to browse the front end; any publicly available content will be browseable, and you can even share links to content with your friends and whanau. You must register an account if you want to save your favourite content or add your own.

You can register either on the front end or directly in this portal. Eventually, you will also be able to sign up for an account through the mobile application.

To register for an account through the portal, navigate to the home page. Here you will be presented with options to continue the authentication process as one of the three (current) user types. For information on these user types, please refer to the "Why are there three different types of user?" question.

For now, click the "Continue as a User" button, followed by the yellow "Register" button in the bottom right-hand corner.

Fill in the form with a valid email address (you'll need this later), a unique username and a strong password repeated two times.

The final option relates to in-site messages, which can be received from other users (such as requests for access to resources). You can choose not to receive emails by unchecking this option; regularly check your in-site messages in case someone is trying to get in touch!

Finally, press the green save button on top of the form box. You should get a confirmation message your registration was successful, but if there are any issues, you will get a descriptive message describing them. Most issues relating to registration come from trying to use the same username or email address as an existing account, so make sure they are unique!

Once your registration has been successfully submitted, you will receive an email with a link to follow to confirm your account. This can take 5-10 minutes to arrive, depending on network connection/traffic.

Following the link takes you back to the main portal homepage and displays a "User successfully verified" message.

You're now ready to sign in, customise your account and start adding your own content!

To sign in, click the "Continue as a User" button again, and this time enter your username and password into the Authenticate form. When you're ready, click "Sign in" to be taken to your own account page.

Why are there three different types of user?

Currently, the Pātaka Kōrero provides three options when registering and signing in, these account types are ostensibly the same but have some important and useful differences depending on your use case.

1. Users

This most basic of account types is the one most users will sign up with and use. A normal user account can do everything the other two can, but can't include members of its own. Users do however currently have the ability to create their own groups and organisations, through which they can add other groups, but this is still a separate account to the users' own. Eventually, users will have the option to host their own unique front end with just their content on display.

2. Groups

Groups are built on normal user accounts but have the ability to include members under their "access umbrella." This means that if a user releases content to a group, members of that group gain access to that content by default. This can be useful for situations where it's easier to add large amounts of users into a group and create one release, rather than releasing and maintaining those releases for individual users. Eventually, groups will have

the option of including their member's resources in their own unique front end - complete with their own logo and customization.

3. Organizations

Organizations are built on Group accounts so share all the same features, they are separate only for categorization reasons, although in the future will likely include organization-specific options within their profile customisation.

What do the menu groups mean?

When you sign in to the portal, you are always taken straight to the "Edit Profile" page. This page represents a typical layout for almost all of the portal pages.

At the top of the page is a menu bar with the name of the portal instance on the left and some basic site navigation buttons on the right, including help, which will open the pop-out you are likely reading now.

Moving down the page, the majority of which is taken up with the current form or list, in this case, the edit profile form. Almost all forms follow the same basic format with the form name in the top left, form actions (including the ever-present "Save" disk button) on the right and the form itself below. Some forms are longer than the page or can become longer as you add content to them. Simply scroll the form down to access more of it. The save/submit button can always be found at the top right of the form, even when scrolled.

To the left of the form pane is the site navigation menu for normal (non-admin) users; this is comprised of the following sections.

1. User

The user section contains three pages that all relate to the current user.

The main account page, which you're likely on now, has customisation and preference options. The password page provides a form to change your current password, and finally, the messages page shows messages that have been sent and received through the site. See the "How do I customise my account?" section for more information.

Requests for and confirmation of access requests and releases will appear under messages. See the section "How can I share my content?" for more information on this process.

2. Resources

This section consists of links to all the available resource types and an "All types" page that lists all the resource content you have added regardless of class. All individual resource pages have descriptions and suggestions displayed at the top and generally follow the same basic layout as the "Edit Profile" form. See the "How do I upload a resource?" section for more information.

3. Collections

This section consists of links to all the available collection types. Much like the resource section, it includes an "All types" page, showing all the collection content you have added regardless of type, and all the individual collection type pages have descriptions and suggestions at the top. See the "What is a collection?" section for more information.

4. Descriptors

This section consists of links to parts of the site that relate to content characterisation and identification.

The Languages page allows users to add their own language, dialects or dialectal variation. Once a language has been added, users get the option to add "translations" for content characteristics in this language when editing or adding content.

The Characteristics page allows users to add their own attributes for content, which can be useful for categorisation and adding metadata to content. Users could, for example, add an "attribution" characteristic, which gives them the option to add a translation for attribution to any content they add.

5. Categorizations

This section consists of links to pages that describe theoretical or physical reference points through which content can be classified and given reference, meaning and context. Once categorisations have been added, users can "connect" their content to these references when editing or creating it.

The concepts page allows users to add and link theoretical concepts, which help relate and describe the content.

The Genealogies page allows users to add and connect either abstract or physical records to which content can be connected. Family trees can be created in this way, and content about either individual members or sections of the tree can be connected to it. Other uses include describing the evolution of ideas or products.

The Dates page allows users to add date reference points and connect content to them.

The locations page allows users to add coordinate points and connect content.

The Perspectives page allows users to describe their unique perspectives when categorising their content.

See the "What are references and perspectives?" section for more information.

What kinds of content can the pātaka store?

Currently, the Pātaka Kōrero provides 12 core content type options, these content types. There are currently three further content types that are still in development but which are not described here including Working content, Worksheet content and Workbook content. These will continue to be developed in the future.

1. **Audio content**

Audio content is a resource type to hold and provide playback of digital audio recordings. Most digital audio formats and file sizes are supported; however browser support varies so picking standard formats (".mp4", ".mp3", ".m4a", ".wav") when uploading the file can help ensure consistency. Note these files are served and not streamed, so the entire file will need to be loaded by the viewing user before it will play (this can take a long time). In future, this resource type will automatically convert and store widely supported formats when created, and the file will be streamed to speed up delivery.

2. Text Content

Text content is a resource type to hold and provide online viewing of digital text. It is an extremely versatile resource type, as it can also embed images, links, and some web content. It can be used as a document replacement, or it can be created and used within collections to provide context and explanation. Take care when adding embeds as this can make the resource very slow to load and use a lot of viewers data. Its recommended you compress any images you add beforehand.

3. Archive Content

Archive content is a resource type to hold and provide download access to digital archives. Most archive formats and file sizes are supported, common types include ".dmg", ".zip", ".tar".

4. Document Content

Document content is a resource type to hold and provide both online viewing and/or download access to digital documents. All document formats are supported, although some will not display well (or at all) in the web view because of vendor limitations. Documents saved in "OpenDocument" format will display the most consistently. If you want absolutely consistency when viewing across multiple browsers/devices, converting your document to PDF may be a good option. While you can add PDF documents using this resource type, its recommended you use the PDF Resource type instead. In future, this resource type will automatically convert and store widely supported formats when created.

5. Spreadsheet Content

Spreadsheet content is a resource type to hold and provide both online viewing and/or download access to digital spreadsheets. All document formats are supported, although some will not display well (or at all) in the web view because of vendor limitations. Spreadsheets saved in "OpenDocument" format will display the most consistently. In future, this resource type will automatically convert and store widely supported formats when created.

6. Presentation Content

Presentation content is a resource type to hold and provide both online viewing and/or download access to digital presentations. All document formats are supported, although some will not display well (or at all) in the web view because of vendor limitations. Documents saved in "OpenDocument" format will display the most consistently. If you

want absolutely consistency when viewing across multiple browsers/devices, converting your presentation to PDF may be a good option. While you can add PDF documents using this resource type, its recommended you use the PDF Resource type instead. In future, this resource type will automatically convert and store widely supported formats when created.

7. P D F Content

PDF content is a resource type to hold and provide online viewing of PDF documents. Its recommended you compress the image sizes within your PDF document before uploading, as this will speed up delivery for viewing users. Because of the way files are stored and retrieved securely, viewing PDF documents can be quite slow. In future, PDF documents will be automatically compressed when created.

8. Image Content

Image content is a resource type to hold and provide online viewing of digital images. All image formats are supported, although some will not display well (or at all) in the web view because of browser limitations. Well supported formats include ".heic" (this will be automatically converted on upload), ".png" and ".jpg". In future, this resource type will automatically convert and store widely supported formats when created.

9. Image Gallery Content

Image gallery content is a resource type to hold and provide online viewing of digital image galleries. This resource builds on the Image content resource type, so the same filetype limitations apply. When creating a new gallery, you can ether select existing images using the autocomplete field, or click on the options cog to be given the option to create a new image in the same form. Multiple new images can be added to the same form at once using the plus (add) button by the photos field. The gallery will render as a grid in the front end.

10. Shapefile Content

Shapefile content is a resource type to hold and provide online viewing of digital shapefiles. Currently the only supported format is a .zip archive of your shapefiles, and a *.lryx* style resource (which is automatically converted on creation). These are displayed as GeoJSON on the front end using the Openlayers library and styled via the attributes continued in the *.lryx* file. The UI provides utilities to inspect embedded data, so extra attributes can be used and will be shown to viewing users. In future, more style formats will be supported, and other resources will be added for other GIS exports.

11. Video Content

Video content is a resource type to hold and provide playback of digital video recordings. Most digital video formats and file sizes are supported; however browser support varies so picking standard formats (".mp4", ".mov") when uploading the file can help ensure consistency. Note these files are served and not streamed, so the entire file will need to be loaded by the viewing user before it will play (this can take a long time). You can also use this resource type to embed Vimeo and Youtube videos. Copy the embed code, then

choose "RemoteResource" as the storage type and paste the entire embed code into the url section, it will be extracted automatically on save. In future, this resource type will automatically convert and store widely supported formats when created, and the file will be streamed to speed up delivery.

12. Web Content

Web content is a resource type to hold and provide embedded viewing of web links. While all link types are technically supported, there is a lot of variances as to how they will display because of restrictions on viewing in a frame across origin (on a different domain from where the site is originally hosted). In general, you will want to use "RemoteResource" as the storage type here, although technically html file uploads are somewhat supported.

How do I customise my account?

To customise your account, navigate to the "Account" page under the "User" menu tab.

You will be shown the profile customisation form and options to update and personalise your user.

Let's start by filling in your first and last name and adding a thumbnail image. Once satisfied with your changes, click the "Save" disk button on the top right of the form to submit it.

There are lots of other options on this page; most of them include a descriptive help message to get you started but a few options of note.

1. Language preference

This preference determines the default language content descriptors on the portal and when you are signed into the front end. This will only override the default for content with existing translations in your language and will default to English otherwise.

2. New content private + New content hidden

These two preferences govern whether the content created by your user will be created private and hidden (respectively) by default. Private means that users will see a content preview but will need to request explicit permission from you to view the entire record, and hidden means it will only show up for users if you explicitly release it. See "How can I share my content?" for more information.

3. Groups + Organizations

These multi-select fields allow users to govern which users and groups they are currently a part of. Now, users do NOT need to be the group/organisation owner to add or remove themselves from it, but this will likely change.

4. Resource storage default

This preference governs where your content is stored when it's uploaded. Some users may be given specific access to otherwise hidden storage types, which they can select as

default here. An example of this could be a cooperate NAS device or storage service. See "How can I protect my content?" for more information.

How do I upload a resource?

To upload your first resource, open the "Resources" menu tab on the left and select which resource type you would like to add. For this example, we will start with Image Content, select the Images link and click the "+" add button on the top right of the form.

The Image content form follows the basic layout of almost all content on the portal;

- basic info section including a thumbnail, title and description.

- type-specific fields, in this case just "resource", as in the image file you want to upload.

- more options, hidden under the "Show addition form options" button.

- Clicking the "Show addition form options" will open up some new form sections including;

- Privacy controls, "Public", which if deselected will show another "Private" checkbox

- "Labels, descriptions and translations", if clicked will open a section where you can add and customise characteristics and translations.

- "Relationships with concepts, times, places and people", if clicked will open a section where you can add and edit associations between content and references (found under the "Categorizations" menu tab).

- "Users, Groups and Organisations this resource has been shared with", if clicked opens a section for creating and editing content releases for this resource.

- In general, only the resource type-specific fields are required, in this case, the "Resource" field, but it's a good idea to add a title and description so it's easy to find and identify later!

Once you've filled in the details you need, and added your "Resource" file, you can press the "save" disk button to finish the upload.

What is a collection?

A collection is a type of content made up of other content. It's specifically handy for grouping related content together, especially as you can then associate the collection itself with concepts, places, dates and genealogical references.

An example of this is if you created a family tree using genealogical references, and uploaded content created by all the family members over the span of a few years, instead of having to link all the content to each user individually, you could add a collection for

each person and add the content to it, and then associate the collection with that person. You could go one step further and create a collection for each year, for each person, and then associate the collections to both the year as a date record, and the person who created the content. This saves you from having to link all the content individually and acts as a logical grouping for all the related content.

Collections are highly customizable and come in a few different options to ensure they can be used in a wide variety of scenarios. Some act like baskets for content, essentially forming a collage of resources, while others allow users more fine granular control over the order and groupings of the contained resources.

All of the collection types include descriptions and basic instructions, and adding a collection is similar to adding any sort of content (see "How do I upload a resource?" for more information), there are just a few unique fields that allow other content to be included in them.

Why isn't my content displaying right?

Unfortunately, it's almost impossible to ensure the site functions *exactly* the same for all users and devices. However, if your content is looking particularly strange there are a few things to try.

Depending on the type of content you have added, there might be an issue with the Resource you have added. Some browsers do not play well with some file types and formats, and some refuse to render them at all. If you're having trouble getting a resource to display, try uploading it in a different format.

If your resource is a type of document and it's either not showing up at all, or the formatting is all off, consider converting it to a PDF and uploading it that way. PDFs have much more consistent rendering across browsers and devices.

If you've added a video or audio file and it's not working, try viewing it in another browser - if this works it's likely you'll need to try another file format. It can also be helpful to try accessing the resource on another network, or via another device entirely. Large content especially can take a long time to download and usually won't play or function until it has finished.

If it's a website or online document you can't get to display right, ensure it can actually be embedded in another website. Sometimes there is a setting you will need to change before it can be, or in some cases, the owner of the site has explicitly forbidden viewing in the frame, so the only way it can work is if the viewing user visits the site itself.

If your content isn't showing up at all, check the access permissions. Make sure if it's not set to show, and you're trying to view it on the front end, you're signed in as your user (or another user who has been given permission to view it).

If nothing else works, try removing the resource and adding it again. Occasionally there can be issues with uploading the resources, which adding it again can fix.

If all else fails, file a bug report with the developer using the "Feedback" draw on the far right-hand side of the screen.

What are references and perspectives?

References and perspectives form the backbone of the 'contextualization' engine in this tool. They allow content to be connected to other content, and to relevant people, places, ideas, dates and in the future even more reference types, through multiple lenses.

In order the understand this conceptually it's helpful to think about you the viewer, the content you are viewing, the points of reference you're using to classify it and your unique perspective while doing so as four separate things.

The content is the records you're adding to the site, they can be anything really, but usually exist distinctly - absent any contextual meaning or associations aside from what you choose to add.

The points of reference are your categorizations, your pins in the ground by which you give meaning and context to everything else.

The perspective is the catalyst through which relationships hold meaning. They are the human element of the connection between the target (the resource or content) and the references (the categorisations) you are associating it with.

Users can add a unique perspective, and then associate content with points of reference through that perspective, which other users can then see and relate to, and have the option of exploring further through the front end, to get a better understanding of you as the content creator.

This topic can be confusing at first, but try adding some cateogrisations, associating some content and seeing how it works in the front end to help understand it.

How can I protect my content?

Security and data ownership is an important goals of the Pātaka Kōrero and as such a number of options are available to users looking to secure their data.

With the exception of admins, users can only edit their own content, so making sure you keep your account locked down with a safe password is a must.

Every content form gives you the option to make your content private or hidden from the public. Private means users won't be able to see the full content, they will only see a preview (made up of the thumbnail and title), and hidden means the public won't see it at all. You then get complete control of who sees your content and for how long (via the Timeout option available for all release types, see "How can I share my content?" for more information).

Content by default is stored on a cloud storage provider, but you can customise how it's stored and in some cases even where it's stored by customizing the storage options. In any form which includes file upload inputs, clicking on the cog to the right of the field will open up a select dropdown where users can select how and/or where the upload gets stored. This dropdown has a number of options;

1. Sharded Resource

This storage type breaks files down into multiple parts which are unusable without the rest of the file (and instructions on how to put it back together). The file is stored on the Pātaka Koreoro cloud storage service.

2. Remote Resource

This storage type is a URL input that users can use to reference resources on another service. It's worth noting that the Pātaka Kōrero access that resource as a public user, so anyone else with the same like could do that too, so it may not be suitable for sensitive content.

3. LocalResource

This basic storage type storage the entire complete file on the Pātaka Kōrero cloud storage service.

4. EncryptedResource

This storage type encrypts files using a user-defined key which renders the file unreadable without the key. The file is stored on the Pātaka Koreoro cloud storage service.

5. SynologyNASResource

This storage type saves files to a Synology NAS storage device, which is internet accessible. It requires a username an password to be saved, which allows the Pātaka Kōrero to access the file for retrieval, editing and deleting later.

Some other options are available, but they have been set up to save to specific users or organisations' devices and so are not available to all users. You can get in touch with Aaron Cole aaron@epiphron.co.nz, if you would like your own device set up as a storage option.

Remember you can also set a default storage type to save you having to select the same option over and over, see "How do I customise my account?" for more information.

How can I share my content?

If your content is not marked as public, or even more so if it's not marked as shown, users will only be able to see and interact with your content once you have "released" it to them.

There are currently two types of releases;

1. Standard

This basic release requires no interaction from the user you are releasing the content to, you simply create the release and they will be notified they have received access (and again if/when they lose it). You can specify terms of use when creating this release, but the recipient does not have to actively "agree" with them before access is granted.

2. Agreement

This release type is ostensibly the same as the standard release, but the recipient has to actually "agree" to the terms and conditions of the release before access is granted. This process involved a message being sent to the recipient specifying the terms of use, which they have to manually agree to before access is granted, triggering another email (and, as with the standard release, another if/when access is revoked).

Both options have the ability to set a "Timeout" after which point the release will be revoked (alerting the recipient).

Normal (non-admin) users, have to add releases through the content itself.

To add a release, locate the content you want to release and open the edit form, click the "Hide additional form options" button, navigate to the "Users, Groups and Organisations this resource has been shared with" dropdown and click to open it, then select whether you want a "Standard" or "Agreement" release from the dropdown and click the "plus" add button to the right.

This will create a new agreement subform where you can choose the recipient (search by email address), enter your terms and if needed enter a termination date under "Timeout". Then save the form create a new record and send any correspondence.

How do I set up my own Pātaka Kōrero for my Whānau or group?

This tool is still in active development, and we are only working with a small number of case study groups at this time.

If you are interested in using this within your own group or organisation, get in touch with Kelly Ratana at kelly@teawanui.com.

If you want to create an account and use the existing instance, but run your own NAS or storage solution get in touch with Aaron Cole at [aaron@epiphron.co.nz,](mailto:aaron@epiphron.co.nz) we can get you set up with your own storage type (see "How can I protect my content").

What are the plans for the future of the Pātaka Kōrero?

While the research project this tool is being developed as part of is ending in the middle of this year (2023), we still have many plans for future development and improvements. These include (split into the part of the tool they relate to);

1. Portal

- Ability to drag and drop content into the back end

- Ability for users to create unique front ends for their content

- Add date period references

- Add spatial path reference

- Ability for users to create group and organization accounts alongside their main account without the need for separate login accounts

- Support for more NAS types and other storage services

- Ability for users to export stored content

- Add automatic conversion of resource types to standard formats for documents and video/audio content

2. UI

- The ability for users to upload content directly in the front end

3. Mobile App

- Ability to sign in with faceID

- Ability to share access via AirDrop

- Ability to automatically geo-tag content added via the app

How do I get in touch about the technical elements of the Pātaka Kōrero?

Aaron Cole is the developer of the Pātaka Kōrero and can be contacted via email on aaron@epiphron.co.nz.