PĀTAKA KŌRERO

SYSTEM USE AND KEY LEARNINGS

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NGĀ TOHU COLLECTIVE

PĀTAKA KŌRERO

RECLAIMING AND PRESERVING INDIGENOUS KNOWLEDGE OF COASTAL AND MARINE ECOSYSTEMS

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(in collaboration with T3 Ngā Tohu o te Ao)

Pātaka Kōrero: System use and key learnings

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PĀTAKA KŌRERO
A digital repository

The Pātaka Kōrero (the pātaka) is a digital content management system developed through the Sustainable Seas National Science Challenge. The primary driver behind the development of the pātaka system was the need for relevant and up-to-date solutions to support hapū kaitiaki in securely storing cultural data. The pātaka is an easily accessible, customisable, and intuitive digital tool that enables users to store and access various types of cultural data effortlessly.

The pātaka is made up of three key content management systems -
1. Content Upload – A user defined content upload system
2. Content Storage – A secure and customisable storage system
3. Content Access - An intuitive content access and synthesis system

This infographic report will focus specifically on the 'Content Access' system and will describe the three main features of the front-end user interface that collectively work together to support intuitive access and synthesis of digital content.

The report will also include reflective insights that have been gained from developing the system, taking into account various user perspectives.

The pātaka could be a great hub that everyone can see into

-Hapū member, Tauranga 2023

Image Credit: R. Olsen-Kingi, Harvesting kūmara.

ACCESSING CONTENT IN THE PĀTAKA

INTUATIVE ACCESS & SYNTHESIS

The Pātaka comprises two primary user interface systems: the 'Back End,' which handles content loading and storage, and the 'Front End,' where users access the stored content. The development of the front end has been motivated by the desire to provide an intuitive and efficient interaction experience. The system is designed to deliver a positive, user-friendly experience through clear and logical navigation, well-organised content, intuitive controls, and concise information presentation for easy comprehension.

The front-end of the Pātaka serves three primary functions:

1. **Connecting to content**: Users can access content by utilising search and filter features to connect with relevant information.
2. **Synthesis of content**: Users can access content through user-defined sorting and organisation features, allowing them to synthesise and make sense of the available information.
3. **Connecting to content creators**: Users can access content directly from the content creators, establishing a connection between users and content creators.

Each of these front-end user functions will be explained in detail.

SYNTHESIS OF CONTENT

Mechanisms to synthesise all content accessible to a user (e.g. spatial synthesis, collections)

CONNECTING TO CONTENT CREATORS

Ability to seek permission for access directly from the content creators, and network with others using the Pātaka System

CONNECTING TO CONTENT

Users able to view individual pieces of content through search functions

CONNECTING TO CONTENT

Two core features of the pātaka that enable users to connect to content are 'Search' and 'Filters'. These features have been specifically designed to ensure quick and easy retrieval of content stored within the pātaka system. The search and filter features operate through three primary content access points:

1. **Personal**: Content uploaded by the creator.
2. **Shared**: Content shared directly between users.
3. **Public**: Content that is publicly available.

Search and filter features facilitate access to content across all three content access points simultaneously. The interconnected nature of these features enables users to efficiently locate specific content, explore related topics, discover new content, and refine their search results.

Search features

The search feature enables users to quickly and easily find relevant information by matching their search queries with the available data stored in the pātaka. When a user enters a search query, they have a specific intent or content requirement in mind, and they expect the search system to deliver results that closely match that intent. The pātaka system is designed to understand and interpret the users query accurately and present relevant content.

The pātaka offers four main search features: keyword, location, dates, and genealogy. Each of these features has a dedicated tab on the front-end landing page, allowing users to navigate directly to their preferred search option.
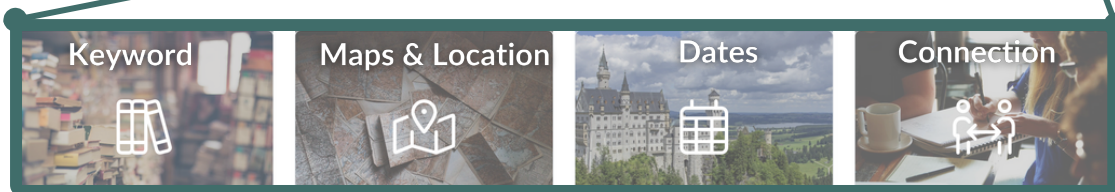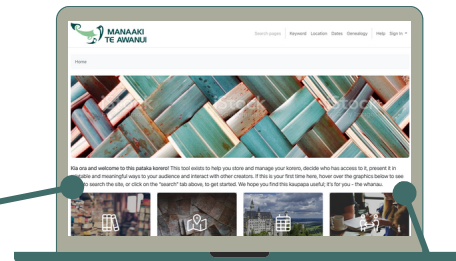
| Keyword	Maps & Location	Dates	Connection
The keyword search feature enables users to search for content by entering relevant keywords into the search engine. The pātaka system will search the stored content and identify pieces that contain the specified keywords in their titles or descriptions	The maps and location search feature provides a spatial view of the content that has been GPS-tagged or linked to pre-loaded locations, allowing users to search for content using the map interface.	The date search feature allows users to search for content associated with a specific date or time period.	The connection search feature enables users to search for content that is connected through genealogical structures, such as family ties, or nested content, such as yearly observations over time.

Filter by content type

Filters play a vital role in the search system as they act as search refiners, allowing users to narrow down their search results based on specific criteria or attributes. Filters provide users with the ability to customise their search queries and focus on relevant subsets of data or content that align with their preferences or requirements.

One of the key filter applications is the 'Content Type' filter. This feature enables users to quickly navigate to the specific type of content they prefer. On each search page, a grid of icons representing different content types is displayed. Users can enter a search query on any search page and further refine their search by selecting one or multiple content types.

If a content type icon is dimmed, it means that there are no content items of that type currently loaded. If the icon is in full colour and has a number in the corner, it indicates the availability of that specific content type to the user.

Clicking on each of these icons will filter the available content and display only the selected content types. Users can select multiple content types simultaneously, and this function can be used in conjunction with other search functions such as keywords or locations.
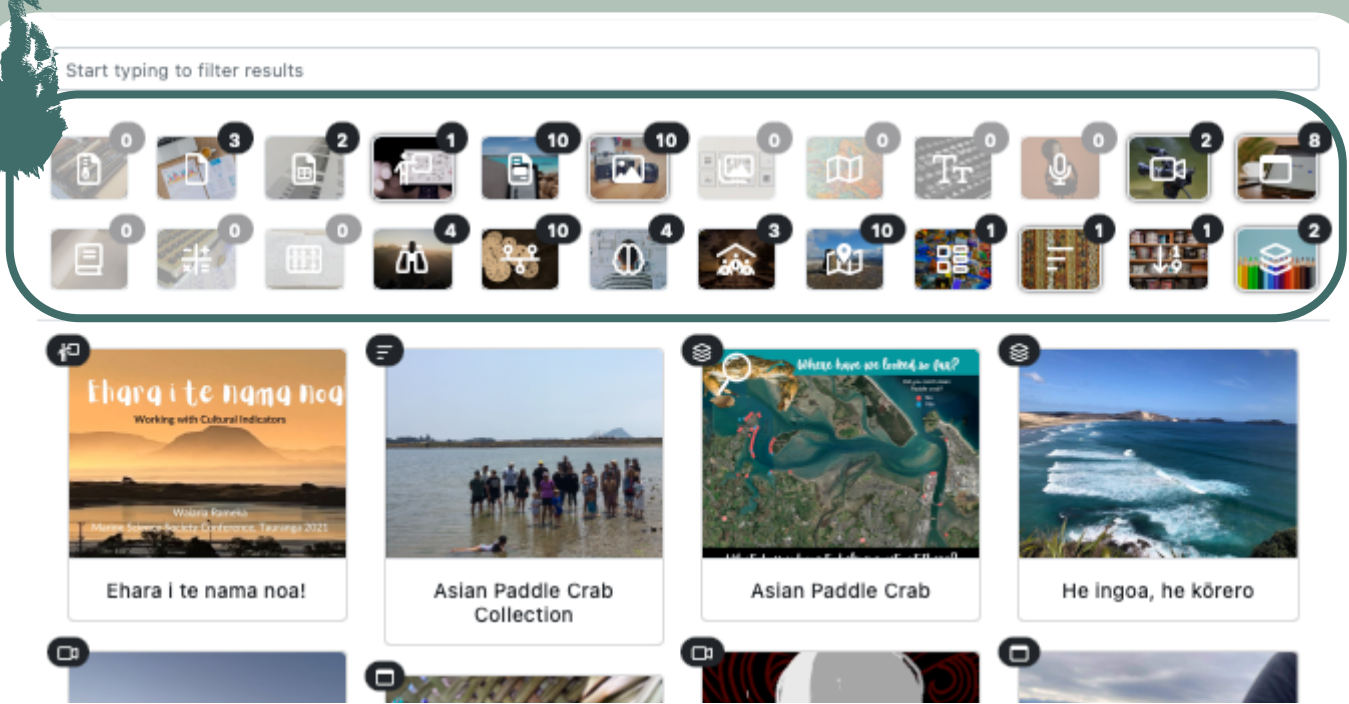
SYNTHESIS OF CONTENT

Another key feature of the 'Content Access' system is the capability to synthesise content, enabling users to organise large amounts of information in logical and meaningful ways. The synthesis of content is user-defined, granting content creators the flexibility to customise how content is organised and presented on the front end.

Built-in features and mechanisms that support this synthesis, include:
- Spatial tags
- Concept tags
- Collections
- Favourite tags

These features provide the content creators with tools to categorise and group content based on spatial or conceptual associations, create collections of related content, and mark specific content as favourites for easy access and reference.

The pātaka kōrero helped us to think about how we store and share the information we're collecting in a way that empowers us as Māori and Kaitiaki

-Hapū member, Tokomaru 2023

Ngataki

Tauranga

Tokomaru

A tag is a piece of metadata that provides additional information about a content piece. Tags help to categorise data in the pātaka, making it easier to organise, search, and filter stored content.

Spatial tags are metadata that are built into the pātaka, which support the spatial organisation and presentation of content. Spatial tags can be pre-determined locations that are loaded into the pātaka as reference points. When content is uploaded, it can be tagged to these spatial tags or tagged with latitude and longitude coordinates. Once tagged to either the preloaded spatial tags or latitude and longitude, the content piece will be accessible through the spatial map search page.

The spatial map search page facilitates the display and interaction with spatial tags on the front end. Each spatial tag loaded into the pātaka is displayed as an icon on the spatial map. Each icon on the map indicates that content has been loaded and tagged to that location. When a location icon is selected all the content tagged to that location will be displayed.

Concept tags

Concept tags are predefined topics or concepts to which content pieces can be tagged. For example, if 'maramataka' is a concept tag, users can add this concept tag to any content they upload that relates to maramataka. This allows users to search for the concept 'maramataka' and find all accessible content associated with this concept.

Maramataka

Collections

Collections are logical groupings of related content defined by the content creator. They allow creators to gather individual pieces of content into one place for easy reference and use.

A 'collection' can include individual content items, other collections, as well as references to locations and concepts. There are four key types of collections that display content differently in the front-end.
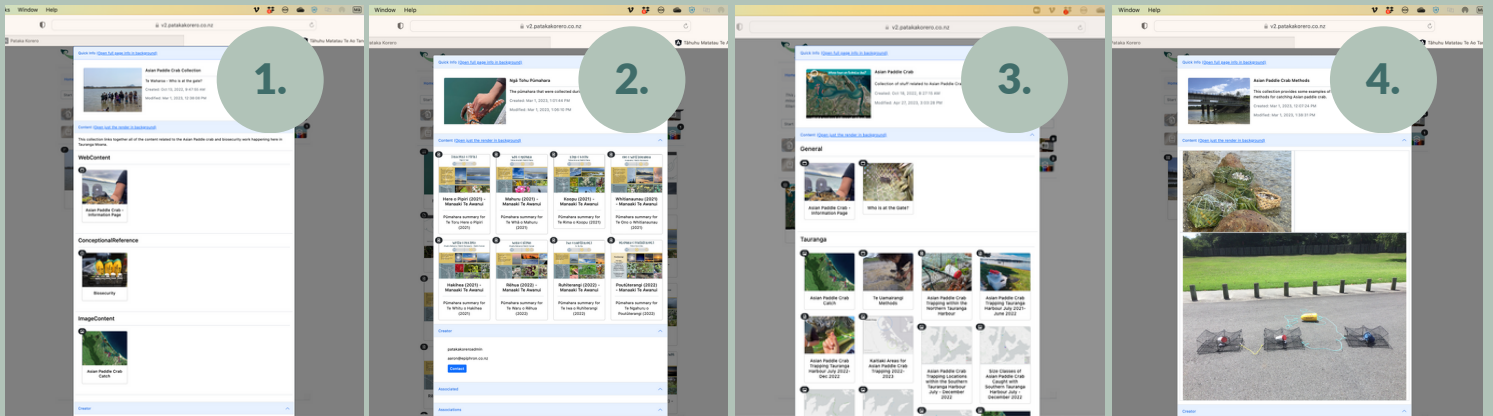
1. Sorted Collections

A sorted collection displays content based on its content type, such as PDFs, videos, images, and more.

2. Ordered Collections

An ordered collection is displayed in a user-defined order, which can be updated at any time.

3. Grouped Collections

A grouped collection organises content into user-defined sub-sections within the collection. These collections are similar to organising files into folders on a computer.

4. Mosaic Collections

A mosaic collection presents fully rendered content, allowing users to choose the order of the content and add text and descriptions.

Favourites Tags

The final user-defined content organisation feature is the Favourites tag. Unlike spatial and concept tags, which are created in the back-end when loading a content piece, the Favourites tag allows users to select content and tag it as a 'Favourite' on the front end. If a content piece is tagged as a favourite, it will be accessible from the user's profile in the 'Favourites' section. Additionally, for easy reference, it will also display as a star icon attached to the content piece when users are navigating other parts of the pātaka

CONNECTING PĀTAKA USERS

The final feature of the 'Content Access' system allows users to connect with each other, serving two primary purposes. Firstly, it facilitates communication and interaction among users, including kaitiaki and hapū practitioners, providing a platform to share information, engage in conversations, and build relationships with others who share similar interests, backgrounds, or connections.

Secondly, this feature empowers content creators to define the security protocols for the content they upload to the system. Content creators have ownership and control over the privacy and access settings of their content, ensuring they can determine who can view, interact with, and share their uploaded content. This aspect of the feature prioritises the creators' control and security, allowing them to safeguard their content according to their preferences and requirements.

Privacy Settings

When a content piece is uploaded to the pātaka, the creator is guided through a series of privacy settings. The purpose of these privacy settings is to give the creator control over the visibility and accessibility of their personal information and loaded content. Privacy settings play a crucial role in protecting creators from the potential misuse of their content. By setting appropriate privacy controls, creators can minimise the risk of unauthorised access or sharing of their content.

When loading a content piece to the pātaka, creators will be asked to determine the privacy setting they would like to attach to the content piece. There are three privacy settings to choose from:

Public The content piece is discoverable to all users, and all users have full access to view and download.

Show The content piece is discoverable to all users, but permission must be sought from the creator to view or download.

Private The content piece is not discoverable to any other user except for the content creator, who has sole access.
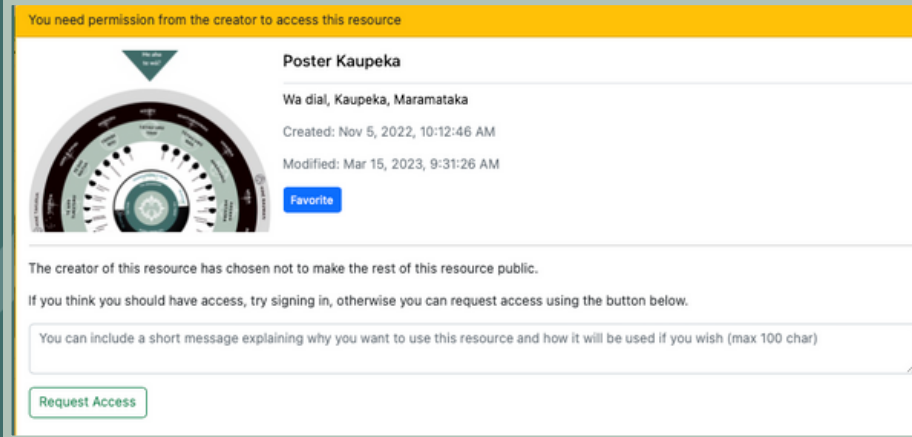
This looks like it could be useful for storing all of the kaitikai mahi we are doing in our hapū.... data sovereignty is important and this platform has the potential to provide that security

-Hapū member, Tauranga 2023

Requesting permission

If a creator selects 'Show' as the privacy setting for a content piece, only the content title and description will be discoverable through the search functions. If another user wishes to view the content piece, they can request access directly from the creator. This process involves sending a request to access message directly to the owner of the content. The owner can then decide whether to grant access to the user and can also define the terms of release. The owner can set permissions regarding the length of time a user can view/use the content piece and can also determine whether the content is view-only or downloadable.
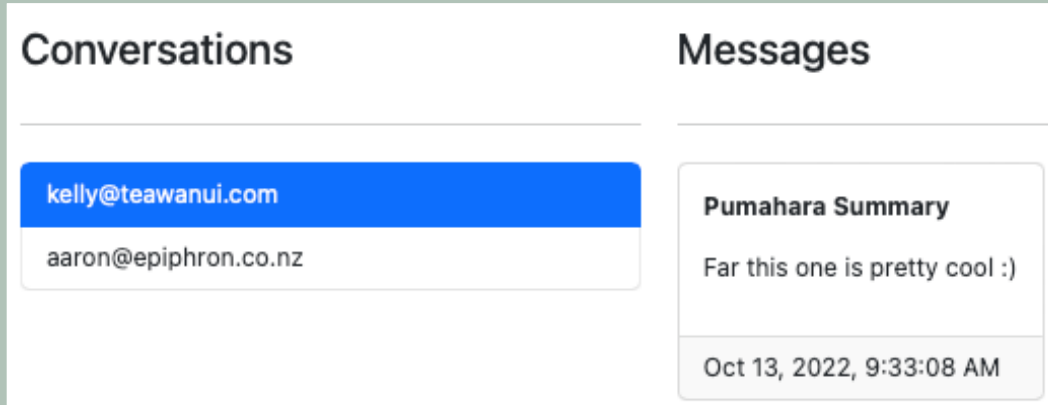

Direct Messaging

Another feature that enables users to connect with each other is the ability to send a direct message to the content creator. In the 'creator' section of the content view pane, the 'contact' button allows users to send a message directly to the content creator via the pātaka.

A content creator can also determine whether they are open to being contacted via email. When a content piece is uploaded, the creator can choose to display their email on the content view pane. The personal email will be visible to any user who views the content piece.

REFLECTING ON THE PĀTAKA

He rua Mātauranga, hei pupuri, hei tohatoha
To store and share what we have found,
and build on what we now know, the
creation of a pataka knowledge system is a
big part of the Ngā Tohu story, because it is
something that we can continue to feed into
as we grow our understanding of our
environmental connections.

-Hapū member, Tokomaru 2023

REFLECTIONS

The development of the pātaka system has spanned over three years, involving numerous iterations and changes as it has evolved. In this regard, we present key reflections from both the program development team and the Nga Tohu case study groups, who have played a critical role in understanding the practical applications of the system in hapū marine management settings. These reflections offer valuable insights gained from the collaborative efforts and experiences of these users, and will contribute to the ongoing refinement and enhancement of the pātaka system.

Taking time

The development of digital technologies requires time, and while the creation of the pātaka has taken longer than expected, this extended timeline has been critical to the program development process. It has provided the necessary opportunity for iterative development, allowing the developers and users to establish trust and allocate ample time to attend to important features and design details. By taking the necessary time, all functions and features have been thoughtfully designed, upholding the foundational aspirations of the system with care and respect.

Clear terminology

Ensuring a shared understanding of the language used to describe different aspects of the pātaka is of paramount importance. This includes using clear and consistent terminology for communication between developers and users.

Clear and consistent terminology has ensured that developers and users have a shared understanding of the concepts, functionalities, and features of the pātaka system. By using the same language and definitions, it has minimised confusion and misunderstandings, allowing for more effective communication. It helps developers accurately convey the capabilities and limitations of the system, while enabling users to comprehend and utilise the features correctly. This shared understanding promotes smoother collaboration, enhancing the overall user experience.

The pātaka has the potential to be a great safe storage place for information we are collecting so that its not just on our phones... but it is only as good as how well someone knows how to use it

-Hapū member, Tauranga 2023

Step by step

When engaging in the development of competent system users, training needs to take place at various levels. In terms of the pātaka use, training sessions have been provided by developers to the project team, as well as by the project team for the whānau (case study group) members. In both instances, face-to-face interactions in a hands-on setting have proven to be crucial. While supportive training materials have aided in disseminating essential information, it was essential, particularly during the testing and refining phases of development, to allocate time for collaborative work, going through the system's processes step by step together. Prioritising time for step-by-step training has been vital for fostering a comprehensive understanding of the system and its functionalities, guiding practical user application, and building user confidence.

Limitations

Just like any new digital technology and digital storehouse, there are inherent limitations that affect our ability to ensure the safety of data, information, and especially mātauranga Māori. It is of utmost importance that these limitations are transparently communicated to whānau who will be using the pātaka. This ensures that the decision to upload and store content, is informed, taking into account the potential risks and challenges associated with safeguarding such valuable knowledge.

A good practice suggestion that is sensible for any digital system involves keeping a separate copy or archive of the content in a secondary location, such as a separate hard drive. By maintaining this additional backup, users can mitigate the risk of data loss or unauthorised access, providing an extra layer of protection for their valuable content.

With all the considerations built into the pātaka to support in keeping mātauranga Māori safe, many whānau are still cautious of a digital technology and digital data storage systems. Conversations throughout the project highlighted that in some cases, traditional mechanisms of data storage such as Te Reo Māori (Māori language), waiata (songs), karakia (prayers), and pūrākau (oral narratives) were still preferred over a digital system.

HE MIHI AROHA

He mihi aroha tēnei ki a koutou kua whakapau kaha, whakapau werawera hoki, ki te tutki pai tēnei kaupapa, arā, ki te waihanga mai i te pātaka kōrero nei.

Thank you to Aaron Cole (developer), Regan Fairlie & Caine Taiapa (previous project leaders), all of our hapū practitioners from our case study whānau in the Ngataki Collective, Ngataki; Pākirikiri Wānanga, Tokomaru Bay; and Ngā Pāpaka, Tauranga Moana. Without all of those involved the pātaka would not be what it is.