mediagraph

GETTING STARTED 4
Auto Tagging

In this guide you will learn about AI generated tags in MediaGraph. We will show you how to run auto tagging on new and existing images in your account, and then walk you through how to evaluate and apply these tags to your assets.

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1. About auto tagging in MediaGraph

All accounts in MediaGraph, including free trial accounts, get access to auto tagging for no additional charge.

MediaGraph can now send images in bulk for auto tagging through Amazon's Rekognition service. This can help make images more discoverable, particularly for those that don't have much existing metadata. However, Auto Tagging is far from a total replacement for human keywording. AI is not able to know everything that's important about an image and what it depicts (and it can make some amusing mistakes). But Auto Tagging can be a great assistant when performing manual tagging in MediaGraph.

## MediaGraph offers three types of auto tagging:

• Auto keyword tagging
• Sensitive content detection
• Auto transcription for video

Some key points about our auto tagging:

• It is included in all account levels.
• You can choose to turn it on, or leave it switched off.
• You can choose to show these tags to regular members, or display only to staff.
• Auto Tags are separate from the manual keywords in your account. You can easily convert an Auto Tags to keyword tags, even for large numbers of files.
• It's a great tool for learning what AI tagging is good at, and where it still needs improvement.
• Auto tagging is most helpful for images with no previous keywording, and which have widely varied general subject matter.
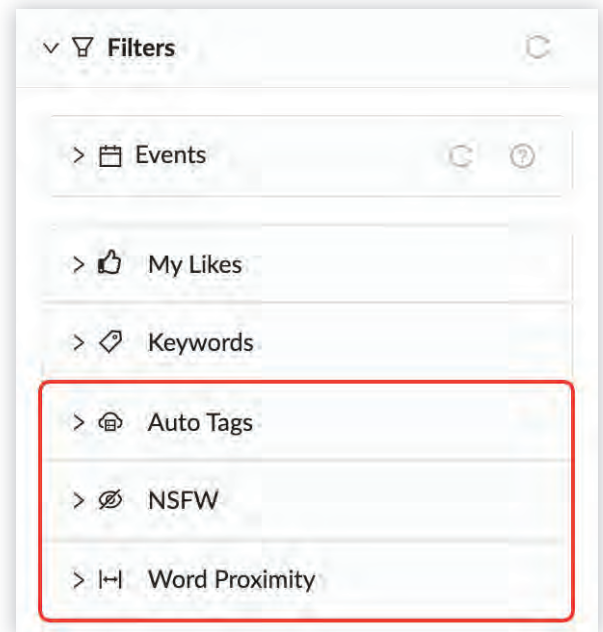
AI generated tags are displayed in a new Auto Tag sub-panel in the Filter panel. Click a tag to see all files with that tag.
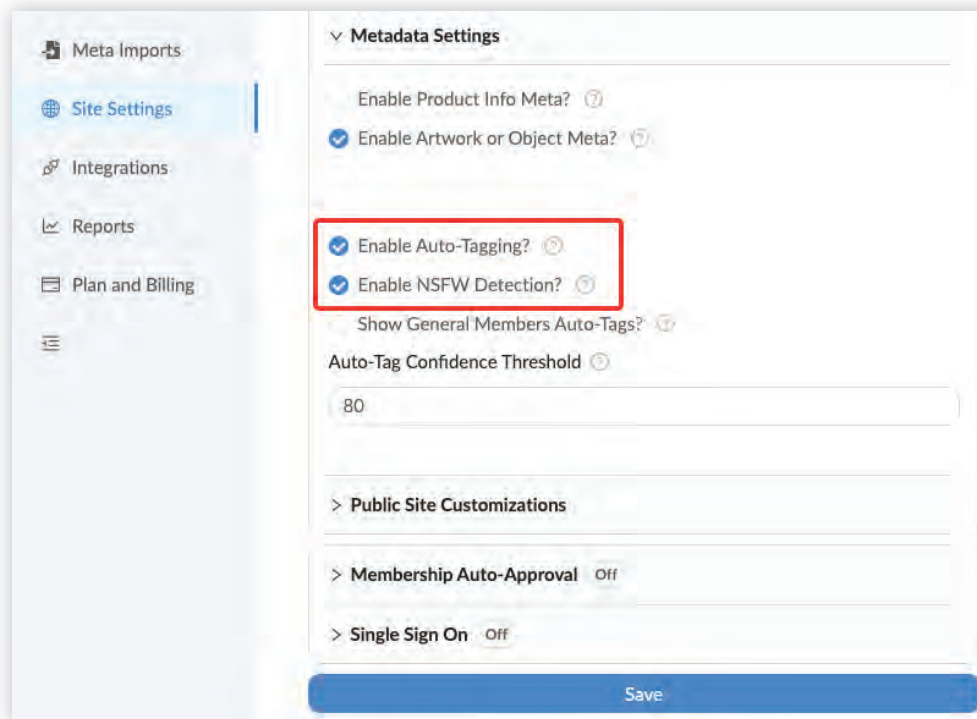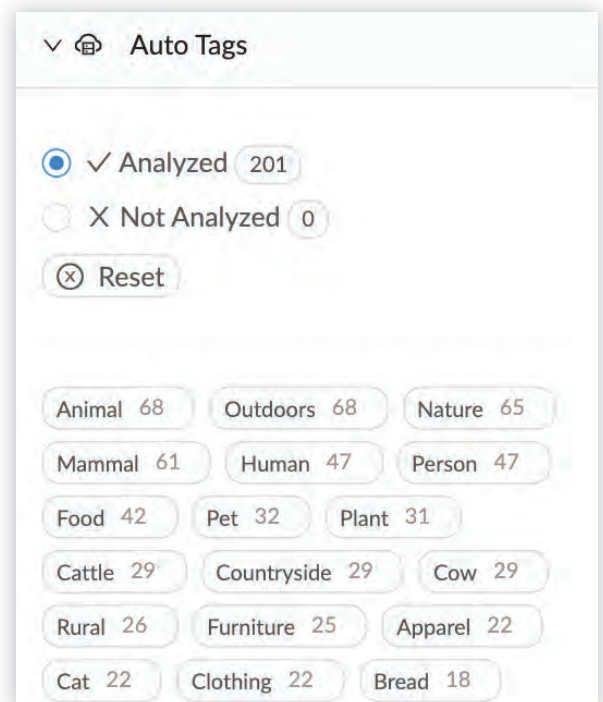
2. Enable auto tagging

Enabling auto tagging will send all **newly uploaded** image files out for auto tagging with the Amazon Rekognition service. Only Admins are capable of enabling auto-tagging in your MediaGraph account. However, once enabled, Taggers and above can see and use auto tagging in MediaGraph.

Follow these steps to enable auto tagging on your MediaGraph account:
1. Go to **Manage > Site Settings** (this management area is only available to account Admins and Owners).
2. Open the accordion **Metadata Settings. Click "Enable Auto Tagging".**
3. **Check the box "Enable NSFW Detection".**
4. We suggest leaving **"Show General Members Auto Tags" unchecked** as it may be confusing for general members to differentiate between auto tags and "real" tags.
5. Leave the auto-tag confidence threshold at 80%.
6. Click **"Save".**

NOTE: All Artificial Intelligence tagging services apply a "confidence" score to each tag. In most cases, once you get below 70 or 80 per cent confidence, the usefulness of the auto tagging drops off. There are simply too many inappropriate tags at the lower level. We suggest that you leave this at the 80% threshold initially. Examine what tags are created, and decide if they are helpful to you.

3. Take it for a spin!

Once you have enabled auto tagging, all **newly uploaded** images will get the auto tags. Upload some files, and give it a little time to run the tagging in the background. It doesn't matter where you upload these files to in MediaGraph.

For this exercise we recommend uploading a broad variety of files in order to see what kind of information the auto tagging can extract. It's helpful to upload at least a few hundred files, and for them to have varied types of content.

What to expect

- All newly uploaded images will be run through auto tags.
- Auto tags are **factored into search results** from the main search box.
- Auto tags are displayed in a **new Auto Tag sub-panel** in the Filter Panel.
- In the **Asset Detail View** Taggers and above will see the set of auto tags assigned to a particular file.
- Images flagged as containing potentially sensitive content will receive an NSFW tag and be displayed in the **NSFW sub-panel** in the Filter panel.
- Account staff are responsible for reviewing auto tags and applying desired tags as "real" MediaGraph keywords, if desired.

4. Run auto tagging on existing files

Enabling auto tagging does NOT run auto tagging on existing files. Follow these steps if you would like to run auto tagging on existing files in MediaGraph.

1. **Select assets** you wish to auto tag.
2. Mouse over the ⚙ **Action Menu** and **click "Add Metadata…"**.
3. Check the box **"Run Auto Tagging". Click "Submit".** (You won't need to do this for files uploaded in the future
4. MediaGraph will now run auto tagging on these assets.

> NOTE: Auto tagging can take a little while to complete, especially for large groups of images. This is an operation that runs in the background. You can monitor the progress by looking at the Auto Tagging filter panel. It will show you how many files have been processed.
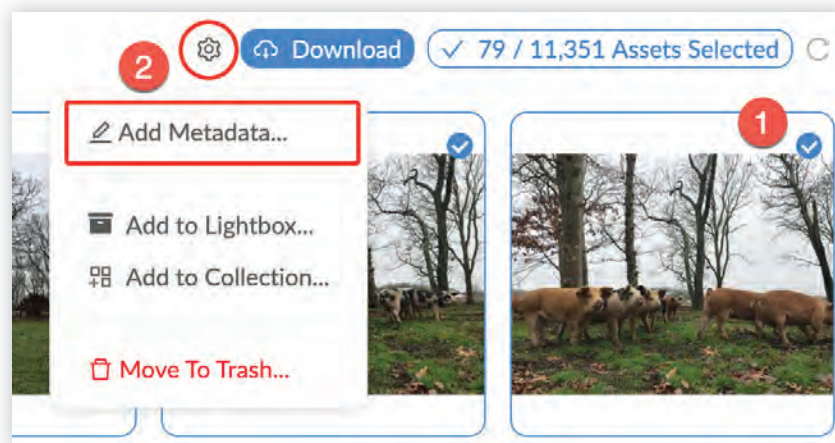
Manually submit previously uploaded files using the Action Menu.

5. Review auto tags

Once the tagging has completed, take a look at what tags were created. Open the Filter panel and find the Auto Tagging panel. When you open it, you'll see a list of the 50 most common tags for the files currently showing. Review these to see the results. You can click on any of the tags to filter down to just those items. You are likely to see a mixed bag of results – some good, some bad, and some not particularly useful.

> TIP: If you have uploaded a lot of files, the 50 tag cutoff will hide a lot of the tags that are made. To better evaluate, you may want to look at smaller groups of files, such as those in an individual folder or collection.
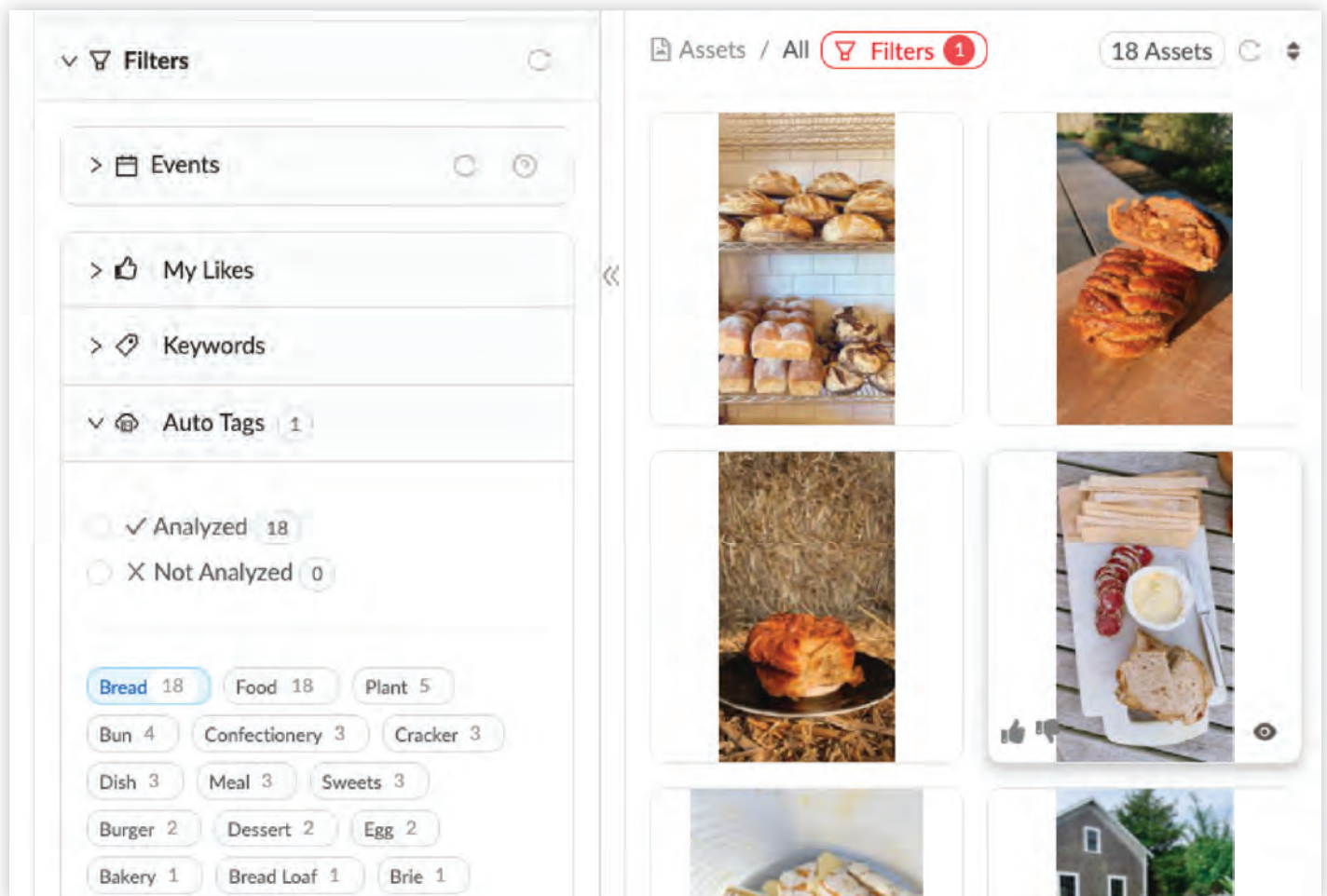
You can find auto tags in the Filter panel. Click on a tag to apply it as a filter to shown assets.

See how auto tags affect search results

Auto tags are factored into search results from the main search box. In most cases, this is how your members will be making use of auto tags. Type a term into the general search box and see what is found. You'll notice that auto tags do not auto complete in the search box, unlike with regular visible tags. Members will just see a set of matching files (and probably some non-matching files as well).
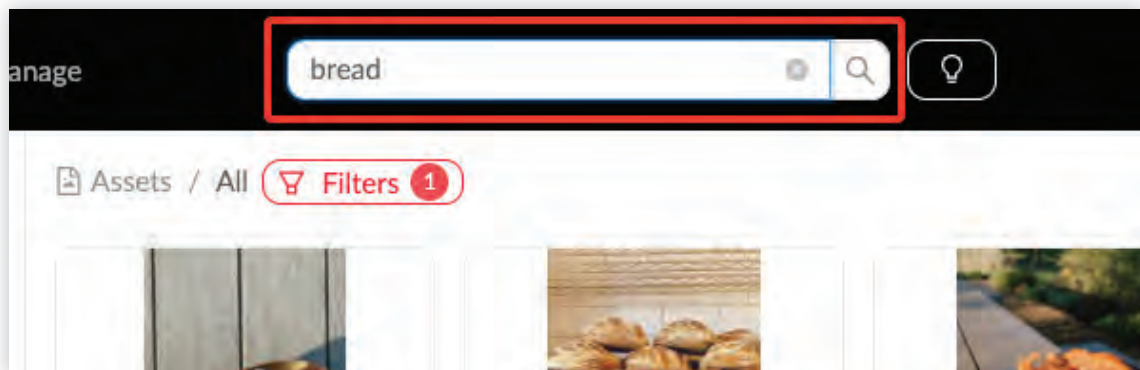
Auto tags will be factored into search results, but the tags themselves are not visible to general members (unless you set the Site Settings to show members.)
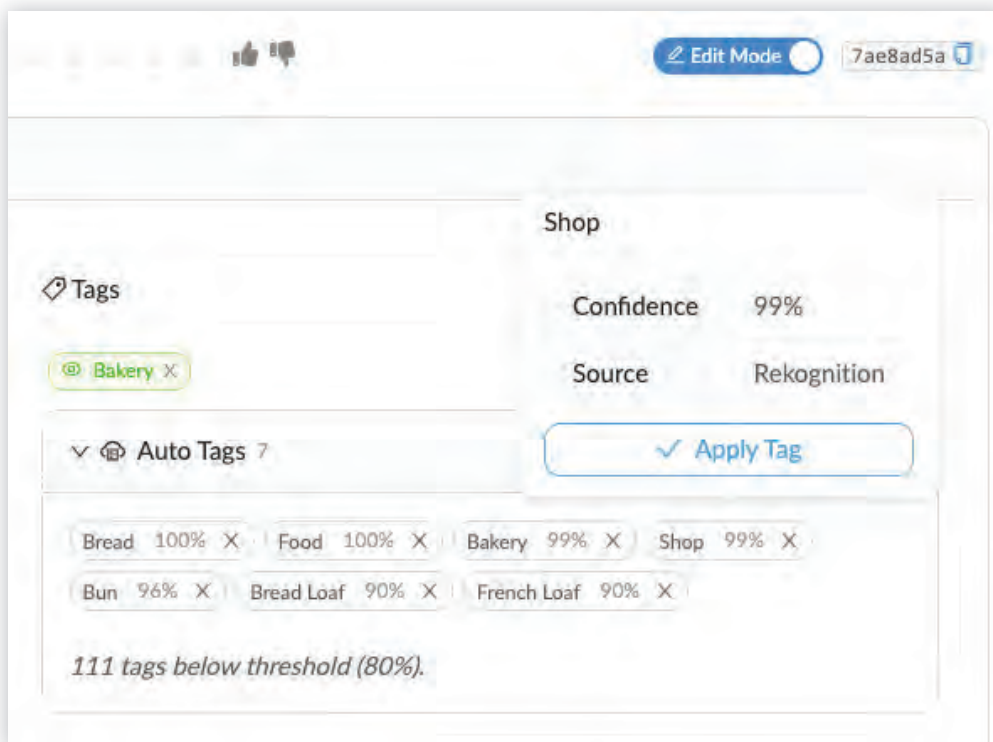
Review the tags per image

Taggers and above can see all the tags applied to a file in the Asset Detail View. You will see the tags which were above the confidence threshold listed. You can also examine the tags that were below the threshold. Only the "above the threshold" tags are factored into search results.

In the Asset Detail View you can "apply" valuable auto tags, remove inappropriate ones, or just leave them alone. Applying an auto tag will create a "real" tag that is visible to general members.

1. **Double click on an asset** to open the Asset Detail View.

2. Make sure you are in **Edit Mode.**

3. In Quick Info under the Tags section click on the tab **Auto Tags.** You will see a list of all auto tags that have over 80% confidence.

4. **If the tag is really valuable: mouse over the tag and click "Apply Tag".** MediaGraph will create and apply a "real" tag to this asset.

5. **If the tag is inaccurate: Click the "x"** next to the auto tag to remove it.

6. Changes save automatically.

You can see all auto tags that were assigned to an image in the Asset Detail View. Remove unwanted ones if deseried.

Review tags with lower confidence scores

In the Asset Detail View you will also see a count of the tags that were below the 80% confidence threshold. When you mouse over the count, you'll get a popup showing all of these tags. As you will see, most of the tags below the 80% threshold are pretty unreliable. This helps you decide if auto tagging is useful, and if the 80% threshold is right for you.
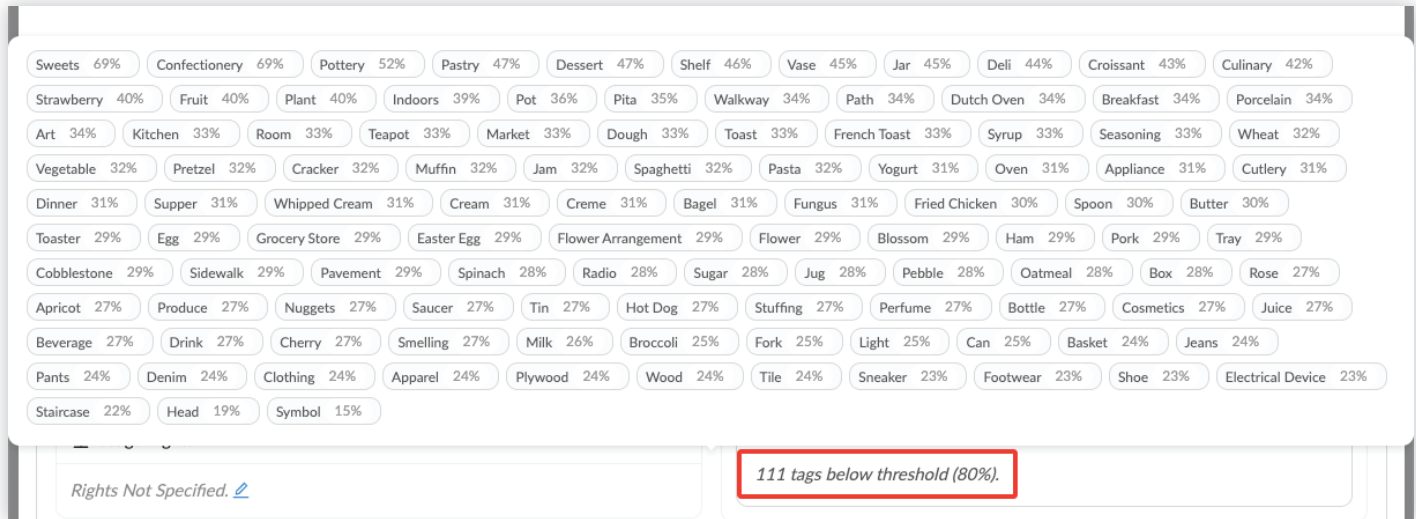
You can also see all tags that were below the confidence threshold.

6. Converting auto tags to intentional tags

The auto tags can be useful as a tagging aid. You can convert to real keywords one-at-a-time in the Asset Detail View. You can also apply them in bulk in the Grid view. This can make the tagging process go much faster.

Here's how to review and convert auto tags to real, visible tags in bulk.

1. In the Filter panel **open the Auto Tag sub-panel.** This will display a list of the 50 most common tags for the files currently showing.
2. **Click on an auto tag** to review. This will apply that auto tag as a filter.
3. Review the shown photos, it's likely that you don't want to assign the tag to all files due to mistakes in auto tagging. **Select the files** you would like to apply this tag to.
4. Mouse over the ⚙ **Action Menu** and **click "Add Metadata…".**
5. Under "Keywords" **type in the tag** you would like to apply. **Click "Submit"** to apply this "real" tag.
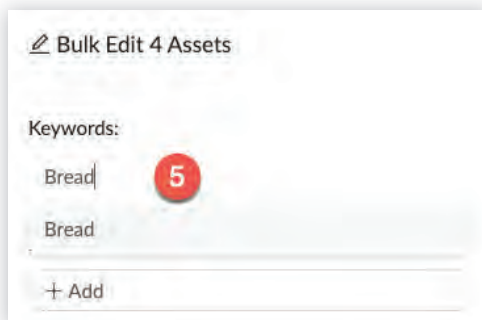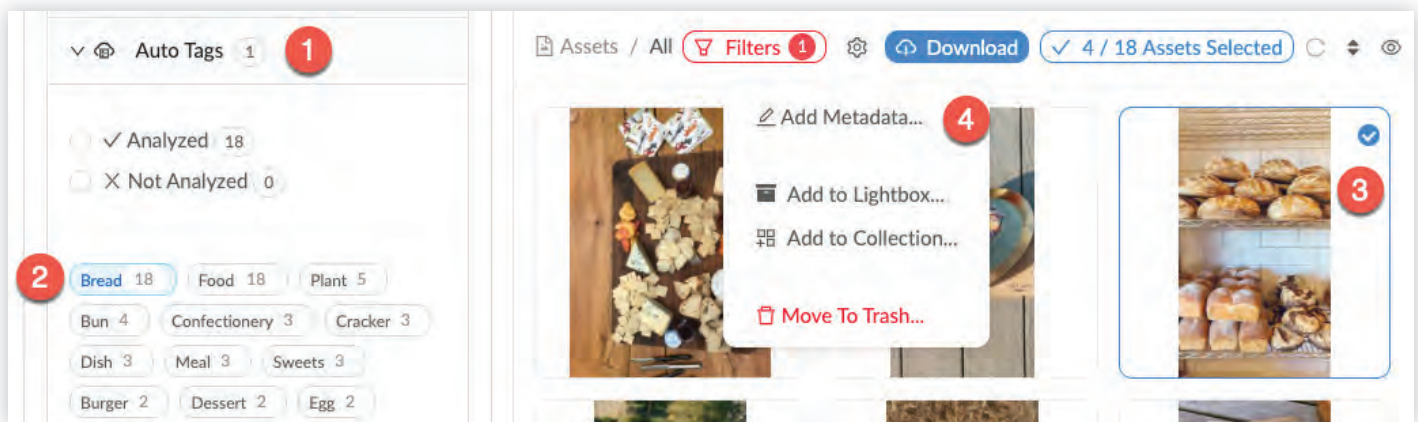
NOTE: If a corresponding tag "real" tag existing in the tag tree, you can also apply the tag by drag and drop.

7. Evaluating NSFW tags

Amazon Rekognition can detect a wide array of sensitive content, including nudity, suggestiveness, violence, drug and tobacco use, and hate symbols. When sensitive content is detected, the asset gets an NSFW (Not Safe For Work) tag to alert you to objectionable images.

Library Managers, Content Managers and Admins can find all items with the sensitive content tag in the NSFW sub-panel in the Filter panel. Click on a tag to see the matching files to evaluate flagged files. Delete or hide any files that you wish to remove from general access.

> NOTE: As with all auto tags, the NSFW tagging is based on probability, and will not always be accurate.

Removing NSFW tags

If you find an asset has been incorrectly flagged as NSFW, follow these steps to remove the NSFW tag and mark the asset as "Cleared".

1. In the Filter panel **open the "NSFW" sub-panel.** This will display a list of the most common NSFW tags for the files currently showing.

2. Filter to the particular tag or to all NSFW tags.

3. Review images and **select the files** you wish to mark as cleared.

4. Mouse over the ⚙ **Action Menu** and click "**Add Metadata…**".

5. In the "NSFW" dropdown menu **select "No".**

6. **Click "Submit".** All NSFW tags will be removed and the image will be marked as "Cleared".
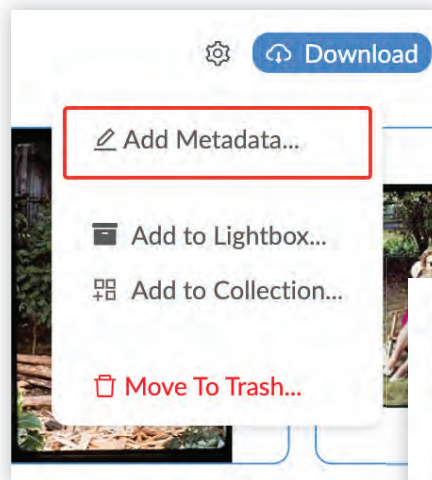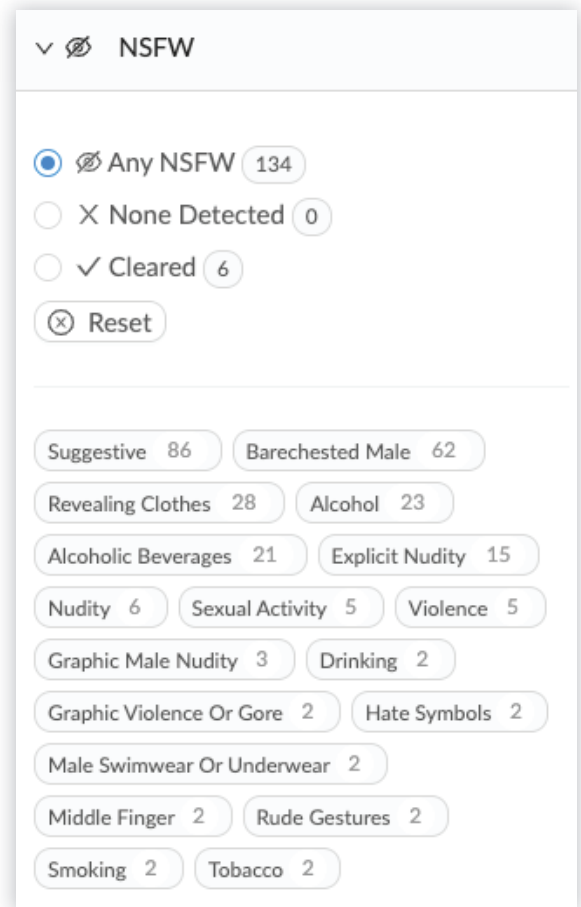
You can remove inappropriate NSFW tags by selecting files and removing the tags in the Action Menu.
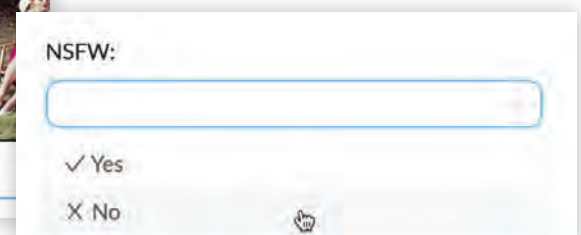
8. Evaluating auto transcription

The last AI tagging we'll look at is auto transcription for video. This one is useful for almost everyone. Therefore, we apply transcription to all videos, irrespective of the sitewide auto-tagging settings. **When you upload a video file Amazon Rekognition will automatically analyze the audio and create a time-stamped transcription.** This transcript is searchable in the general search box. You can also do a word proximity search in the filter panel, to find words that are near each other in the sound track.

Search for all videos with a particular word in transcript

The transcript is factored into our general search box. If you type a work that is found in a video, that video will be shown in the search results. If you would like to make sure you are only searching videos, use the workspace filter to show videos only.

Filter for words in proximity

The Word proximity filter allows you to find instances where one word is near another word. This can be helpful when the words are common ones in your videos, and you want to narrow the search further.

The following exercise will only work if you have uploaded a video with audio to MediaGraph.

1. In the Filter panel open the **"Word Proximity"** sub-panel.
2. Select Transcript as the field to be searched.
3. Enter search terms and pick a maximum distance between words.
4. Click **Apply**.
5. If you get too many results at a given word distance, you can try to reduce the number and hit apply again.

View the transcript

To see the entire transcription, double-click into the Asset Detail View. When you open the Transcription panel, you will see a searchable version of the transcript. You can search for a word or phrase and see all instances. Clicking on any line in the transcript will jump you to that point in the video.
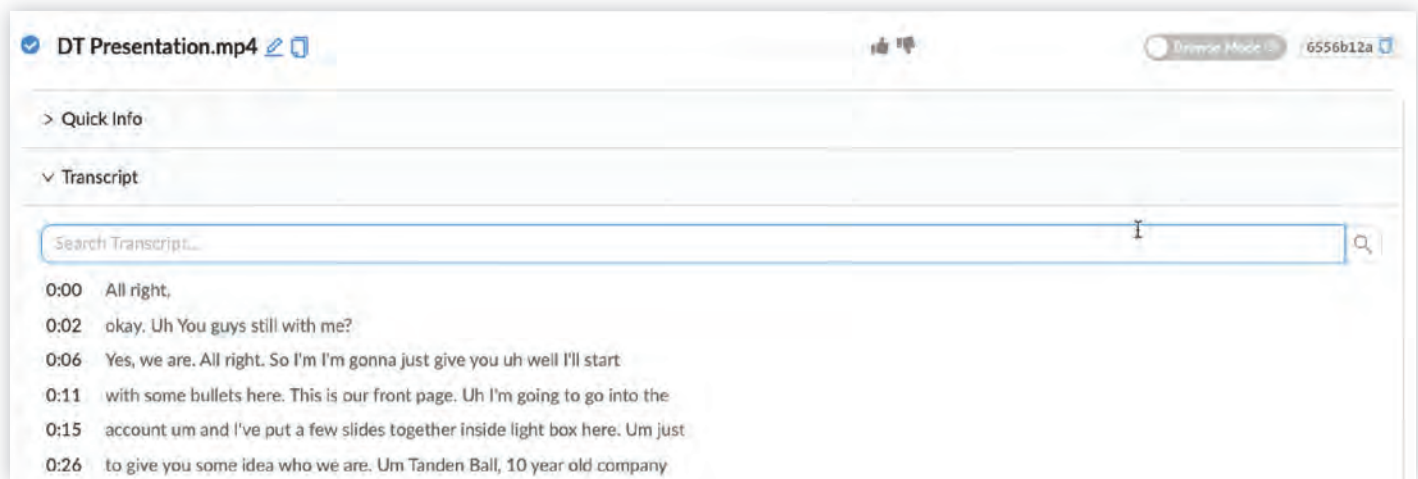
You'll probably see that the transcription has errors. The number of errors is dependent on the clarity of the speech, language and dialect, and the amount of slang or jargon in the video.

Note that the transcription for a video will be visible when closed captions are turned on.

9. Wrap-up

We hope that the ability to see auto tagging in action will give you a better understanding of what is possible now, and how it might be useful to you. Depending on the content, your needs, and the existing tags, it might be really helpful, kind of helpful, or just meh.

We have a number of other auto tagging functions planned, including Optical Character Recognition (OCR), face recognition, and use of different tagging services. We're concentrating on the ones we think are most useful.

Please keep in mind that all forms of auto tagging are continuously improving. As the services we use improve, and as we add new services, we'll be sure to keep you informed.