Zooniverse Help

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How to create a project with our Project Builder

A quick guide to building a project

A brief overview of all the steps you need to complete to set up your project.

1. Log in to your Zooniverse account.
2. Click on "Build a Project" and click "Create a New Project".
3. Enter your project details in the pop-up that appears. You’ll then be taken to a “Project Details” page where you can add further basic information.
4. Add more information about your project via the blue tabs on the left-hand side of the project builder page. Guidance for each of these sections is provided on the page itself.
5. If you have data to upload, add your subjects via the “Subject Sets” tab of the Project Builder (detailed instructions are provided here),
6. Next, create your workflow. Click on the “Workflow” tab in the navigation bar on the left-hand side of the page. Use the “New workflow” button to create a workflow. Multiple workflows can be created.
7. Once you’ve created a workflow, the "Associated Subject Sets" section allows you to link your workflow to your subject sets. If you have no subjects, go to the “Subject Sets” tab and upload your data (see step 5 above).
8. Hit the "Test this workflow" button to see how your project looks.
9. Explore your project to figure out what works and what doesn't. Make changes, then refresh your project page to test these out.

10. Guidelines on how to design your project to maximize engagement and data quality are provided on the Policies page.
11. When you are happy with your project, set it to “Public” on the “Visibility” tab. Use the “Apply for review” button to submit it to the Zooniverse team for review.

Navigating the Project Builder

On the left-hand side of the project builder you will see a number of tabs which can be divided into three key sections; “Project”, “Workflows” and “Subject Sets”. These are terms you'll see a lot, and they have specific meanings in the Zooniverse.

- **Project** is pretty self-explanatory; Galaxy Zoo and Penguin Watch are examples of Zooniverse projects that could be built using the project builder.
- **Workflows** are sequences of tasks that volunteers are asked to do.
- **Subject sets** are collections of data (typically images) that volunteers are asked to perform tasks on.

For more Zooniverse definitions, check out the Glossary page.

Project

The tabs listed below are where you enter descriptive information for your project.

- **Project Details:** Here you can add information that generates a home page for your project. Start by naming and describing your project, add a logo and background image.
- **About:** Here you can add all sorts of additional pages, including *Research, Team, Results, Education,* and *FAQ*
- **Collaborators:** Add people to your team. You can specify their roles so that they have access to the tools they need (such as access to the project before it's public).

- **Field Guide:** A field guide is a place to store general project-specific information that volunteers will need to understand in order to complete classifications and talk about what they're seeing.
- **Tutorial:** This is where you create tutorials to show your users how to contribute to your project.
- **Media:** Add images you need for your project pages (not the images you want people to classify!)
- **Visibility:** Set your project's "state" - private or public, live or in development, and apply for review by the Zooniverse. You can also activate or deactivate specific workflows on this page.
- **Talk:** Create and manage discussion boards for your project.
- **Data Exports:** Access your raw and aggregated classification data, subject data, and comments from Talk.

Workflows

A workflow is the sequence of tasks volunteers are asked to perform. For example, you might want to ask volunteers to answer questions about your images, or to mark features in your data, or both. The workflow tab is where you define those tasks and set the order in which volunteers are asked to do them. Your project might have multiple workflows (if you want to set different tasks for different image sets). See the detailed Workflow section for more information.

Subjects

A subject is a unit of data to be analyzed. A single subject can include more than one image. A “subject set” consists of both the "manifest" (a list of the subjects and their properties), and the images themselves. Subjects can be grouped into different sets if useful for your research. See the Subject Details section for more on subjects.

Project building in detail

Detailed instructions on how to use the pages described above.

Project details

- **Name**: The project name is the first thing people will see and it will show up in the project URL. Try to keep it short and sweet.
- **Avatar**: Pick an avatar image for your project. This will represent your project on the Zooniverse home page. It can also be used as your project's brand. It's best if it's recognizable even as a small icon. To add an image, either drag and drop or click to open your file viewer. For best results, use a square image of not more than 50KB, but at minimum 100x100 pixels.
- **Background**: This image will be the background for all of your project pages, including your project's front page. It should be relatively high resolution and you should be able to read text written across it. To add an image, either drag and drop or click to open your file viewer. For best results, use images of at least 1 megapixel, no larger than 256 KB. Most people's screens are not much bigger than 1300 pixels across and 750 pixels high, so if your image is a lot bigger than this you may find it doesn't look the way you expect. Feel free to experiment with different sizes on a "typical" desktop, laptop or mobile screen.
- **Description**: This should be a one-line call to action for your project. This will display on your landing page and, if approved, on the Zooniverse home page. Some volunteers will decide whether to try your project based on reading this, so try to write short text that will make people actively want to join your project.
- **Introduction**: Add a brief introduction to get people interested in your project. This will display on your project's front page. Note this field renders markdown, so you can format the text. You can make this longer than the Description, but it's still probably best to save much longer text for areas like the About, Research Case or FAQ tabs.
- **Workflow Description:** A workflow is a set of tasks a volunteer completes to

create a classification. Your project might have multiple workflows (if you want to set different tasks for different subject image sets). Add text here when you have multiple workflows and want to help your volunteers decide which one they should do.

- **Checkbox: Volunteers choose workflow:** If you have multiple workflows, check this to let volunteers select which workflow they want to work on; otherwise, they'll be served randomly.
- **Researcher Quote:** This text will appear on the project landing page alongside an avatar of the selected researcher. It’s a way of communicating information to your volunteers, highlighting specific team members, and getting volunteers enthusiastic about participating.
- **Announcement Banner:** This text will appear as a banner at the top of all your project’s pages. Only use this when you’ve got a big important announcement to make! Many projects use this to signal the end of a beta review, or other major events in a project’s life cycle.
- **Discipline Tag:** Enter or select one or more discipline tags to identify which field(s) of research your project belongs to. These tags will determine the categories your project will appear under on the main Zooniverse projects page, if your project becomes a full Zooniverse project.
- **Other Tags:** Enter a list of additional tags to describe your project separated by commas to help users find your project.
- **External and Social Links:** Adding an external link will add an entry in an External Project Links section that appears at the bottom of the project landing page. Adding a social link will add an entry in the same section along with an appropriate media icon in the link list. You can rearrange the displayed order among external links and social links by clicking and dragging on the left gray tab next to each link in the project builder interface.
- **Checkbox: Private project:** On "private" projects, only users with specified project roles can see or classify on the project. We strongly recommend you keep your project private while you're still editing it. Share it with your team to get

feedback by adding them in the Collaborators area (linked at the left-hand side of the Project Builder). Team members you add can see your project even if it's private. Once your project is public, anyone with the link can view and classify on it.

About

This section contains pages where you can enter further information for Research, Team, Results, Education and FAQ. All of these pages use Markdown to format text and display images.

- **Research:** Use this section to explain your research to your audience in as much detail as you'd like. Explaining your motivation to volunteers is critical for the success of your project – please fill in this page (it will display even if you don't)!
- **Team:** Introduce the members of your team, and the roles they play in your project.
- **Results:** Share results from your project with volunteers and the public here. This page will only display if you add content to it.
- **Education:** On this page, you can provide resources for educators and students to use alongside your project, such as course syllabi, pedagogical tools, further reading, and instructions on how the project might be used in an educational context. This page will only display if you add content to it.
- **FAQ:** Add details here about your research, how to classify, and what you plan to do with the classifications. This page can evolve as your project does so that your active community members have a resource to point new users to. This page will only display if you add content to it.

Collaborators

Here you can add people to your team. You can specify their roles so that they have access to the tools they need (such as access to the project before it's public).

- **Owner:** The owner is the original project creator. There can be only one.
- **Collaborator:** Collaborators have full access to edit workflows and project content, including deleting some or all of the project.
- **Expert:** Experts can enter “gold mode” to make authoritative gold standard classifications that will be used to validate data quality.
- **Researcher:** Members of the research team will be marked as researchers on “Talk".
- **Moderator:** Moderators have extra privileges in the community discussion area to moderate discussions. They will also be marked as moderators on “Talk".
- **Tester:** Testers can view and classify on your project to give feedback while it’s still private. They cannot access the project builder.
- **Translator:** Translators will have access to the project builder as well as the translation site, so they can translate all of your project text into a different language.

Field Guide

A field guide is a place to store general project-specific information that volunteers will need to understand in order to complete classifications and talk about what they're seeing. It's available anywhere in your project, accessible via a tab on the right-hand side of the screen.

Information can be grouped into different sections, and each section should have a title and an icon. Content for each section is rendered with Markdown, so you can include any media you've uploaded for your project there.

Tutorial

In this section, you can create a step-by-step tutorial to show your users how to use your project. You can upload images and enter text to create each step of the tutorial. You can add as many steps as you want, but keep your tutorial as short as possible so volunteers can start classifying as soon as possible.

In some cases, you might have several different workflows, and will therefore need several different tutorials. In the Workflows tab, you can specify which tutorial shows for the workflow a volunteer is on.

Media

You can upload your own media to your project (such as example images for your Help pages or Tutorial) so you can link to it without an external host. To start uploading, drop an image into the grey box (or click “Select files” to bring up your file browser and select a file). Once the image has uploaded, it will appear above the "Add an image" box. You can then copy the Markdown text beneath the image into your project, or add another image.

Visibility

This page is where you decide whether your project is public and whether it's ready to go live.

- **Project State and Visibility:** Set your project to “Private” or “Public”. Only the assigned collaborators can view a private project. Anyone with the URL can access a public project. Here, you can also choose whether your project is in “Development”, or “Live”. Note: in a live project, active workflows are locked and can no longer be edited.
- **Beta Status:** Here, you will find a checklist of tasks that must be complete for your project to undergo beta review. Projects must complete review in order to launch as full Zooniverse projects and be promoted as such. Once these tasks are complete, click “Apply for review”.
- **Workflow Settings:** You will see a list of all workflows created for the project. You can set the workflows to “Active”, choose what metric to measure for completeness statistics, and whether those statistics should be shown on your

project’s Stats Page.For more information on the different project stages, see our Project Builder policies.

Talk

“Talk” is the name for the discussion boards attached to your project. On your Talk, volunteers will be able to discuss your project and subjects with each other, as well as with you and your project’s researchers. **Maintaining a vibrant and active Talk is important for keeping your volunteers engaged with your project.** Conversations on Talk also can lead to additional research discoveries.

You can use this page to set up the initial Talk boards for your project. We highly recommend first activating the default subject-discussion board, which hosts a single dedicated conversation for each subject. After that, you can add additional boards, where each board will host conversation about a general topic. Example boards might include: “Announcements,” “Project Discussion,” “Questions for the Research Team,” or “Technical Support.”

Data Exports

In this section you can request data exports for your Project Data (CSV format) and Talk Data (JSON format). Note that the Zooniverse will process at most 1 of each export within a 24-hour period and some exports may take a long time to process. We will email you when they are ready. For examples of how to work with the data exports see our Data Digging code repository.

Workflow Details

Note that a workflow with fewer tasks is easier for volunteers to complete. We know from surveys of our volunteers that many people classify in their limited spare time, and sometimes they only have a few minutes. Longer, more complex workflows mean each classification takes longer, so if your workflow is very long you may lose volunteers.

- **Workflow title:** Give your workflow a short, but descriptive name. If you have multiple workflows and give volunteers the option of choosing which they want to work on, this Workflow title will appear on a button instead of "Get started!"
- **Version:** Version indicates which version of the workflow you are on. Every time you save changes to a workflow, you create a new version. Big changes, like adding or deleting questions, will change the version by a whole number: 1.0 to 2.0, etc. Smaller changes, like modifying the help text, will change the version by a decimal, e.g. 2.0 to 2.1. The version is tracked with each classification in case you need it when analyzing your data.
- **Tasks:** There are two main types of tasks: questions and drawing. For question tasks, the volunteer chooses from a list of answers but does not mark or draw on the image. In drawing tasks, the volunteer marks or draws directly on the image using tools that you specify. They can also give sub-classifications for each mark. Note that you can set the first task from the drop-down menu.
- **Main Text:** Describe the task, or ask the question, in a way that is clear to a non-expert. The wording here is very important, because you will in general get what you ask for. Solicit opinions from team members and testers before you make the project public: it often takes a few tries to reach the combination of simplicity and clarity that will guide your volunteers to give you the inputs you need. You can use markdown in the main text.
- **Help Text:** Add text and images for a pop-up help window. This is shown next to the main text of the task in the main classification interface, when the volunteer clicks a button asking for help. You can use markdown in this text, and link to other images to help illustrate your description. The help text can be as long as you need, but you should try to keep it simple and avoid jargon. One thing that is useful in the help text is a concise description of why you are asking for this information.

Create Tasks

Create tasks with the "Add a task" button. Delete tasks with the "Delete this task" button under the “Choices” box.

Task Content

Tasks can be Questions, Drawings or Transcription. All types have "Main Text" boxes where you can ask your questions or tell users what to draw, as well as provide additional support for completing the task in the "Help Text" box.

Questions

Choices: This section contains all your answers. The key features of this section are:

- **Required:** if you select this, the user has to answer the question before moving on.
- **Multiple:** if you select this, the user can select more than one answer - use this for "select all that apply" type questions.
- **Next Task:** The “Next task” selection (which appears below the text box for each answer) describes what task you want the volunteer to perform next after they give a particular answer. You can choose from among the tasks you’ve already defined. If you want to link a task to another you haven’t built yet, you can come back and do it later (don’t forget to save your changes).

Drawing

This section contains all the different things people can mark. We call each separate option a "Tool" and you can specify a label, colour, and tool type for each option. Check out the Aggregation documents to understand how multiple volunteer answers are turned into final shapes for your data analysis. The tool types are:

- **bezier:** an arbitrary shape made of point-to-point curves. The midpoint of each segment drawn can be dragged to adjust the curvature.
- **circle:** a point and a radius.

- **column:** a box with full height but variable width; this tool *cannot* be rotated.
- **ellipse:** an oval of any size and axis ratio; this tool *can* be rotated.
- **line:** a straight line at any angle.
- **point:** X marks the spot.
- **polygon:** an arbitrary shape made of point-to-point lines.
- **rectangle:** a box of any size and length-width ratio; this tool *cannot* be rotated.
- **triangle:** an equilateral triangle of any size and vertex distance from the center; this tool *can* be rotated.
- **grid table:** cells which can be made into a table for consecutive annotations.

Transcription

This section deals with projects which require user-generated text. Tasks can range from adding keywords or extracting metadata to full text transcriptions.

- **Keyword tagging** is helpful when teams want to create a list of all of the things volunteers see in a given image, to make that object more discoverable in a database or online collection. In these cases diversity of opinion is helpful. Setting a retirement rate of 5 to 10 people will help capture diverse opinions.
- **Full text transcription** is more cumbersome and diversity of opinion is less helpful. Teams are usually trying to capture exactly what is on a page, so it will help to set a relatively low retirement rate for each image (i.e. 3 or 5) and be very clear in the tutorial how you would like volunteers to transcribe. Should they preserve spelling and punctuation or modernize it?
- Zooniverse does not currently offer aggregated classifications for text subjects. We can only report what each user transcribed for each subject. Before embarking on a transcription project be sure you have in-house expertise or access to expertise for combining multiple independent transcriptions into a single reading that you could use for research or to upload into a library or museum catalogue or content management system. For more information on Project Builder Data, please visit our Data Digging code repository as well as our Data

processing Talk board.

Linking the workflow together

Now that all the tasks have been created, we've got to string them together by specifying what happens *next*. Set your first task using the "First Task" drop-down menu below the "Add Task" button. Then, using the “Next task” drop-down under the “Choices” box, specify *what comes next*. In question tasks, you can specify different "Next Tasks" for each available answer (provided users can only select one answer).

Multi-Image options: If your tasks require users to see multiple subjects per task (like on Snapshot Serengeti), decide how users will see them. The Flipbook option means users have to press a button to switch between subjects, while separate frames mean that each subject will be visible for the duration of the classification task.

Subject retirement: Decide how many people you want to complete each task. You can change this number at any point (particularly after beta review). We suggest starting out high, between 10 and 20.

Subject Sets

On this page, you can add groups of data to be classified.

To do so, drag and drop items onto the drop zone in the browser and then upload. You can give each set a name so that you can easily distinguish between them.

Subject sets can be pretty powerful, and sometimes complex. You can have a single subject set that you add to over time, or have multiple subject sets, say, from different years or places. You can have different subject sets for different workflows, but you don't have to. You can even have multiple images in a given subject. For more details and advice on creating and structuring subject sets and associated manifests, check out https://www.zooniverse.org/help/example and scroll down to DETAILS - Subject sets and manifest details, a.k.a. “What is a manifest?”

Further Help

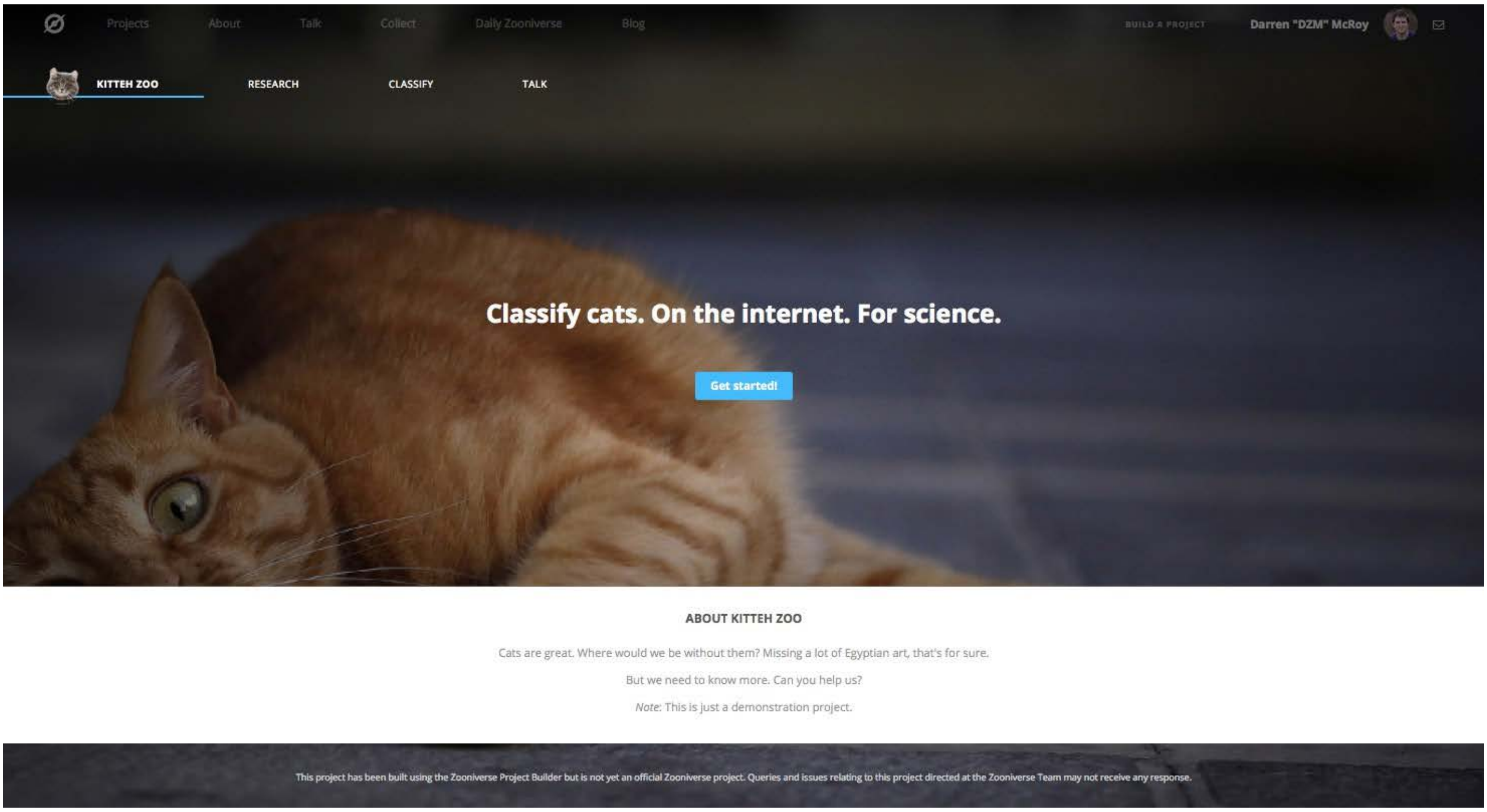
If you'd like some further information, check out the documentation behind building Kitteh Zoo, that talks you through building this project in the Project Builder.\n\nIf this doesn't help, get in contact with the Zooniverse team via the contact page.

Zooniverse Help

Example Project

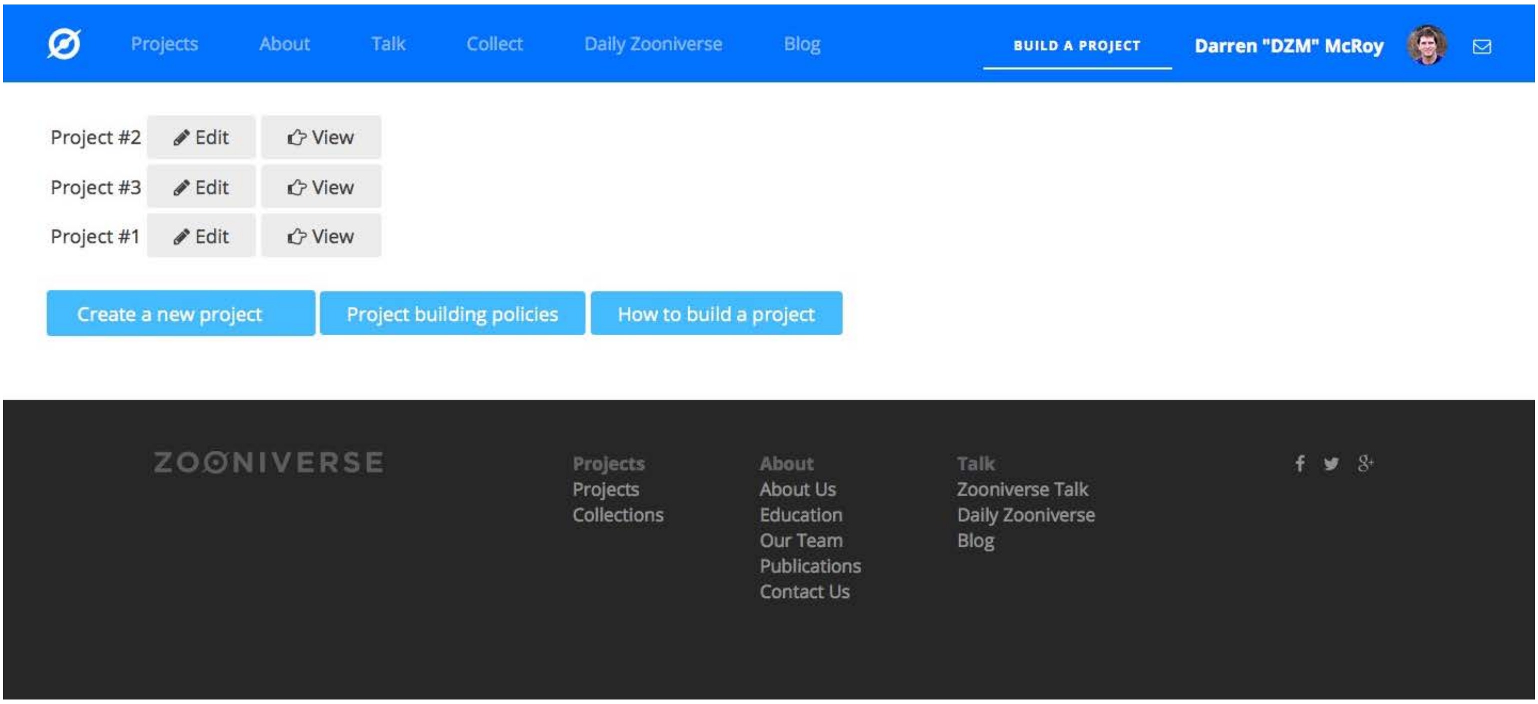
So you want to build a project using the Zooniverse Project Builder? This tutorial will help walk you through the process, using Kitteh Zoo as an example. You can explore the actual project.

If you'd like to read more on strategy on building and running a project, such as what to plan for when building your project and what to do after launch, check out the Best Practices pages.

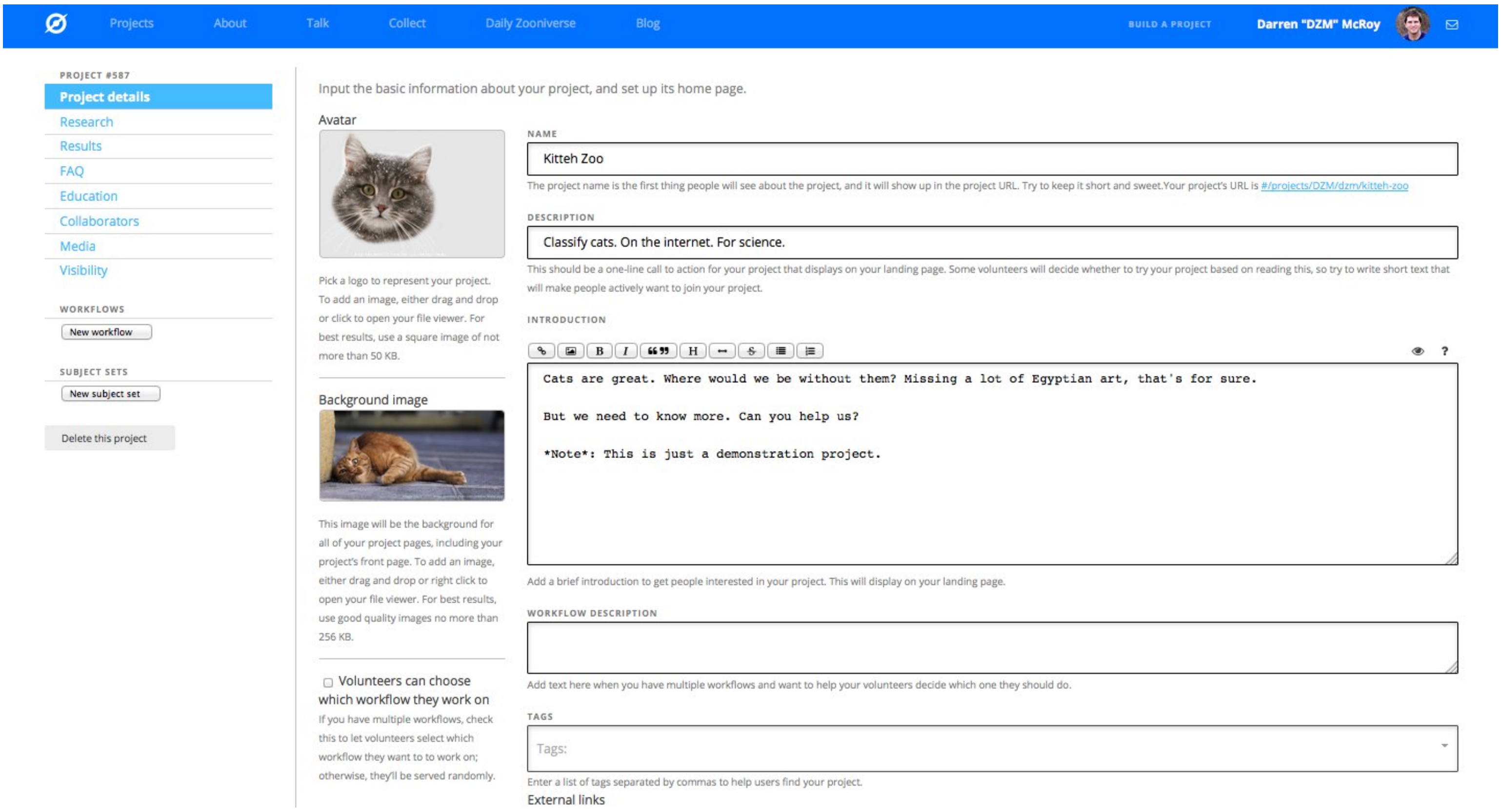


Getting Started

To get started building, go to the Project Builder home page and log in to your Zooniverse account, then click the "Build a Project" button in the top right. Here you can see all of the projects you own and collaborate on. Click on "Create a project" to start building.



Start building: Now you're in the Project Builder itself. This is where the magic happens. On the left-hand side, you've got your main menus: Project, Workflow, and Subjects. These are terms you'll see a lot, and they have specific meanings in the Zooniverse. Project is pretty self-explanatory; Galaxy Zoo, Penguin Watch, and of course, Kitteh Zoo, are all examples of Zooniverse projects that you could build using the project builder. A workflow is the sequence of tasks that you ask volunteers to do, and subjects are the things (usually images) that volunteers do those tasks on.

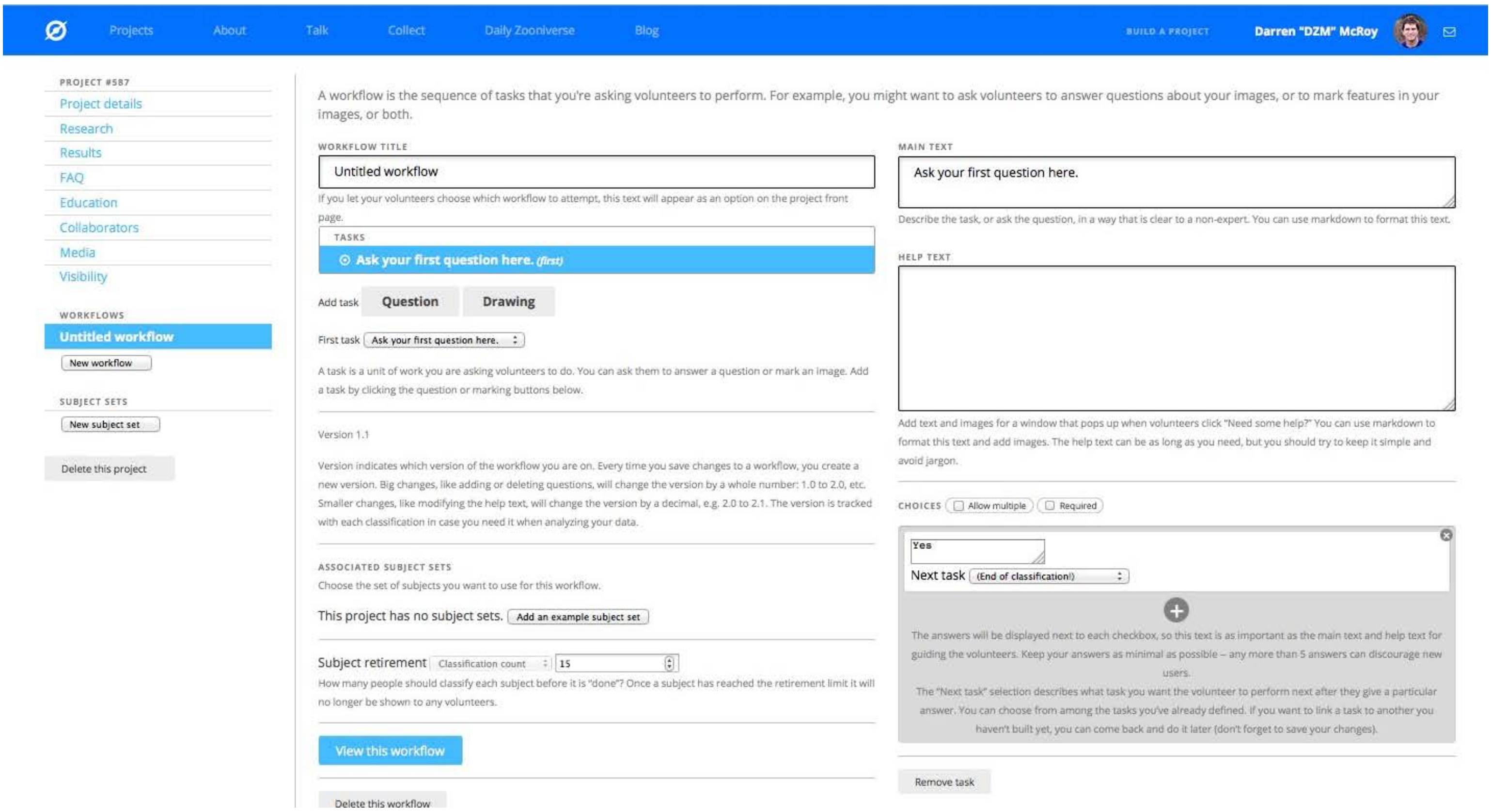


Define your project.

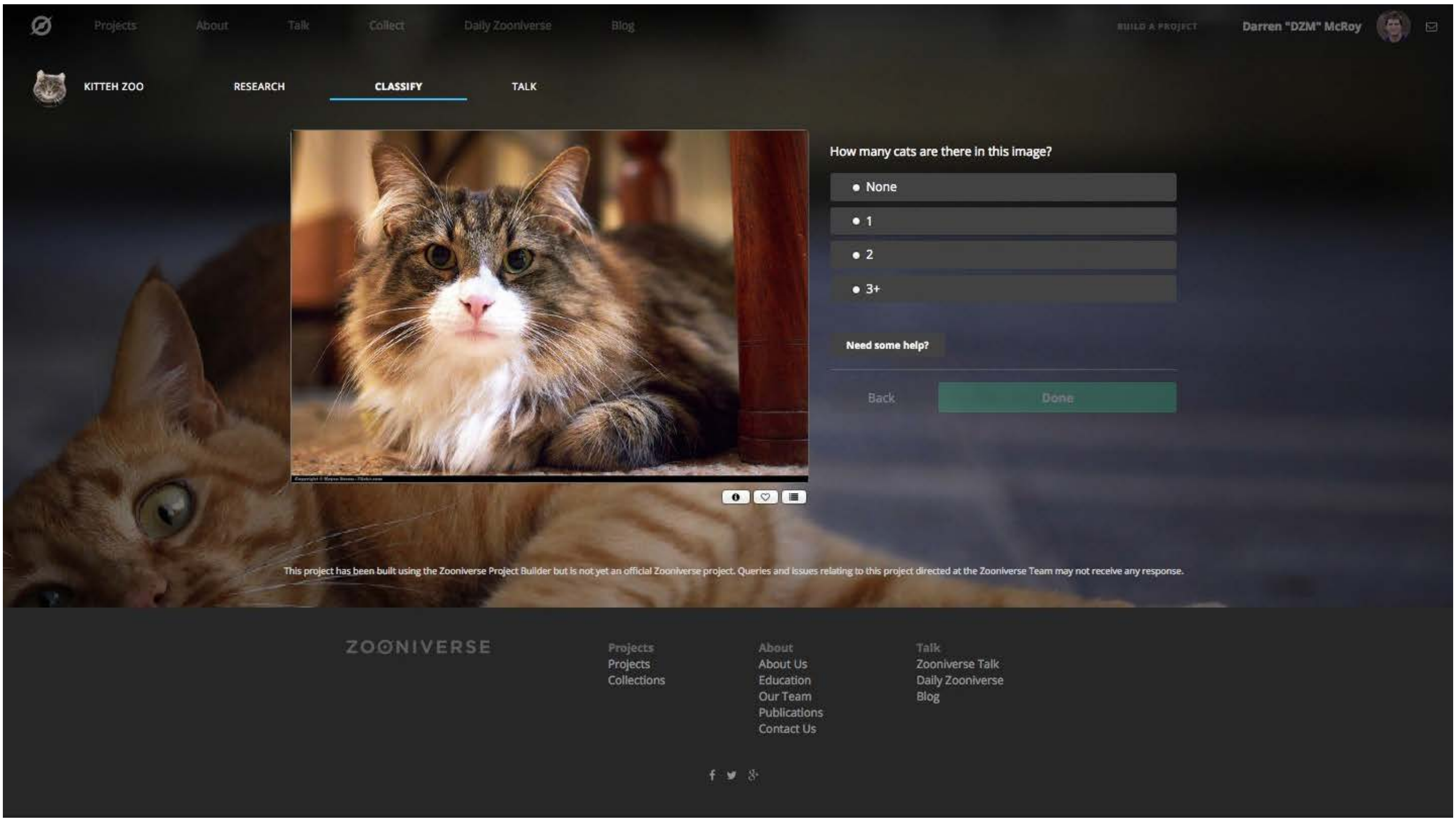
The first thing you'll want to do is fill in some basic information about your project on the Project Details page. Just click and type in the relevant boxes. We've added a short description that will be formatted using the markdown language. The avatar and background image for Kitteh Zoo are in this folder. Download these images to your computer. Now add these images by dragging and dropping or by clicking on the relevant boxes (like in the image above). You can come back and add more details at any time while building your project.

Building a workflow

This is where you build the tasks that volunteers actually do. When you first get to this page, you'll see there is a sample task (specifically a question) already in place.

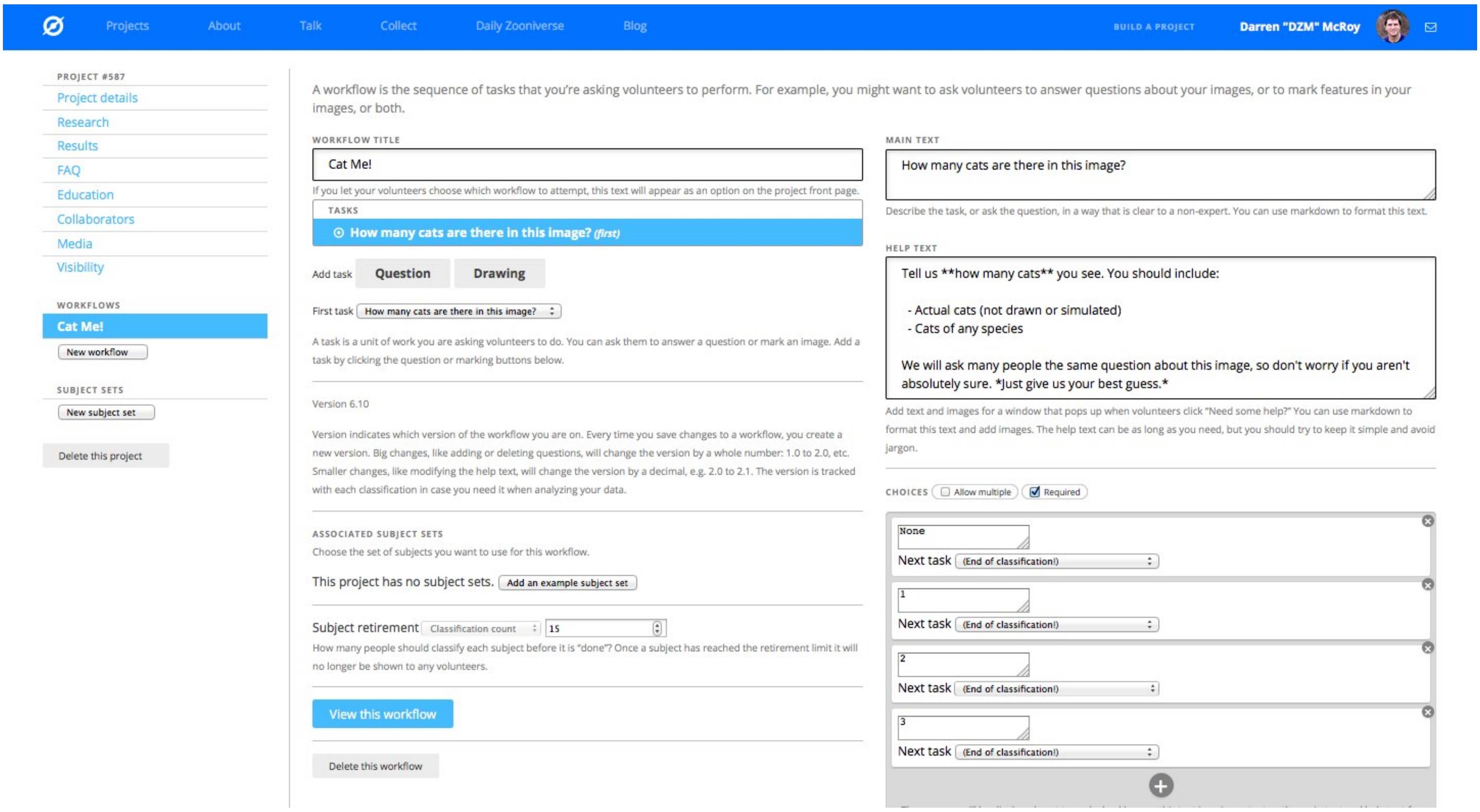


We want to create this:



We'll start by replacing the sample text with our question, which asks people how many cats are in the image. We add more answers using the "+" button under the

"Yes" answer. Use the screenshot below to fill in the workflow details (you may need to zoom in!)



We added both text and images into the *Help Text* box using the markdown language (learn more about markdown).

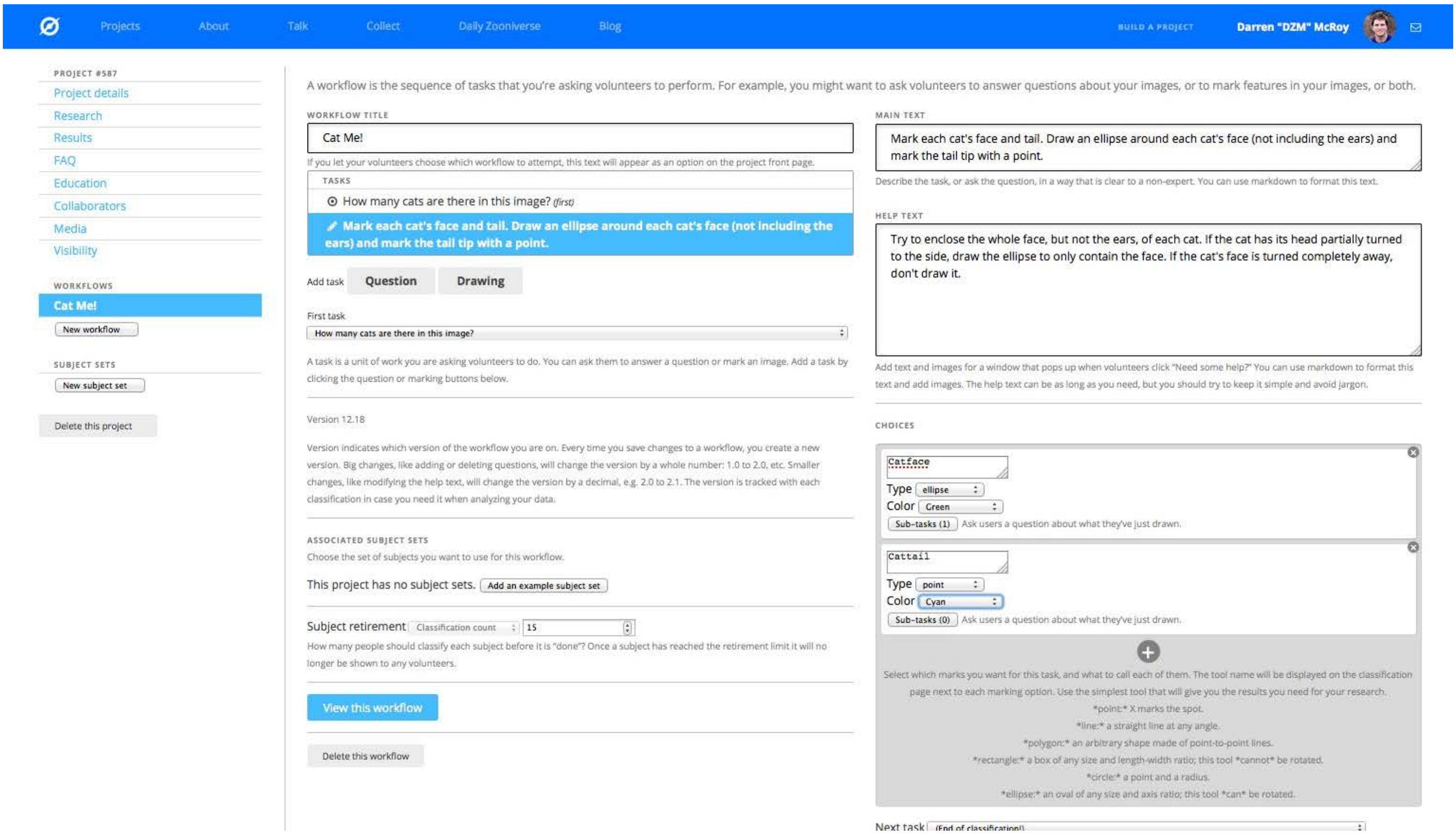
Here is the markdown for the help text:

```
Tell us **how many cats** you see. You should include:

- Actual cats (not drawn or simulated)
- Cats of any species

We will ask many people the same question about this image, so don't worry if you
aren't absolutely sure. *Just give us your best guess.*

Here are some examples of cats:

![Sink Cats Relax](http://zooniverse-
resources.s3.amazonaws.com/bigblogfiles/cat_demo/cat_bloonet.jpg)
![Only 1 of these cats counts.](http://zooniverse-
resources.s3.amazonaws.com/bigblogfiles/cat_demo/cat_valentina_a.jpg)
![Wet kitteh iz not amused](http://zooniverse-
resources.s3.amazonaws.com/bigblogfiles/cat_demo/cat_joeltelling.jpg)

And here are some examples of not-cats (you can ignore these):
```

```
![A sample of things that are not cats.](http://zooniverse-
resources.s3.amazonaws.com/bigblogfiles/cat_demo/notcats.png)
```

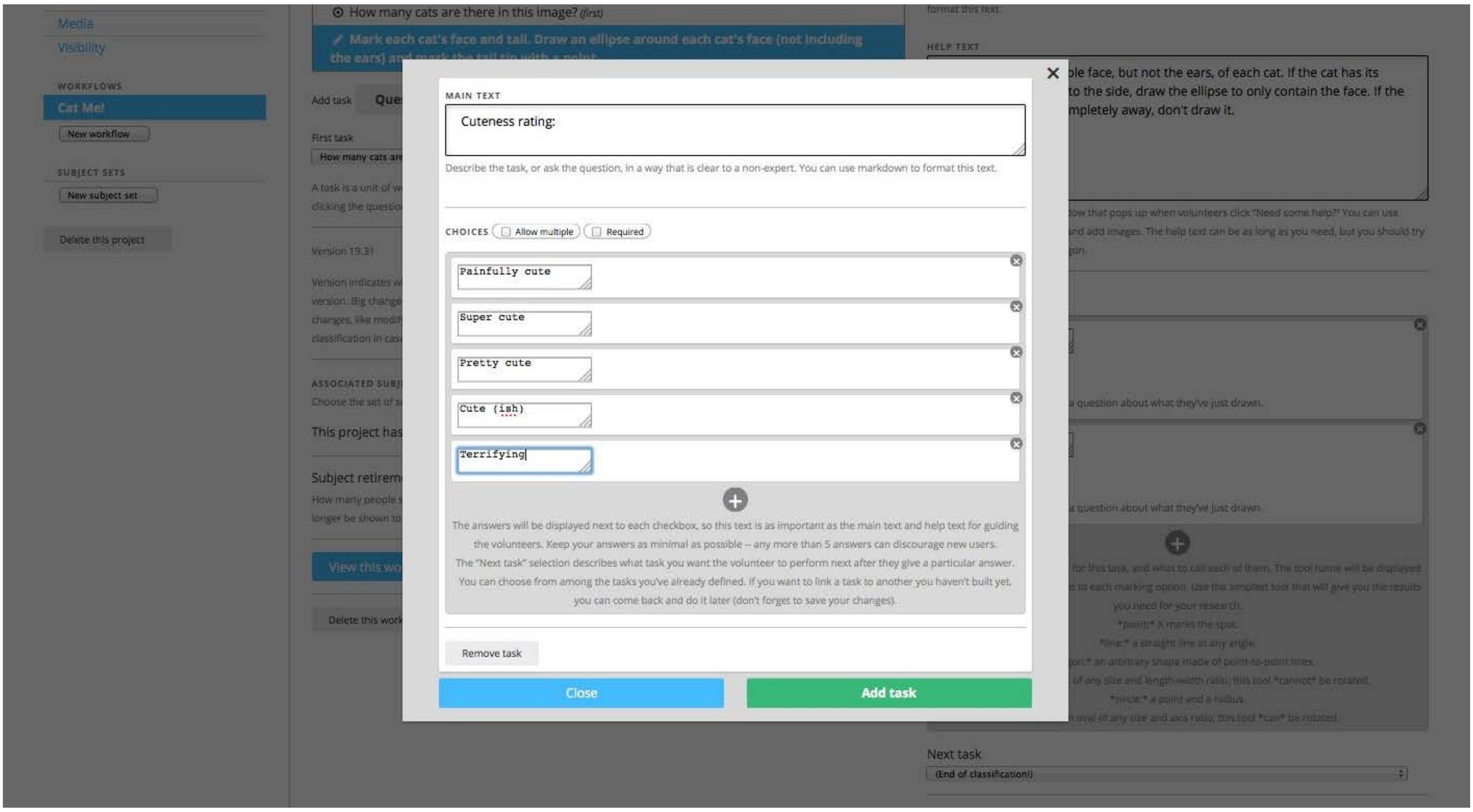
We can set subsequent tasks to depend on the answer to this question. Right now we haven't made any other tasks, so the only option is "End of Classification." Once we create more tasks, we'll go back through and link them. Note that this question is *required* (people can't move on until they've answered it) and only one answer is allowed.

Now we want to draw circles around the cat's faces and mark a point on their tails. Why? Because we can. (For your own project you'd obviously want to think carefully about the reasons for adding tasks to a workflow, and what you want to get from the answers/marks.)



So under the *Task* list, we'll click on **drawing**. We're asking folks to draw (with ellipses) around the cats' faces, as well as mark their tail tips with a point. We've changed the color on the Cattail points so they stand out more too. As usual, the main text gives people basic instructions on what we want, and the help text provides some more explanation on how to do the task.

In addition to marking all the cat faces, we want to know just how cute they are. So every time someone marks a cat-face, we've added a pop-up question to ask just that. Add this question by clicking on the *sub-tasks* button below the *Type* and *Color* task specifications.



When building your own project, you can combine any number of tasks in any order. You can start with a drawing task instead of a question. You can add sub-tasks for any drawing tool you make.

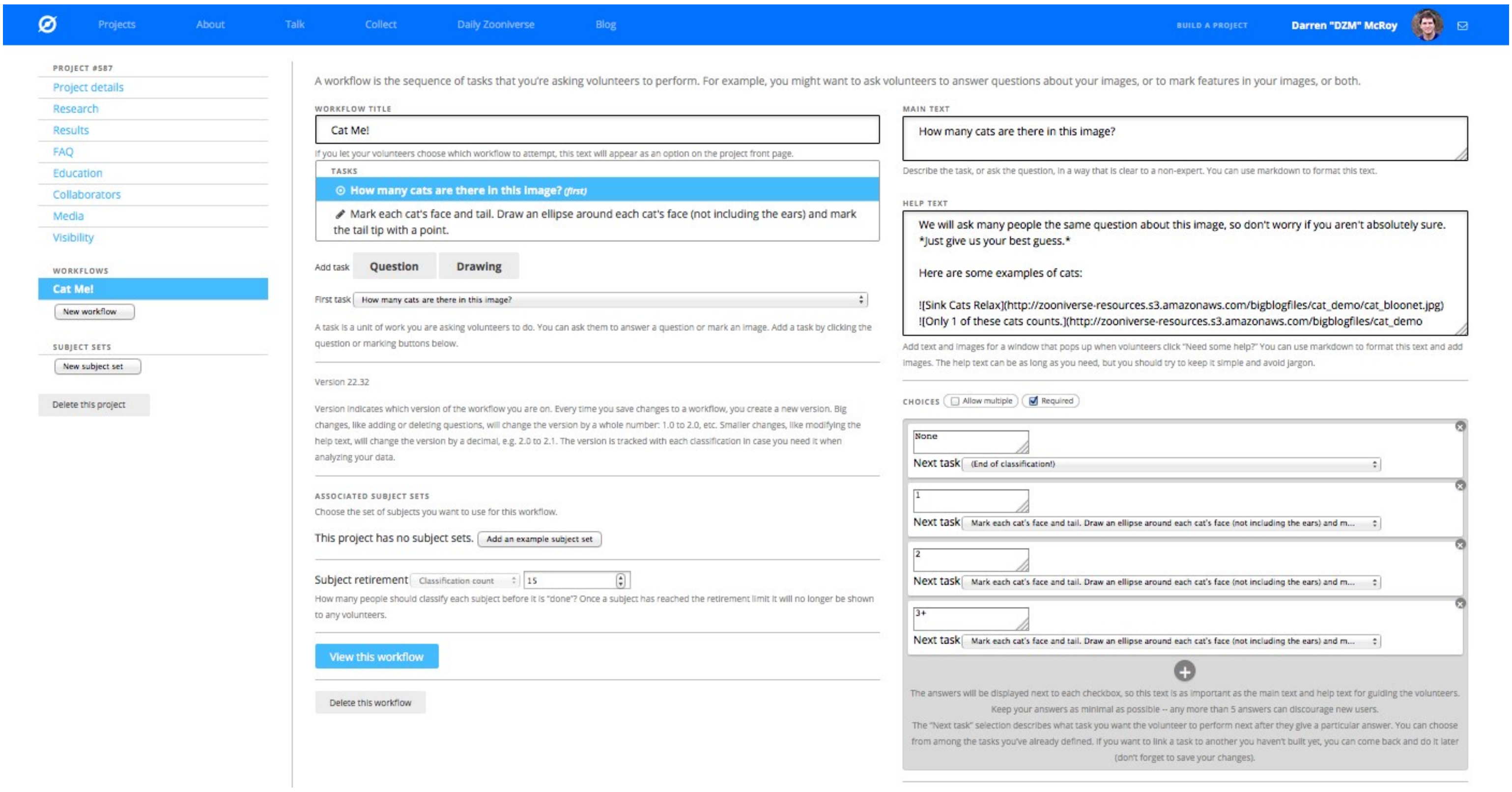
In general, keep in mind that people are more likely to complete more classifications if the workflow is short and simple. Try to keep the workflow as simple as possible to achieve your research goals, and definitely try to only request tasks that cannot be accurately accomplished by automated methods.

Linking the workflow together

Now that all the tasks have been created, we've got to string them together by specifying what happens *next*. Right now, this means you kind of need to work backwards. The drawing task is the last task in this workflow, so we'll leave the "Next

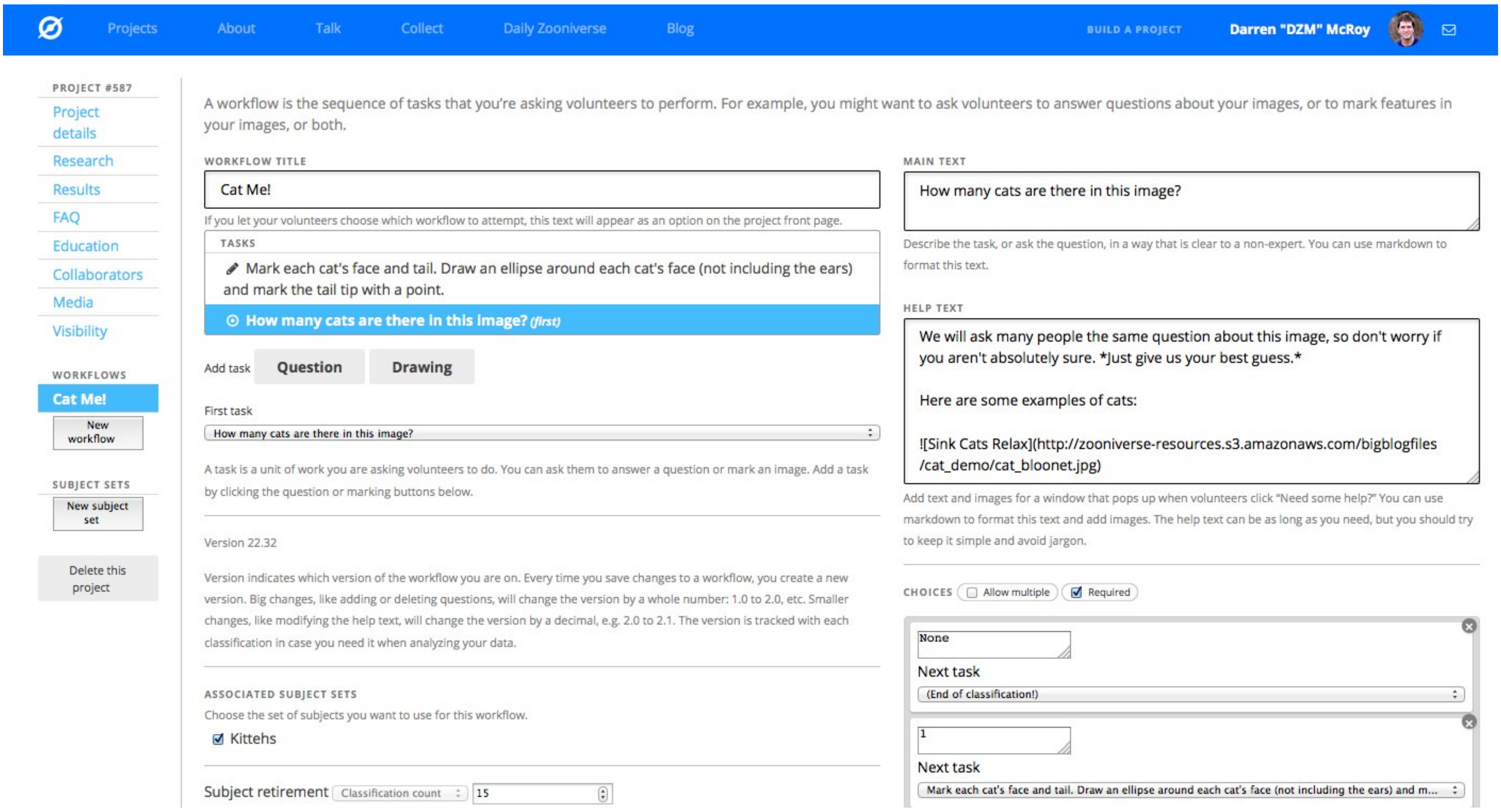
Task" button as the default "end of classification." But we'll have to go back to our first question.

The first question, "How many cats are in this image?" only allows one answer, so you can specify the next task depending on the answer. If folks say "None" for the number of cats, the classification ends. But if they say there's at least one cat, then they go on to the next question.



Upload subjects

To really get started building a project, you need images to work with. Normally you would add your own images by clicking on the "New Subject Set" button on the left hand side of the screen. This is one of the trickier steps in project creation -- for the purposes of this tutorial you can simply copy the Kitteh Zoo subject set, but check out the next section "Uploading subjects -- the nitty gritty" if you want to practice the full approach. To do this go to the workflow you created and under the *associated subject* set section click on *add an example subject set*. You should now see the 'kittehs' subject set selected.



CONGRATULATIONS!

You should have successfully created Kitteh Zoo! To view it, got back to the *Build a Project* page (by clicking the button in the top right of the page) and then click on the view button next to the new project you have just made.

Uploading subjects - the Nitty Gritty

When you actually build your own project, there won't be an example set of images already loaded for you. Get started uploading a set of subjects for your project by clicking on the "New Subject Set" button on the left hand side of the screen. That will bring you to the *Subject Uploader*.

If every subject you want classified is a single image, *and* if the image file name contains enough information for you to be able to precisely match the subject with the rest of your data later, then this is pretty easy: you can just drag and drop the images into the Subject Uploader (or click within the "Upload Subjects" box and choose the files in the pop-up menu) and it will automatically detect that it needs to make subjects out of each file.

Much of the time, though, project builders need to keep some data associated with their images in the classification interface. For example, in Kitteh Zoo all the images are Creative Commons licensed and need to have attribution attached when they are displayed. With a simple file called a *manifest*, we can associate the needed information with each image. Below you can find more details about the manifest in the section *DETAILS - Subject sets and manifest details, a.k.a. "What is a manifest?"* For now we will assume the manifest is created and the files are ready. You can see an example manifest file in the "Kitteh" zip file.

People often find it easiest to have all of the subject images in a single folder along with a manifest file; you will upload both at the same time. However you organize your files, pay attention to the details and keep records, as it may be important for your data analysis later (e.g. when you download your classifications of subjects and need to know how to correctly link those back to all the rest of your metadata).

Click on the "Upload Subjects" box and navigate to the "Kitteh" folder you downloaded. The easiest thing to do is simply hit *cmd + a* (on Mac, or *ctrl + a* on Windows) to select everything in that folder. Note that the subject uploader ignores the excel file and the other folders. Click "open" to select those images and the manifest file for upload. The project uploader now indicates that the "Cat project manifest.csv" has 30 subjects for upload. (If we had more subjects to upload, we'd do them in batches of no more than 1,000 at a time.)

Click "Upload" to start the process. When everything is uploaded, you'll see a list of all of the subjects. The numbers to the left are unique identifiers for each subject, and the icons to the right let you preview or delete each subject.

Subject sets can be pretty powerful, and sometimes complex. You can have a single subject set that you add to over time, or have multiple subject sets, say, from different years or places. You can have different subject sets for different workflows, but you don't have to. You can even have multiple images in a given subject. For more details and advice on creating and structuring subject sets and associated manifests, check out the details section below.

PROJECT BUILDER'S MANUAL – THE DETAILS

- **Project**: This holds all your project level details. The project name, the people involved, and all the extra content (e.g. text and pictures) you want to share, are all here.
- **Project Details**: This is your project's "behind the scenes" home page. Start off by naming and describing your project, add a logo and background image.
- **Research Case, FAQ, Results, and Education**: You can add a lot of information in these pages to help volunteers better understand the motivation for your project, the best approaches for classifying, and the outcomes of your project.
- **Collaborators**: Add people to your team and specify what their roles are so that they have the right access to the tools they need (including access to the project before it's public).
- **Workflows**: A workflow is the sequence of tasks that you're asking volunteers to perform. For example, you might want to ask volunteers to answer questions about your images, or to mark features in your data, or both. The workflow is where you define those tasks and set out the order in which the volunteers will do them. Your project might have multiple workflows (if you want to set different tasks for different image sets).
- **Subjects**: A subject is a unit of data to be analyzed. A subject can include one or more images that will be analyzed at the same time by volunteers. A subject set

consists of a list of subjects (the "manifest") defining their properties, and the images themselves. Feel free to group subjects into sets in the way that is most useful for your research. Many projects will find it's best to just have all their subjects in 1 set, but not all: larger projects often find it essential to group subjects into multiple sets.

DETAILS - Workflows

Note that a workflow with fewer tasks will be easier for volunteers to complete. We know from surveys of our volunteers that many people classify in their limited spare time, and sometimes they only have a few minutes. Longer, more complex workflows mean each classification takes longer, so if your workflow is very long you may lose volunteers.

Workflow Name: Give your workflow a short, but descriptive name. If you have multiple workflows and give volunteers the option of choosing which they want to work on, this name will appear on a button instead of "Get started!"

Version: Version indicates which version of the workflow you are on. Every time you save changes to a workflow, you create a new version. Big changes, like adding or deleting questions, will change the version by the number to the left of the ".": 1.0 to 2.0, etc. Smaller changes, like modifying the help text, will change the integer to the right of the ".", e.g. 2.0 to 2.1. The version is tracked with each classification in case you need it when analyzing your data. *Note:* the version looks like a decimal number, *but it is not*: it is a string with two numbers separated by a "." character. So, for example, version 2.1 is not the same as version 2.10.

Tasks: There are two main types of tasks: questions and drawing. For question tasks, the volunteer chooses from a list of answers but does not mark or draw on the image. In drawing tasks, the volunteer marks or draws directly on the image using tools that you specify. They can also give sub-classifications for each mark. Note that you can set the first task from the drop-down menu.

Main Text: Describe the task, or ask the question, in a way that is clear to a non-expert.

The wording here is very important, because you will in general get what you ask for. Solicit opinions from team members and testers before you make the project public: it often takes a few tries to reach the combination of simplicity and clarity that will guide your volunteers to give you the inputs you need.

You can use markdown in the main text.

Help Text: Add text and images for a pop-up help window. This is shown next to the main text of the task in the main classification interface, when the volunteer clicks a button asking for help. You can use markdown in this text, and link to other images to help illustrate your description. The help text can be as long as you need, but you should try to keep it simple and avoid jargon. One thing that is useful in the help text is a concise description of why you are asking for this particular information. This help information often overlaps with information in the Field Guide, but it is an opportunity to provide extra detail about each specific task.

DETAILS - Project Details:

Name: The project name is the first thing people will see and it will show up in the project URL. Try to keep it short and sweet.

Avatar: Pick an avatar image for your project. This will represent your project on the Zooniverse home page. It can also be used as your project's brand. It's best if it's recognizable even as a small icon. To add an image, either drag and drop or click to open your file viewer. For best results, use a square image of not more than 50KB, but at minimum 100x100 pixels.

Background: This image will be the background for all of your project pages, including your project's front page, which newcomers will see first. It should be relatively high resolution and you should be able to read text written across it. To add an image, either drag and drop or click to open your file viewer. For best results, use images of at least 1 megapixel, no larger than 256 KB. Most people's screens are not much bigger than 1300 pixels across and 750 pixels high, so if your image is a lot bigger than this you may find it doesn't look the way you expect. Feel free to experiment with different sizes on a "typical" desktop, laptop or mobile screen.

Description: This should be a one-line call to action for your project. This will display on your landing page and, if approved, on the Zooniverse home page. Some volunteers will decide whether to try your project based on reading this, so try to write short text that will make people actively want to join your project.

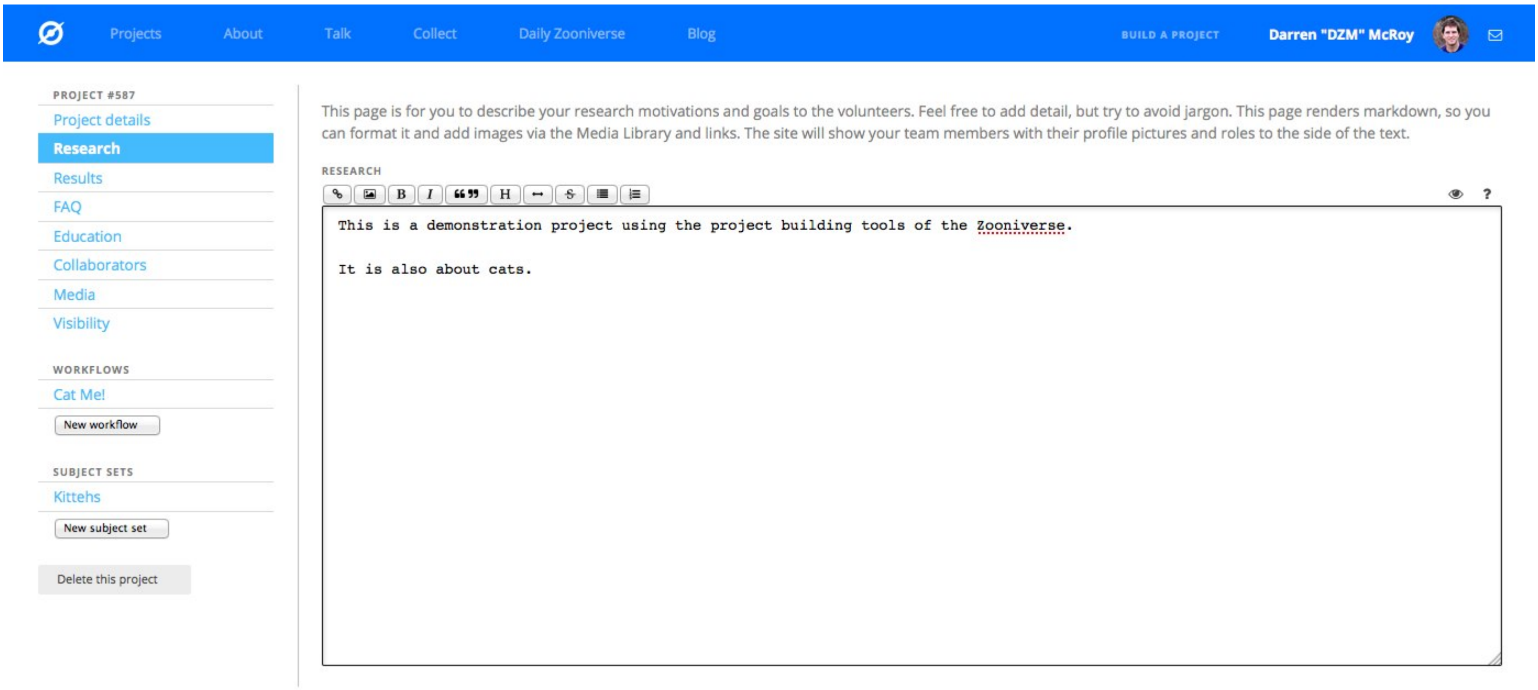
Introduction: Add a brief introduction to get people interested in your project. This will display on your project's front page. Note this field (renders markdown)[http://markdownlivepreview.com/], so you can format the text. You can make this longer than the Description, but it's still probably best to save much longer text for areas like the Research Case or FAQ tabs.

Checkbox: Volunteers choose workflow: A workflow is a set of tasks a volunteer completes to create a classification. Your project might have multiple workflows (if you want to set different tasks for different image sets). Check this to let volunteers select which workflow they want to work on; otherwise, they'll be served workflow-subject pairs randomly.

Checkbox: Private project: On "private" projects, only users with specified project roles can see or classify on the project. We strongly recommend you keep your project private while you're still working out its details. Share it with your team to get feedback by adding them in the Collaborators area (linked at the left). Team members you add can see your project even if it's private. Once your project is public, anyone with the link can view and classify on it.

DETAILS - Additional Content

Research, FAQ, Results, and Education: These pages are where you really get to share all the cool things about your project. All of these pages use Markdown (see link above) to format text and display images.



Research: Explain your research case to your audience here in as much detail as you'd like. This page displays no matter what, since explaining your motivation to volunteers is critical for the success of your project!

Results: Once your project has hit its stride, share the results of your project with your volunteers here. Volunteers really value feedback about how their inputs were used to help the research. This page will only display if you add content to it.

FAQ: Add details here about your research, how to classify, and what you plan to do with the classifications. This page can evolve as your project does so that your active community members have a resource to point new users to. This page will only display if you add content to it.

Education: If you are a researcher open to collaborating with educators you can state that here, include educational content, and describe how you'd like to help educators use your project. Also, if your project is primarily for educational purposes you can describe that here. This page will only display if you add content to it.

DETAILS - Media

You can upload your own media to your project (such as example images for your help pages) so you can link to it without an external host. To start uploading, drop an image into the box (or click it to bring up your file browser and select a file).

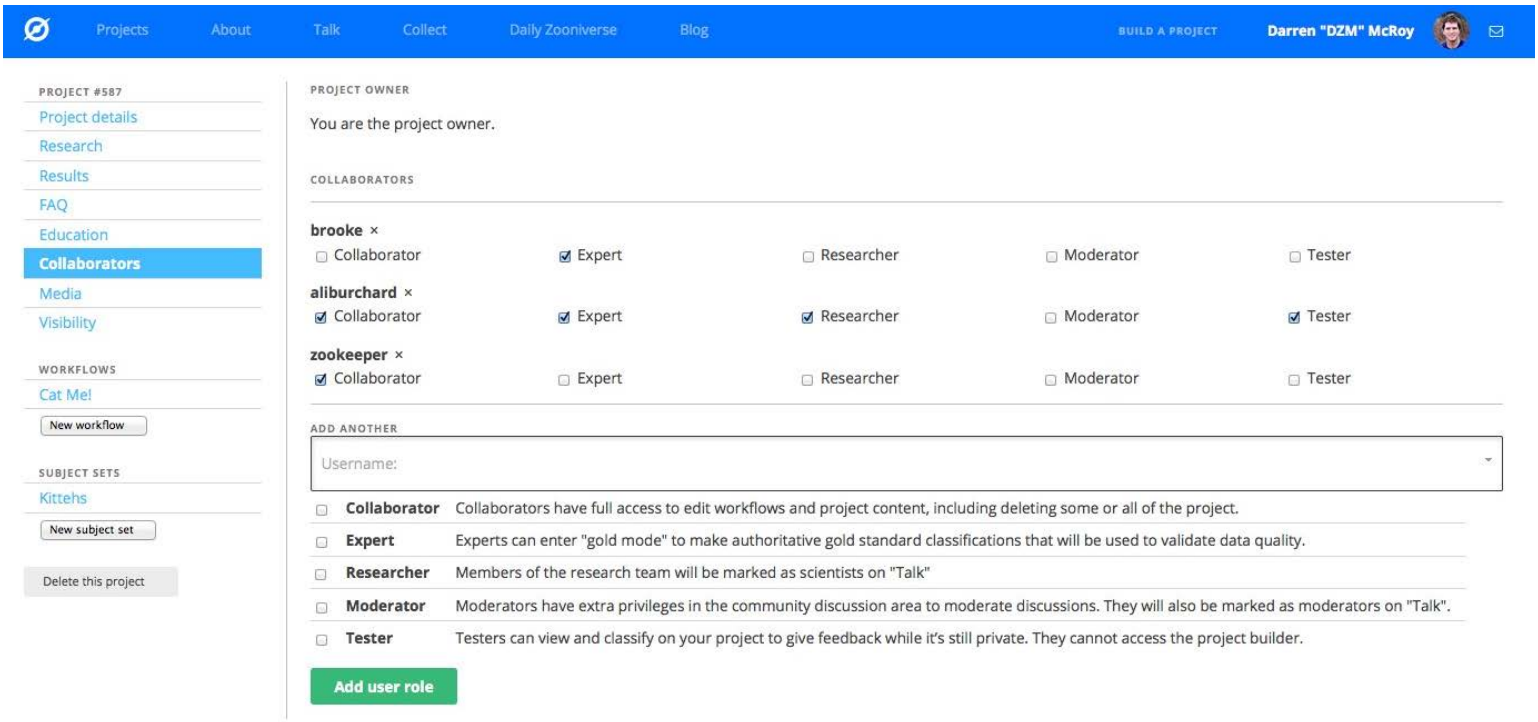
Once the image has uploaded, it will appear above the "Add an image" box. You can then copy the markdown text beneath the image into your project, or add another image.

DETAILS - Visibility

This page is where you decide whether your project is public and whether it's ready to go live. For more information on the different project stages, see our project builder policies.

DETAILS - Collaborators

Add people to your team and specify what their roles are so that they have the right access to the tools they need (including access to the project before it's public).



Owner: The owner is the original project creator. There can be only one.

Collaborator: Collaborators have full access to edit workflows and project content, including deleting some or all of the project.

Expert: Experts can enter “gold mode” to make authoritative gold standard classifications that will be used to validate data quality.

Researcher: Members of the research team will be marked as researchers on “Talk"

Moderator: Moderators have extra privileges in the community discussion area to moderate discussions. They will also be marked as moderators on “Talk".

Tester: Testers can view and classify on your project to give feedback while it’s still private. They cannot access the project builder.

Translator: Translators will have access to the project builder as well as the translation site, so they can translate all of your project text into a different language.

DETAILS - Subject sets and manifest details, a.k.a. "What is a manifest?"

The condensed answer:

A manifest is a file that tells our software how to combine the images you have into units of data (subjects) to be classified. The manifest also allows you to link your classifications back to the rest of your data. A manifest is formatted as a CSV file with 1 line per subject, with the names of images to be associated with a subject on each row (with additional information often included in other fields as well). There is an example in the "Kitteh" zip file.

The full answer:

What we call a "manifest" is really just a plain text file with a specific format to each line.

To understand the format, let's start with the first few lines from the Kitteh Zoo manifest:

```
image,!origin,link,attribution,license,#secret_description
6672150457_420d61007d_b.jpg,Flickr,https://www.flickr.com/photos/aigle_dore/6672150457,Moy
Brenn,Creative Commons - share adapt attribute,sleepy striped kitteh is unsuspecting of
paparazzi
8300920648_d4a21bba59_z.jpg,Flickr,https://www.flickr.com/photos/aigle_dore/8300920648,Moy
Brenn,Creative Commons - share adapt attribute,grandfather kitteh has ear hair. a lot
of it
6713782851_82fc8c73e5_z.jpg,Flickr,https://www.flickr.com/photos/hellie55/6713782851,hehad
Commons - share adapt attribute,juvenile kittehs practice break-in at the catnip
factory
```

The first line of the file is a header line that specifies the name of each of the manifest fields. In this case, our manifest has 6 fields (or columns), called "image", "!origin", "link", "attribution", "license" and “#secret_description”. They are separated by commas: this is what's known as a "comma separated values" file, or CSV file.

After the first line, each row of the file contains information about 1 subject. The first field, which aligns with the "image" header, contains the name of the image that's associated with that subject. This field is critically important as it tells the project builder which images to make into subjects.

All the other fields are optional, but in general having more information in the manifest is better. Most projects include additional information in the manifest that helps them match the classifications and subjects to the other data they need for their research. For example, many projects include a separate ID that they have generated and which can be used later as a unique identifier to match classification data to their own metadata (for other projects, the unique identifier is the filename). The additional information in the manifest can also be made available to volunteers as they classify or in the Talk discussion tool (some very keen volunteers find this extremely useful). Any fields with names that begin with “#” or “//” will *never* be shown to volunteers, such as the “#secret_description” field in Kitteh Zoo. These hidden fields will still be returned to you in the classification file, so you can use these to include information helpful to your research without worrying about whether it might affect the classifications themselves. There might be information that could helpful for the volunteers in discussions or further exploration in the Talk discsussion tool, but could bias the classifications if visible to volunteers while classifying. Any fields with names that begin with "!" *will not* be accessible to volunteers in the classification interface, but *will be* available on Talk after classification (such as the "!origin" field above). Information in fields that *don't* begin with a "#", "//", or '!' will always be accessible to volunteers in both the classification interface and the Talk discussion tool.

For now, let's assume you're just including minimal information, like:

```
my_own_id,the_image
1,kitteh_in_box.jpg
2,kitteh_stalking.jpg
3,kitteh_losing_balance.jpg
```

Note the field names have changed from the previous example. That's because, aside from marking whether a field is hidden or not, it doesn't actually matter to the Zooniverse what the fields are called (or what order they're in), so you can name and order them according to whatever works best for your project.

Using a manifest CSV file also makes it very easy to create subjects with multiple images:

```
my_own_id,image1,image2
1,kitteh_in_box.jpg,kitteh_eating_box.jpg
2,kitteh_stalking.jpg,kitteh_pounced.jpg
3,kitteh_losing_balance.jpg,kitteh_falling_off_sofa.jpg
```

If you upload this manifest plus the 6 images named in it, the Zooniverse software will create 3 subjects with 2 images each. When these subjects come up in the classification interface, volunteers will be able to flash between the images or switch between them manually. Later on, when these subjects are classified, the subject_id assigned by the project builder can be used with a subject export to match each classification back to this information.

You can create a manifest file in a simple text editor (such as TextEdit or Notepad), although this method is prone to errors like missed or extra commas. People often find it easiest to create manifest files using spreadsheet software such as Google Sheets, iWork Numbers or Microsoft Excel. Creating and maintaining a manifest using a spreadsheet makes the manifest easy to read, and you can export it to CSV format when you're ready to upload your subjects. You can also open existing CSV files in spreadsheet software.

Note: if you have a large subject set it may be cumbersome to manually create a manifest. We suggest using a command-line or other tool to copy-paste a directory list of files into a spreadsheet to help you get started.

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Zooniverse Help

Glossary

A collection of definitions for terms that are used across the Zooniverse. The terms are split into three different categories:

- General Terms
- People
- Project-Specific Terms

If you'd like to see a definition that currently isn't on this page, get in touch and we'll look into adding it.

General Terms

- **Classification** - A classification is all the data associated with a volunteer's response to an item of data (or subject) they're presented with whilst going through a project. In essence, a classification is the core unit of human effort produced by the Zooniverse community.
- **Collection** - A collection is similar to favoriting an image, but allows volunteers to additionally link together groups of subjects. These collections can be set to either public or private, and you can see all of the public collections on the Collections page. Volunteers can only add to their own collections, and not those of others.
- **Favorites** - If a volunteer finds an image on a project that they like and wants to be able to see again in the future, they can mark it as a 'Favorite' by clicking the heart icon underneath it. These images then show on the volunteer's Favorites page.

- **Newsletter** - a brief email message about your project sent to your project's registered volunteers or to a subset of registered Zooniverse volunteers. Newsletters are a great way to update volunteers on the your project's progress and also help give the daily classification rate a boost. If you'd like a newsletter to be sent out for your project, get in touch with Grant Miller, the Zooniverse Communications Lead.
- **Project** - A project is a way for our volunteer community to engage with a specific research goal or question, using data provided by the researchers. This gives the researcher data to work with and helps progress science. It takes shape in the form of a website, which includes the main classification interface and the Talk discussion tool.
- **Project Builder** - This is the web tool that researchers use to create Zooniverse projects. There is documentation to help with this process on the Project Builder page.
- **Zooniverse** - the Zooniverse encompasses the team, website, projects and our codebase. The Zooniverse is an open web-based platform for large scale citizen science research projects, capable of supporting tens of thousands of simultaneous users. The Zooniverse hosts the largest collection of online citizen science projects in the world, supporting over 1.5 million registered users and containing projects in astronomy, ecology, humanities, physics, and beyond.

People

- **Collaborator** - Collaborators are people with permission on a project with full access to edit workflows and project content, including deleting some or all of the project. You can add a collaborator to a project you own through the Collaborators section of the Project Builder.
- **Display name** - This is the name that shows up in the Talk boards. You can edit this at any time by going to your Settings page and entering into the appropriate box what you'd like to change it to.
- **Expert** - Experts can enter "gold mode" to make authoritative gold standard data

that will be used to validate data quality. You can add an expert to a project you own through the Collaborators section of the Project Builder.

- **Moderator** - this is a role given to allocated by the project owner, and typically given to a member of the project's volunteer community. The moderator is given extra privileges in the project's Talk discussion tool (such as the ability to create new discussion boards), and they oversee and help moderate the Talk discussions. You can add a moderator to a project you own through the Collaborators section of the Project Builder.
- **Project owner** - This is the person who has built the project using the Project Builder. They are typically the researcher working with the data.
- **Real name** - this is the name that will be published alongside any research which involves Zooniverse data from projects you've been involved with.
- **Researcher** - Members of a project's research team will be marked as researchers on Talk. You can add a researcher to a project you own through the Collaborators section of the Project Builder.
- **Testers** - Testers are people who can view and classify on your project to give feedback while it's still private. They cannot access the project builder. You can add testers to a project you own through the Collaborators section of the Project Builder.
- **User name** - This is the name that you log in with. This is currently permanently associated with your Zooniverse account and your classifications.
- **Volunteer** - the Zooniverse's prefered term for a member of the public who is participating in and contributing to a Zooniverse project.

Project-Specific Terms

- **Aggregation** - Each subject in a Zooniverse project is independently classified by multiple people. Aggregation is the process of combining these multiple assessments together.

Annotation - Annotations are markings, drawings, answers or data about a subject provided by volunteers as part of the classification process.

- **Classification interface** - This is the web interface where volunteers are review subjects (subjects being data that volunteers are presented to in projects) and perform the desired project assessments and tasks. Researchers can add in various things to this interface such as tutorials on how to use it, and also mini-courses that give you information about the science behind the project. Each workflow has its own separate classification interface. You can access the classification interface through the main landing page of the project.
- **Export** - An export is how to get the volunteer classifications and other relevant information about your project that is stored in the Zooniverse databases. It is essentially a data dump from the Zooniverse database. Project owners and collaborators can request data exports from their projects through the Project Builder. Project data is supplied in CSV/JSON format and Talk data is supplied in JSON format, and the two most commonly used exports are the subject data export, providing all the information stored about the subjects you've uploaded for your project, and the classification export, which has information stored for each project classification. You can request a data export by going to the Project Builder, going to the Data Exports tab and then selecting from where whichever data export you'd like, provided you have the right permissions.
- **Field Guide** - A field guide is a place to store general project-specific information that volunteers will need to understand in order to complete classifications and talk about what they're seeing. It's available anywhere in your project. It's different to the tutorial in that the information is generally more about the science behind it, and is a way of sharing knowledge with your volunteers. Field guides are optional and generally contain more information than tutorials.
- **Gold standard data** - This is data from classifications made by 'Experts'. 'Expert' is a role assigned by the project owner, and their data can be used as a standard to compare the rest of the data against. There is currently an experimental feature which allows you to create a training set and provide in-classification feedback using gold standard data.

- **Landing page** - front page of your project's website. This is where people are directly when they go to your project's url. The landing page is always accessible from your project's website by clicking on the project's avatar.
- **Marks** - for drawing tasks, volunteers are asked to highlight content on an image by drawing circles, boxes, etc. around it. These drawings are referred to as marks.
- **Mini-course** - this is an educational course that is embedded into the project. It is designed to help teach users more about the science behind projects that they are interacting with. Gravity Spy has one such mini-course.
- **Project Avatar** - the project's logo. This image shows in the top left corner of for the project website. If the project becomes Zooniverse approved, the project avatar will also be listed on the Zooniverse projects page
- **Project Tags** - These help define which field of research your project belongs to, and determines which category your project will sit under on the Projects page in the categories section (it will still appear on the main Project page regardless). Users can also search by tag to find projects.
- **Subject** - The chunk of data/thing a volunteer on a Zooniverse project is being presented with and asked to review and analyze. It typically is an image, graph, photo, audio recording, video, or a collection of these different things.
- **Subject Set** - This is a group of subjects (subjects being data that volunteers are presented to in projects). Subjects are uploaded into subject sets through the Project Builder, and it is subject sets that can be linked to workflows in order to get the desired subjects showing on your project's webpage. You can group subjects into subject sets however you wish. You might want to group Subjects together, for example to represent a season's worth of images in Snapshot Serengeti or a particular cell dye staining as in Cell Slider.
- **Talk** - is the object-orientated discussion tool associated with your project. Talk enables volunteers to comment on the subjects they've reviewed and promotes discussion amongst the volunteer community. Talk is also a place where the research team and project volunteers can interact. Talk has a series of message

boards for longer discussions. Additionally, each subject has a dedicated page on its project Talk where a registered volunteer can write a comment, add searchable Twitter-like hashtags, or link multiple subjects together into groups called collections

- **Talk Tags** - Tags are used to help note something as relating to a particular topic. For example, one way of using it would be the following: you've found an image that you think would be good for the Daily Zoo, and so you post it in Talk and then include the tag #dailyzoo in the post. This makes it easier for it to be found as a suggestion, because you can do a search for a particular tag using the search bar. A list of popular tags is displayed on the right-hand side of the Talk page and clicking one will take you to instances of that tag in the Talk boards. So for example if you clicked on #dailyzoo, you'd then be shown all the different suggestions that people have made for it that they've tagged.
- **Tasks** - A task could be listing how many of a particular thing a volunteer sees in an image and then drawing circles around them, identifying the various animals they can see in an image or identifying where abouts in an image something is. There are a wide variety of tools to help create a wide variety of different tasks in the Project Builder tool. One or more tasks make up a workflow.
- **Drawing Task** - A task where the volunteers are asked to directly highlight or mark something on an image (e.g. drawing a circle around a penguin if visible in the image presented)
- **Question Task** - A task where the volunteers are asked to assess the image and respond to a multiple choice question. In the Project Builder, a question task can allow the volunteer to choose a single response or select multiple answers to the question posed.
- **Sub-task** - Sometimes when you are asked to do a task, such as drag a circle around an element in a picture, you are then asked a further task and what is contained in the circle. This is a subtask. For example, you may be asked to circle penguins in an image, a sub-task would be identifying whether the penguin circled is an adult or chick.

Survey task - A survey task is a task where you identify something by selection from many options and then are asked a variety of questions about what you've just identified, like behaviour, number or color. For example, you could be asked to identify an animal in an image and then answer questions on how many legs you can see, which way it is facing and whether it is an adult or baby. An example of such a project is Camera CATalog.

- **Tools** - tools enable volunteers draw or highlight a particular area of a subject image presented on the classification interface (e.g. draw a circle, draw a line, place a pointer). You can design your project such that a single task in the Project Builder can have one or more tools available for volunteers to mark or identify different features found in your subject images.
- **Tutorial** - is a very brief walk-through explaining the main goals and aims of your project. It quickly introduces and explains to the volunteer how to do the requested tasks. This is created in the project builder and is presented to first-time volunteers of your project. Project tutorials are optional.
- **Workflow** - This is a series of tasks and assessments that a volunteer is asked to do when presented with data in a Zooniverse's project classification interface. This can be either one task or multiple tasks, depending on the project.
- **Active workflow** - these are workflows that are currently being presented to volunteers. They can't be edited whilst they are active. You can make a workflow active and inactive by ticking the relevant box on the Visibility tab on the Project Builder page.
- **Default workflow** - The default workflow is the workflow that appears if the volunteers doesn't choose one from the offered list on the front page of the project but just clicks on the Classify tab. If a project has more than one active workflow, the project owner and project collaborators can choose which one will be the default workflow.
- **Inactive workflow** - Inactive workflows are ones that aren't currently being shown to volunteers, but can be edited. You can make a workflow active and inactive by ticking the relevant box on the Visibility tab on the Project Builder

page.

- **Zooniverse approved project** - this is a project that has undergone beta testing and been approved by the Zooniverse team. Details of this process can be found on the Policy Page. Zooniverse approved projects that are currently live can be seen on the Projects page.

Zooniverse Help

Lab policies

How to Launch your Project and Zooniverse Policies

This page is for people who have used our Project Builder, and would now like to share their project with the Zooniverse community or their own crowd of collaborators or volunteers.

How to Launch your Project

A live project can exist in three different states, it may be a: 1. Public Project 2. Review Project 3. Zooniverse Project

Each of these project states is discussed below.

1. Public Project Do you have your own crowd of volunteers, or only want members of your collaboration to classify your data? You can make your project public simply by sharing your project's URL with those you want to take part.

If you're planning a big public launch, or you think your project might attract significant attention, you should let us know so we can support you properly. Please note, there is a limit of 10,000 subjects per user - contact us if you'd like to host more.

2. Review Project If you would like the Zooniverse volunteer community to contribute to your project, the first step is to apply for review. You can do this in the project builder by clicking the "Apply for review" button within the "Visibility" section. At this point, your project is considered a "Review Project".

Your project will then be subject to two stages of review – firstly, the Zooniverse team will check your project complies with Zooniverse rules (see below). Typically, we will respond to you within two weeks. If successful, your project will then be shared with a group of volunteer project testers who will provide feedback. We will contact you when a slot becomes available for volunteer review (this currently takes one to four weeks). Once your project has been shared with our volunteer project testers, the majority of project feedback is typically received within a week. This will be made immediately accessible to you.

During this process you should address the formal feedback provided by the volunteer project testers, as well as any comments on your project's Talk discussion pages. Any technical issues can be reported to us via the GitHub repository, but please consider carefully any comments on workflow design.

It is important you review the results produced at this stage to ensure they are of sufficient quality for your research. If they aren't, please consider re-approaching your project design, make any changes, and submit for review again.

3. Zooniverse Project Once your project has been successfully reviewed and you have a final version of your project, you can apply for your project to be launched as an official Zooniverse project. To do this, notify the team by email at contact@zooniverse.org.

Your project will then undergo a final review process. This may include requesting information from you about your plan for using the results, and examining the results from the review phase. We may also carry out a peer review of your project. This review process can take a variable amount of time, from weeks to months.

Once the project has passed review, it will appear in the Zooniverse project list. We will consider including your project in our Zooniverse Newsletter and other promotional material. If you want your project to be promoted, note that we favour projects whose researchers are proactive in engaging with their community, on the Talk discussion forums and elsewhere.

If you'd like your project to launch on a particular day, perhaps to coincide with a press release, please get in touch.

Zooniverse Policies

At present, we provide the Zooniverse Project Builder software and hosting for free. **We reserve the right to remove content for any reason whatsoever**. We will remove content and projects where: - The content is not legal. - The content is likely to cause offense, or is suitable only for an adult audience. - The copyright on material uploaded to the site is not clear; please only use content you have the right to use.

We reserve the right to decide which projects appear on the main project page and which are promoted to the Zooniverse community. In particular, if you have a project that is very close to an existing Zooniverse project, please contact us to discuss.

Projects promoted to the Zooniverse community **must**:

- Have the goal of producing useful research; your study needs to be well designed, and you must intend to analyze and write up your results as a formal publication.
- Make their classification data open after a proprietary period, normally lasting two years from project launch.
- Communicate research findings to their communities, via open access publication, a blog or elsewhere.
- Acknowledge Zooniverse in any publications. Please use the following text: "*This publication uses data generated via the Zooniverse.org platform, development of which is funded by generous support, including from the National Science Foundation, NASA, the Institute of Museum and Library Services, UKRI, a Global Impact Award from Google, and the Alfred P. Sloan Foundation.*"
- Report publications using Zooniverse-produced data to us via this form.

The Zooniverse is not typically a platform for surveys which ask for audience opinion, or about them; our projects normally invite volunteers to actively assist in research. Therefore, we typically do not support survey-style projects. If you aren't sure whether your project goals fit this model, please contact us to discuss.

Any changes made to the standard Zooniverse policies for a particular project **must be** (1) approved by the Zooniverse team in writing, in advance of launch, and (2) communicated to volunteers via the Announcement Banner, which must be displayed for the duration of the project.

In addition, participants reasonably expect to have access to the subjects (e.g. images) after the project has finished, in order to provide classification data and discussions with context. Exceptions to this requirement need to (1) be approved by the Zooniverse team in writing, prior to launch, and (2) must be communicated to volunteers throughout the project via the Announcement Banner, which must be displayed for the duration of the project.

If the project dataset is unable to beshared publicly and the data needs to be removed from the Zooniverse platform to comply with institutional practice, the requirements are as follows:

1. The project data will not be removed until the entire project is complete.
2. Upon the project's completion, the project page will be replaced by an Archive page (see: https://anno.tate.org.uk/#/), which must include the following information:
    - If available, a link to the project data (e.g. images hosted behind a paywall)
    - A link to the classification data when available (i.e. the project results), nb: this can be delayed for up to 2 years to allow teams to publish results, etc., in line with project policies detailed above
    - Links to any publications about the project or using project data

If you have any questions relating to the content of this page, please get in touch.

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Zooniverse Help

Building, Launching, and Running Your Zooniverse Project:

Best Practices for Engagement & Success

Introduction: "Best Practices," What and Why?

Welcome! If you are reading this, you are probably interested in starting a Zooniverse project using the Project Builder. Perhaps your images/subjects are prepared, you have a compelling research case, and you know what information you are looking for... all that you need now is to process those images and turn them into data, so that you can make the breakthrough of the century in your field. We say, great—you've come to the right place!

First, however, take a moment to consider the Zooniverse slogan: **People-Powered Research**.

Why is that so important? Well, because it's true. Simply put, **volunteers are the lifeblood of a Zooniverse project**, and only with their efforts can your project accomplish its research goals. Your project's amateur researchers are not a data-processing machine: they are people with many options for how to spend their free time, who (may) freely choose to help you. Thus, it is critical to the success of your project that you **engage** your participants as much as possible.

Volunteer engagement takes many forms, and may differ from project to project. To get you started, this document contains a set of basic "best practices" for engagement that new research teams should consider as they create and manage a project. These best practices were identified by experienced volunteers, researchers, and Zooniverse staff at a Sept. 2015 workshop, funded by the Alfred P. Sloan Foundation, at Chicago's Adler Planetarium. They are organized into three categories:

Building your project to be appealing and volunteer-friendly. Launching your project and recruiting volunteers. Managing your project from post-launch to completion.

Although these best practices are for the most part **non-mandatory suggestions**, they are drawn from significant experience, and **we strongly recommend reading through this entire article before you start building your project!** It may be useful to refer back to it later on as well.

Please read on for how to Build a Great Project, and best of luck with your project!

— *The Zooniverse Team*

Zooniverse Help

Part I: Building a Great Project

Know that you are making a commitment! Building, launching, and (especially) maintaining an engaging project takes time and sustained effort. Before you even start, your project team should be prepared to remain personally involved with your project for its entire lifespan. Reduce your individual workloads by delegating responsibilities to each member of your team.

Understand your goals and expectations from the start. The end goal of a Zooniverse project generally should be to produce new research from volunteers' efforts. Be sure that your project design and messaging reflect the tangible goal that you are working towards.

Consider reaching out to Zooniverse volunteers early on. Some of our most successful projects in terms of engagement have been those built in cooperation with volunteers. You might find volunteers interested in helping with your build on Zooniverse Talk's Project Building board.

Keep everything short and simple. Your volunteers are smart, but most will not be experts. Avoid jargon and complex questions. Make the tasks fairly basic, and consolidate them when possible. Ideally, a 10- or 12-year-old child should be able to understand and do your project.

Help text should help volunteers answer the question. When volunteers click "Need Some Help?" they are seeking help in answering that question. There are other areas in the project to describe your research; the help text is for visual examples and question-specific guidance. You can (and should) discuss your research goals in depth on your project's Research page.

Use images as examples wherever possible. Visual examples of what you are asking volunteers to look for are extremely important to have in addition to text descriptions. Consider offering a variety of examples of "correctly" classified data to educate volunteers.

Create informative content and a solid name and tagline. The title of your project should be short and punchy; your tagline should try to "hook" volunteers. Use your static pages (Research, FAQs, etc.) to explain your project clearly and resolve the most common questions about it.

Be prepared to test and make changes. However good your project's "first draft" is, volunteer testing (including the formal Zooniverse "project review" stage) will reveal things to alter. You should first test your project with contacts, friends, or family who are trying it for the first time—and watch them as they do it! Study your feedback and raw data, and make adjustments.

Make your project visually clean and interesting. Choose imagery that fits your project's aesthetic and that you have permission to use. Make sure that text is readable over your background. Also be sure to do a review to make sure that all of your text is displaying properly.

Zooniverse Help

Part II: The Launch Rush

Understand the importance of the launch period! The first few days following the launch of your project are critical. Thousands of volunteers will be trying the project and deciding if they want to become regular classifiers. Your classifications per day will likely spike, then fall and level out; your level of long-term engagement depends largely on what you do during launch.

Write an amazing newsletter. For new Zooniverse projects, a newsletter will announce the project to over a million volunteers; it can bring huge traffic. Your newsletter should be short and personal, clearly describing the project and its goals. Include links to the project and associated sites (blog, social media, etc.). Don't use styling or images—plain-text newsletters do best.

Have a promotion plan in place. The most successful projects will recruit new volunteers from outside the Zooniverse volunteer pool. Coordinate with your organization's communications department. Try to promote to any existing networks or known interest groups; seek out press attention. Also see if you can leverage connections with related organizations for promotion.

"Talk" to your volunteers! One appealing element of the Zooniverse is that volunteers can engage directly with professional researchers on the Talk discussion boards. Your presence in these first few days is especially important. By answering questions, you're helping volunteers feel more comfortable and laying the foundation for those volunteers to teach future newcomers.

Prepare your blog, social media, and Talk, and be active. These are critical for developing deeper engagement, especially during your launch. Make sure that several boards are set up on Talk and that research team members are prepared to quickly respond to volunteers. During launch, consider daily blog posts and up to five posts per day on social-media accounts.

Have a plan to identify and appoint moderators. Moderators have additional authority on Talk and are a resource for new volunteers. They are appointed by you—typically after asking them personally. Choose mods wisely. You might start with a volunteer who is a mod on another project, then add first-timers later. Be sure that your moderators understand your expectations.

Expect things to go wrong, and be ready to fix them. In the attention that your project receives shortly after launch, you may discover additional issues that you will need to address immediately. Broken projects, or ones with messaging issues, do not engage and retain volunteers well. Update your FAQ with questions that you find yourself frequently responding to.

Plan your transition from launch to operating your project. After about a week, the launch frenzy will subside and less of your time will be required. However, you will still need to continue to engage with your volunteers and oversee your project. This is discussed further in Part III.

Zooniverse Help

Part III: In For the Long Haul

Even after launch, running your project demands a time investment. You should dedicate time each week to volunteer engagement. Set up a plan in advance for who on your team will do what, and how often. Commit to your plan, and hold each other to it!

Send occasional reminder emails to your volunteers. Sometimes volunteers do forget about projects. The Zooniverse Communications team can help you send newsletters to your volunteers. Newsletters are proven to bring people back to projects and boost classifications.

Give people a reason to join your community. Volunteers who discuss your project on Talk, social media, etc. often remain more devoted. You may be able to entice more people to do this if, in addition to your posting regularly, you give them a specific purpose. For instance, volunteers could collect examples of rare objects, or find the same animal in multiple images.

Make it fun to be a part of your project. Your research may be serious, but that doesn’t mean taking part can’t be fun! Instead of competitive gamification (a turnoff for some), try 'gamizing' instead, with wry commentary, puns, captions, or other whimsical non-competitive amusement.

Don’t be afraid of volunteers! Just as your volunteers are better at classifying than they think, you are better at communicating to them than you think. As a professional researcher, you will command an automatic degree of respect to volunteers; use it to educate and engage.

Report back to volunteers on what they’ve accomplished. In a survey, over 90% of Zoo volunteers said they classify to help advance research. Use blogs and social media posts to illustrate how their work is having a tangible effect and helping make discoveries. Encouraging new volunteers is especially important. Updates don't have to be detailed; brief reports are fine!

Pay close attention to your project metrics. Your metrics are a valuable tool in evaluating the success of your engagement initiatives. Use them to inform decisions. Currently, a classification counter is available, and you can obtain additional information by querying your database.

Consider giving volunteers more ways to contribute. Some Zooniverse volunteers have conducted in-depth data analyses, written sorting algorithms, and become co-authors with researchers on peer-reviewed papers. Volunteers can also help with blogs and social media.

End your project and do right by your volunteers. When your project has been completed, thank your volunteers and explain what happens next. We expect researchers to use the results of the project in peer-reviewed research, and to share results with the community. Classification data should also be made open after a proprietary period. More information can be found here.

Zooniverse Help

Appendix: Resources and Examples

Useful Links, Blog Posts, and Documents:

- Project Builder Policies — Official Zooniverse policy about user-built projects.
- Project Review: Best Practices & Flowchart — Overview of project review process and timeline, with helpful diagram and list of suggestions for projects entering review process.
- Examples of Strong Newsletters — Samples of newsletters we have used.
- Overview of Talk — Best practices for Talk board usage and descriptions of associated team roles.
- What Are Moderators For? — Learn what moderators are and why you want them.
- Measuring Success in Citizen Science Projects: Part 1 and Part 2 — An analysis of past (and current) Zooniverse projects, demonstrating the importance of engagement.
- Who Are The Zooniverse Community? We Asked Them… — A summary of results from a survey of Zooniverse volunteers conducted as part of a master’s thesis in 2014-2015.
- Zooniverse GitHub — Zooniverse’s code base. You can submit issues and pull requests.
- Zooniverse Researchers & Moderators — Private Facebook group that you may join.
- Zooniverse Backchannel Blog — Private blog you may request to join. Posts are relatively rare and often concerned with technical details of handling Zooniverse

data.

- 17 Tools for Social Media — Social media is important, but can also be time-consuming. These tools can help you pre-schedule, analyze, and get the most out of your posts.
- The Power of a Challenge — A challenge that got 650,000 classifications in a weekend.
- Zooniverse "Meta" Publications — for those wishing to know a lot more about research into the practice of citizen science. (Click the "Meta" link on the left side of the page.)
- Why We Don’t Have an ‘I Don’t Know’ Button — Volunteers often ask for some way to express uncertainty. Using Snapshot Serengeti, this explains why we want a best guess.
- Federal Crowdsourcing and Citizen Science Toolkit — Running a citizen science project from within the federal government comes with added constraints. This kit can help.

Examples of Project Builder Projects:

- Fossil Finder — Good example of content: name, tagline, help text/images, info pages.
- Whales as Individuals — Good example of tasks/questions with multiple workflows.
- Planet Four: Terrains — Has a strong focus on researcher/volunteer interaction on Talk.
- "Kitteh Zoo" — Lighthearted sample project illustrating many of the Builder’s capabilities.

Examples of Gamized Behavior:

- Chimp & See Talk — This popular Talk is also used for the "Chimp ID" process: a good example of non-competitive gamized behavior that also serves a research purpose.

- My Galaxies — Write text using galaxies as letters; built with volunteer help.
- Cookie recipes for Seafloor Explorer, Worm Watch Lab and Notes From Nature.
- Snapshot Serengeti Meme Generator — allowed users to caption photos (now defunct).
- Zooniverse project cocktails for Advent, part one and part two.
- Just for Fun — Various "fun" posts on the Zooniverse blog, many about gamizing.

Zooniverse Help

Use Caesar for more efficient data processing

https://caesar.zooniverse.org/workflows/

The Caesar system receives a copy of each classification submitted by users and can act on this data as it flows through the system.

Project owners can configure the caesar system to:

- Extract parts of information from the classification
- Reduce (Aggregate) extracted data into answers
- Add Rules to activate based on Reduced data
- Add Actions to attach to Rules to:
- Retire a Subject
- Add a Subject to another subject set (which can be used to advance subjects a next workflow which asks more detailed questions).

If a project has Extracts and Reducers setup in Caesar, this can be used to request exportable flat CSV files of both the extracted classification data and the Reduced(Aggregated) answers.

One other feature of the Caesar system is it allows for external third parties to hook into the Extract and Reduction phases. Data can flow out of the Caesar system to the another web service that can provide custom Extract and Reduction functionality. External systems can also be called as an Action when the reduced data matches rules.

The caesar system is documented at https://zooniverse.github.io/caesar and https://github.com/zooniverse/caesar#readme

For inbuilt Extractors see https://github.com/zooniverse/caesar/tree/master/app/models/extractors For inbuilt Reducers see https://github.com/zooniverse/caesar/tree/master/app/models/reducers

Additionally, all of the aggregation code in https://github.com/zooniverse/aggregation-for-caesar is available to be set up as (Zooniverse-hosted) extractors and reducers. The documentation on how to do that can be found at https://github.com/zooniverse/aggregation-for-caesar#installing-for-online-use

Zooniverse Help

Data Analysis

People have written code that can help you.

Because Zooniverse projects hosted on the Panoptes platform share a codebase, their outputs should be similar in format. That means that code written by other researchers to aggregate contributions from other users, and perhaps also to weight different users by their performance, may work for your projects too. There is a collection of such code available here: https://github.com/vrooje/panoptes_analysis and here https://github.com/zooniverse/Data-digging in repositories curated by Brooke Simmons (Lancaster University/Galaxy Zoo).

For details of more complex analysis, we suggest looking at papers by teams behind Space Warps (http://mnras.oxfordjournals.org/content/455/2/1171.full.pdf) or Snapshot Serengeti (http://onlinelibrary.wiley.com/doi/10.1111/cobi.12695/abstract).

Zooniverse Help

Data Exports

Zooniverse projects provide a large amount of data to research teams. These data can be exported from the `Data Export` tab on a project's `Lab` page.

Classification export

This `csv` file has one row for every classification submitted for a project. This files has the following columns:

- `classification_id` : A unique ID number assigned to each classification
- `user_name` : The name of the user that submitted the classification. Non logged-in users are assigned a unique name based on (a hashed version of) their IP address.
- `user_id` : User ID number is provided for logged-in users
- `user_ip` : A hashed version of the user's IP address (original IP addresses are not provided for privacy reasons)
- `workflow_id` : The ID number for the workflow the classification was made on
- `workflow_name` : The name of the workflow
- `workflow_version` : The major and minor workflow version for the classification
- `created_at` : The `UTC` timestamp for the classification
- `gold_standard` : Identifies if the classification was made on a gold standard subject
- `expert` : Identifies if the classification was made in "expert" mode
- `metadata` : A `JSON` blob containing additional metadata about the classification (e.g. browser size, browser user agent, classification duration, etc...)

- `annotations` : A `JSON` blob with the annotations made for each task in the workflow. The exact shape of this blob is dependent on the shape of the workflow.
- `subject_data` : A `JSON` blob with the metadata associated with the subject that was classified. The exact shape of this blob is dependent on the metadata uploaded to each subject
- `subject_ids` : The ID number for the subject classified

Subject export

This `csv` file has one row for every subject uploaded to a project. This file has the following columns:

- `subject_id` : A unique ID number assigned to each subject as they are uploaded
- `project_id` : The ID number for the project
- `workflow_id` : The workflow ID the subject is associated with
- `subject_set_id` : The ID of the subject set the subject is connected to
- `metadata` : A `JSON` blob with the subject's metadata
- `locations` : A `JSON` blob with the URL to each `frame` of the subject
- `classifications_count` : How many users have classified the subject
- `retired_at` : If the subject is retired this is the `UTC` timestamp for when it was retired
- `retirement_reason` : The reason why it was retired
- `created_at` : The `UTC` timestamp for the creation of the subject
- `updated_at` : The `UTC` timestamp for the latest update to a subject

Workflows export

This `csv` file has the information for every major version of a workflow. This file has the following columns:

- `workflow_id` : The ID number for the workflow
- `display_name` : The display name for the workflow
- `version` : The major version number
- `active` : `true` if the workflow is active
- `classifications_count` : How many classifications have been made on the workflow
- `pairwise` : `true` if selection behavior is set to compare subjects against each other (not typically used)
- `grouped` : `true` if selection behavior set to select subjects by set (not typically used)
- `prioritized` : `true` if selection behavior shows subjects in a given order (not typically used)
- `primary_language` : The language code for the workflow
- `first_task` : The task key for the first task
- `tutorial_subject_id` : A default subject linked to the tutorial (not typically used)
- `retired_set_member_subjects_count` : The number of retired subjects from the workflow
- `tasks` : A `JSON` blob showing the full workflow structure
- `retirement` : The retirement rules for the workflow
- `aggregation` : Information passed to downstream aggregation services (depreciated)
- `strings` : A `JSON` blob containing all the text associated with the workflow
- `minor_version` : The minor version number

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Zooniverse Help

Experimental Features

If you see a feature on another Zooniverse project but you don't see it as an option in the Project Builder, it may be an experimental feature we haven't enabled for everyone yet. Most new Project Builder features are tested out as experimental features before we make them available as standard. If you see a feature that you think would be useful for your project, email us at contact@zooniverse.org and ask for it to be enabled.

Zooniverse Help

Hosting your own subject media

We’ll happily host your media (images, videos, etc.) for you, but if you don’t want to upload them all to us you can host them on your own server. E.g. for copyright reasons, or to save time (if you already have them online and don't want to spend the time uploading them).

All you need to do is include the URLs in the manifest.csv file and then upload the manifest using the Panoptes command-line client using the panoptes subject-set upload-subjects command. You’ll need to specify a couple of extra options to the upload-subjects command:

1. `-r column_number` – this option tells the client which column(s) in your manifest contains the media URL(s). You can specify this option more than once to include more than one piece of media. Replace column_number with the number.
2. `-m file_type` – this option tells the client what the file type of your media is. Unlike when you upload files to us, the client can’t automatically detect the file type. If you don’t specify this option, it will default to image/png. It’s important to make sure the type you specify matches the media files you’re using, as otherwise they may not be displayed correctly when people visit your project. The type should be specified as a standard MIME type string.

Important: Make sure your media URLs start with `https` rather than `http`. Zooniverse.org is served over a secure connection, so in order for your media to be loaded correctly it will have to be served securely too.

So, for example, if your manifest.csv looks like this:

URL	Catalogue	Location

	number	
https://example.com/images/image1.jpg	img-003-01	Oxford, UK
https://example.com/images/image2.jpg	img-003-02	Chicago, USA

You would use this command to upload the manifest:

```
panoptes subject-set upload-subjects -r 1 -m image/jpeg manifest.csv
```

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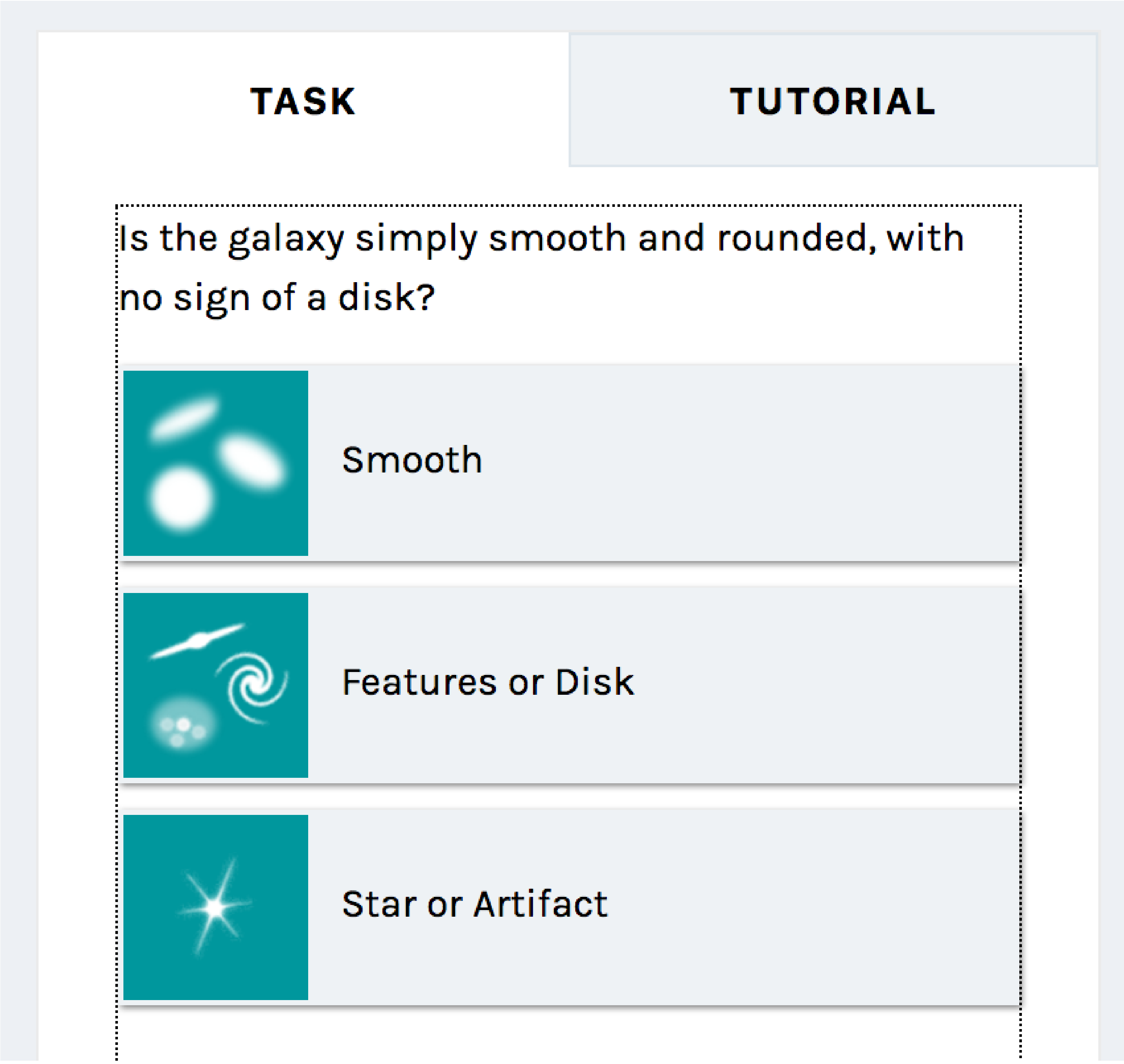
Zooniverse Help

Markdown

Here's a few tips that work everywhere we support the Markdown syntax, e.g. pages, tutorials, the project description...

Displaying and Resizing Embedded Images

You can upload images to Panoptes and display them anywhere the Project Builder allows markdown. Tutorials, help, the field guide, and even as icons. Here’s Galaxy Zoo adding icons to each answer using transparent .png images:



But what if your image is stupidly large to use as an icon, or much too small for the field guide?

Panoptes has a special version of markdown that lets you specify the image dimensions to display. Copy the markdown string from the Media tab, then add ={pixel_width}x{pixel_height, or blank for square} just before the last bracket. For example:

```
![image.png](https://panoptes-uploads...748eb.png =60x)
```

will display a square image resized to 60 by 60 pixels.

This works for an image you host yourself (see [Adam’s section]) - just update the URL.

Zooniverse Help

Newsletters

Did you know you can send a newsletter to your volunteers once your project is launched as an official Zooniverse project? Just send plain text copy to contact@zooniverse.org and we will edit and send to your registered volunteers.

Newsletters are one of the key ways of engaging with your community. Updates let volunteers know that their hard work is appreciated and being used by your research team. Newsletter will bring volunteers back to your project more than any other means of communication.

Zooniverse Help

Subject Selection Process

When you first set up a project, the process for selecting which subjects get shown to volunteers is very simple: it randomly selects an (unretired, unseen) subject from the linked subject sets for that workflow.

Per workflow weighting

However, we also have support to tweak this process. It's possible to assign weights to subject sets, so subjects in set A have a proportionally higher chance of getting shown compared to set B. Because subjects retire and subject sets have different amounts of subjects in them, it is possible to set weighting up in two different styles:

1. A fixed chance per subject set. For instance, subjects in set A will always have a 60% chance of being shown to a volunteer, and subjects in set B will always have a 40% chance of being shown, regardless of how many subjects actually are in set A. A practical use of this would be to show gold-standard training images to volunteers for 30% of the shown images, even though there might only be 20 training images in the project. Once those 20 training images have all been seen by a user, they would of course not be shown again, providing a natural automatic stop to training.
2. A fixed chance for each individual subject in a set. This is still configured at the per subject set level, but the weight is now applied at a per-subject basis, i.e. relative to all of the other available subjects in the workflow. With this you can make it twice as likely for a subject to be shown. A practical use for this is when you have new data available, but the previous dataset isn't fully complete yet. By increasing the relative weight of the old subjects, you can make sure that the

subjects in the old subject sets have a high chance of still getting their last few classifications needed for them to proceed to retirement, while still making the new subjects available for classifying as well.

Per user weighting

It's also possible to set these same parameters up on a per-user basis. This overrides the configuration at the workflow level. A practical use for this is to use heuristics to detect users with a high accuracy in certain types of subjects, and giving these users a higher chance of seeing certain subjects. This is an advanced use case which combines various features.

How to set this up

Unfortunately, we haven't yet had time to build any user interface for project owners to configure this behaviour themselves. If you'd like to make use of this on one of your projects, please let us know at contact@zooniverse.org and we'll be happy to set it up for you.

Zooniverse Help

Getting Started

1.1 Who is this resource for?

This guide is aimed at people who want to transcribe a large amount of handwritten text using volunteer crowdsourcing. You will either have an existing collection of digital images, or have identified manuscript or archival sources that you plan to make digital images of, which will be transcribed through the effort of volunteers. This guide is a comprehensive introduction to the lifecycle of a crowdsourced transcription project using the Zooniverse platform, covering technological and social aspects of such projects.

You may be interested in crowdsourcing because the volume of material you have is larger than you or your research team could transcribe alone. If you plan to ask volunteers to participate, you need to make the transcription process meaningful and rewarding. Thus we carry through this guide an assumption that the material you are interested in transcribing will be of interest to others beyond your immediate use case.

Crowdsourcing text transcription is of interest to a wide range of people. We have tried to write this guide with an awareness of the variety of interests and materials that may have brought you here. Our advice is not tailored to assumptions about your disciplinary background, institutional affiliation, or educational status, though those may well affect how you go about implementing the advice we give. Handwritten pages are important sources for meteorologists and medievalists, physicists and poets, economists and ecologists. Text transcription projects often originate from teams in museums, libraries, universities, government agencies, archives, genealogical organizations, and scholarly societies, but can be hosted by individuals or other organizations, too. A project to crowdsource the transcription of text may take a year or more to complete, and so we assume that you—individually or collectively—can sustain your project over a long period of time, and be comfortable with uncertainty about how long it takes.

This guide was developed as part of an NEH-funded Institute for Advanced Topics in Digital Humanities, Building Capable Communities for Crowdsourced Transcription, that ran from 2021 to 2023. The authors of the guide worked with 15 project teams in seven online meetings and one in-person meeting to build crowdsourced transcription projects on the Zooniverse platform. This guide was informed by the questions and experiences of those projects, as well as our experience designing and teaching the institute.

This guide was written collectively by the Co-Directors of the institute, and its two research assistants.

We have written this guide in the first person, addressing our advice to "you" as a member of a team building a crowdsourced transcription project. When we refer to technical terms related to the Zooniverse we have capitalized the words.

Co-Directors

Samantha Blickhan, Zooniverse Co-Director & Humanities Lead, Adler Planetarium

Evan Roberts, Assistant Professor, History of Medicine and Population Studies, University of Minnesota

Benjamin Wiggins, Senior Lecturer of History and Library & Archive Studies, University of Manchester

Research Assistants

Treasure Tinsley, PhD Candidate, History, University of Minnesota

Trevor Winger, PhD Candidate, Computer Science, University of Minnesota