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Wikidata 101
Basic introduction and useful gadgets
Script for slides

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Slide 1

All of you have heard of and are most probably using Wikipedia on a regular basis. But what about Wikidata? What's the difference and how are the projects related?

Slide 2

Here is an outline of the presentation. There are three parts to this presentation. Please type in the bit ly link to follow along in my Google docs presentation as I go. There are many links you can click on now or later!

The first part is a basic introduction, which is me talking.

The second part, you will be actively participating by checking and updating your preferences and gadgets, so if you haven't already, please navigate to my slides so you can easily click on links as we go.

The third part will be me showing you some more resources and demoing a few of the gadgets and resources we have installed.

Slide 3

Wikidata is one of many Wikimedia sister projects (this one here with the barcode logo), others include Wikimedia Commons, Wikisource and of course Wikipedia.

Wikidata aims to create an open and collaborative database that stores relational statements about entities.

Slide 4

Or as a recent diff blog put it:

Wikipedia tells
Commons shows
Wikidata connects

Slide 5

Wikidata is a sort of data backbone for Wikipedia. Pretty much anything you can think of gets an entry. While Wikipedia provides text, Wikidata stores structured data that are human- and

machine-readable.

https://www.wikidata.org/wiki/Wikidata:Main_Page

- Wikidata is a free, open **knowledge base** anyone can edit.
- It is **multilingual** by design, you can use it in many different languages.
- It can be read and edited by humans and applications, so it's easy to improve a single item or thousands.
- The data can be **queried** and because they are openly licensed (Creative Commons 0, CC0), they can be **(re)used** without restrictions.
- Really important is Wikidata's role as a **hub** for external **identifiers**!

This structure, openness, and accessibility makes it a powerful way to answer really complex questions.

I will go over each of these briefly in the next slides.

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Wikidata is made up of structured data, that is, data that is linked to other data.

Thing 1 is linked to Thing 2.

That linked structure is often called a triple, because it's made up of three parts: subject, predicate, object.

For example Ynes Mexia is our subject, and she has the occupation botanist. So Mexia's Wikidata item is linked to the Wikidata property "occupation" which is then linked to the Wikidata item for "botanist".

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Wikidata is multilingual.

Each item expresses a concept represented by the Wikidata Qid number.

This concept can be expressed in multiple languages in Wikidata.

Slide 8

Anyone can edit Wikidata, whether or not you have an account.

But if you do have an account, other editors are more likely to assume you are editing in good faith.

If you don't have an account your IP address will be recorded in the history of those edits.

The community tends to be more suspicious of these types of edits because of vandalism.

Slide 9

All the data added to Wikidata are licensed CC0.

This means the data is dedicated to the public domain and is able to be reused by anyone

for anything.

Slide 10

One of the most important elements of Wikidata is that it acts like an identifier hub.

In this slide you can see all the identifiers added to the Wikidata item for the botanist Ynes Mexia.

The text is small because there are SO MANY identifiers listed on her item. If you look closely you'll see library identifiers, archive identifiers, online encyclopaedia identifiers, botany database identifiers, natural history institution identifiers, and genealogical database identifiers.

So Wikidata acts like a crosswalk or a bridge between one institution's data and another institution's data.

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Wikidata is queryable.

If you know the SPARQL query language you can use the Wikidata Query Service to query Wikidata.

The Wikidata Query Service also allows you to visualise the data, for example here you can see a map of all the herbaria in New Zealand.

You can also use the basic Wikidata Query Builder to query Wikidata.

You can also ask the Wikidata community to build a query for you.

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Another way that Wikidata is extremely useful to us botanists and other scientists, is that other platforms link to Wikidata using the Wikidata identifier, or QID.

Sites such as the Biodiversity Heritage Library on the left, and Bionomia on the right, pull information about collectors and display that information on their pages.

This reuse of Wikidata information means we can access the same information from multiple websites, and it helps us disambiguate botanists and collectors much more easily and with confidence.

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So this is what a Wikidata item looks like.

It has a label which can be in multiple languages with the wikidata item identifier called the Qid next to it.

Items should have a description which, as I've explained previously, can be in multiple languages. It also has an alias section called the "also known as" or "alias" section, which is important as it reduces the number of duplicate items added to Wikidata and helps people find the data.

There are statements - which is how the data is added to Wikidata - and these statements should be referenced.

There are two main ways to reference a statement. Either through a “stated in” statement which references a source described in a Wikidata item or a “reference url” statement which links to a website address where the source of the data can be found.

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When you are editing Wikidata you are helping weave a data ecosystem.

When adding or enriching items on Wikidata, you are increasing the shared knowledge available to everyone.

As shown on the previous slides, data can be reused across multiple platforms. It can be reached by humans searching for information, but also by machines, increasing the pace at which data can be interlinked.

Slide 15

This is a map of any Wikidata item which has geographical data linked to it.

It gives an indication of Wikidata coverage of particular areas of the planet. South America and Africa are not as well covered as locations in the Global North.

This is definitely something to bear in mind when editing Wikidata. Try to prioritise areas and topics that are less well covered.

Slide 16

We’ve included two links in this slide to a blog about mitigating AI bias and a scholarly article on bias in the Wikidata that may be of interest.

This second link for example found that regarding STEM scientists and engineers in Wikidata, there is an overrepresentation by people who are white and of northern hemisphere citizenship, whereas the rest of the world is generally underrepresented.

Therefore we encourage you to edit proactively. For example, you can improve the coverage of underrepresented groups of people in society in Wikidata. For example I prioritise creating or improving Wikidata items for women as well as items for botanists from the Global South.

Slide 17

So now that you know what Wikidata is, why would you edit Wikidata?

Here are a few links to blogs or papers that discuss some of the reasons why you might want to edit Wikidata. There are many more!

But the basic idea is that when you edit in Wikidata, you collaboratively help build an open data repository that improves Wikipedia, has lots of applications in science and other topics, and helps connect or link up things - for both humans and machines - when we all work together on it.

Slide 18

Now we are on to the second part of the presentation.

Before we get into editing Wikidata, we want to get our Preferences set up and some Gadgets installed that will help streamline our editing experience.

This part of the talk will be you actively taking part! So make sure you have these slides open in one tab so you can click on the different links as we go.

Slide 19

Here are a few very useful links for understanding what Gadgets, Tools and Scripts are available to you for using on Wikidata.

We will go through some of these in the next few slides.

I recommend reading through these pages later on your own time to deepen your understanding of the available options.

At the moment, please open these tabs on your browser, especially the last one - Gadget usage statistics.

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I would now like everyone to navigate to their Wikidata Userpage and click on the Preferences icon in the drop down menu in the upper right hand corner.

One of the most important tabs on this preferences page is the Gadgets tab.

This is full of useful tools that can make your editing easier. Like many things in Wiki - some of these gadgets don't have great documentation on what they do.

Keep this page open on your browser.

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Now navigate to that Gadget usage statistics page.

This page is helpful because it lists the Gadgets in order of how many people use them, showing their utility. I suggest making sure 8 of the top 9, as shown here on the left, plus these other 4 on the right are ticked on your Wikidata Userpage Gadget tab in your preferences. Please toggle between your Gadgets tab and here to make sure all of those shown here are ticked. Leave other ticked gadgets as they are.

I'm not recommending Request Deletion unless you want to get into conversations about Wikidata notability. It's not for duplicate Wikidata items. If you do come across those, you can Merge them, but I would consider Merge to be a more advanced skill that should only be done when you are 100% sure they are the same thing, and also please don't use it for species and other taxa!

What do some of the other gadgets do? They save you time and clicks! For example:

- The current data will automatically give the date when you add a retrieved statement to a reference.
- The duplicate references gadget will allow you to copy a reference and add it to any other statement made in a particular item.
- Recoin gadget gives you a list of important properties that are missing from a Wikidata item based on other items of a similar type in Wikidata. This can guide your editing and help you make the item more useful.

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Now let's get our language settings the way we want them.

You can read and add data to Wikidata in many languages.

You do this by pressing the language icon at the top right of the Wikidata screen.

Once you've pressed that you press the wheel icon at the bottom right of that pop up.

This takes you to the language settings where you can decide what language you want Wikidata to be in as well as the language you want to add data to Wikidata in. For many of us both of these will be English, but for others we might want to make changes. Also you can easily change this at any time for example if you are editing or reading a bunch of items in another language on a certain day, and then easily change back.

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If you want to see and edit labels and descriptions of Wikidata items in multiple languages, let's now set that up.

Here you can see what a Wikidata item for this particular scientist looks like for me when I am logged into Wikidata.

There's also another button here for "all entered languages" and you can furthermore see that I have the "Recoin" gadget set up in my profile. You can also see I have a script running (we'll get to that later) which shows me which editors have edited certain parts of this Wikidata item.

I can see these four languages because they are the ones I have chosen. I can edit the label, description and aliases for my chosen languages. Default for all languages is also really important especially for things like people, species and scientific papers - whose label should not change for different languages. So putting a label in here means that it will automatically show that name for any language, and importantly, you don't have to fill that in for all the other languages. This saves space in Wikidata because it's not having to store the same value multiple times - it just stores it once here and you can see it's filled in grey for languages that don't have a value.

So how do we set this up?

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Back on your Preferences, this time choose the Appearance tab. Click "Show labels..."

Now head to your Userpage in Wikidata, and add a statement using Babel. Babel shows what languages you are interested in, and want to show on Wikidata item labels, and gives them a score of 0 to 5 (plus N).

Recommendations: List them in the order you want to see them, add 0 to languages you want to see but don't speak, always add "mul-1" as your last language.

Let's now take 5 minutes to get your Babel set up on your userpage. This will show up as a colourful box like this on your Wikidata Userpage.

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If we go back to that page showing us the Gadget usage statistics, now sort by "enabled in".

We can see that in addition to some Gadgets being in Preferences (and easy to add by ticking boxes - which we have just done), some others are enabled in something called "common.js".

But if we want to enable one of these gadgets, how do we do that?

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Everyone has a common.js page, or if you don't have one yet, you can create one. Navigate to your Wikidata page now following this format.

Note this is your Wikidata common.js page. You will also have a common.js page for Wikipedia and also for Commons, for different tools for those platforms.

This is what my Wikidata common.js page looks like. Lots of bits of code copied in, means the tools set up in this way will work.

These codes for Gadgets are all developed by Wikidata users and made available to others to use to streamline your editing experience.

You can copy and paste common.js code here. But a couple of weeks ago I found out about a script called "Script Installer" which will make the process easier!

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So the first script we are going to add to our common.js page is Script Installer!

"ScriptInstaller" will put an "Install" button for automatically installing any scripts to your common.js page on Wikidata. This means no more copy/pasting of code!

So what I'd like everyone to do is now edit your common.js page, copy/paste the following code into it, click Publish, then follow the Reference instructions at the top of the common.js page.

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Now that we have StriptInstaller, let's use it to add another script.

We'll choose the script UseAsRef, which is useful because it will allow us to easily use an identifier that is already on a Wikidata Item as a reference for another statement on the item.

First, back on our handy Gadget usage statistics page, choose the script UseAsRef by clicking on it.

This opens the handy Enhance user interface page. Click Activate there.

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This opens the line of code. You can copy/paste this into your [common.js](#) page, but why do that when you can use ScriptInstaller?

So click on the link `[[User:Bargioni/UseAsRef.js]]` which will take you to the code for that Gadget.

At the top of that page, you should now see an "Install" button (this is what ScriptInstaller did!). Click on Install.

Then go back to your common.js page to refresh and check that this code is now there.

Slide 30

Now we are up to Wikidata editing resources & demos!

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Here's a stack of resources you can get to using these slides.

Wikidata's main page is full of links to info about getting started, but we'd recommend new editors start with the Wikidata tour or [Learnwikidata.net](https://learn.wikidata.net)

Learnwikidata has short videos on how to make edits and is a fantastic introduction.

The University of Edinburgh guide has written guidance and more videos, showing you the details of what editing looks like.

Slide 32

There are several other tools that come in handy when editing Wikidata, again to make editing quicker, more streamlined. The examples here are about people (authors of publications) and publications.

Included in this slide a links to the Author Disambiguator tool. This tool helps you change an author name string statement on a Wikidata publication item to a link to the author Wikidata item.

The BHL2Wiki tool helps editors add a publication to Wikidata via its DOI. The tool checks to see if a Wikidata item already exists and if not imports the publication metadata from CrossRef into Wikidata allowing the editor to automatically create a Wikidata item for a publication. If the article metadata is not in CrossRef and linked to the article DOI BHL2Wiki will not work.

The last tool on the slide is Quickstatements. Quickstatements facilitates the editing of Wikidata, and some tools like the two I've just mentioned, use QuickStatements.

Slide 33

So how do you edit Wikidata? We highly recommend completing the Wikidata tours tutorials to get yourself started. We've also included a link to a youtube video. When you are ready go to the main page of Wikidata. If you want to manually create an entire new item you can press the "create new item" tab on the left hand side of the Wikidata. Before doing this we highly recommend searching Wikidata for what you want before attempting to create a new item about it. This is to avoid creating duplicate items.

If you just want to edit an item, go to that item and press the "add statement". You can then add the property you want to use (for example date of birth) and then add the data you would like to add to the Wikidata item.

We highly recommend starting with manually editing Wikidata before progressing to bulk editing. We've put links to some beginner documentation and videos on how to edit Wikidata to start you off on your Wikidata editing journey.

<https://www.wikidata.org/wiki/Wikidata:Tours>

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Demo: do a live demo on screen - go to a Wikidata item, demonstrate the shortcut keys for getting around, “in more languages”, “Recoin”, other gadgets, add Label and Description, add Statement.

<https://www.wikidata.org/wiki/Q6000720>

Demo: add German description, “Australische Botanikerin”

Demo: Use the Encyclopedia of Australian Science ID

<https://www.eoas.info/biogs/P004511b.htm> as a reference for “educated at” University of Melbourne using UseAsRef.

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Here is a summary of the main points of my talk today on Wikidata.

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Questions

Slide 37

Attributions and copyright