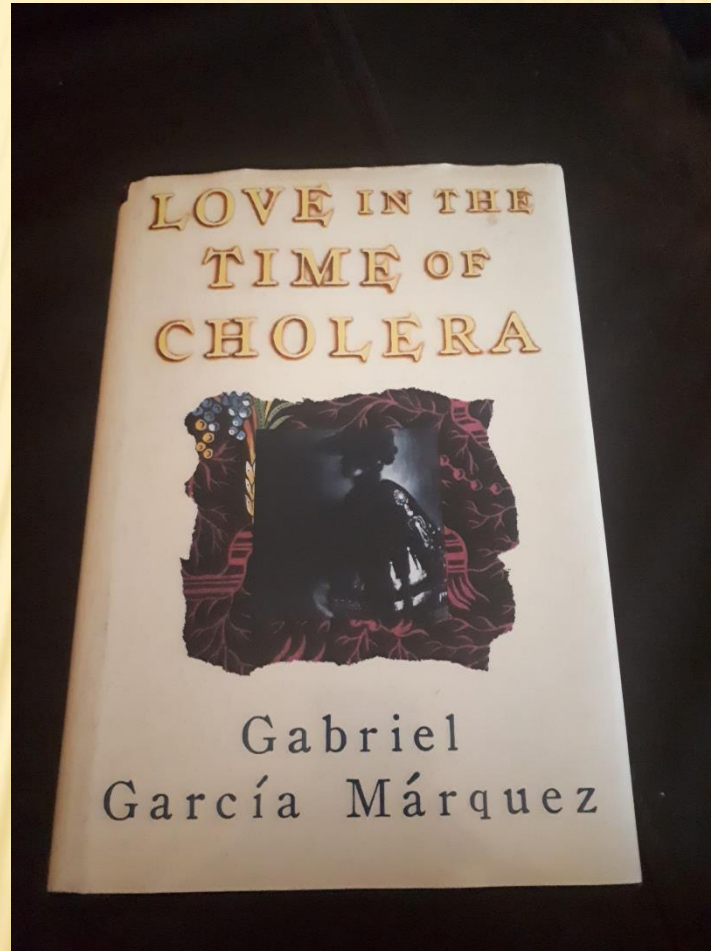


# KNOWLEDGE IN THE TIME OF CRISIS

Η ΓΝΩΣΗ ΣΤΑ  
ΧΡΟΝΙΑ ΤΗΣ  
ΚΡΙΣΗΣ

المعرفة في وقت  
الأزمات

# DOES THE TITLE REMIND YOU OF SOMETHING?



**If love can survive in the time of cholera, knowledge can survive in the time of crisis\***

\*more about cholera later on in the presentation!

So, what do we need in times of crisis?

**WE NEED LOVE**

إذا, لماذا تحتاج في أوقات الأزمات؟

نحتاج للحب



Patients and vulnerable members of society build skills and self-confidence while adding value to the Wikimedia Projects

# WIKITHERAPY

---

## PILOTED IN GREECE

–

## REPLICATED IN ARGENTINA

by Mina Theofilatou



I am an electrical and computer engineer employed for 13 years as a computer science teacher in an evening high school for adults and working students. I wanted to take my experience in teaching with Wikipedia a step further: I wanted to help *patients* gain knowledge, skills and self-confidence. And so Wikitherapy was “born”, and piloted for six months in a Day Centre for mentally ill patients.

by Andrea-Patricia Kleiman



Andrea, who is a psychologist, was my roommate at Wikimania 2016 in Esino Lario. When I told her about my idea she was excited: soon she set up the program “Wikiquote at the Hospital” in the psychiatric ward of a Buenos Aires hospital. Both programs were presented at a medical conference in Argentina in 2017.

# WHAT WAS THE OUTCOME?

- Roughly **10** edits to Commons, **100** edits to Greek Wikiquote, **500** edits to Greek Wikipedia, **1000** edits to Greek Wiktionary;
- **Two one-off editors, an enthusiast and a dedicated Wikimedian;**
- **Two visits to local archives and library** for a group editing project;
- **Two outreach events and mentions in local and national press;**
- **A presentation in the Wikiproject Med session at Wikimania Esino Lario 2016.**

**But the real success story is this:** Dimitris started out with an odd hobby of writing words on paper and using his five dictionaries to translate them into other languages. Evangelia posted images with quotes on her Facebook page. **After six months of Wikitherapy,** Dimitris has, as [User:Jim Vallianos](#), translated Greek entries on Wiktionary into 12 different languages, adding more with each new dictionary he acquires.

Dimitris is helping Wiktionary evolve into a multilingual dictionary for Greek users. Evangelia was the most active contributor to Greek Wikiquote for all of 2016.

**They have added value to the Wikimedia projects. They have added value to their lives. And they're proud :)**

*Get a glimpse of the action in [this](#) video (Funk music by Kevin MacLeod)*

What else do we need?

**WE NEED KNOWLEDGE**

لم نحتاج أيضا؟

**نحتاج للمعرفة**



# WILD FLORA ON COMMONS –THE WILD FLORA ANDROID APP



*African wood-sorrel*: this is a common weed on my island. It grows everywhere! Nowadays farmers use it to feed their animals... but in WWII the bulbs helped the locals survive in times of famine. In the school year 2012-13 we studied 15 edible species of wild flora in Kefalonia used for sustenance in times of war, and for gourmet creations in times of prosperity: see the [gallery](#) on Wikimedia Commons, and a [video](#) of our outdoor event 😊



Four years later almost everyone has a smartphone... so in school year 2016-17 we decided to build an Android app in English for those willing to explore biodiversity in the Mediterranean region, and in Greek to make this valuable information available both online and offline in the field. The apps were built in MIT AppInventor, a CC-BY-SA 3.0 platform. See [here](#) for more information and a [link](#) to download the app to your phone 😊

Racism and discrimination have no place in our world. So...

**WE NEED JUSTICE**

لا مكان للعنصرية و الإقصاء في عالمنا, إذا...

**نحتاج للعدالة**



Photo credits: User:Ggia, Wikimedia Commons

# THE CASE OF ZAK KOSTOPOULOS

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22 August 1985 – 21 September 2018

R.I.P.

# A VIOLENT DEATH IN BROAD DAYLIGHT IN ATHENS, GREECE

## What mainstream mass media said:

- ✘ *“Zak Kostopoulos was a gay, HIV-positive drug addict, who broke into a jewelry shop to steal money and jewelry to get his fix. The shop-owner had to protect his property against the robbery, and so he kicked him in the head in self-defense”*
- ✘ The news was all over the media: it turned out Zak was an LGBT activist who frequently spoke out in public about civil rights. This led to hate-mongering and extensive debates on TV, social media and the Internet
- ✘ A popular TV channel even held a “pay-to-vote” poll on whether the jeweler was entitled to use extreme violence to protect his business, thus turning Zak’s death into a profit-making commodity...

## What I did:

- ✘ Ten days after the incident, there was still no article on Greek Wikipedia. I decided to start it and summoned my friends on social media to support my efforts. The photo was soon added by a Wikipedian with whom I have had conflict in the past: this goes to prove that common, noble purposes *unite*...
- ✘ The article was soon marked for notability, on grounds that his *death* - and not his *person* - were notable. An editor started the article “Death of Zak Kostopoulos” and suggested redirecting or merging the content.
- ✘ As the evidence from court proceedings started to emerge, I entered these one by one to the article: it turned out that he was NOT intoxicated and he had NO intention of robbing the jewelry shop. The investigations are still in progress, with all evidence currently available indicating that **Zak Kostopoulos was the victim of a racist attack.**

There are now five registered and several IP editors actively engaged on the pages. The pages are the first results of a Google search on his name. Our mission as Wikipedians is to provide the world with notable, neutral, referenced information: this is especially important if we want a world with **social justice**.

And to make this all possible, we need to be healthy. So...

## WE NEED RELIABLE MEDICAL INFORMATION

من أجل تحقيق كل هذا, علينا أن نكون بصحة جيدة, إذا...

نحتاج لمعلومات طبية موثوقة

# IF YOU ASK ME WHICH IS THE ARTICLE I AM PROUDEST OF...

- ✘ It's this one: the **WHO Model List of Essential Medicines**. It is the only instance of this valuable resource for a health system on the Greek Internet.



Λήμμα [Συζήτηση](#)

Ανάγνωση [Επεξεργασία](#) [Επεξεργασία κώδικα](#) [Προβολή ιστορικού](#) [Περισσότερα](#)

Αναζήτηση σε Βικιπαίδεια

Η Βικιπαίδεια αγαπάει τα μνημεία: Φωτογραφίστε κάποιο μνημείο, βοηθήστε τη Βικιπαίδεια και κερδίστε!

**Μάθετε περισσότερα**

## Πρότυπος Κατάλογος Βασικών Φαρμάκων του ΠΟΥ

Από τη Βικιπαίδεια, την ελεύθερη εγκυκλοπαίδεια

Ο **Πρότυπος Κατάλογος Βασικών Φαρμάκων του ΠΟΥ**, που δημοσιεύθηκε από τον **Παγκόσμιο Οργανισμό Υγείας** (ΠΟΥ), περιέχει τα φάρμακα που θεωρούνται πιο αποτελεσματικά και ασφαλή για να ικανοποιήσουν τις σημαντικότερες ανάγκες σε ένα **σύστημα υγείας**. Η λίστα συχνά χρησιμοποιείται από τις χώρες για να βοηθήσει στη δημιουργία των δικών τους τοπικών καταλόγων βασικών φαρμάκων.<sup>[1]</sup> Το 2016, περισσότερες από 155 χώρες έχουν δημιουργήσει εθνικές λίστες βασικών φαρμάκων με βάση τον πρότυπο κατάλογο του Παγκόσμιου Οργανισμού Υγείας.<sup>[2]</sup> Αυτό περιλαμβάνει χώρες, τόσο στον αναπτυσσόμενο όσο και στον αναπτυγμένο κόσμο.

Η λίστα είναι χωρισμένη σε θεμελιώδη στοιχεία και συμπληρωματικά στοιχεία. Τα θεμελιώδη στοιχεία είναι εκείνα που θεωρούνται ότι είναι οι πιο **αποδοτικές** επιλογές για βασικά προβλήματα υγείας και μπορούν να χρησιμοποιηθούν με λίγους επιπρόσθετους πόρους υγειονομικής περίθαλψης. Τα συμπληρωματικά στοιχεία είτε απαιτούν πρόσθετες υποδομές, όπως είναι οι ειδικά εκπαιδευμένοι πάροχοι **υγειονομικής περίθαλψης** ή **διαγνωστικό εξοπλισμό** ή έχουν χαμηλότερο λόγο κόστους-οφέλους.<sup>[3]</sup> Περίπου το 25% των στοιχείων βρίσκονται στο συμπληρωματικό κατάλογο.<sup>[4]</sup> Ορισμένα φάρμακα αναφέρονται τόσο ως θεμελιώδη όσο και συμπληρωματικά.<sup>[5]</sup> Αν και τα περισσότερα φάρμακα της λίστας είναι διαθέσιμα ως **γενόσημα προϊόντα**, να να προστατεύεται ένα φάρμακο από **δίπλωμα ευρεσιτεχνίας** δεν αποκλείει την ένταξη.<sup>[6]</sup>

Η πρώτη λίστα δημοσιεύθηκε το 1977 και περιλάμβανε 212 φάρμακα.<sup>[7]</sup> Ο ΠΟΥ ενημερώνει τη λίστα κάθε δύο χρόνια. Η 14η λίστα δημοσιεύθηκε το 2005 και περιείχε 306 φάρμακα.<sup>[8]</sup> Το 2015 δημοσιεύθηκε η 19η έκδοση του καταλόγου, που περιέχει περίπου 410 φάρμακα.<sup>[9]</sup> Η 20η έκδοση δημοσιεύθηκε το 2017.<sup>[10]</sup> Οι εθνικοί κατάλογοι περιέχουν μεταξύ 334 και 580 φάρμακα.

Ένας ξεχωριστός κατάλογος για παιδιά έως 12 ετών, που είναι γνωστός ως **Πρότυπος Κατάλογος Βασικών Φαρμάκων του ΠΟΥ για Παιδιά**, δημιουργήθηκε το 2007 και είναι στην 5η του έκδοση.<sup>[11]</sup> Δημιουργήθηκε για να διασφαλιστεί ότι οι ανάγκες των παιδιών λαμβάνονται συστηματικά υπόψη, όπως για παράδειγμα η διαθεσιμότητα των κατάλληλων σκευασμάτων.<sup>[12][13]</sup> Τα φάρμακα στη λίστα των παιδιών περιλαμβάνονται επίσης στην κύρια λίστα.<sup>[14]</sup> Η λίστα και οι σημειώσεις είναι βασισμένες στη 19η και 20η έκδοση της κύριας λίστας. Με **a** σημειώνεται ένα φάρμακο που βρίσκεται μόνο στο συμπληρωματικό κατάλογο.

Πίνακας περιεχομένων <span>[</span> Απόκρυψη <span>]</span>	
1	Αναισθητικά
1.1	Φάρμακα γενικής αναισθησίας και οξυγόνο
1.1.1	Εισπνεόμενα φάρμακα
1.1.2	Ενέσιμα φάρμακα
1.2	Τοπικά αναισθητικά
1.3	Προεχειρητική αγωγή και νάρκωση για βραχυπρόθεσμες διαδικασίες
2	Φάρμακα αναλγητικά και παρηγορητικής φροντίδας
2.1	Μη-οπιοειδή και μη-στεροειδή αντιφλεγμονώδη φάρμακα (ΜΣΑΦ)
2.2	Οπιοειδή αναλγητικά
2.3	Φάρμακα για άλλα κοινά συμπτώματα στην παρηγορητική φροντίδα

Το 2017 σηματοδότησε την 40η επέτειο του Πρότυπου Καταλόγου Βασικών Φαρμάκων του ΠΟΥ.

## ***“BUT YOU’RE AN ENGINEER! WHY ARE YOU EDITING MEDICAL CONTENT?”***

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- In 2016 James Heilman encouraged me to start editing medical content on Greek Wikipedia, in the direction of building the offline medical app\*. My first efforts were translating the list of articles in Wikidata: around 800 item labels and descriptions to Greek. I started while I was in hospital, after surgery. The English Wikipedia article was very helpful for me in understanding my condition, whereas the Greek article was lacking important content...
- I loved it so much, I decided to “retrain” myself in the health sciences. However I cannot afford a paid course... so I started attending medical MOOCs in English while simultaneously translating the Wikidata labels and descriptions of the new terms I encountered into Greek. This has helped me consolidate the terminology in both my native languages, and of course, adds value to Wikidata.
- My particular field of interest is Neuroscience: I have been taking care of my brain-damaged sister for 14 years and I want to learn more about how the brain works.
- So far I have completed two MOOCs (King’s College – Johns Hopkins respectively), and this winter I intend to finally complete a very demanding 13-week course in Medical Neuroscience delivered by Duke University.
- I have made over 2000 edits to medical Wikidata items.

\*I have an “Internet-In-A-Box” (IIAB) device with me. If you would like a demonstration, just ask me ☺

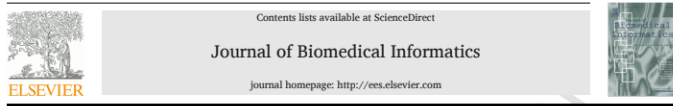
# THEN AT WIKIMANIA 2019 IN STOCKHOLM...



... I met Houcemeddine Turki, a Wikipedian and medical student from Tunisia. We had an interesting discussion with Elza Dunkels, Board Member of Wikimedia Sverige and faculty member at the Dept. of Applied Educational Science, Umea University.



# WIKIDATA AND MEDICINE



Special Communication

Wikidata: A large-scale collaborative ontological medical database

Houcemeddine Turki<sup>a</sup>, Thomas Shafee<sup>b</sup>, Mohamed Ali Hadj Taieb<sup>c</sup>, Mohamed Ben Aouicha<sup>c</sup>, Denny Vrandečić<sup>d</sup>, Diptanshu Das<sup>e</sup>, Helmi Hamdi<sup>f</sup>

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## ARTICLE INFO

Keywords  
Wikidata  
Biomedical ontology  
Semantic resources  
Multilingual resources  
Medical data

## ABSTRACT

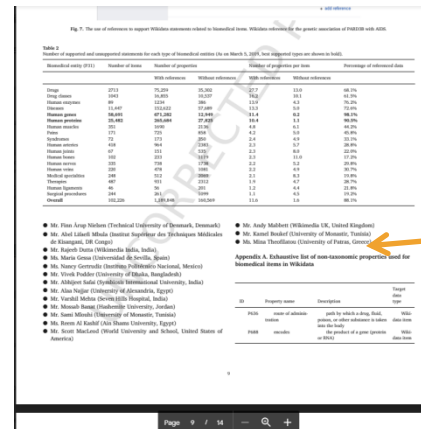
Created in October 2012, Wikidata is a large-scale, human-readable, machine-readable, multilingual, multidisciplinary, centralized, editable, structured, and linked knowledge-base with an increasing diversity of use cases. Here, we raise awareness of the potential use of Wikidata as a useful resource for biomedical data integration and semantic interoperability between biomedical computer systems. We show the data model and characteristics of Wikidata and explain how this database can be automatically processed by users as well as by computer methods and programs. Then, we give an overview of the medical entities and relations provided by the database and how they can be useful for various medical purposes such as clinical decision support.

## 1. Introduction

With the rising use of artificial intelligence in medicine, there is a clear need to develop a large-scale, multi-lingual, machine-readable, human-readable, editable, structured and linked representation of all medical knowledge for processing biomedical data by computational methods [48]. One way to achieve this is the use of a unified representation such as a biomedical semantic knowledge database. It provides an exhaustive, yet ever-evolving, list of biomedical concepts such as genes, diseases, drugs, symptoms and their names in multiple languages [15]. These concepts are linked by taxonomic relations, such as “instance of” and “subclass of”, to allow the data to be classified, categorized and indexed [63]. Non-taxonomic associative relations (e.g. “drug used for treatment” and “risk factor”) should also be included between medical concepts to give biomedical computer systems the ability to clinically analyze provided inputs (such as Electronic Health Records, IoT data, and X-ray images) as well as the ability of returning

applications like biomedical question answering [4], clinical decision support [16] and the automation of computed tomography procedures [17]. Some of these resources such as BabelMesh and SNOMED-CT are currently available in multiple languages and can be used to process biomedical data provided in languages other than English [38,27]. Ontologies are an outstanding contribution to biomedical informatics [29]. However, being verified and validated by a closed set of medical scientists imposes several drawbacks [28]. On the one hand, an ontology can lack an important concept or relation that is found in other same-purpose biomedical ontologies [28]. On the other hand, several existing ontologies are incompatible with one other because they cover different fields of interest or because they use different systems [28,8]. Moreover, existing databases have different licenses to use (LTU). Many are subscription-based business models where additional technical barriers and costs are a concern [72]. These issues limit informatics and biomedical computer systems and prevent semantic interoperability between biomedical computer systems [16,16]. This has led to a fractured landscape of partial databases that are not linked from each other as well

**Just in!:** this paper by Houcemeddine Turki and 5 coauthors was recently accepted for publication in the **Journal of Biomedical Informatics** (Elsevier). This is a major accomplishment for the authors...



...and an honour for those who were engaged in the vision and acknowledged for their efforts.

One of the keywords is “**multilingual resources**”. Wikidata is developing into a medical database; its success depends also on the availability of as many languages as possible. This is the role that I have chosen in this process: my ambition is to translate the labels and descriptions of as many items as possible into Greek. And this is where bilingual editors – especially in minor languages – can contribute!


# AND NOW, BACK TO “CHOLERA” ...

English [ edit ]

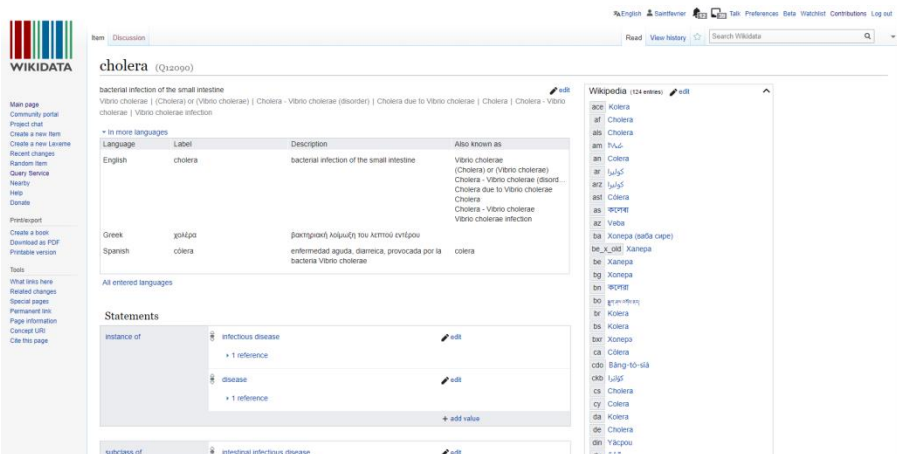
Etymology [ edit ]

From Latin *cholera* (“bilious disease”), from Ancient Greek *χολή* (*kholḗ*, “bile”).

Pronunciation [ edit ]

- IPA<sup>(key)</sup>: /ˈkɒləɹə/
- Audio (US) 
- Hyphenation: cho-le-ra

As we can see from [Wiktionary](#), it’s a Greek word... I guess this gives me a competitive advantage in understanding medical terminology 😊



The screenshot shows the Wikidata page for cholera (Q12090). The main content area includes a table of translations in various languages, a list of statements (e.g., 'instance of' with 'infectious disease'), and a list of subclasses (e.g., 'intestinal infectious disease'). A sidebar on the right shows a list of languages with a search box.

In **Wikidata**, the translation for cholera was already there. However the description was missing, and we often overlook its importance: **the briefer the description, the better**. Its only purpose is to facilitate the user to select the correct item from the drop-down list in the search box.

# THE IMPORTANCE OF DESCRIPTIONS IN MEDICAL WIKIDATA

Before...

Language	Label	Description	Also known as
English	cholera	bacterial infection of the small intestine	Vibrio cholerae (Cholera) or Vibrio cholerae Cholera - Vibrio cholerae (disord. Cholera due to Vibrio cholerae Cholera Cholera - Vibrio cholerae Vibrio cholerae infection
Greek	χολέρα	βασίλωση, λευκοί του κεντρώου	
Spanish	cólera	enfermedad aguda, diarreica, provocada por la bacteria Vibrio cholerae	colera

Three items on the first section of the dropdown list have no description: the user has no clue what they refer to...

and after\*

Language	Label	Description	Also known as
English	Cholera	scientific article published in The Lancet	
Greek	No label defined	No description defined	
Spanish	No label defined	No description defined	

Now the user can see that two of these refer to scientific articles, and the third is... a type of pie!

\*And an issue I encountered: two different items regard the same scientific article. Both have been imported by the same bot, using different identifiers (DOI and PubMed respectively). Perhaps a merge is needed?

# THINGS TO DO ON MEDICAL WIKIDATA

- ✘ If you want something quick and easy: **add descriptions in your mother tongue**. Often they are missing from items... and you may be surprised at what you will learn! (as I learned that there is a deadly disease and a traditional Swiss pie that share the same name!)
- ✘ **Translate descriptions**. Adding the translation of e.g. “human disease” may help a user searching a word with ambiguous meanings
- ✘ **Translating labels** may be more challenging... but keep in mind what I said before: a lot of the terminology is Greek anyway, so you probably know it already
- ✘ If you want to learn more about the **biomedical informatics project** and how you can join, please feel free to ask
- ✘ **Remember... every edit counts 😊**

LOVE

ΑΓΑΠΗ - حب

KNOWLEDGE

ΓΝΩΣΗ - معرفة

JUSTICE

ΔΙΚΑΙΟΣΥΝΗ - عدالة



Scan the QR code to visit my user page on English Wikipedia. You can also find me on Facebook 😊

THANK YOU!

ΕΥΧΑΡΙΣΤΩ!

شكرا جزيلًا

---

**MINA THEOFILATOU (USER:SAINTFEVRIER)**  
**ARGOSTOLI, KEFALONIA, GREECE**