



Presented at the FIG Working Week 2025,
6-10 April 2025 in Brisbane, Australia

Collaboration, Innovation and Resilience: Championing a Digital Generation

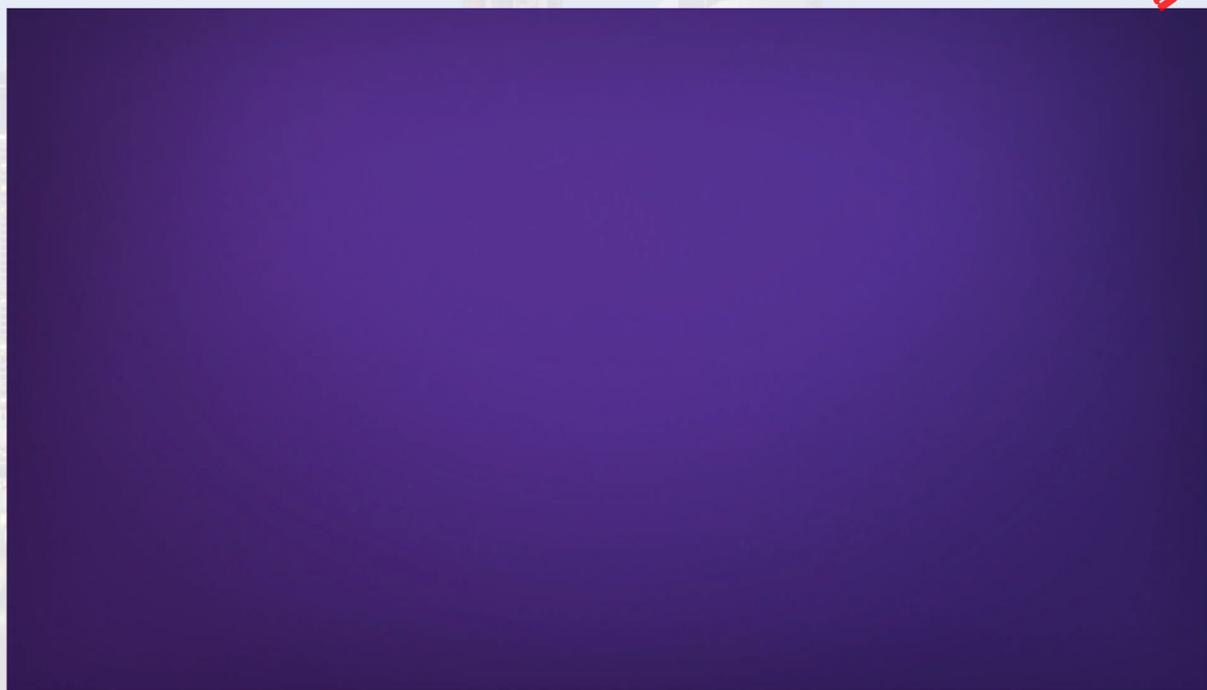
Brisbane, Australia 6-10 April

Mapipedia

A Collaborative Platform for Visualising Geospatial Time-Series Data and Interactive Learning

Dr David Philpot – Mapipedia Founder

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Mon 7th April 2025



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What is Mapipedia?



Create, Collaborate, Educate

- Hobby project
- Free social media type tool to:
 - Share and visualise geospatial time-series data
 - Collaborate using comments, messages, follows, likes
 - Authors can accept donations
 - Show the: What, When, Where, How, Why of data
- Looking for early adopters

MapYour Data

Share it with the World
or Keep it Private



Create
Collaborate
Educate

 **Mapipedia**.com



CO2 Emissions per Capita: 1800-2021

https://mapipedia.com/s/u/drdave/co2_per_capita.html



Some smaller countries with high values removed

Western countries generally declining:

- UK: highest emitter during 1800s
- USA: 1972 (peak @ 23), 2021 (14.8)
- AUS: 2005 (peak @19), 2021 (15)

Asian countries generally climbing (but lower than west)

Saudi Arabi currently worst of the large countries in 2021 (18.6)

Source:

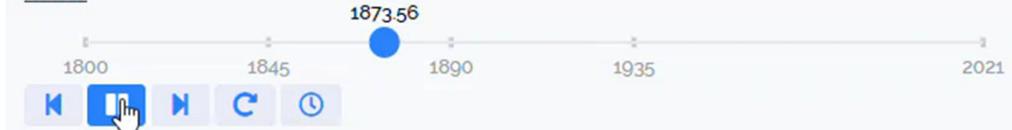
<https://www.gapminder.org/data/>

FREE DATA FROM WORLD BANK VIA [GAPMINDER.ORG](https://www.gapminder.org/), CC-BY LICENSE

What CO2 Emissions per Capita since 1800

Creator: DrDave

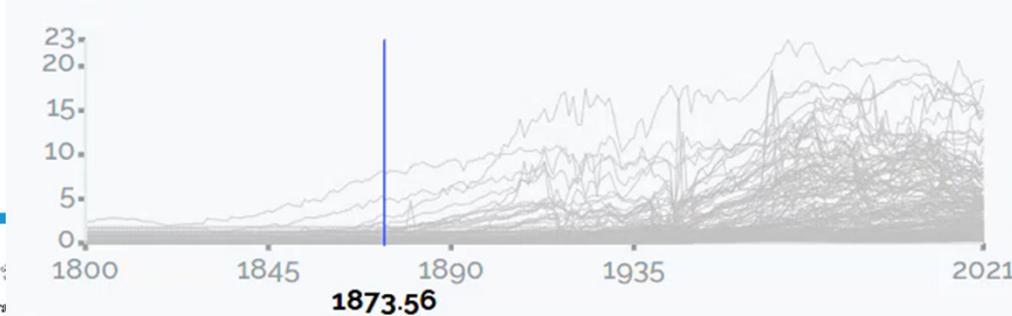
When



Where (±80 REGIONS)



How (±80 LINES)



Children per Woman: 1800-2100

https://mapipedia.com/s/u/drdave/fertility_rates_babies_per_woman.html



Fertility rates are decreasing everywhere (decreasing the slowest in Africa)

2024:

- Highest: 7.81 (Armenia)
- Lowest: 0.73 (South Korea)
- Non-Weighted Average: 2.42 (Global)

Further declines predicted into the future

Source:

<https://www.gapminder.org/data/>

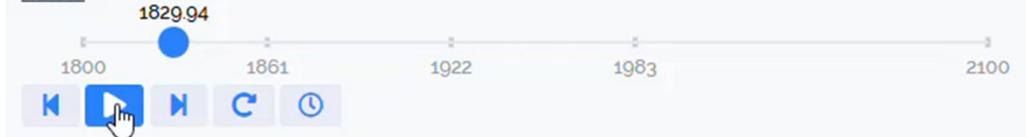
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What

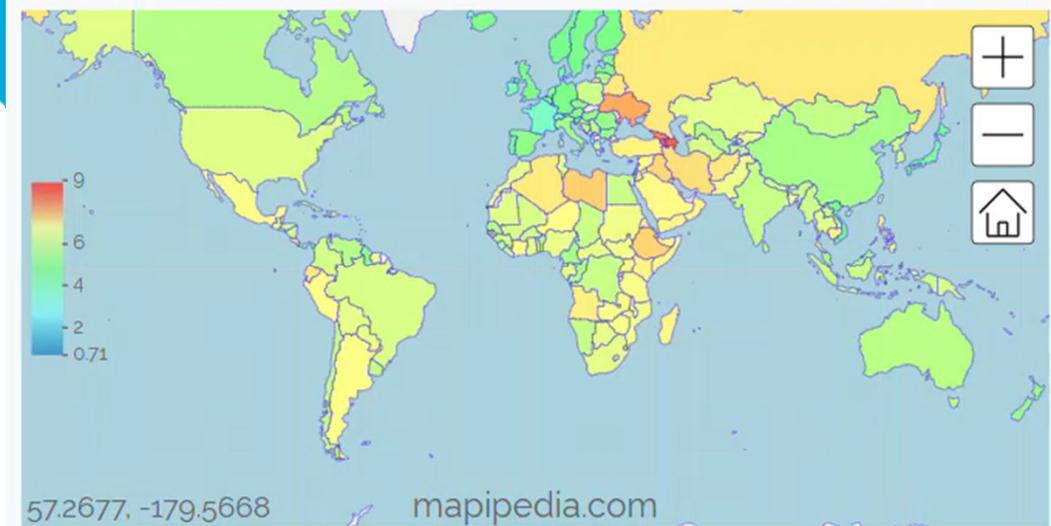
Creator: DrDave

Children per Woman (total fertility rate)

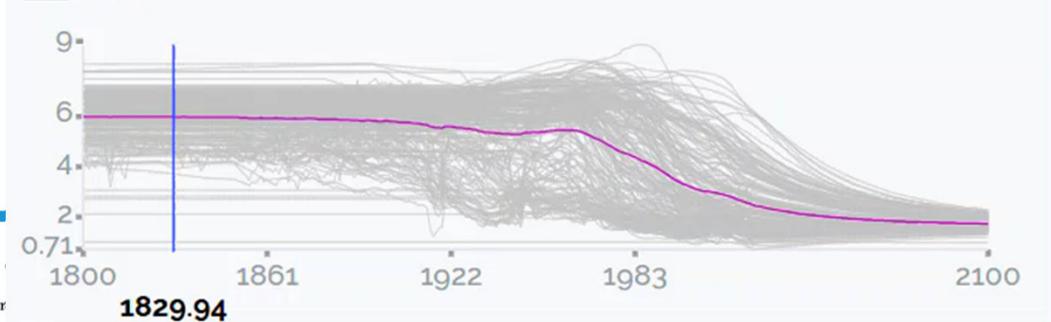
When



Where (487 REGIONS)



How (497 LINES)



Life Expectancy

https://mapipedia.com/s/u/drDave/average_life_expectancy_by_country_since_1800.html

Dips usually caused by famine, war, disease:

- AIDS/HIV: worst early 2000s, largely recovered 2018
- WWI, Spanish Flu (1918)
- Rwanda Genocide (1994)

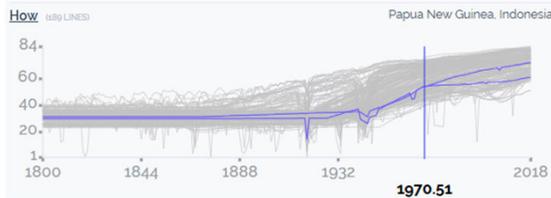
exceptions:

- Haiti earthquake (2010),
- Russian alcohol consumption (1990s)



Indonesia (72 yrs), PNG (61yrs):

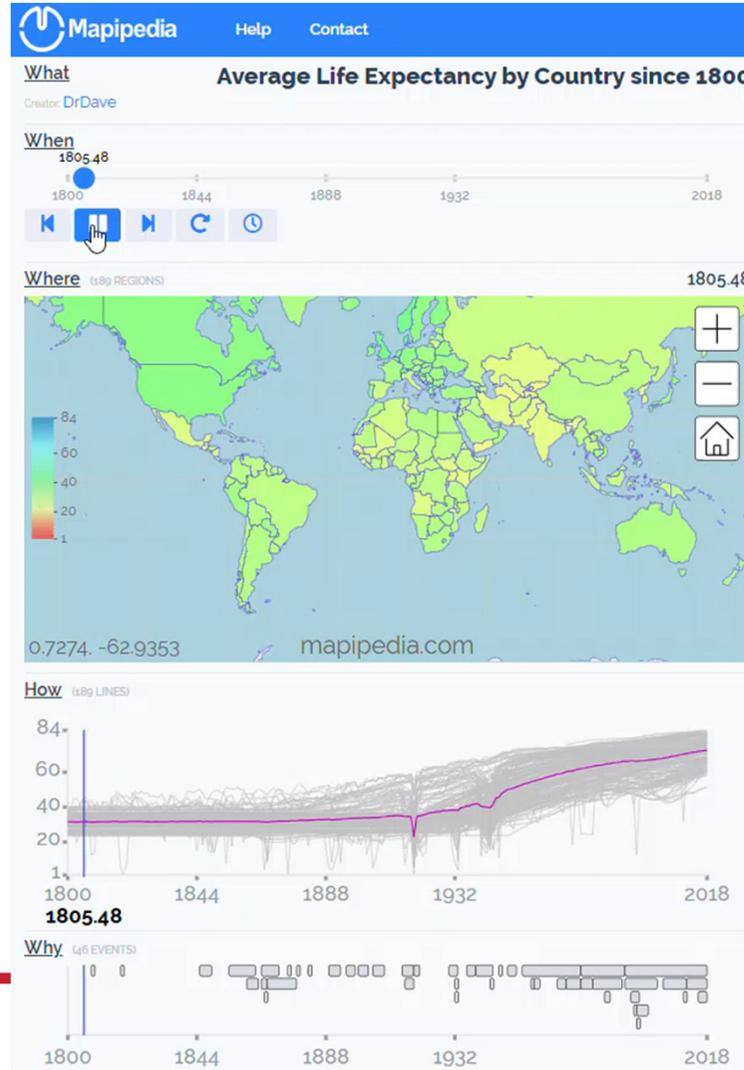
PNG lifespan is 11 years too short!



Source:

<https://www.gapminder.org/data/>

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Like Follow

^ Average Life Expectancy by Country since 1800

Main Description

Press the PLAY button to start the animation.

< This data set shows the average number of years a newborn child would live if current mortality patterns were to stay the same. >

A number of events (e.g. wars, famines, diseases) that correspond to many of the dips in life expectancy graph have been identified (i.e. the 'Why' explaining some of the trends in the data). If you spot any errors or gaps please let me know.

The YouTube commentary below discusses some of the interesting features of this data.



Commentary: 46 Events that have Impacted Life Expectancy



GPS Data: Fall migration of white storks

https://mapipedia.com/s/u/drdave/fall_migration_of_white_storks_in_2014.html



- 15th Aug 2014 – 28th Sep 2014
- Storks start in the same location and split up
- Graph shows the altitude. Clear day/night patterns can be seen.
- Zoom into Google Maps to get more context

Source:

<https://science.sciencemag.org/content/360/6391/911/tab-article-info>
<https://www.datarepository.movebank.org/handle/10255/move.604>

What

GPS Data: Fall migration of white storks in 2014

Creator: DrDave

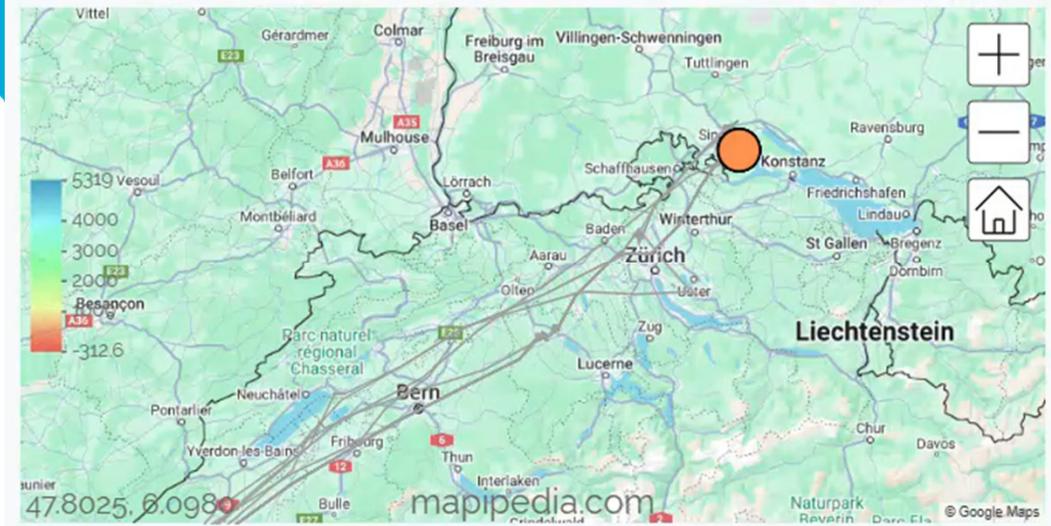
When

15 Aug 02:00

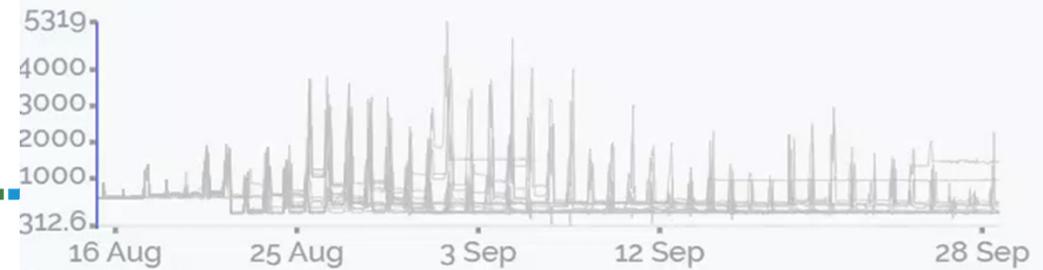


Where

15 Aug 2014 02:00



How (57 LINES)



Aust: 5 Aug 02:00

Captain James Cook's First Voyage

What

Creator: DrDave

When

31 Aug 1768



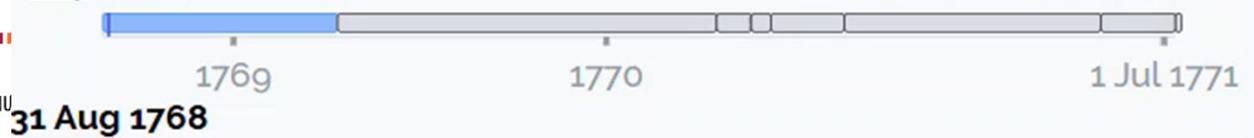
Where

31 Aug 1768



Why (8 EVENTS)

Depart England on HMS Endeavour



Captain James Cook's First Voyage to Australia

https://mapipedia.com/s/u/drDave/captain_james_cook.html

26th Aug 1768 to 12th July 1771



Source:

https://en.wikipedia.org/wiki/James_Cook

Formation of the USA

https://mapipedia.com/s/u/drdave/united_states_of_america_formation.html

- Different map (USA not global)
- Earlier states red => later states blue
- Graph shows number of states over time
- Gantt chart represents flags
- Start: Delaware 7th Dec 1787
- Alaska and Hawaii last to join (~1960)
- Stars in flag = number of states

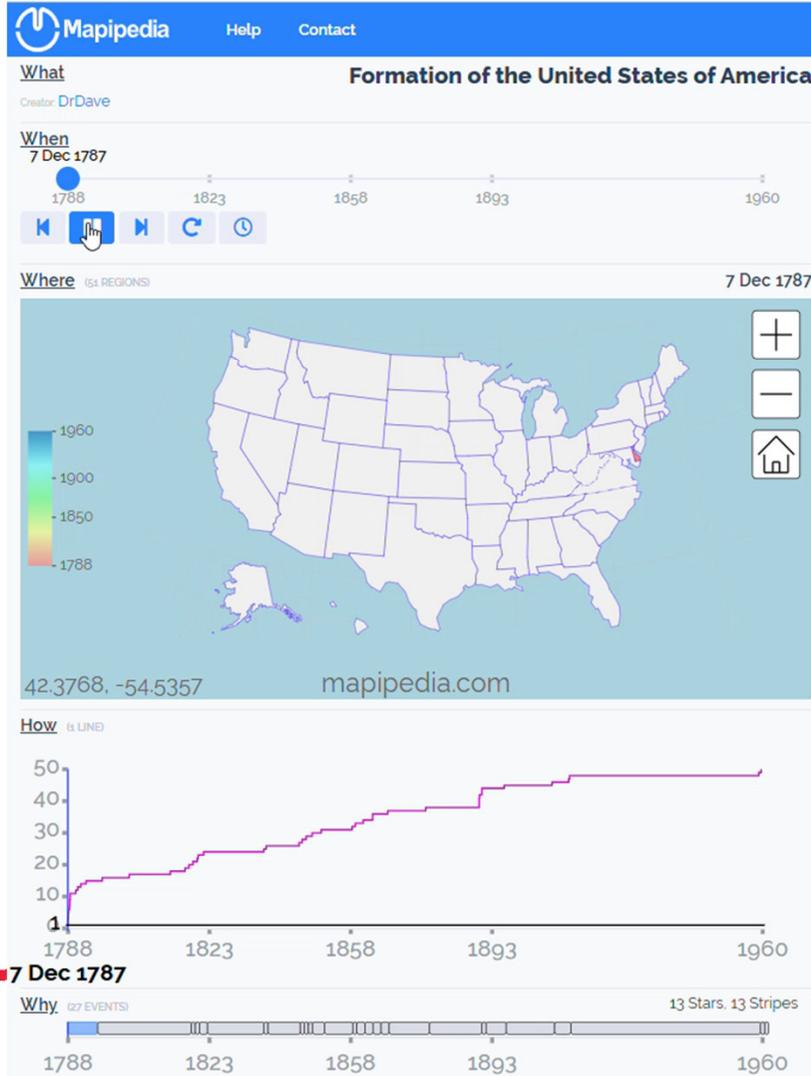
4 QUALITY EDUCATION



Source:

https://en.wikipedia.org/wiki/List_of_U.S._states_by_date_of_admission_to_the_Union

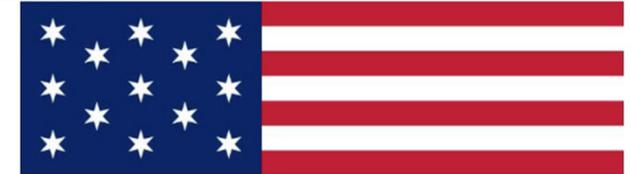
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Like Follow

^ - 1 May 1795: 13 Stars, 13 Stripes

Duration: 18 years.



Francis Hopkinson's flag for the U.S. Navy, featuring 13 six-pointed stars arranged in rows.

Francis Hopkinson's Flag

States represented by this flag are: Connecticut, Delaware, Georgia, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Virginia.



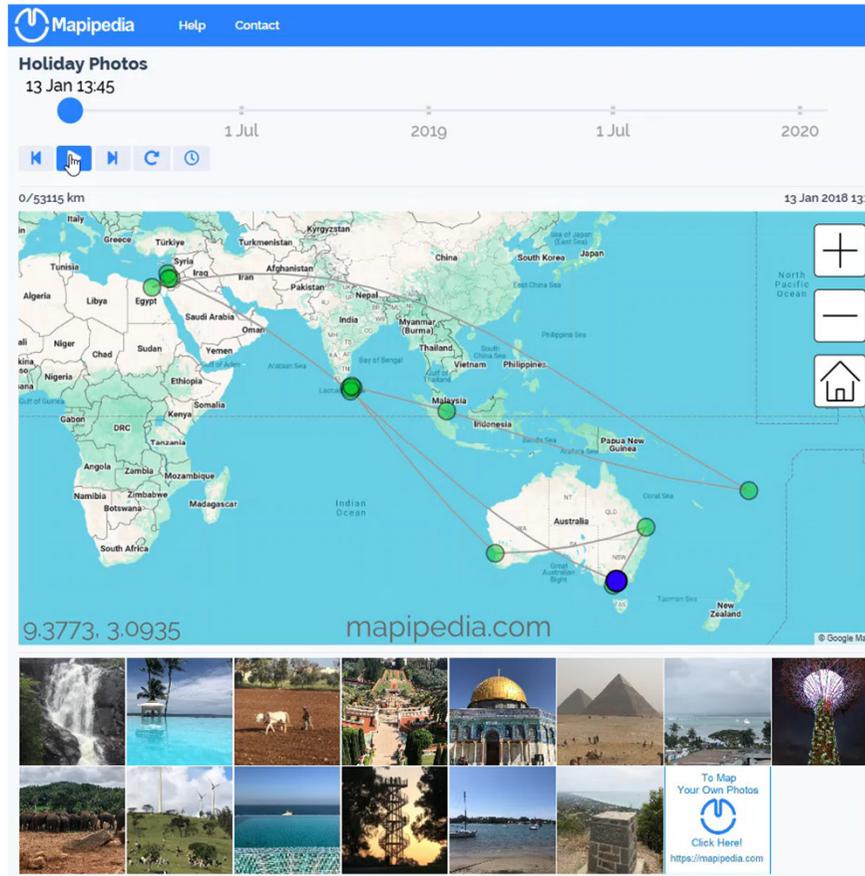
13-star so-called "Betsy Ross" variant

Geotagged Photos

<https://mapipedia.com/s/u/drdave/demo.html>



- Import geotagged photos
- Add comments to photos
- Share with others
- Could be used to track wildlife



The screenshot shows the Mapipedia web application. At the top, there's a navigation bar with 'Mapipedia', 'Help', and 'Contact'. Below that, a 'Holiday Photos' section shows a date '13 Jan 13:45' and a timeline from 2018 to 2020. A world map is displayed with several green location pins connected by lines. A photo gallery at the bottom shows a grid of various images including a waterfall, a beach, a cow, a mosque, pyramids, a sunset, a night light, a forest, a field, a boat, and a stone wall. A 'To Map Your Own Photos' button is also visible.



Here are some of the top shots from my latest travels. I hope you enjoy them!

Share

Public Pages by DrDave:

Please try it out!



1. Find a page that you want to copy
2. Download the CSV data
3. Edit the CSV in Excel
4. Click "Edit" button
5. Paste in the updated CSV data

Tutorials available on YouTube

MapYour Data

Share it with the World or Keep it Private



Create Collaborate Educate



The most relevant SDGs related to the presentation and theme of this session

1st relevant SDG



4 QUALITY EDUCATION

Icon: An open book and a pencil.

2nd relevant SDG



17 PARTNERSHIPS FOR THE GOALS

Icon: Four interlocking circles.

3rd relevant SDG



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Icon: Three stacked cubes.

SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals



**WORKING
WEEK 2025**

AND

Locate25 | **G**
THE NATIONAL GEOSPATIAL CONFERENCE

Collaboration, Innovation and Resilience:
Championing a Digital Generation



Brisbane, Australia 6–10 April

STEP 1: SELECT HERE THE THREE MOST RELEVANT SDGs
STEP 2: COPY THE SDG INTO PREVIOUS SLIDE

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	

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