useR! Salzburg 2024

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Dandelion Hub -

A central repository for de-central civil political actions for eco-social justice based on R/Shiny

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Why civil political action?

- **Multiple, parallel crises** in the anthropocene, e.g. climate crisis [B1-6]
- **Political systems are not working**
  (cf “Bad behavior is good politics.”, Bueno De Mesquita et al. [C1, C2])
- **Decision makers** (“elite”) in societies manipulate people in their interest using **”soft power”** (eg, framing, misinformation) and **“hard power”** (eg, fines, force, prison) (Chomsky, 1988/1989, [C6, C7])
- **Humans are kind, but weak** (Bregman, 2021 [C4]; Arendt, 1963 [C5])
- **Decision makers are dependent on good will** of people (Sharp, 1973 [C9])
- **Non-violent, civil political action (“civil resistance”) can redestribute power and wealth** in a society to achieve greater social justice
  [C9, C10, C11, C12, B7]

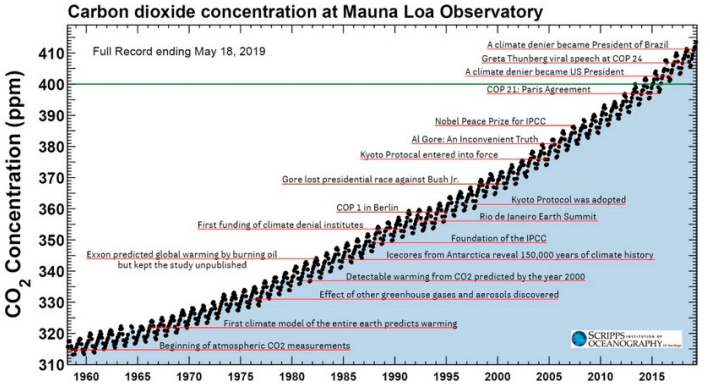


Figure 1: Carbon Dioxide Concentration 1958 to 2019 with major climate action events (eg, UNFCCC/COP) (Source: C.D. Keeling/M. Flammer)

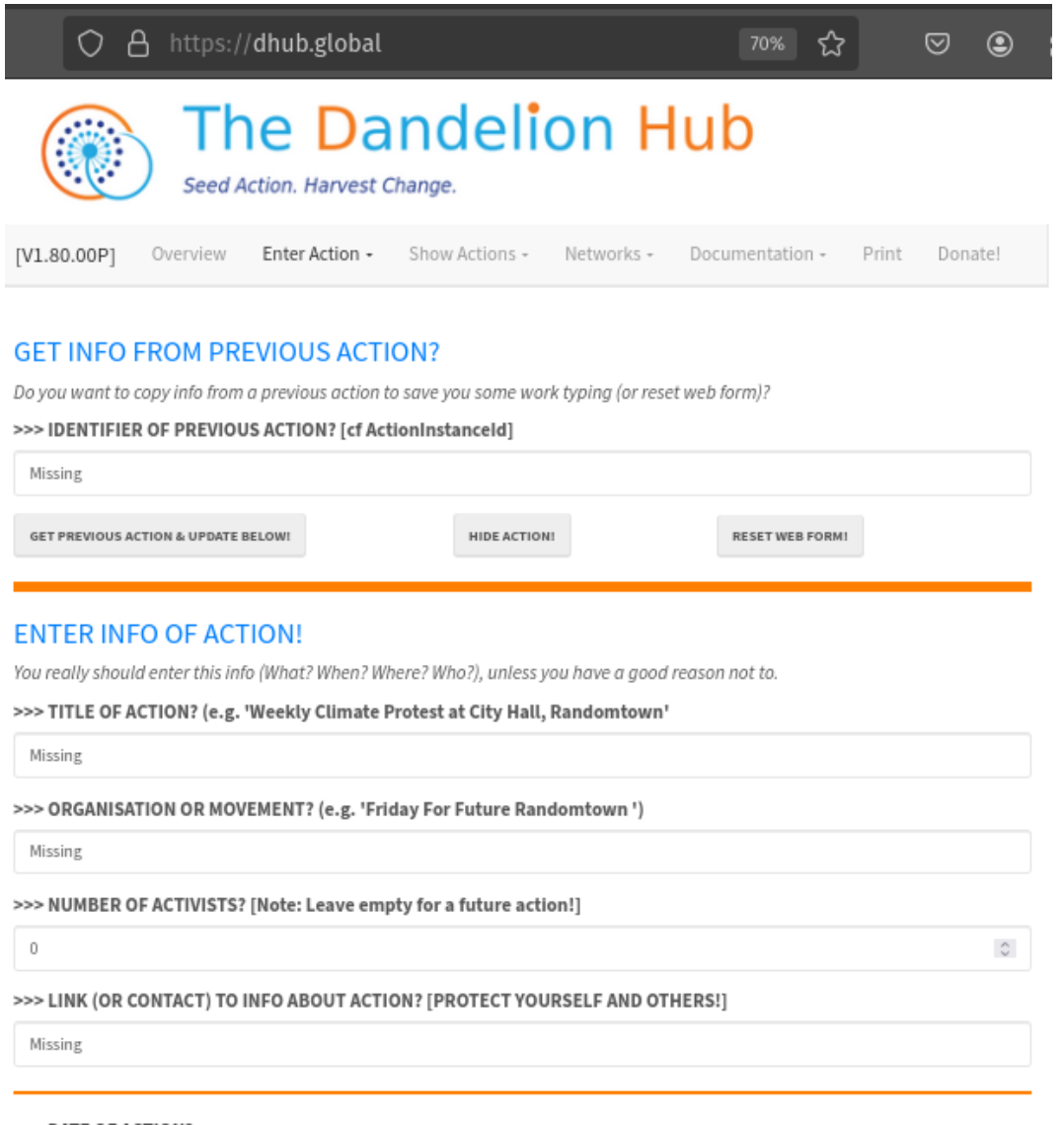
Figure 2: North America at night including light sources and added transportation routes illustrating human impact

What is the Dandelion Hub?

- A **web-based frontend** to enter and report data of civil political actions
- A central **database backend** to store data of de-central civil political actions
  - Calendar for future actions
  - Archive for past actions
- An action-based **social network** for politically active civilians
  - connect with other people doing an action
  - discuss, plan, protest, report, publish, & learn

Change in Society!

Figure 3: Dandelion Hub – Start page



How does the Dandelion Hub work?

- **R Version**: R Version 4.2.1
- **Packages:**
  - **GUI:** Shiny, shinyjs, shinythemes, shinyWidgets
  - **Databases**: DBI, RMariaDB, DT
  - **Literate Programming:** rmarkdown, knitr, markdown, kableExtra
  - **Maps**: leaflet
  - **Web**: httr, curl, jsonlite
- **Web server:** shiny server with NGINX
- **Database server:** MariaDB
- **Networks**: Mastodon (Activity Pub), Prosody (XMPP), InspIRCd (IRC)

Figure 4: Enter Action Data

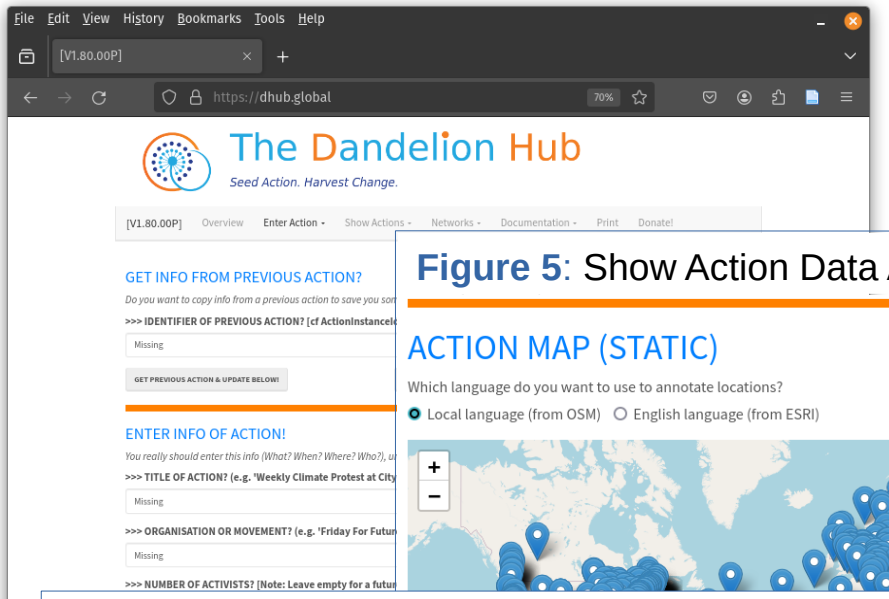


Figure 5: Show Action Data As Map

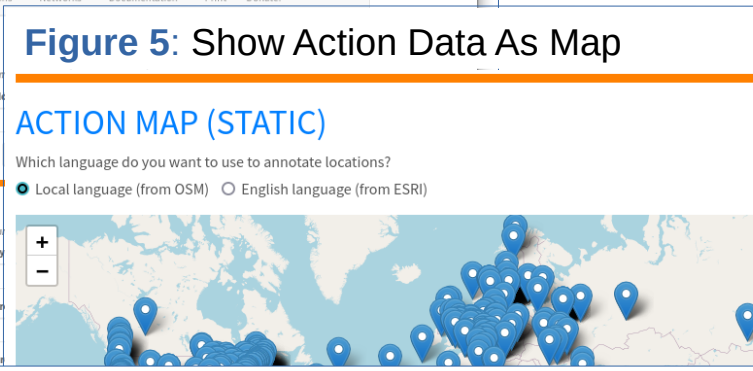
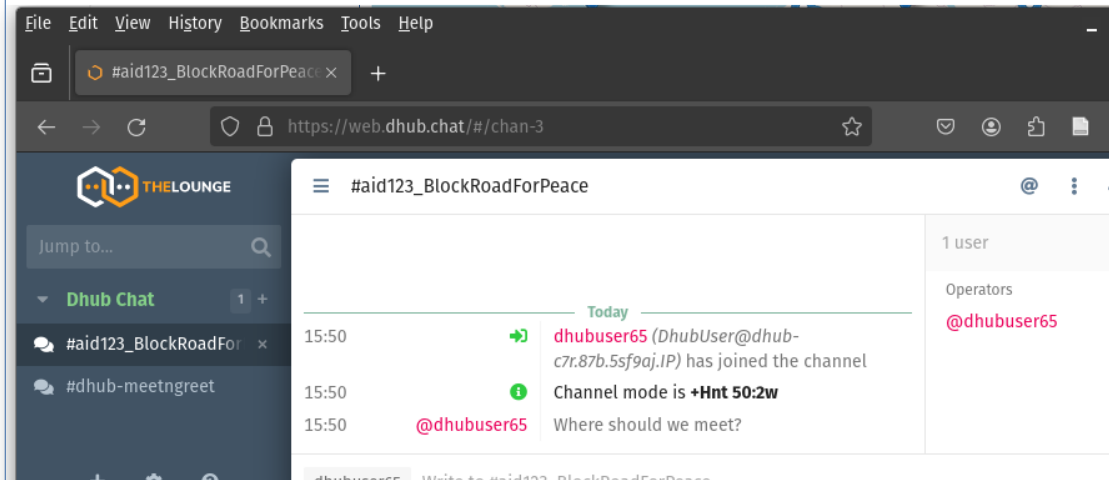


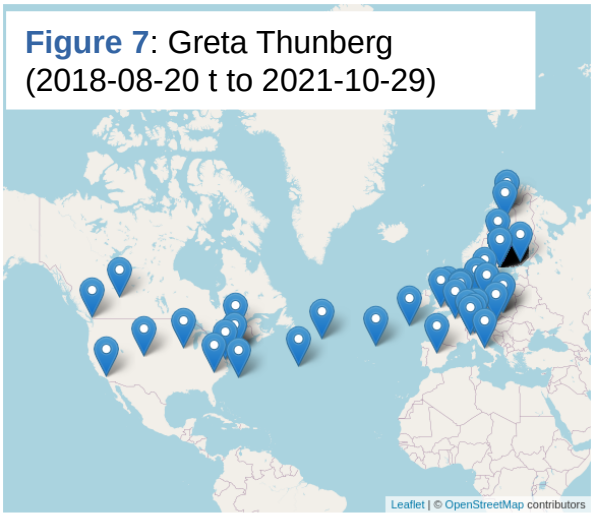
Figure 6: Connect Activists (IRC)



How is the Dandelion Hub used?

- **Dandelion Hub includes (as of 2024-06-23):**
  - 2,389,347 activists
  - 859 actions
  - 273 cities, 51 countries, 7 continents
  - 3 waterbodies
- **Use case #1: Climate Protest by Greta Thunberg (2018-2021)**
  - 1,517,628 activists, 185 actions, 30 cities, 15 countries, 2 continents,
  - 2018-08-20 to 2021-10-29
- **Use case #2: Gaza Solidarity Encampments at US universities (2024)**
  - 111 actions, 82 cities, 1 country (USA)
  - May 3, 2024

Figure 7: Greta Thunberg (2018-08-20 t to 2021-10-29)



Summary Report:

1517628 activists, 185 actions, 30 cities, 15 countries, 2 continents, 1 waterbodies, 2018-08-20 to 2021-10-29

Figure 8: Gaza Solidarity Encampments at US universities, May 2024

Summary Report:

0 activists, 111 actions, 82 cities, 1 countries, 1 continents, 0 waterbodies, 2024-05-03 to 2024-05-03

What should I take away from this?

- Dandelion Hub is a fully functional prototype of a **central repository for de-central non-violent, civil, political actions**
- **R & Shiny** allow fast prototyping for developers who are not full-stack web developers

Figure 9: Dandelion Hub Logo

“Never doubt
that a small group of thoughtful, committed citizens
can change the world;
indeed, it's the only thing that ever has.”

Margaret Mead, Cultural Anthropologist, 1901-1978

Thank you!

***Contact**:*

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DHub Website	*https://dhub.global*
DHub Social (Mastodon)	*https://dhub.social*
DHub IM (XMPP)	*https://dhub.im*
DHub Chat (IRC)	*https://dhub.chat*

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