

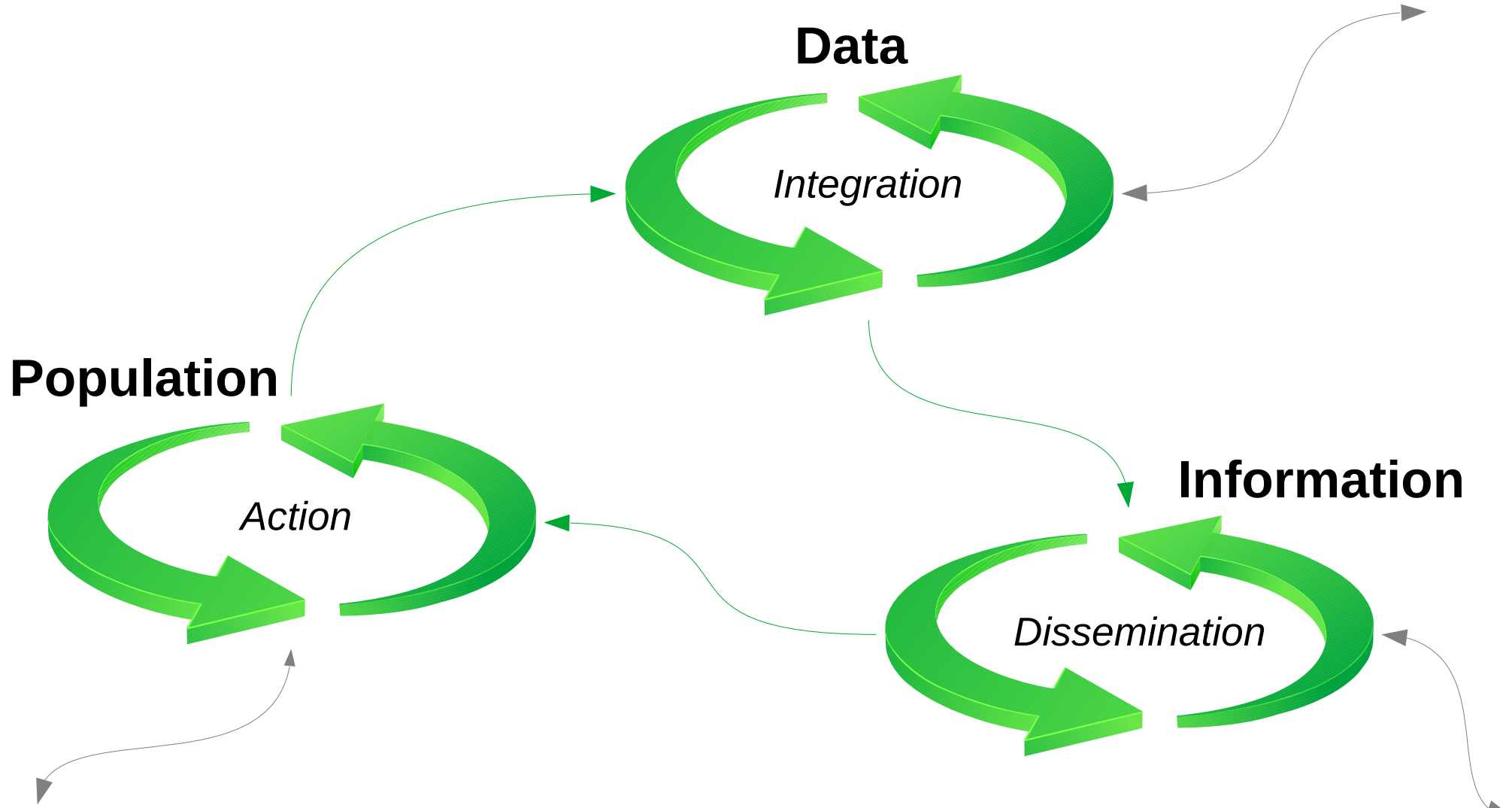
Open Access to ~~Knowledge~~ Data and Information during Public Health Emergencies

IASC 2021 Knowledge Commons Virtual Conference

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Data Integration

- Our World in Data <https://ourworldindata.org/coronavirus>
 - Worldwide COVID-19 cases, deaths, tests, vaccinations, etc. breakdown by countries
 - University of Oxford (website content) & Global Change Data Lab (website and data tools)
 - Grants, sponsors, and donations from 4,000+ individuals
- GISAID <https://www.gisaid.org/hcov19-variants/>
 - SARS-CoV-2 genomes, 1.79 million submissions worldwide (up to 2021-05)
 - Freunde von GISAID e.V., a non-profit registered in Germany
 - Grants from the European Commission, national governments/labs, etc.
- More like public goods (Our World in Data) and club goods (GISAID)
- Data widely reused (e.g. by WHO) and repurposed (e.g. by Nextstrain)
- Questions about boundaries of communities and resources

Information Dissemination

- “The WHO and Wikimedia Foundation expand access to trusted information” (2020-10)
 - “people everywhere will be able to access and share WHO infographics, videos, and other public health assets on Wikimedia Commons”
 - “WHO [taking] steps to prevent an ‘infodemic’”
 - “Wikipedia [...] preventing the spread of misinformation”
- Two anecdotes on disease misinformation and intelligence
 - “Preliminary investigations conducted by the Chinese authorities have found no clear evidence of human-to-human transmission of the novel #coronavirus (2019-nCoV) identified in #Wuhan, #China.” (2020-01-14, from WHO on Twitter)
 - “[Question] Suspected outbreak of atypical pneumonia coronavirus cluster infection in Wuhan?” (2019-12-31, gossip found in a BBS in Taiwan)

[問卦] 武漢疑爆發非典型肺炎冠狀病毒群聚感染?

- Questions about authorities and communities in the dissemination of useful information

Populations, Communities, Actors

- Populations → Data → Information → Populations
- Public health data and information as a global commons
 - multiple pools and actors; fuzzy boundaries; issues of incentivizing and free-riding; ...
- Stewardship of data, tools, and projects
 - Data stewardship: GISAID, Our World In Data, Wikimedia Foundation, Twitter, GitHub, etc.
 - License stewardship: Creative Commons, Free Software Foundation, etc.
 - Project stewardship: Debian, Linux Foundation, Software Freedom Conservancy, etc.
- Actors: Communities, Non-profit organizations, Publicly funded bodies, ...
- Questions about governance and sustainability

Ostrom's Principles (1990) Revisited

- Design principles observed at long-enduring CPR institutions
 1. Clearly defined boundaries (individuals/households and CPR)
 8. Nested enterprise (for CPRs that are parts of larger systems)
- Open Access to Public Health Data and Information
 1. Recursively layered boundaries
 - mutual dependencies among actors; multiple actors involved in multiple pools
 8. Circular enterprises
 - populations as the carrier of public health data and information
 - public health is all about people, and without people there is no public health