The challenge of developing ethical guidelines for a research infrastructure

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Current status of ICOS: 11 participating countries, > 100 stations and VOS lines, 2016 fully operational
ICOS is a landmark!
Three levels of ICOS / data

ICOS ERIC
Overall management, data management

Central Facilities
Services, not part of ICOS ERIC, independent budget mainly from host countries

National Networks
Observations, independent budget from host countries
Why ethical guidelines?

Article 13
Ethical Advisory Board

1. The General Assembly shall establish an independent Ethical Advisory Board *to advise and give periodic reports on ethical issues*. The Ethical Advisory Board shall be composed of three to five independent persons.

2. The membership and the rules of procedure of the Ethical Advisory Board shall be decided by the General Assembly and included into the internal rules.
Why ethical guidelines?

• ICOS provides important and sensible data. This requires highest standards for data quality, curation and provenance.
• ICOS provides integrated products out of these data that are influential in societal and political processes.
• ICOS is turning over high amounts of money.
• ICOS community is conducting research in a highly competitive environment.
• ICOS has a very open data policy, nevertheless the data have to be attributed and should be used in a fair way.
The ICOS data lifecycle

ICOS repository (data, metadata)

- High performance computing services
- Sensor data

B2SAFE

B2STAGE

B2ACCESS, AAI

Metadata registry & catalogue services

Finalized data products

PID

ICOS Carbon Portal

- Data ingestion
- Metadata services
- Data discovery & access
- Usage tracking

- Data management
- Repository administration
- Preservation planning
- User community support

User 1
User 2
User 3

Diverse user communities, including data producers and other portals

Ecosystem Thematic Centre
Atmospheric Thematic Centre
Oceanic Thematic Centre

Measurement stations (National networks)

Standardized processing, quality assurance & control

PID, AAI

DICOS ENVRI EUDAT
Problems/resistances

• ICOS is a distributed research infrastructure with a very complicate structure that includes ~60 institutions in 11 countries. Many of them have their own ethical standards. Conflicting documents possible.
• ICOS has some very specific but also some very general ethical questions.
• the phenomenon of "flexible ethics": I use ethical arguments when they are supporting my point of view and deny the necessity of ethical categories when they disturb my interests.
The process

• ICOS uses an iterative process to discuss with all levels of the infrastructure coordinated by a central working group;
• ICOS Head Office has evaluated a number of existing documents to compile first drafts.
• The goal was consensus and adoption by General Assembly.
Content

1. **Conflicts of Financial Interests and Secondary Occupations**
   Relations to companies: shareholding, membership of managing bodies, employment, service or management or other agreement. Double payment for services.

2. **Conflicts of interest arising from accumulation of different roles within ICOS RI**
   CF personnel as GA members, multiple membership in bodies, ICOS RI interests vs personal, national or institutional interests,

3. **Data ethics**
   Fraud, ’the rule of systematic skepticism’, documentation of data life cycle, transparency on data quality, four eyes principle,

4. **Data dissemination and scientific publication**
   Dissemination of ‘critical’ data, political and social responsibility of dissemination, communication of risks, media relations.
   Fair data dissemination
   fair recognition (co-authorships, citation of data), conflicts arising from financial benefits of publications,
The current situation

- Consensus was reached on the conflict of interest chapter
- No consensus in all other chapters
- Parts were transferred from ethical guidelines to more ‘hardwired’ documents (Rules of procedure of General Assembly, data life cycle document, ...)
- It’s under discussion whether the existing good practice document by ESF can be adopted.
Conclusion and outlook

- Process is more difficult than expected.
- ICOS is going to adopt an Ethical Advisory Board and will ask it to steer the further process.
- The experiences will be provided for other infrastructures in the framework od ENVRIplus.
Thank you for your attention!

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