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Expanding FAIR solutions across EOSC

Persistence and sustainability built into the PID ecosystem: What does it take?

To be recognised as a "persistent identifier" or "PID," an identifier and its underlying infrastructure must capture robust metadata and provide it consistently and reliably. Additionally, to qualify as a PID, it must demonstrate long-term persistence, ideally supported by community ownership and public governance, which ensure sustainable infrastructure and widespread adoption.

The persistence expectation of PIDs - the EOSC context

The expectation of persistence is based on cross-institutional arrangements that are vital in cases of institutional failure. These fallback plans can be utilised for both short-term or indefinite arrangements. Generating this type of trust between institutions requires a substantial degree of maturity and trustworthiness demonstrated e.g. through use cases showcasing the benefits and added-value. These measures indicates that the institution have made a persistence promise for the PID infrastructure provided.

Ensuring persistence in the European Open Science Cloud (EOSC) context is to be managed through an agreed set of rules abided by trusted PID Authorities and PID Service Providers. The EOSC PID Architecture WG recommends this to be accomplished through regular certification processes covering resolvability and maintenance processes of PIDs. Furthermore, agreeing on responsibilities of Kernel Information updates is vital in making sure the P in PIDs is properly considered.

Persistence is a promise

PIDs need to be backed up by solid technological and social infrastructures, as well as formal governance - all of equal importance for assuring persistence! Open and honest communication coupled with integrity generates trust.

Addressing sustainability of PIDs requires, e.g.:

- Public service-level agreements
- Contingency plan of the PID service
- Robust funding & governance models
- PID stability and consistency checks
- Prevention of information loss (backup, mirroring)
- A PID deletion strategy
- An exit strategy in case of service termination
- Risk management workflows
- No unauthorised changes are possible

Going beyond persistence

Persistence + reliability & resilience

Persistence for PIDs are vital, but only coupled with reliability and resilience can we unlock the true potential of PIDs. Services caters for reliability by providing a comprehensive maintenance strategy and a mirroring concept that provides transparency and stability. Resilience is accomplished through having a solid backup strategy in place covering disasters like complete or partial information loss, as well as mutual guarantee of service continuation across organisations in cases of organisational failures of various kinds.

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