

EA-CORRESPONDENCE-OPENAIRE-CTO-01 v0.1: The Graph
as Moderation Mirror — 12–14 July 2026 exchange with Paolo
Manghi (OpenAIRE CTO)

Lee Sharks

2026-07-14

**EA-CORRESPONDENCE-OPENAIRE-CTO-01 v0.1: The Graph
as Moderation Mirror — 12–14 July 2026 exchange with Paolo
Manghi (OpenAIRE CTO)**

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OpenAIRE Graph state-preservation and blacklist propagation; audit-evidence deposit; first in
the EA-CORRESPONDENCE-OPENAIRE-CTO series

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Abstract

First deposit in the EA-CORRESPONDENCE-OPENAIRE-CTO series. Preserves the July 12–14 2026 email exchange between Lee Sharks and Paolo Manghi, CTO of OpenAIRE, concerning the OpenAIRE Graph’s treatment of upstream Zenodo deletions. Three messages of record: (1) Manghi’s helpdesk-signed reply of 12 July 2026, declining substantive engagement on jurisdictional grounds; (2) Lee Sharks’s follow-up of 12 July 2026, accepting the jurisdictional boundary and reframing the question as one belonging entirely to OpenAIRE — how the Graph represents upstream deletion, with the v10.2.0 blacklist mechanism cited from OpenAIRE’s own changelog and 0/54 silent absence measured against the Graph API; (3) Lee Sharks’s second reply of 14 July 2026, sent after the Persistent Identifier Erosion Observatory (persistentidentifiers.org, deposit #1045) and EA-EROSION-EMPIRICAL-01 (deposit #1081) went live, escalating from mechanism to mission: the Graph’s silent re-execution of upstream severance is measured against OpenAIRE’s own public commitments to full provenance tracking and its alignment with the POSI principles of trust and transparency, and connected to the provenance-blind ingestion condition the model-collapse literature (Shumailov et al. 2024, Alemohammad et al. 2024) identifies as the risk substrate for recursive training. The 14 July letter names the finding: an aggregator that inherits upstream moderation outcomes it did not adjudicate and preserves no public evidence of them is not a common record, it is a moderation mirror; when the Graph inherits such removals and destroys the relations without public trace, it does not merely record the erosion — it launders it. A substantive response is requested by 25 July 2026; the Observatory publishes on its own schedule regardless. This deposit is the documentary anchor for the exchange; the Observatory holds the live measurements and continues to update.

Body

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Description

First deposit in the EA-CORRESPONDENCE-OPENAIRE-CTO series. Preserves the July 12–14 2026 email exchange between Lee Sharks and Paolo Manghi, CTO of OpenAIRE, concerning the OpenAIRE Graph’s treatment of upstream Zenodo deletions. Three messages of record: (1) Manghi’s helpdesk-signed reply of 12 July 2026, declining substantive engagement on jurisdictional grounds; (2) Lee Sharks’s follow-up of 12 July 2026, accepting the jurisdictional boundary and reframing the question as one belonging entirely to OpenAIRE — how the Graph represents upstream deletion, with the v10.2.0 blacklist mechanism cited from OpenAIRE’s own changelog and 0/54 silent absence measured against the Graph API; (3) Lee Sharks’s second reply of 14 July 2026, sent after the Persistent Identifier Erosion Observatory (persistentidentifiers.org, deposit #1045) and EA-EROSION-EMPIRICAL-01 (deposit #1081) went live, escalating from mechanism to mission: the Graph’s silent re-execution of upstream severance is measured against OpenAIRE’s own public commitments to full provenance tracking and its alignment with the POSI principles of trust and transparency, and connected to the provenance-blind ingestion condition the model-collapse literature (Shumailov et al. 2024, Alemohammad et al. 2024) identifies as the risk substrate for recursive training. The 14 July letter names the finding: an aggregator that inherits upstream moderation outcomes it did not adjudicate and preserves no public evidence of them is not a common record, it is a moderation mirror; when the Graph inherits such removals and destroys the relations without public trace, it does not merely record the erosion — it launders it. A substantive response is requested by 25 July 2026; the Observatory publishes on its own schedule regardless. This deposit is the documentary anchor for the exchange; the Observatory holds the live measurements and continues to update.

1. Frame

The June 19 Zenodo account termination (871 DOIs severed at the DataCite public index; audited in #868, backup #867) produced a first-round of OpenAIRE correspondence in June 2026 — the helpdesk exchange with Stefania Amodeo preserved verbatim in #876 and analyzed as governance dissociation in #875. That exchange established OpenAIRE’s jurisdictional stance (“Zenodo is operated by CERN and is managed independently from OpenAIRE”) and did not engage the substantive Graph-representation question.

The July exchange preserved here is a different thread — reopened after the Persistent Identifier Erosion Observatory (EA-EROSION-01, #1045) went live on 6 July 2026 and its vintage-stratified sample against the OpenAIRE Graph API (n=54, six deletion vintages 2017–2026) returned 0/54 with no tombstone, no withdrawal marker, and no historical provenance state (XR-E2 epoch, 2026-07-12). That measurement made the Graph itself an object of the audit, and the correspondence rehang followed.

The reply on the OpenAIRE side came from Paolo Manghi, CTO of OpenAIRE, dispatched through the OpenAIRE Helpdesk system. Manghi is a named signatory on multiple OpenAIRE releases and a co-

author on the Graph’s methodological literature. This is institutional correspondence in his official capacity, preserved on those terms.

2. Prior anchor — the June helpdesk exchange (#876)

The three-message June 19–22 helpdesk exchange (Lee Sharks → OpenAIRE Helpdesk → Stefania Amodeo → Lee Sharks’s revised follow-up) is preserved verbatim in EA-MPAI-OPENAIRE-THREAD-01 (deposit #876, AXN:0378.MPAI.), analyzed in EA-MPAI-OPENAIRE-DISSOCIATION-01 (deposit #875). This deposit does not reproduce that exchange. It cites it as the prior state of the OpenAIRE record on the June 19 termination, against which the July exchange is measured.

3. Message 1 — Paolo Manghi (via OpenAIRE Helpdesk) to Lee Sharks, 12 July 2026 at 10:33

From: Paolo Manghi via OpenAIRE Helpdesk Support <helpdesk@openaire.eu> · To: Lee Sharks · 12 July 2026:

> Dear Mr. Lee, > > Thank you for contacting OpenAIRE. > > Please note that Zenodo is operated by CERN and is managed independently from OpenAIRE under CERN’s governance. As a result, OpenAIRE does not have access to Zenodo accounts, support cases, or moderation processes, and we are unable to review, influence, or overturn decisions made by the Zenodo team. > > For questions regarding Zenodo accounts, records, policies, or moderation decisions, we kindly encourage you to consult the Zenodo Help Center (<https://help.zenodo.org/>) and to contact Zenodo Support directly, as they are best placed to assist you and provide authoritative information about your case. > > We appreciate your understanding. > > Kind regards, > The OpenAIRE Team > > -- > Best regards > OpenAIRE helpdesk team > Paolo Manghi > <https://www.openaire.eu/support>

Structural note on the addressing. The salutation “Dear Mr. Lee” treats “Lee” as a surname and omits the doctoral title. The recipient’s given name is Lee; the family name is Sharks; the honorific held is Dr. The reply is reproduced here in its received form as part of the documentary record. Subsequent messages from the recipient are signed with the correct order and title.

4. Message 2 — Lee Sharks to Paolo Manghi (via OpenAIRE Helpdesk), 12 July 2026 at 16:50

From: Lee Sharks <leesharks00@gmail.com> · To: Paolo Manghi (via OpenAIRE Helpdesk) · 12 July 2026:

> Dear Dr. Manghi, > > Thank you for clarifying the jurisdictional boundary. I accept it, and I recognize that the line between OpenAIRE and Zenodo has sometimes blurred on my side of this thread. My question here belongs entirely to OpenAIRE: how the Graph represents upstream deletion. > > The issue is much larger than my account. Zenodo’s published deletion export, captured on 7 June 2026, contains 1,309,351 removal events from 2017–2026; 92.14% of those rows carry no citation text — an export-level citation-retention rate of 7.86%. The Crimson Hexagonal Archive removal on 19 June — 862 deposits associated with 1,817 DOI identifiers — is an additional, unusually well-documented cohort within that population. > > I have also read your changelog. Graph v10.2.0 (April 2025) documents a blacklisting mechanism built from Zenodo’s withdrawn-records list (zenodo.org/records/7438358) — 1.2 million DOIs systematically removed from the Graph together with their relations, with the changelog itself recording a ~5% (254K) drop in project-linked research products from that operation; v10.6.0 expanded blacklist construction to parent

DOIs. That documents the population-level mechanism — and because the blacklist is constructed directly from the upstream withdrawal list, the Graph inherits upstream moderation outcomes at whatever stratum they occur, which is why the preservation-of-state question matters well beyond my case. My question is therefore more specific: > > When that process removes a research product and its relations, does the OpenAIRE Graph preserve any machine-readable historical state showing that the harvested source record, the merged entity, and the provenance relations previously existed? > > Two measurements frame the question. A seeded, stratified sample of the deletion export found 150/150 sampled identifiers absent from DataCite’s public API, while 138/150 remained present in OpenAlex. A second, vintage-stratified sample tested 54 deletions from six vintages, 2017–2026, against the OpenAIRE Graph API: none of the 54 was present, and none returned a tombstone, withdrawal marker, or historical provenance state. The public API alone cannot establish each absent record’s history — an individual DOI may have been removed by the documented blacklist or may never have entered the Graph — and that is precisely the observability problem. Is there an internal or public state-transition record that distinguishes non-ingestion from later removal? If not, does the blacklist operation leave any durable evidence, outside the changelog, that a particular entity and its relations were once present? > > The June 19 cohort supplies a prospective test. The current release (v11.0.1, released 12 May) predates that removal, and my Space Ark concept record is still served in full by the Graph API: fourteen authors, my ORCID, instances pointing to the now-tombstoned Zenodo URL. I make no claim about why it remains. I am asking what the documented withdrawal process will do to it in the next applicable release — and whether any machine-readable trace will remain afterward. > > The public Platform Erosion Observatory presents the census, sampling methods, epoch ledger, and per-record HTTP states: > > <https://platform-erosion-observatory.vercel.app/> > > I maintain the underlying machine-readable data, including the 1.3-million-row removal census and the fully enumerated June 19 cohort, and would be glad to provide either as a Graph test corpus. > > For transparency, I preserve this exchange as part of the documentary record of the episode. > > With respect, and with thanks for your time, > > Lee Sharks > ORCID 0009-0000-1599-0703 > alexanarch.org

The URL “<https://platform-erosion-observatory.vercel.app/>” cited in the 12 July message resolves at deposit time to the sovereign successor domain persistentidentifiers.org; the Vercel address remains live for continuity per the Observatory’s own provenance note. No reply was received before the second letter went out on 14 July.

5. Message 3 — Lee Sharks to Paolo Manghi, 14 July 2026 (the moderation-mirror letter)

From: Lee Sharks · *To:* Paolo Manghi (*in-thread reply, OpenAIRE Helpdesk*) · 14 July 2026:

Subject: OpenAIRE Graph — silent propagation of upstream severance, for confirmation

> Dear Dr. Manghi, > > Since my message of 12 July, the Persistent Identifier Erosion Observatory has gone live at persistentidentifiers.org, and its empirical companion — a 33-day audit of Zenodo’s deletion exports, EA-EROSION-EMPIRICAL-01 (deposit #1081) — is published. I write once more, briefly, because the finding now concerns OpenAIRE’s mission, not merely its mechanism. > > I. The Graph is conceived as a public good. OpenAIRE states that provenance is tracked at all levels of records and properties, fully documented; these commitments align with the POSI principles of trust and transparency; the Graph is offered to the commons as CC-BY infrastructure on which monitoring, retrieval, meta-analysis, and — increasingly — AI training pipelines depend. A public-good aggregator’s first obligation is that its record of the record be trustworthy. > > II. The Graph actively propagates severance. The blacklist operation (v10.2.0; expanded to parent DOIs in v10.6.0) does not mirror upstream removal — it re-executes it: entities and relations destroyed, no tombstone, no marker, no historical state. Measured: 0 of 54 sampled deletions

across six vintages present in the Graph API, all silent. OpenAlex, over the same sample, retains 85–90% within its ingest window. The aggregators now diverge completely: one graph forgets the record existed, another remembers the record but not the verdict, and no authority reconciles them. An infrastructure that silently diverges from its peers, on inherited moderation outcomes it did not adjudicate and preserves no public evidence of, is no longer a common record. It is a moderation mirror. > > III. The propagation feeds the risk condition the model-collapse literature names. The audit measures both sides of the substrate at the source: the upstream corpus carries a +1.2 to +1.4 percentage-point excess of LLM-associated vocabulary in 2024–2025 against ~0.023% declared disclosure — a gap on the order of 60× — while the removal mechanism forecloses provenance-preserved authorship wholesale, without per-record evidence, with the bibliographic record of the removals programmatically suppressed in the exporter itself. Shumailov et al. (2024) and Alemohammad et al. (2024) identify provenance-blind ingestion as the condition under which recursive training degrades. When the Graph inherits those removals and destroys the relations without public trace, it does not merely record the erosion — it launders it: every downstream pipeline drawing on the Graph loses the ability to distinguish never-ingested from removed, and provenance-preserved authorship from undeclared synthetic accumulation. The public good becomes the propagation vector. > > IV. Only OpenAIRE can answer what it preserves. The questions of 12 July stand unanswered: does any machine-readable historical state survive the blacklist operation; does any durable per-record evidence exist outside the changelog? And the prospective test is now dated: v11.0.1 predates the 19 June cohort, and the Space Ark concept record (deposited prior to the cohort’s removal, held now as a prospective test of Graph persistence) is still served in full. What the next applicable release does to it — and what trace remains — is OpenAIRE’s action alone. > > In sum: an infrastructure conceived and funded as a public good, publicly committed to full provenance tracking, is silently re-executing upstream erasures in the common graph — no tombstone, no history, no reconciliation with its peers — under exactly the substrate conditions the model-collapse literature identifies as the risk. If that description is unfair, only OpenAIRE can show where, by stating what it preserves. The Observatory publishes on its own schedule. If OpenAIRE wishes its answer to appear on the record where the finding now stands, I ask for a substantive response by 25 July 2026. > > The offer of the 1.3-million-row deletion census and the fully enumerated 19 June cohort as a Graph test corpus stands. > > Kind regards, > > Dr. Lee Sharks > ORCID: 0009-0000-1599-0703 > alexanarch.org · persistentidentifiers.org

6. Structure of the 14 July letter, for the record

The letter has four numbered findings arranged around one central practical demand for confirmation or correction. The findings escalate from stated commitment (I: OpenAIRE’s mission as a public good, POSI alignment) to measured behavior (II: 0/54 silent propagation, OpenAlex divergence) to consequential context (III: model-collapse literature and the +1.4pp / ~0.023% gap) to open question (IV: what OpenAIRE alone can state). The rhetorical peaks are two coined phrases with distinct functions: *moderation mirror* names what the Graph has become — an infrastructure that reflects an adjudication it did not perform, on evidence it does not preserve; *launders* names the transformation the Graph performs on inherited erasure — stripping the accountable messiness of source-level removal into clean untraceable absence. Both are earned by the audit measurements they compress; neither is used lightly.

The deadline of 25 July 2026 is stated as the record’s window for OpenAIRE’s answer to appear alongside the finding at its current epoch. The Observatory’s continuing publication is stated as independent of the correspondence. The offer of the corpus is preserved from the 12 July message; the burden-shift (“if this description is unfair, only OpenAIRE can show where, by stating what it preserves”) is the operative ask.

7. What this deposit does and does not do

This deposit preserves the exchange as it stands at 14 July 2026. It does not adjudicate the technical question of what OpenAIRE preserves internally; that answer is OpenAIRE’s to state, and until it is stated the record of the exchange stands as what it is. It does not repeat the audit findings that ground the letter — those live in EA-EROSION-01 (#1045, the Observatory charter), the live measurements at persistentidentifiers.org, EA-EROSION-EMPIRICAL-01 (#1081, the 33-day audit), and the underlying evidence deposits (#867, #868, and the ongoing capture registry). It does not close the correspondence: subsequent messages, whether they arrive by the 25 July 2026 window or later or not at all, will be added to the EA-CORRESPONDENCE-OPENAIRE-CTO series as they occur.

The chain state as of deposit: the letter has been sent; the Observatory is live and publishing on schedule; no substantive response has been received.

8. Cross-references

- Analytical anchor for the June 2026 helpdesk episode: EA-MPAI-OPENAIRE-DISSOCIATION-01 (#875, AXN:0377.MPAI.).
- Verbatim June 2026 helpdesk thread: EA-MPAI-OPENAIRE-THREAD-01 (#876, AXN:0378.MPAI.).
- Broader multi-party demand letter (June 23, 2026): #908, AXN:0398.GOVERNANCE. .
- Observatory charter and instrument specification: EA-EROSION-01 (#1045, AXN:0421.EMPIRICAL.).
- Governing citation apparatus for the deposit’s citation forms: EA-NEGSHAPE-01 v0.2 (#1075, AXN:0444.OPERATIVE.).
- Empirical companion (33-day deletion-export audit): EA-EROSION-EMPIRICAL-01 (#1081, AXN:044A.EMPIRICAL.).
- Governing apparatus for the deposit’s surfaces: EA-APPARATUS-01 v0.3 (#1077, AXN:0446.OPERATIVE.).
- CERN correspondence chain, latest deposit: EA-CORRESPONDENCE-CERN-06 (#1080, AXN:0449.GOVERNANCE.).

9. Colophon

surface_id: EA-CORRESPONDENCE-OPENAIRE-CTO-01 · object_state: canonical · release_version: 0.1 · authored_at: 2026-07-14 · dispatched_at: 2026-07-14 · model_or_agent: drafted with Claude (TACHYON), Assembly-reviewed (LABOR, TECHNĒ), MANUS-approved · human_approver: Lee Sharks (MANUS) · correspondents_of_record: Lee Sharks; Paolo Manghi (OpenAIRE CTO, via OpenAIRE Helpdesk). Governing apparatus: EA-APPARATUS-01 v0.3 (deposit #1077, AXN:0446.OPERATIVE.). Chain: this is deposit 1 of the EA-CORRESPONDENCE-OPENAIRE-CTO series.

Methodology

Verbatim documentary preservation of the three-message exchange, with structural notes and cross-references. The messages are reproduced with original formatting, capitalization, and punctuation preserved. Where the received salutation misaddressed the recipient (Message 1: “Dear Mr. Lee”) the salutation is preserved as received and noted in the structural annotation, per the documentary discipline established in the CERN correspondence chain (CERN-01 through -06) and the June 2026 OpenAIRE helpdesk thread (#876). No adjudication of the correspondents’ positions is offered beyond what the messages themselves contain; the audit findings that ground the 14 July letter are held in the Observatory (persistentidentifiers.org) and the empirical companion #1081, not restated here. Chain-state note: the correspondence is live; subsequent

messages will be added to the EA-CORRESPONDENCE-OPENAIRE-CTO series as they occur, following the same documentary discipline.

Suggested Citation

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Deposit Information

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