Comments to Jean-Claude Burgelman' s article Politics and Open Science: How the European Open Science Cloud Became Reality (the Untold Story) (Postprint)

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Abstract

It has been both a pleasure and an agony to read the story and the drama behind the genesis of the European Open Science Cloud (EOSC). Especially as many of us have been involved in its shaping in some way or the other from the beginning. OpenAIRE has been a key driver in open access in publications since 2005 and, while this is still a core goal, we have gradually shifted efforts to open research data from 2012 onwards.

Full Text

Commentary on Jean-Claude Burgelman' s "Politics and Open Science: How the European Open Science Cloud Became Reality (the Untold Story)"

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It has been both a pleasure and an agony to read the story and the drama behind the genesis of the European Open Science Cloud (EOSC), especially as many of us have been involved in its shaping in one way or another from the beginning. OpenAIRE has been a key driver in open access publications since 2005 and, while this remains a core goal, we have gradually shifted efforts to open research data from 2012 onwards.

Embracing Open Science (OS) and therefore EOSC has been a no-brainer. Regardless of whether we agreed at times with the process, the many unknowns

along the way, or the key people involved (or not involved), we fully recognize that EOSC, both as a concept and as a policy initiative, has succeeded in mobilizing European players toward a common goal: OS. Using it as a means to boost collaboration and innovation, it has helped policymakers place data-driven science within wider national agendas for digital transformation—in concrete, measurable terms.

So, kudos to Mr. Burgelman and his team for their relentless efforts to bring this together: overcoming obstacles, ignoring practical challenges during the design phase by abstracting them, with the final goal of getting high-level policymakers (top-down) and the infrastructure community (bottom-up) on board simultaneously. It was no easy task to create, shape, and sell a vision that different groups, coming from different perspectives, could relate to—especially in a European environment that often resists change.

Having now reached a safer place, some reflections from the "community" may be of interest and value.

The grandness of the name seemed to do its work in securing high-level political support, as Brussels tends to mobilize for grandiose visions. It has also worked for attracting international attention. At the same time, the all-encompassing title has often confused the community about what this really is. Is it a cloud, or not? Is it about Open Data (OD)? Or only about FAIR? Is it about research data, or does it include other research results like open access publications and software? In the end, it seems it is about everything, depending on where someone is coming from. Retrospectively, a more appropriate name would have been to substitute "Cloud" with "Commons."

Managing expectations so they don' t manage you. Expectations have been set very high from the beginning. The EC set the mood for a "sail or fail" initiative, often with a haste to make it happen before the community had time to digest and position themselves in the emerging environment. As the narrative shows, it was indeed a sail, but into rough waters at times, needing navigation skills, strength, desire, and a clear destination. All were there, apart from the latter. And as the destination was not—or is not yet clear to all—expectations varied depending on who you talked with. In numerous presentations to non-initiated groups, I tried to respond to questions of the sort "when will EOSC be ready to use," making it clear that they perceived EOSC as a free-at-the-point-of-use cloud platform with some value-added perks. In contrast, the familiar crowd (infrastructures) has kept expectations low, entering EOSC with eyes wide open and a fair share of skepticism, as with many top-down initiatives. Why? Because infrastructure providers know that commitment and continuous funding are of key importance to make such a grand initiative work.

The decision to build on existing infrastructures and investments has correctly been there from the beginning. Before EOSC appeared on the scene, many pan-European research and e-Infrastructures—OpenAIRE among them—had already worked with this model: building on national infrastructure and

investments; federating research results and resources; building and operating human networks who are key in aligning policies and propagating practices. All in a bottom-up manner. Trying to meet the top-down in rather unknown waters often produced more confusion in the community.

Balancing different views of FAIRness and openness has been present in the OpenAIRE community from the beginning. The discussion on openness has been diluted along the way. FAIR has proven to be an excellent marketing tool, easily digestible as a concept but hard and costly to implement in its entirety for the whole data lifecycle. So most often the discussion stays in the context of metadata. Even if we anticipate FAIR to pay off in the long term, open research data with acceptable quality will bring quicker uptake and return on investment (RoI). So it is important that as a starting point, EOSC redoubles Europe' s efforts to make more and better quality data available for public research at no cost.

Labelling EOSC as the "Web of FAIR research data" limits its long-term vision as a facilitator for harnessing European data-intensive research. It may be sufficient for the starting years, where we need to bring the community together under common understanding and simple rules. But data aren' t a set-it-and-forget-it thing. Its real value comes with actionable delivery. Therefore, we cannot afford to have data and analytics worlds collide. EOSC needs to turn this collision into a constructive convergence, incorporating both data and analytics tools and capabilities into its stack. Fast-forwarding into the (near) future, EOSC should facilitate the Data as a Service (DaaS) paradigm: having data in the forefront, to implement a data management strategy that uses the cloud to deliver data storage, integration, processing, and/or analytics services via a network connection.

The six-year drama has just been the beginning of the EOSC journey. The community has, or is in the process of, fully embracing it. EOSC has put Europe at the forefront of OS globally, and all eyes are on us. The work on the policy has provided this boost, and now it is in our hands to make it happen. And we cannot afford not to.

Author Biography

Natalia Manola is the Managing Director of OpenAIRE (www.openaire.eu), a pan-European e-Infrastructure supporting scholarly communication and Open Science in Europe since 2009. She is also a research associate at "Athena" Research and Innovation Center and at the University of Athens, Department of Informatics & Telecommunications. She holds a Physics degree from the University of Athens and an MS in Electrical and Computing Engineering from the University of Wisconsin at Madison. She has several years of employment as a Software Engineer and Architect in the Bioinformatics commercial sector. She has expertise in OS policies and implementation. She has served on the EOSC Executive Board (2019-2020), also chairing the WG on Skills and Training, and

in the OS Policy Platform, an EC High Level Advisory Group to Commissioner Moedas to provide advice about the development and implementation of OS policy in Europe. Her research interests include the topics of e-Infrastructures development and management, scientific data management, data curation and validation, text and data mining, and research analytics. Natalia has also served in the EC Future Emerging Technology (FET) Advisory Group (2013–2017).

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Note: Figure translations are in progress. See original paper for figures.