DyStopia: Into a potential future of IEEE VIS under Plan S

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Eligible IEEE VIS Authors We Lost in 2023 Due to Plan S

Figure 1: 2023 was the first year that IEEE VIS authors felt the full brunt of Plan S compliance. Many scientists in Europe and around the world discovered that their funding agencies prohibited them from publishing in IEEE TVCG because the journal was not truly open access. The lack of a clear plan from IEEE to address this predictable problem effectively excluded many authors from VIS, leading to the conference’s substantial decline in submission and attendance in the following decades. Note: this is speculation about one possible future. Online at https://observablehq.com/@codydunne/vis-plan-s, archived at https://osf.io/fszcp.

ABSTRACT
In this manuscript, we take a look at the dystopian future that could lie ahead of us should we fail to consider the impact of Plan S. It is the year 2030 and researchers from Europe have not been submitted their research to IEEE VIS for a number of years. We quickly retrace what has happened to lead to this unfortunate outcome in the hope to avoid it and start an important conversation that would raise awareness in the VIS community about the importance and immediacy of Plan S.

Index Terms: Human-centered computing—Visualization—Visualization techniques—Treemaps; Human-centered computing—Visualization—Visualization design and evaluation methods

1 SUPPLEMENTAL MATERIAL
A copy of this paper along with all supplemental materials is available at https://osf.io/x75s6. This includes the code used to generate the teaser figure and data on the countries VIS first authors have hailed from between 1990 and 2019.

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2 A RETROSPECTIVE FROM VIS 2030
In 2018, cOAlition S, a group of European national funders with the help of Science Europe, the Scientific Council, and the European Research Council decided to adopt and sign Plan S [6]. In essence, Plan S is summarized by cOAlition S with the following:

“With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo.”

The rationale behind such a strong push for Open Access is simple: access to scientific knowledge should be universally possible regardless of a person’s knowledge, funding, or affiliation. As such, subscriptions models and paywalls are hindering access to a significant portion of the scientific knowledge, often obtained thanks to publicly academic ventures. Back in 2018, many researchers postulated that these monetizing models only served the ever-growing business of science publishers and profoundly hindered access to knowledge and new advances. The COVID-19 pandemic could have pushed even further the adoption of Open Access, which has been partially adopted across publishers to facilitate the international research effort [4]. Unfortunately, it seems more than likely that publishers only used it as an opportunity to conduct an international Open-Access washing and avoid backlash [1]. As IEEE VIS research was not directly focusing on COVID-19, the visualization community did not experience the potential and benefits of full Open

†https://www.coalition-s.org
Access publications during COVID and therefore did not try to push for it to become the norm in the community.

While the ACM had drafted its plan for Plan S compliance in 2021 which became effective in 2022,² the IEEE had not followed in the ACM’s steps. This eventually led European researchers to increasingly worry about their next IEEE VIS publications. As IEEE had not started any negotiations or arrangements towards a full transition to Open Access within a reasonable timeframe,³ authors from European countries gradually stopped submitting to IEEE VIS. In the first 29 years of VIS, 36.8% of the papers had first authors from a country with a national funder.⁴

It is now the year 2030, and IEEE VIS consequently does not propose any research from European publicly-funded researchers. As the effect of Plan S had rightfully been anticipated to lead to inequitable outcomes on other countries and institutions than the ones directly affected by Plan S [2, 5], it is today regrettable to see our communities divided and to imagine the wasted research opportunities that a unified community and venue would propose.

In Fig. 1, we see the impact of Plan S and the lack of clear plan within the visualization and IEEE communities. It is regrettable that we, visualization researchers, did not try our best to find a collective solution with IEEE that would work for all. If only we could go back in time...

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REFERENCES


¹https://authors.acm.org/open-access/plan-s-compliance


³Between 1990 and 2019, 3637 VIS papers had first authors from countries with national funders who signed on to Plan S. The dataset we used [3] has 9874 papers with known first-author locations and 2403 additional papers with blank or unknown locations. We did not count the latter in our percentage.