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Beyond Dark Academia: Reclaiming Agency and Belonging to Overcome Metrification and Performance Accountancy

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Abstract

The Sustainability Design Alliance are a group of researchers dedicated to advancing the state of the art in software engineering for sustainability and sustainability within software engineering. We wonder to what extent this pursuit is hampered by the very institutions and mechanisms that purport to facilitate genuine understanding and advancement of knowledge. This position paper questions what impact the post-Humboldtian university has on the disconnect between research and practice, in a context where macro-structural forces such as external funding income and performance metrics are valued over research insight, resulting in structural conditions under which functional stupidity — the active suspension of critical thinking within organisations — has become normalised and rational. We identify systemic issues and concerns around metrification and performance accountancy that negatively impact academic sustainability. We exemplify how they impact researchers' individual and social sustainability and hence pose an existential threat to the software engineering research community. We propose an alternate future and pose a set of discussion questions around which the community can engage in dialogue.

CCS Concepts

• **Social and professional topics** → **Professional topics**.

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Social Sustainability, Resilience, Community, Research Metrics, Metrification, Performance Accountancy

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1 Context: Metrification vs. Agency

The Humboldt model of higher education conceived the sector as a community of scholars dedicated to the free pursuit of knowledge, where teaching and research are symbiotic, academic freedom is protected, and education serves intellectual and moral formation rather than immediate utility [5]. Knowledge is valued intrinsically, governance is collegial, and the university maintains critical distance from state and market interests. However, from the 1990s onward, neoliberal approaches have fundamentally challenged its ideals by demanding that universities meet expectations from government, business, and society regarding the "usefulness and benefit" of their outputs [8]. Traditional academic values are normative commitments about what universities are for and how knowledge should be produced, judged, and transmitted, which were centered on the pursuit of truth through free inquiry, standards and peer review, disciplinary autonomy, and treating knowledge as a public good with intrinsic worth. This was strongly coupled with the concept of education which was considered intellectual formation rather than training where the aim is not only skills acquisition but intellectual maturity, critical judgment, combined with ethical and civic responsibility.

In contrast, in the modern 'corporate university', the Humboldtian ideal of unity of teaching, research, and practice is broken and has been replaced with performance management and market logic. As a result, the need to prove impact strongly indicates that the research–practice connection is no longer intrinsic.

The problem is not that these values - academic freedom, research-informed, and scholar autonomy - are wrong; it is that the very institutions that claim to uphold them are simultaneously violating them. As such, the Humboldtian model has become a legitimising myth invoked to justify universities' moral authority while daily operations contradict its foundations and values. This Humboldtian framing is aligned with the experience of an academic life as described below as *Faculty Land Experience* (name inspired by [8]).

> "*Choose a life. Choose a degree. Choose a PhD. Choose an academic career. Choose the thrill of exploring new ideas and uncovering knowledge. Choose collaborating with brilliant minds from around the world. Choose inspiring the next generation of students to think critically and make a difference. Choose summers spent writing in libraries or conducting fieldwork in far-flung places. Choose conferences in vibrant cities, where you share your research and spark new collaborations. Choose the joy of seeing your name in print and knowing you've added something meaningful to the world. Choose the freedom to structure your time, balancing work with holidays to recharge. Choose sabbaticals that let you dive deeply into your passion projects. Choose a career where your curiosity knows no bounds. Choose life… because why wouldn't you want to do a thing like that? #chooseanacademiclife*" - **Mythical Faculty Land Experience**

However, these values have been undermined by a focus on metric optimisation, impact and return on investment, managerial control, speed of production and visibility, and research–teaching fragmentation creating a toxic environment for both academic staff and students leading to widespread despair within the academic community. As a result, research value has been redefined through metrics that do not represent real academic practice. The corporate university is primarily concerned with KPIs such as h-index scores, conference and journal rankings, impact factors, and grant income totals, which are treated as proxies for contribution to the university "bottom line." As a result, when research is steered by what is countable rather than what is useful in practice, the connection between research outputs and practical needs becomes tenuous and indirect. The link between practice and research is fragile, mediated, and often performative rather than direct. This is illustrated by the experience described below:

> "*Choose a life. Choose a degree. Choose a PhD. Choose an academic career. Choose endless grant applications, faculty meetings, and publish-or-perish pressure. Choose marking essays on a Sunday evening while wondering if anyone will even read the feedback. Choose working weekends to meet deadlines for journals no one outside your field will read. Choose funding cuts, precarious contracts, and institutional restructures. Choose staff room politics, departmental gossip, and 'robust' performance reviews. Choose clinging to your research identity while fighting imposter syndrome. Choose mentoring students who remind you of your younger, more optimistic self. Choose retirement at an age when you can barely hold a cup of tea steady enough to toast your accomplishments. Choose life… because why would you want to do a thing like that? #chooseanacademiclife*" - **Actual Experience of Reality**

Modern corporate university's have fully embraced an "edu-factory" production model. We realised there were so many kinds of functional stupidity [1] to mention: pointless rebranding exercises, ritualistic box-ticking, misguided attempts at visionary leadership, thoughtless pursuit of rankings etc. Research is increasingly valued through metrics, not through practical use or intellectual contribution. If research is steered by countable outputs, i.e. citations, KPIs, research excellence scores rather than practical engagement or real-world usefulness, the research–practice link becomes indirect and fragile. Practice is no longer the measure; metrics are (cf. Goodhart's law [7]. Conferences and journals exacerbate the metrification and accountancy.

Message

The Software Engineering Research Community is threatened by the metrification and accountancy that has taken over our institutions in the last 10-15 years. We need to change that paradigm dictating how we set research agendas, conduct research, and interact as community.

While these dynamics affect academia broadly, they are **particularly pronounced in software engineering**, where conference-centric publication cultures, fast-moving topic trends, and metric-driven career pathways intensify pressure on research practice, community labour, and academic agency.

We have captured the system dynamics of academics and university in society in Figure 1. We position faculty and the university at the center of the figure as main agents. Around them are the most important tasks and actors they relate with, and the influences they have on each other. Any system dynamics diagram is by definition an incomplete abstraction from the actual system but we hope it is a useful one to facilitate discussion around the dynamics of universities, academics, and research communities. We see it as a valuable community exercise to use such a model to play through the different levers and effects when planning to change the system.

> "*The system is not broken - it is designed to serve those who benefit most from it, said a senior colleague. We need to ask who is it that the system serves most in its current form.*" - Colin Venter

Academics and students need to recognise the need for change within the university system by taking immediate action to address the decline of the academic environment and restore its original purpose. In order to get to recommendations for such actions, the guiding question of our exploration is:

What is the purpose of a modern day university and what is the role of academics within it?

It's about the pursuit of knowledge that is beneficial to society. The role of academics within it is currently perceived alternately or even simultaneously in the two flavours of the same narrative in the boxes above. Since it is not sustainable to live in a "bipolar" state of mind, our minds beg to consolidate these perceptions back into one reality.

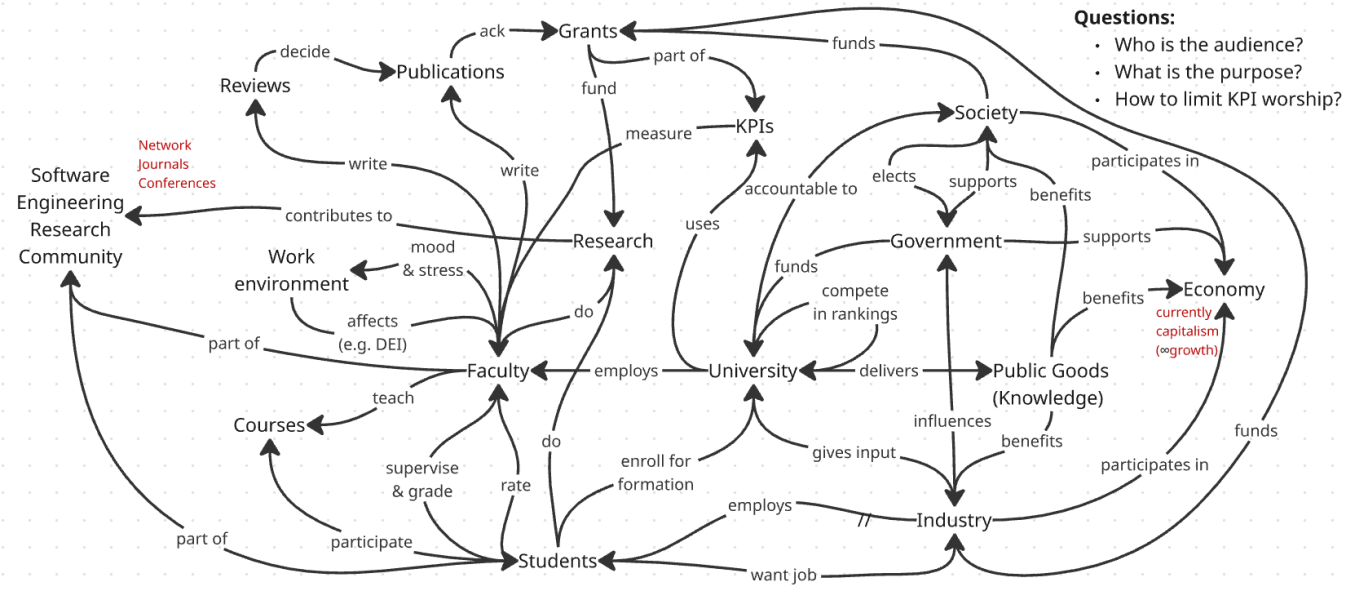


Figure 1: System Dynamics of University in Society

2 Academic Sustainability

It seems university and researcher objectives and needs are not well aligned. Hence we ask ourselves what academic sustainability would entail.

Academic Sustainability

We see academic sustainability composed of:
(i) **Individual sustainability of researchers.**
Three contributors to individuals feeling motivated and happy are: autonomy, belonging, and skill.
(ii) **Social sustainability of the research community.**
Three contributors to the sustainability of a community are: cohesion, trust, and power structure.

In terms of individual sustainability, the authors of this paper represent an assortment of early-career (postdoc) to senior (full professor) academics from across Europe, with some of us coming from an industry background, while others have been employed by academia throughout and have varied experience through projects with industry, research institutes, and the third sector. We all recognize the impact of metrification and accountancy. The following statements are first-person reflections contributed by members of the author team, drawing on their lived experiences across career stages and institutional contexts. Together, these reflections illustrate how these dynamics affect individual sustainability:

> "*As a senior member of a software engineering department in a Finnish university, I have followed the development of the researcher agency with great concern. University operations have become increasingly KPI-oriented, with KPIs that do not always emphasize the "right" things from the researcher's career perspective, but requires researchers to acquire their own funding, if they want to continue research of their interest.* " - Jari Porras

The same holds for the experience when talking to individual researchers about their goals and their performance - it becomes about the metrics over content:

> "*Colleagues are more stressed around their performance goals than ever before, because these metrics are tied to them completing their PhDs, receiving tenure, or getting promoted. The cost at a competitive research university that prides itself on its excellence strategy is an increasing number of KPIs to achieve, limiting autonomy, and belonging being questioned upon the achievement of certain performance metrics.*" - Birgit Penzenstadler

> "*There is so much pressure to submit proposals, publish papers, and other no-sense research bureaucracy, all within a very limited research time and scattered attention. Academics became writing machines for papers that will probably not be cited and that will have very little impact on the world.*" - Leticia Duboc

> "*The current research ecosystem systematically externalizes costs onto researchers time, health, and emotional labour. The normalization of unpaid reviewing and continuous publication pressure erodes autonomy and intrinsic motivation, making academic careers increasingly unsustainable. Funding success is used as a key indicator of research independence and merit, though institutional policies frequently prevent postdocs from acting as principal investigators. Evenings and weekends become extensions of the working day. The challenge is not a lack of dedication, but the absence of structural space to recover, reflect, and sustain a meaningful balance.*" - Shola Oyedeji

The following reflections shift the focus to social sustainability, highlighting how power asymmetries shape cohesion, trust, and the distribution of community labour within the software engineering

research community. It is essential to examine who holds the different types of power[1] when we talk about the social sustainability of the SE research community. Examples of power include money (publishers, funders), compliance to rules (set by institutions and legislation), and operational power (reviewers, editors, steering committees).

> "*There is a dis-balance between the power holders. I have stumbled repeatedly over the issue of "proof". When researching in an area where it is impossible to put a number on things, "proof" gets relative, e.g. for possible impacts on individual and social sustainability? The community is used to hard facts and short time frames. Sustainability impacts evolve over time, but papers need to be published asap. And here the power comes into play, as researchers with power are usually the ones exercising established and traditional research methods, which poses problems for those working on softer areas.*" - Stefanie Betz

In addition, these power structures strongly influence what topics we research on versus what the researcher might consider most relevant:

> "*I have experienced how my sense of autonomy is quietly shaped by power structures in academia and by the curricula and incentive systems of my university. Projects that promise real-world relevance and impact are often treated as "project work" rather than as serious scientific contributions. I notice that I increasingly focus on what is likely to work rather than on what would be ambitious or transformative. It also affects my motivation: the more I adapt to what the system rewards, the harder it becomes to hold on to the curiosity and drive that brought me into research in the first place, a vicious circle.*" - Norbert Seyff

> "*I am working on topics of community support (like fuel poverty, poor technology installation, support for collective decision making), but everyone is focused on AI. So even though the topics of my research are very relevant to both the university mission (Bristol is committed to being a civic universality), and the local city council, and the local community, much of the work is done without external funding. If we want funding, we need to link it to the AI topics in one way or another.*" - Ruzanna Chitchyan

Plus institutions hold on to power structures [9] built upon the metrics of having become an academic without accounting for different career paths:

> "*As a professional who moved from a career in Industry, with blue chip companies, into academia nearly a decade ago, I have struggled to turn industry experience into academic credibility and will never have the publishing track record of academic colleagues of a similar age and experience. The boundary between academia and industry is not very permeable and resists movement from one side to the other. Sustainable SE relies on professionals exercising their values and judgement.*" - Ian Brooks

Does that mean that academic sustainability is lost? No, certainly not. We still see the value of community in both our institutions as well as in our small research communities, so let's maintain that:

> "*I feel I belong to a very interesting and nice group of people. I very much enjoy the conversations I have about research and research ideas.*" - Leticia Duboc

> "*I hope to create* belonging *by checking in with people and giving positive feedback, encouraging them to ask for help, fostering collaboration and making sure they have the contacts they need.*" - Birgit Penzenstadler

> "*What encourages me and gives me a sense of belonging to the SE research community is a weekly meeting with the Sustainability Design Alliance. This group provides a strong meaning and purpose as we build a software engineering profession contributing to the good of environment, society and future generations. It offers a vision of SE researchers with strong connections to decentralised nodes where they can create and exchange new knowledge.*" - Ian Brooks

3 ICSE as Academic Conference

From the perspective of social sustainability, academic conferences and publication venues play a central role in shaping cohesion, trust, and power relations. In the following, we reflect on how current conference practices, particularly at ICSE, affect these dimensions.

What is the purpose of an academic conference? It is suggested that their existence is based on the coordination of a research community around the production, testing, and communication of knowledge. As such, its core purpose is epistemic, not performative. A field of research does not advance only through isolated papers. It advances when a community compares approaches, notices converging problems, realises that many people are "stuck" in the same place. As such, conferences are critical to non-instrumental knowledge as they protect forms of inquiry that may not yet be fundable, may not yet be publishable, and may never have clear "impact" narratives. They should facilitate academics discussion to ask "Is this idea interesting, coherent, or true?" rather than "Will this pay off?" This function is invisible in citation metrics but central to intellectual progress.

Critics argue conferences have drifted from their primary purpose because papers are presented after publication, time pressure discourages real discussion, metrics reward attendance over engagement, and managerial and reputational incentives dominate. When this happens, conferences stop facilitating epistemic work and become symbolic rituals. Conferences as a venue for intellectual discussion have shifted dramatically from epistemic venues designed to improve knowledge to accountability artefacts designed to evidence activity. Historically, conferences were places to present incomplete work, risk criticism, and revise arguments publicly. The value of a talk lay in what might go wrong. In contrast, under-audit culture conference outputs must be countable, presentations are increasingly polished, pre-approved, and risk-averse, and genuine uncertainty becomes professionally dangerous. As a result, conferences prioritise safe contributions over intellectually productive ones where epistemic risk is replaced by reputational management.

Conferences persist in their form because they now serve institutional reporting needs, funding accountability requirements, and individual career progression systems. The incentive structure rewards compliance at the expense of intellectual value. Metric capture is not about bad formats; it is about misaligned incentives. However, no format alone can solve metric capture. The real solution is an uncomfortable but accurate truth. What does help is plurality of formats where there is no single dominant venue, explicit norms against output fetishism that redefine what "counts"

[1] "Power means every chance to impose one's own will within a social relationship, even against resistance, regardless of what this chance is based on." Max Weber (1864-1920).

and that re-anchor epistemic values, and where academics protect spaces potentially even at career cost. We argue that there is a need to return to the primary purpose of an academic conference which is to provide a temporary, collective space in which academics expose and discuss developing ideas to informed scrutiny, negotiate the direction of a field, and transmit knowledge that cannot be fully captured in formal publications and resists metric capture.

On an individual sustainability level, academics are required to target Q1, top quintile journals and A/A* conferences, which have seen a significant increase in submissions and publications. ACM TOSEM publications went from 17 in 2017 to 221 in 2024, a triple number at ICSE, and five times in IEEE TSE in the same period [11]. A stark consequence of this is a significant overload on the reviewer community of unpaid academics who volunteer their time during their evenings, weekends, and vacations in the name of service — impacting social sustainability. Peer reviews were the most frequently named item of what does not work well in the FOSE event's pre-survey because there is a demand for higher quality and transparent reviews from a small pool of overloaded reviewers with limited expertise across the entire subject domain. This is another reason why we question whether the current model of having conference papers compete with journal articles as publication outlets and turning conferences into presentation venues instead of discussion venues for the most relevant challenges of the field is serving our cohesion as community.

4 Future of the ICSE Research Community

How can we create better spaces for discussion at ICSE for solving new and interesting challenges? We could move to the model of other disciplines where abstracts are submitted and discussed. Presenting results can happen via the Journals First track [3].

Our observations point toward alternative conference models that prioritise discussion, reflection, and community cohesion over volume and metric production. We advocate for an un-conference [4], a self-organising forum for idea sharing, networking, learning, speaking, demonstrating, and generally interacting with other professionals, that facilitates joint in-depth discussion of the big challenges of the field of software engineering, where we discuss research designs, and have reflective conversations on principles and practices. To evaluate whether such practices are indeed useful to the community, we can use collective descriptive autoethnography [10] along with a number of pilot sessions.

Another important aspect of an alternative ICSE future would be make the conference more accessible and less elitist. Moving to a model that alternates between a global conference one year and a local-hub conference per continent the other year can increase equitable access and significantly decrease environmental impacts.

Finally, the question of where people go who are no longer part of the ICSE community ten years later points to a deeper issue of social sustainability. While some graduate and move into different careers, this raises deeper questions about long-term belonging, retention, and who the software engineering research community is structurally able — or unable — to sustain.

For the larger picture, we hope a conversation around the system dynamics in Figure 1 may help color in the picture as well as a joint discussion of the questions in the following section.

5 Our Questions & Conclusion

We believe the following five questions are crucial for us to discuss and answer as software engineering research community:

- ★ **What is the role of higher education and universities?** To educate students, develop new knowledge and contribute to the wider community? If we aren't production line knowledge workers imparting practical skills for the capitalist labour market [8], what are we? We need to teach and apply critical thinking, systems thinking, and lifelong learning to form empowered agents of change [2].
- ★ **How do we recover or own our agency as academics?** There is a range of answers from being held captive by the system to strong rebellion. If as a community we can decide on a path forward and unite, we can make a stronger stance.
- ★ **How do we set boundaries to being ruled by metrics?** Never in human history has so much research had so little impact. Accountability is not accountancy [8]. I'm not a spreadsheet with hair[6]. The collapse of quality into quantity does not work.
- ★ **How do we go back to discussing at conferences?** We need venues where we have intellectual discussion to solve the broader problems of the field. We advocate for un-conference style, participant-led sessions.
- ★ **What are we sustaining?** Whenever we wish to *sustain* something, like the ICSE community, we need to answer: What to sustain? For whom? For how long? At what cost [12]? Specifically we need to differentiate what that means for research, and what that means for education.

We look forward to discussing these questions in person at the conference. We hope to jointly explore and define the best path forward to transition to a more sustainable research community and academic environment that serves all stakeholders in society.

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