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Paradigm shifts in research assessment for scientific publishing in design: Emerging models in a pluriverse perspective

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Abstract: In the realm of design, research publication undergoes a transformative shift in evaluation and emerging forms that prompt investigation into the distortive impact of the current assessment framework on publication diversity. The complexity of assessing research quality within institutional frameworks and career metrics hinders innovation, and globally, debates on impact factors drive a shift to qualitative, responsible evaluation. Therefore, peer-review models advance toward transparency and continuous assessment. Regarding these concerns, a solid review culture in the design domain is crucial, emphasizing the link between assessment and impact. The article explores how collaborative methodologies enable new assessment practices for design communities in the Global South, challenging Western-centric peer-review norms to adopt a more pluriversal perspective. It includes an introduction problematising the status of publication assessment in the general scientific domain. It continues focusing on some features and good practices in the assessment that could be inspirational and suitable for design (that in Italy – the context of this paper - is a non-bibliometrics sector). The paradigm of pluriversality is then introduced as a background framework to discuss and nurture new opportunities in the assessment of scientific research and publication in the design field and adopted as a reference in two proposals, shown in the case studies. The paper concludes with some statements and propositions integrating the concept of distributed knowledge leadership in assessment processes and thus refining the discourse on research plurality.

Keywords: design, scientific production, responsible evaluation, pluriversality, research equity

1. Introduction

Research in the realm of design assumes a significant role within the discipline, serving as a fundamental pillar for comprehending its diverse influences and safeguarding the integrity of the research community. The preservation of high standards of quality in design research discourse, coupled with a commitment to embracing diversity, stands as an imperative. Within the design domain, the principles of inclusivity and transparency are upheld as foundational values, transcending geographical boundaries to encompass aspects such as gender, career progression, and ethnic diversity.

In the scientific publication of design there are concerns about global diversity in design research publications (Trinidade & Pereira, 2023). At the same time, there is a discernible trend towards the adoption of non-traditional paper formats, which incorporate elements of innovation, affording researchers greater latitude to explore design practices with enhanced creative liberty. This evolutionary trajectory underscores a dynamic landscape within which scholarly inquiry is encouraged to thrive, fostering a scholarly environment enriched by experimentation and exploration.

The paper discusses new academic publishing and assessment in design that try to adopt a more pluriversal approach. In the following two paragraphs, the authors problematise academic publishing evaluation and assessment and good practices in general, emphasizing criticalities and challenges that are also relevant to design.

2. The impact of assessment on research and scientific publishing: different (local and global) stories

Evaluation constitutes an important step in disseminating research and its results, as well as a mandatory and unavoidable requirement for a scientifically accredited publication.

The evaluation of research involves very different objects: institutions, research projects, journals, publications and individual researchers. These relationships form a complex network of mutual influences, such as those between projects and institutions. For instance, universities often gauge their performance based on the number of projects they secure funding for, such as from competitive sources like European or national research grants. Similarly, projects themselves are frequently evaluated—and subsequently funded—based on the reputation and ranking of the institution proposing them. Moreover, there exists a symbiotic connection between the quality of journals and articles, which significantly impacts individual researchers. Specifically, in bibliometric realms where metrics such as article citations and journal Impact Factors hold sway, these factors interplay to reinforce each other. As citations bolster a journal's Impact Factor, authors, motivated by this dynamic, tend to gravitate towards high-impact journals. Consequently, this interdependence perpetuates certain biases within the system, which in turn sustains the status quo and reinforces existing power structures.

In this context, discussions are on the agenda around:

Article Processing Charges (APC) which remain the sole responsibility of the authors, with phenomena such as double dipping (duplication of fees for both publication and access to content);

Controversial use of the Impact factor (Curry, 2018; Waltman & Traag, 2021);

Opacity of the journal system, in which the essential functions (archiving, registration, dissemination and certification) are controlled in such a way as to make it difficult to change any aspect (Priem & Hemminger, 2012);

Necessary innovation of open and transparent peer review processes, increasingly recognized as a quality criterion characterizing scientific journals (WOS, SCOPUS).

These conditions significantly impact the possibility of innovating methods and formats of scientific production and its evaluation.

Until now, two models have prevailed (Hicks, 2012): a first model based on peer review, such as the British Research Excellence Framework (REF), and a second model based on bibliometric indicators, such as Australian Excellence in Research (ERA).

Regarding the evaluation approach based on metrics, two main issues have been raised: for some scientific fields, namely social sciences and humanities, bibliometrics is not easily applicable, and some research outputs are not covered in bibliographic databases, such as books or articles in national languages. In addition, the consensus is that a merely quantitative approach reduces the diversity and variety of leading institutions capable of attracting funding (Nature Editorial, 2022), but also that it is not reliable as an exclusive criterion for ranking institutions (Gringas, 2016) or the evaluation of the quality of individual articles and researchers (Waltman, Traag, 2021).

Consequently, a third model of research assessment has emerged, where bibliometrics and peer review are jointly adopted. The evaluation of design publications typically relies on peer review and non-bibliometric metrics to assess their quality and impact.

In Italy particularly, the Governmental Agency for Research Evaluation (ANVUR) applied this model in its research assessment exercises (VQR) for many disciplines among which design. The Italian regulatory system for the evaluation of scientific production is complex, due to often conflicting procedures at different institutional levels (University criteria, VQR - Evaluation of Research Quality, ASN - National Scientific Qualification), in an equally varied framework of actors and classifications (ANVUR - National Agency for Evaluation of the University and Research System, SSD - scientific disciplinary sectors and related scientific societies). The evaluation is therefore performed using a mixed model, by two distinct processes: 1. assessment (of publications, scholars…), mainly quantitative, i.e. based on metrics and typical of bibliometric SSDs, and 2. review, which is, instead, a qualitative process (not bibliometric, but used both by bibliometric and non-bibliometric SSDs) for peer evaluation of a single article, generally made anonymously by experts (peers) to verify the quality of the text and allow publication in a journal (or a conference, albeit with often less restrictive rigor criteria) or participate in the three-yearly VQR exercises of the Universities

and Research Institutions, established by ANVUR and used for the allocation of the reward share of the Ordinary Financing Fund. About this dual model, studies realized both in Italy and the UK, discussing the agreement between bibliometrics and informed peer review, prove that results do not converge and therefore do not validate the use of the dual system of evaluation (Baccini, Barabesi, De Nicolao, 2020). In the UK too, “individual metrics give significantly different outcomes from the Research Excellence Framework peer review process, showing that metrics cannot provide a like-for-like replacement for REF peer review” (Wildson et al., 2015). Traag and Waltman claimed that the appropriate level of the REF is the institutional one and not to assess the quality of individual publications (Traag, Waltman, 2019).

Therefore, the assessment of researchers begins to oscillate between institutional evaluation (Colarusso & Giancola, 2020) and new ways to build reputation (Gandini, 2016; Fecher et al., 2017).

In the Italian academic design sector, which is a non-bibliometric sector, evaluation and assessment are based entirely on peer review.

Traditional peer review, according to the Open Research Glossary, is “a process by which a research article is reviewed by community experts before publication” to be admitted to the community. The evaluation must be "constructive" even in the event of rejection of the article - that is, clear, impartial, appropriate (to the context, the discipline, the author's career level) and useful for improving the publication (Martin, 2016); it must be based on objective and shared qualitative criteria such as originality, relevance and rigour. An international pilot study carried out in 2021 in 740 international academic journals of the publisher Elsevier, measured the effectiveness of the review processes, showing the relationship between the publication of evaluation reports and improvement of publications, in a logic not only of selection but of effective support for the development of the scientific product (Garcia-Costa et al., 2019).

In this context, it should be noted that the review processes are being completely reshaped, moving towards a scenario of democratic, open and continuous review (letto-Gillies, 2012; Shanahan & Olsen, 2014). The process is evolving towards greater collaboration and transparency, with initiatives such as disclosing the identities of reviewers and authors, and publishing review reports alongside articles. This facilitates direct interaction between authors and reviewers, as well as public engagement (Ross-Hellauer, 2017). An analysis carried out in 2019 on five Elsevier journals, made it possible to evaluate that the publication of evaluation reports does not change the objective behaviour of the evaluators (even if only 8% agreed to publish the evaluation report in non-anonymous form) (Bravo et al., 2019). An excellent example of transparent processes is the Open Research Europe platform, in which research publications resulting from funding from Horizon 2020, Horizon Europe and Euratom are published without fees through an open review process whose reports and related discussions are published next to the articles.

However, in Italy, the evaluation process for Class A journals (the list of journals with the highest level of reputation within the Italian research system according to ANVUR which encompasses a significant portion of the national scientific journals in the field of design) or VQR exercises remains opaque, as the reports are not disclosed to the public, except for individual authors under review. Moreover, this disclosure typically occurs in a fully anonymous manner, and the evaluation process lacks provisions for a dialogic exchange with the evaluator. An in-depth analysis of this type at a national and specific SSD level would serve to develop a solid basic knowledge and therefore consolidate a shared culture around the review processes, that could be relevant for the design discipline too. On the other hand, the practice towards a constructive review is not always obvious and sometimes the evaluation is perceived in a distorted way (Colarusso & Giancola, 2020) differently from abroad where it is considered very effective, even if the dimension of anonymity (Mulligan, Hall & Raphael, 2012).

In addition, even peer review is not free from implications and critical issues.

Some studies have begun to analyze the biases to which peer review can be subject, thus compromising its reliability and safety (Mulligan et al., 2012), also starting from cases of fallacious or fraudulent evaluation (Abambres et al., 2019). According to the Science Europe Position Statement and Recommendations on Research Assessment Processes (2019), the most often scrutinized potential biases were gender (82%) and discipline (77%). Other biases related to specific types of assessment, such as affiliation (62%) or seniority (49%) were also widely listed. Even the clause of anonymity and confidentiality of data between authors and reviewers (often requested by publishers and journals) does not guarantee constructive and quality reviews, nor does it allow us to compare and, therefore, improve the methods with which publishers manage the process. Birukou et al. (2011), discussing some controversies relating to peer review and some experimental practices, go so far as to propose alternative models such as community-based evaluation based on reputation and incentives.

The increasingly frequent possibility of updating and modifying or contributing to articles granted by journals and platforms through "updates" or "public response articles" is leading to the redistribution of review processes along the entire life cycle of a publication: from pre-publication review to post-publication, until continuous revision.

Hybrid formats such as visual essays, video articles, enhanced articles and in general contributions with interactive contents and reading paths that are not necessarily linear, require structural changes both in the review processes and in the skills of the reviewers, as well as a certain awareness of how the most recent developments in AI (Artificial Intelligence) can contribute to the processes of scientific writing and production in an automated way (Marconi, 2022), also causing the possibility of publishing scientifically altered or unverified information (De Kerckhove, 2022).

These conditions make the review ethically complex, to the extent that it underscores a tangible necessity for enhanced education in review culture, particularly within the domain of design. One approach could involve providing training for young researchers on the

evaluation of research published in academic journals (Pyrczak & Tcherni-Buzzeo, 2019). Alternatively, initiatives such as The Design Journal's establishment of a College of Reviewers offer promising avenues. Within this framework, each member is paired with a mentor to foster a more coherent, high-quality, reliable, and excellent review process (Atkinson, Valentine & Christer, 2021).

At the same time, it is however possible to promote a more transparent review through incentives and rewards. Some publishing platforms publicly recognize and reward the work of reviewers, e.g., Orvium. Others, like Publons, showcase the impact of scholars based on their reviews and editorial activities for academic journals, offering recognition to often hidden peer review work.

Finally, review and assessment have a relevant impact on publishing patterns. In Italy there is a noticeable increase in the quantity of scientific production in 2016-2021 (due to the establishment of the ASN procedures and the scholars' effort to reach the threshold), and an increase in citations per article. But at the same time recent studies report an increase in "inwardness" (an indicator defined as defined as the proportion of citations coming from the country over the total number of citations gathered by the country) due to the generalized strategic use of citations in the Italian scientific community, both in the form of strategic author self-citations and of citation clubs or "gaming" (Baccini, De Nicolao, Petrovich, 2019). According to those studies, the anomalous trends in the country self-citation rates of some countries, such as Italy, have been induced by the distorting effect of citation metrics-centred science policies, and suggest managing bibliometric indicators in research policy contexts with extreme caution (Baccini, Petrovich, 2023).

3. How assessment is changing: Existing good practices and recommendations

Following the controversy over the use of impact factor (Curry, 2018; Waltman & Traag, 2021) new open and collaborative ways to recognize the value of academic content have been promoted, regardless of where it is published, and the concept of assessment is increasingly moving from an initial quantitative logic to a qualitative one of responsible evaluation. The review of new practices discussed in this section encompasses various scientific domains, yet certain practices hold relevance and suitability for the field of design.

Signs in this sense are initiatives such as the 2013 San Francisco Declaration on Research Assessment (DORA - Declaration on Research Assessment), the 2015 Leiden Manifesto for Research Metrics (Hicks et al. 2105), the Principles of Hong Kong for the 2020 researcher assessment (Moher et al., 2020), and recently the establishment of COARA - Coalition for Advancing Research Assessment of 2022. The San Francisco Declaration on Research Assessment has developed recommendations which, underlining the results of scientific research, denounce the impact factor as a tool focused only on peer-reviewed journals and suggest mitigating its use, evaluating the research products also based on merit through qualitative indicators of the impact, even outside the academic world - such as influence in

society, at the level of policies and practices in the socio-cultural, environmental, economic, institutional and community fields.

The Leiden Manifesto proposes, among its ten principles, to recognize the systemic effects of evaluation and indicators, for example by protecting excellence in locally relevant research.

Finally, COARA was promoted by the European Commission Directorate-General for Research and Innovation, launched in 2022, as a co-creation exercise, the drafting of an agreement in which more than 350 organizations participated (public and private research financiers, universities, research centres, accreditation and evaluation agencies, academic societies and associations of researchers representing a wide variety of views and perspectives) from fifty countries. As of July 2023, 596 organizations have already signed the agreement, including ANVUR. The coalition's perspective is that in the evaluation of research, researchers and research organizations must recognize outcomes, practices and activities that maximize the quality and impact of the research. This requires basing the evaluation primarily on qualitative judgment, for which peer review is central, supported by the responsible use of quantitative indicators. The number of institutions and publishers who claim to adopt responsible evaluation processes and show their criteria publicly is starting to increase, e.g., Imperial College is committed to using “fair, robust and transparent” procedures and has signed the San Francisco Declaration on Research Assessment (DORA). Interesting case studies are available on the same DORA website. Elsevier supports a combined qualitative and quantitative approach as well as the careful use of metrics and indicators in research evaluation and has given its endorsement of both DORA and the Leiden Manifesto.

In this framework, peer evaluation is recognized as one of the most “robust methods for quality assessment” (COARA, 2022).

ANVUR, in addition to having signed the Agreement on Research Assessment of the COARA coalition, has recently published a report drawn up by international experts about the 2015-2019 VQR exercise. In this report, out of the 21 recommendations provided, some specifically address the Human and Social Sciences (SSH), which are pertinent for non-bibliometric sectors, including design. These recommendations underscore the significance of adopting a more qualitative and pluralistic approach to evaluation, one that aligns closely with the interests and specificities of the design discipline. This entails embracing a holistic and integrated evaluation methodology, emphasizing the selection and training of reviewers and evaluation experts. Additionally, there is a call to discourage the reliance on metrics at the journal level and to establish compensation parameters tailored to disciplinary fields characterized by slower publication cycles. The recommendations also advocate for the recognition of monographs and works in their original language, promoting multilingualism, and acknowledging various research outcomes beyond traditional publications. Finally, the quality of research and publications increasingly calls into question not only the evaluation

of relevance and rigour but also impact. The impact of a scientific publication is based on searchability and reusability, i.e., it goes beyond mere citation.

The reuse of a publication today is therefore measured, in addition to traditional citation metrics, through qualitative metrics that measure awareness and interest.

Scite is an interesting example: it is an intelligent citation index that scans articles and categorizes, using machine learning, the intent of the citation by indicating whether, instead of a simple mention, the statement provides supporting or conflicting evidence for a referenced work (thus reusing existing knowledge to broaden reflection) (Nicholson et al., 2021).

However, in promoting a real alternative perspective on impact (Dinsmore, Allen & Dolby, 2014), it is crucial to go beyond measurement, albeit qualitative. According to the Research Quality Plus (RQ+) Assessment framework, although the use, influence and impact of research are not under the full control of researchers, it is reasonable to hold researchers accountable for the extent to which research is well positioned for use, based on the context in which it is designed and conducted (McLean et al., 2022). The criterion of "positioning for use" of research is based on the involvement of stakeholders and "actionability", i.e., the possibility of applying the results in the real world (McLean et al., 2022).

These emerging opportunities are yet to be fully integrated and systematically embraced within the realm of design.

4. Proposed “statement of practices” for a pluriverse perspective in the assessment of design research

Studies show that there is a mainstream methodological structure in ways of thinking, producing, and organising knowledge in design, mainly belonging to the Western and Anglo-Saxon centres (Trinidade & Pereira 2023).

Introducing a pluriversal approach can be therefore essential to develop opportunities that increase accessibility and visibility in design publications based on the values that the pluriversal concept proposes. In this context, we lack the space to comprehensively delve into the concept of pluriverse and pluriversal design, as elucidated by Escobar (2017, 2018, 2021). For the scope of this paper, we find it pertinent to highlight the concepts of alternative world-building and interdependence, as previously examined in a prior work by the authors (Formia et al., 2023). In the context of design publishing practices, these ideas suggest a transition from knowledge power dynamics to distributed knowledge and leadership processes. The challenges posed by this pluriversal perspective include a) facilitating the meaningful contributions of researchers from non-Western educational backgrounds without resorting to tokenism (Leitão & Noel, 2022); b) emphasizing indigenous/endogenous creativity (Cardini, 2022); c) fostering global permeability to multicultural influences and empirical multiperspective (Alvelos & Barreto, 2022).

Ruth Schmidt, of the Institute of Design (IIT), claims that research evaluation is essentially a question to be approached as a "human-centred design problem", since it is a complex system characterized by the interpretability of measurements and subject to behaviour: to redesign the evaluation of the research, thus, she suggests framing the issue from three different perspectives (institutional, individual and behavioural) and mapping the flows (Schmidt, 2019).

In this context of interpretability and behavioural complexity, as possible viable alternatives for the Design sector, we propose a real cultural change in the systems and processes of scientific evaluation, based on theoretical propositions but simultaneously grounded on exemplary “statements of practice”, to detail them in specific interpretations of practical use.

We articulate our propositions according to two possible perspectives:

- a more pluriverse approach, which means a shift from the current and unequal models of power and knowledge control towards new knowledge leadership models (Mabey, Kulich & Lorenzi-Cioldi, 2012) distributing agency among all the stakeholders of the assessment system (institutions and individuals);
- a more situated and endogenous approach (Cardini, 2022) means shifting from a standardized system of assessment of the research products to a diversified system strongly anchored to the intrinsic nature of the products themselves.

These perspectives present our views on how the effort to address assessment practices in Italy embraces new forms of agency and power. We argue that the proliferation and complexification of the assessment framework of scientific production is pushing towards standardization, while the wider design research community ought to identify possible ways to innovate, by introducing responsible approaches and collaborative methodologies.

Thus, to detail our propositions, we first introduce the contemporary design debate on the two perspectives, by later exemplifying them through concrete experimental actions. These actions are a prototype that serves to bring up issues in a collective discussion concerning the assessment processes: a systematized research group has been established at a National level (*PRO.DES Research Group* within the Società Italiana di Design -SID).

4.1 Pluriversity and distributed stakeholders

The first perspective is strongly anchored to the concept of “pluriversality” which is receiving great attention in the Design debate, where concepts of inclusivity and intersectionality are becoming foundational. The global knowledge ecosystem is affected by ethnocentrism and witnesses Western monopolies of knowledge that built hegemonic structures and narratives (Fiormonte, 2017). Graham et al. (2011) presented a series of maps showing the cultural and geographical biases of global knowledge in terms of both infrastructure and cultural discourse; some authors speak about “peripheries countries”, and Western domination seems to be untouched (Kieńć, 2017).

Academic scholarship and publication also reflect these unequal geographies of knowledge: the Western diktat “Publish or Perish” hinders the scientific advancement of the Global South and largely impacts the dissemination of local knowledge.

Considering the necessity to address pluriversality and multipolarity for new geopolitics of knowledge (Mignolo, 2018; Reiter, 2018; Escobar, 2018), is it possible to adopt a more equal system of research and publication assessment in which to valorize the pluriverse ecosystem of stakeholders?

In this sense, we propose a model in which leadership (i.e., guidance, direction) in assessment is not centralized, but distributed (and therefore more negotiated) among the plurality of actors living in the system, valuing more their interdependencies.

A first applicative case was materialized during the 8th International Forum of Design as a Process themed “Disrupting Geographies in the Design World” held in Bologna in June 2022. This endeavor was achieved through a collaborative effort involving three partner universities: the University of Bologna, Tecnologico de Monterrey, and Pontificia Universidad Catolica de Chile. The international conference was organized by the Latin Network for the Development of Design as a Process (founded in 2008), whose aim is to promote the culture of systems and processes from a pluriversal perspective compared to the mainstream culture of industrial production. The original vocation of the Latin cultures was, over the years, extended to researchers and designers of the Mediterranean Area, Middle East, IOR (Indian Ocean Region), and Global South regions, intending to share new perspectives on how design futures can be imagined in a responsible and just perspective, at the forefront of change, building strategic partnerships, creating accessible knowledge. The theme of the 2022 edition was Disrupting Geographies in the Design World, with a call for investigations around the research question of how design principles and practices might adapt their approaches to attend to the diversity that characterizes the contemporary world. The concept of “disruptive geographies” was also used as the basis for the setting of background principles to be respected in the organization: the selection of keynote speakers followed a pluralistic vision; the promotion of the call in Global South regions; the accessibility of the registration fees; the blended system of presentation; the opportunity to publish in a well-established scientific journal.

Within this vision, the process also experimented with a new evaluation framework of the peer-review process of the long abstracts submitted to the 8th International Forum (for the sake of transparency, the research must point out that the Call for long abstracts was developed on a traditional submission system based in Europe and therefore intrinsically biased). This experimental process adopted an empirical methodology of evaluation based on not-Western-centric values that prioritised the valorisation of local knowledge, endemic design, community-led projects, design participation and co-creation, responsible innovation, social justice and ecocentrism. The Editorial Board of the conference was thoughtfully composed on a pluriversal principle, embracing diverse perspectives and voices to ensure a rich and inclusive scholarly discourse, including scholars from Brazil, United Arab

Emirates, Chile, Mexico, and Turkey. The Editorial Board, operating on a pluriversal principle, recognized the Forum as a dedicated publishing space for non-English native speakers. In a conscious effort to foster inclusivity, the reviewers were encouraged to evaluate submissions not only through traditional methodological approaches of scientific review but also by considering the research content relevance and the social significance and purpose of each project in the implemented area. This approach, influenced by the concept of excellence (Formia et al., 2023), deliberately steered away from penalizing authors for grammar mistakes or poor traditional methodological articles. Instead, emphasis was placed on the importance of well-structured and clear writing.

Furthermore, the Editorial Board concentrated on two essential aspects, drawing inspiration from works such as Gandini (2016) and Fecher et al. (2017): reputation and merit, rather than relying solely on metrics. This nuanced approach aimed to create a scholarly environment that values the quality and impact of the research over rigid linguistic or methodological standards. To ensure transparency and fairness, all proponents were duly informed of the specific criteria adopted for evaluation.

The peer-review process resulted in a 90% acceptance rate of abstracts submitted (of which 40% of submissions from the Global South) and total acceptance of full papers submitted for publication based on the above evaluation criteria. The increasing accessibility to international research venues represented an answer to the hierarchy of scientific values from high-income countries over low-middle-income countries (Kieńć, 2017; Nicholas et al., 2017).

4.2 Endogenesis and tailored assessment

The second perspective is anchored to the concept of biocultural diversity of knowledge, research and publication in Design (Lupo & et al., in press). This is a crucial aspect to avoid losing knowledge capital (Hayama & Zurlo, 2020).

In this context, recognising and implementing diverse cultural practices contribute to the epistemological pluralisation of processes. Paolo Cardini (2022) argues that empirical and vernacular knowledge is a kind of design that belongs to people, not vice versa. According to the author, global design practices have often played the role of exogenous entities: experts and saviours who, through careful analysis of any context, are supposedly capable of creating universal solutions wherever there is a problem to be solved. Global design practices belong to the hemisphere of the Global North, often disregarding the intertwining and plurality of cultural identities in favour of a hegemonic scientific truth. However, design is now reconnecting with endogenous and endemic practices to recognise and raise awareness of the inevitable epistemological impact of dominant narratives and canons on the global design community.

According to Valentine (2022), while maintaining the integrity of the design community and the quality and rigour of the research dialogue proposed by scientific journals, it is fundamental to respect diversity and remove unintended bias, through alternative formats

of scientific products that valorize disciplinary specificities and support people, cultures, and universities to participate in the transition processes of the publishing system. This can also be translated into the field of knowledge assessment. Considering the necessity to experiment with new forms of knowledge production and diffusion, how is it possible to create an adequate system of assessment? Is it possible to adopt principles of transparency, situatedness, and inclusion?

In this sense, we propose a model for the experimentation of new peer review processes and formats.

A second applicative case was developed within *diid - Disegno Industriale Industrial Design scientific journal* based in Italy. *diid* Journal is published three times a year, as an open-access and peer-reviewed journal. It was founded in 2022 to fill a gap concerning scientific journals related to industrial design and design studies. The one inaugurated in 2021, with issue 73, was a new phase when the journal became digital and open access. This was the occasion to review the editorial policies, the committees, the indexing system, and the structure of contents, by adopting a pluriversal approach to face the scientific design community. This ongoing path towards forms of decolonizing knowledge production in the design field also implied the experimentation of new models for quality and impact assessment. The aim was to expand the realm of the Journal by welcoming innovative forms of publication, conferring to them an identarian assessment process. Beyond the traditional Research and Experimentation Papers, the Journal introduced a) Conversation Pieces, b) Reportages and c) Case Studies Papers. These formats are expressively oriented towards the enrichment of editorial solutions. They have elements of provocation that allow researchers to explore design practices more freely.

In the first case (a), the format is strongly anchored to the need to face the front end of the contemporary and future-oriented debate by hosting representatives who are more used to working with the discipline's applicative and less theoretical side. In the second case (b), it is anchored to a typical design research methodology based on the quali/quantitative analysis of contemporary case studies and best practices to be modeled to orient future development of the design project. The third case (c) is crucial for illustrating practical applications of theories and methodologies through real-world examples. The traditional form of peer review was then tailored to respond to new qualitative and quantitative indicators depending on the specific and identity nature of these formats.

Quantitative and qualitative indicators for traditional research articles typically include criteria such as originality, methodological validity, and impact. For Conversation Pieces and Case Studies Papers, new indicators emphasize non-anonymous participation, contribution originality, experimental dimensions, and the inclusion of representative images. The proposed editorial format aims to assess participant richness, originality levels, experimentation, and the use of visual elements.

In the experimental process, questions arise about evaluating originality in unconventional contexts and balancing participation with authorship. Challenges include defining standards

for participant richness and managing ethical issues related to non-anonymity in the case of Conversation Pieces. Addressing these issues will require a collaborative approach within the research group and the design academic community as a whole.

5. Conclusions

Knowledge leadership can be defined as an attitude or action that drives people to create, share and use new and important knowledge to bring change in collective thinking and outcomes (Mabey, Kulich & Lorenzi-Cioldi, 2012). Knowledge leadership is, by definition, complex and beyond the reach of a single actor, involving a range of agencies (Haynes 2003; Koppenjan and Klijn 2004).

In this respect, the concept of enabling distributed knowledge leadership is in the mission of the Research Group *PRO.DES* from which this research and investigation initiated. The group is active at a national level and together with plurality on research assessment is addressing other issues e.g., plurality in the forms of publications (new publication typologies), in publishing processes (investigation on the diversity of design journals in terms of geographic variety and gender composition of editorship and journal boards) and in content and issues.

For what concern the assessment ecosystem the research group is experimenting and supporting distributed forms of sharing evaluation knowledge among the stakeholders:

- Institutional bodies, like the Governmental Agency for Research Evaluation and Scientific Societies, should proactively address challenges in evaluation procedures. They should also contribute to defining and formalizing scientific products for accreditation in non-bibliometric disciplines.
- Academic institutions, in addition to formal declarations, must promote real processes of responsible and plural evaluation, recognizing the value and nature of local research, the specificities of the career phase and profiles of researchers and the specific objective of the evaluation (publication, career advancement, funding), avoiding biases.
- Researchers must avoid unconscious bias resulting in fallacious or fraudulent evaluation to avoid all the distorting effects of evaluation, i.e., the adaptation and continuous change of their publication models to the evaluation criteria based on convenience and excessive self-referentiality.
- strengthen international collaboration to address imbalances in research cooperation with high-income countries, as it is a frequent criticism that research partners from high-income countries frequently maintain control over research projects.

In conclusion, the assessment of design research is undergoing a transformative journey. Two emergent assessment models are proposed by this study: 1) a pluriversal approach, redistributing agency among all stakeholders, exemplified through the "Disrupting Geographies" conference; and 2) a situated, endogenous approach, recognizing and

valorizing diverse cultural practices in design, illustrated by the diid Journal's tailored assessment process for Conversation Pieces and Case Studies Papers. These innovations aim to address challenges of standardization, promoting responsible approaches and collaborative methodologies. The examples presented show how to bring theoretical positions like propositions and recommendations into viable and practical interpretations applicable to different contexts. Both experiments are currently ongoing and hold potential for further expansion and analysis, to integrate them into regular practice. The arguments presented herein will be fortified through forthcoming studies and papers. Critical questions persist regarding the evaluation of originality within unconventional contexts, the management of non-anonymous participation, and the optimization of indicators for these innovative formats. These challenges underscore the continuous dedication to nurturing inclusive, diverse, and impactful design research, while also delineating avenues for future exploration in the field.

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