





# NOTICE OF FOR APOSTDOCTORAL RESEARCH FELLOWSHIP (BIPD) WITHIN THE PROJECT "PREDATORY PUBLISHING PRACTICES: PAPER TIGERS OR ACTUAL THREATS FROM EVALUATION SYSTEMS?" AT THE FACULTY OF LAW OF THE UNIVERSITY OF PORTO (FDUP)

Applications are now open for a Research Grant for PhD holders in Criminology and Sociology, under the project "Predatory publishing practices: Paper tigers or actual threats from evaluation systems?" ongoing at the CIJ - Center for Interdisciplinary Research in Justice at the Faculty of Law, University of Porto (FDUP), funded by own funds through international funds of Volkswagen Foundation, under the following conditions:

#### 1. Research area/s: Criminology / Sociology

## 2. Admission requirements:

To apply for the postdoc position, applicants must comply with the following requirements, for which documentary evidence must be provided:

- a) Academic Qualifications PhD in Criminology or Sociology\*;
- b) PhD in Criminology or Sociology completed less than 3 years ago<sup>1</sup>;
- Not exceeding, with the conclusion of the scholarship contract for this submission, including possible renewals, an accumulated period of three years (consecutive or interpolated) in this type of scholarship;
- d) Not having concluded a previous BIPD contract with FDUP;
- e) Availability to start the scholarship in April 2025 (to be mentioned in the motivation letter);

# 3. Preferred requirements:

- a) Experience with using qualitative methodologies, including conducting interviews, document analysis or visual data or ethnography;
- b) Experience in analysing qualitative data, by using specific software;
- c) Knowledge of English and Portuguese (spoken, written, and read);
- d) Proven training in the areas of Sociology of Science and/or criminological theories in whitecollar crimes, in crimes in the organizations or in the professions;
- e) Experience working in a multidisciplinary and/or international team.

<sup>&</sup>lt;sup>1</sup> If the academic degree was awarded by a foreign higher education institution, it must be recognized by a Portuguese higher education institution, under the terms of article 25 of Decree-Law no. 66/2018, of August 16, which approves the legal framework for the recognition of academic degrees and higher education diplomas awarded by foreign higher education institutions, and article 4(2)(e) of Decree-Law no. 60/2018, of August 3, and any formalities set out therein must be fulfilled by the date of the act of hiring.







## 4. Work Plan:

- 4.1. The purpose of this contract is to perform the following tasks:
- a) Conducting literature reviews;
- b) Recruiting participants for the several Work Packages of the project;
- c) Supporting the research design for Work Package 4 (see attachment);
- d) Conducting the interviews planned in Work Package 4 (see attachment);
- e) Analyzing data from interviews;
- f) Supporting the various Work Packages, including participating in work meetings, interpreting results, and organizing scientific events;
- e) Supporting the dissemination of knowledge through scientific communications and co-authoring scientific articles.
- g)Dissemination of knowledge in international scientific communications and writing of articles scientific co-authors.

#### 5. Applicable Legislation and Regulations:

The call for applications and the respective award of the grant are governed by the provisions of the University of Porto's Research Studentship Regulation - approved by Regulation no. 184/2021, published in *Diário da República*, 2.ª Série, n. 43, 03<sup>rd</sup> March, hereinafter referred to as the Regulation no. 43, of 03<sup>rd</sup> March; the legal framework for the recognition of academic degrees and higher education diplomas awarded by foreign higher education institutions; the Code of Administrative Procedure (CPA), approved by Decree-Law no. 4/2015, of 7<sup>th</sup> January; the Research Fellow Statute (EBI), approved by Law no. 40/2004, of 18<sup>th</sup> August, in the current wording published by Decree-Law no. 123/2019, of 28<sup>th</sup> August and; other applicable rules.

# 6. Workplace:

The work plan will be developed on site, at the CIJ – Center for Interdisciplinary Research in Justice at the Faculty of Law, University of Porto, and/or other locations necessary for implementation, under the scientific supervision of Professor Rita Faria, Assistant Professor at FDUP and co-PI of the Project.

#### 7. Duration:

The grant will have a duration of 12 monthswill be granted on an **exclusive basis** and may be renewed for identical or different periods, according to institutional needs and financial availability, up to the maximum project duration. Under no circumstances can the contract exceed the limits defined by the applicable regulations.







## 8. Monthly maintenance allowance amount:

- 8.1. The monthly maintenance allowance for the studentship is 990,98€, in accordance with Annex I of the Research Grants Regulation of the University of Porto, updated by Rectoral Order No. GR11/02/2025 of February 19, 2025.
- 8.2. Payment will be made by FDUP by bank transfer. In addition to this allowance, the studentship holder will be covered by personal accident insurance.
- 8.3. The studentship holder can join the Voluntary Social Insurance Scheme (valid for a studentship contract of six months or more), which is optional and the reimbursement corresponds to the 1st step of the contribution base.

#### 9. Evaluation methods:

9.1. Curricular evaluation (CA) and, if the jury deems it necessary, Selection interview in English (E) at 3(three) candidates with the highest ranking in the AC.

The final grade will be obtained using the following formula:  $0.5 \times AC + 0.5 \times E$ , on a scale of 0 to 20 points. If there is no interview, the final grade will be the same as that obtained in the AC

- 9.2. The criteria and weighting factors for the curricular assessment (AC) (on a scale of 0 to 20 points) are:
  - a) Area of training, including demonstration of the preferential conditions listed in item a) of 2. of this notice (0 to 7 points):
    - Not very relevant 1 point;
    - Relevant 3 points;
    - Very relevant 7 points.
  - b) Proof of research experience using qualitative methodologies (o to 7 points):
    - Participation in funded research projects (2 points per project\*);
    - Participation in non-funded research projects (1 point per project\*);
    - Publications in non-indexed and/or non-peer-reviewed scientific journals (0.5 points per publication\*);
    - Publication of book chapters (0.5 points per publication\*);
    - Publication of books (1 point per publication\*)
    - Publication in indexed and peer-reviewed scientific journals (2 points per publication\*);
    - Communications at scientific events (0.5 points per communication\*)
- \* The sum of the points may not exceed 7 points.
  - c) Proof of other research experience (o to 3 points):







- Participation in funded research projects (2 points per project\*);
- Participation in non-funded research projects (1 point per project\*);
- Publications in non-indexed and/or non-peer-reviewed scientific journals (0.5 points per publication\*);
- Publication of book chapters (0.5 points per publication\*);
- Publication of books (1 point per publication\*)
- Publication in indexed and peer-reviewed scientific journals (2 points per publication\*);
- Communications at scientific events (0.5 points per communication\*).
- \* The sum of the points cannot exceed 3 points.
- d) Motivation for the planned activities, to be mentioned in the motivation letter (o to 3 points):
  - Sufficient o points;
  - Good 1 point;
  - Excellent 2 points.
- 9.3. The evaluation factors for the English selection interview (EI) (scale of 0 to 20 points), if it is to be held, will be:
- a) Specific knowledge for carrying out the work plan (0 to 10 points):
- Not very relevant 2 points;
- Sufficient 4 points;
- Good 6 points;
- Very good 8 points;
- Excellent 10 points.
- b) Availability (o to 4 points):
- Sufficient 1 point;
- -Good 2 points;
- Very good 3 points;
- Excellent 4 points.
- c) Ability to express oneself in Portuguese and/or English (o to 4 points):
- Insufficient o points;
- Sufficient 1 point;







- Good 2 points;
- Very good 3 points;
- Excellent 4 points.
- d) Motivation for the planned activities (o to 2 points):
- Insufficient o points;
- Good 1 point;
- Excellent 2 points.
- 9.4. This competition is intended exclusively to fill the vacancy indicated. In the event that no candidate demonstrates that they have the profile required to fulfil the work plan described above within the scope of this project, the Jury reserves the right not to award the position.

#### 10. Selection panel:

Chair – Rita Faria, PhD, Assistant Professor, Faculty of Law, University of Porto;

1st effective member – Dimity Stephen, PhD, Deutsches Zentrum für Hochschul-und Wissenschaftsforschung (DZHW);

2nd effective member – Martin Reinhart, PhD, Humboldt-Universitat Berlin;

Substitute member – Emanuel Kulczycki, PhD, Adam Mickiewicz University;

Substitute member – Graça Enes, PhD, Associate Professor, Faculty of Law, University of Porto.

## 11. Notification of results:

- 11.1. Applicants will be notified by email of the minutes relating to the application assessment phase(s), to the address they provide for this purpose.
- 11.2. Notifications are made by email, under the terms of articles 112(1)(c) and 113(5) of the CPA. Under the terms of article 121 et seq. of the CPA, once notified candidates have 10 working days to comment in writing.

# 12. Submission of applications:

- 12.1. Applications must be submitted by 01th April, 2025 (until 23h59, local time Lisbon).
- 12.2. Applications must be formalized using the online application submission system available on the website <a href="https://sigarra.up.pt/fdup/pt/cnt">https://sigarra.up.pt/fdup/pt/cnt</a> cand geral.concursos list (Ref. 2025/02, n. 31) and must be submitted with documents proving the conditions set out in this Notice:
  - a) Curriculum Vitae in English, duly updated, expressly indicating the full name and email;
- b) Copy of the required Academic Qualifications Certificate(s) and respective recognition of the academic degree (if obtained from a Foreign Higher Education Institution to be proven by







the time of hiring), to prove compliance with the minimum admission requirements indicated in paragraph a), b) and c) of point 2;

- c) Proof of curricular training in the areas of Sociology of Science and/or in criminological theories in white-collar crimes, crimes in the organizations or in the professions, by submitting the study plan of previous training.
- d) Motivation Letter, indicating availability to start work in April 2025, to prove compliance with the minimum admission requirement indicated in paragraph d) of point 2;
- e) Declaration of eligibility (attached), to prove compliance with the minimum admission requirements indicated in points 2, b) and c);
  - f) Evidence of research experience;
- 12.3. If the documents identified in points a) to f) of point 12.2 are not submitted in the application, this will result in the exclusion of the candidates.
- 12.4. The candidates may also attach any other documents they feel are relevant to assessing their merit.
- 12.5. Documents may be included in compressed folders (zip, rar, 7z), but the system's upload limit must be taken into account, which is set at a maximum of 720MB per file or compressed folder. Each application may submit multiple files or compressed folders, each with a limit of 720MB, and there is no limit to the total number of files/compressed folders submitted.
- 12.6. For the purposes of evaluating applications, any documents that can be accessed via links will not be considered, with the exception of those that refer to publications with a DOI.
- 12.7. The Jury may, whenever it deems it necessary, ask applicants to submit additional documents relating to the facts mentioned in the curriculum vitae submitted, setting a deadline for this, in the following terms:
  - a) the documentation referred to is not intended for the presentation of elements not mentioned in the curriculum vitae, nor for the addition of missing documents required by this Notice;
  - b) all applicants are informed that additional documentation has been requested.

## 13. False statements:

False statements made by candidates will be penalized in accordance with the law.

## 14. Booking list:

A booking list will be drawn up on the basis of the final ranking list, which may be used in the event of the first-placed candidate withdrawing. The Faculty's highest authority reserves the right to call the next candidate, and so on, until the vacancy is filled. This reserve list may be used for a maximum period of 12 months from the date of publication of this Notice.







# 15. Policy of non-discrimination and equal access:

The University of Porto actively promotes a policy of non-discrimination and equal access, so that no applicant may be privileged, benefited, disadvantaged or deprived of any right or exempted from any duty on the grounds of ancestry, age, sex, sexual orientation, marital status, family situation, economic situation, education, social origin or condition, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin, territory of origin, language, religion, political or ideological convictions and trade union membership.







# **DECLARATION OF ELIGIBILITY**

(for the purpose of applying for a Research Grant)

or the purpose of comp	plying with the prov	isions of Article 11 of the	e Research Grant Regulations of
the University of Porto	o, I hereby declare th	nat:	
☐ I haven't signed any	research studentshi	p/s contract/s to date ur	nder the EBI;
□ To date, I have signe	ed the following rese	arch studentship/s contr	ract/s under the EBI:
Type of studentship	Start Date	End Date	Contracting Authority
I also declare that I me of the aforementioned	-	ditions for this studentsl	hip, as required under the terms
I hereby declare and si	ign this statement.		
Date//			
Signature			

#### PROJECT TITLE:

Predatory publishing practices: Paper tigers or actual threats from evaluation systems?

KEYWORDS: evaluation systems; questionable publishing; mixed methods; case studies

#### **APPLICANTS:**

Dr. Dimity Stephen, German Centre for Higher Education Research and Science Studies (DZHW), Berlin, Germany (main applicant)

Professor Martin Reinhart, Robert K. Merton Center, Humboldt University, Berlin, Germany Associate Professor Emanuel Kulczycki, Adam Mickiewicz University, Poznan, Poland Associate Professor Rita Faria, School of Criminology - Faculty of Law of the University of Porto, Porto, Portogal

#### **SCIENTIFIC ABSTRACT (ENGLISH):**

The recent shift in evaluation systems to more diverse quality criteria has increased the visibility of lower quality research, incurring a moral panic about the effects of predatory publish practices on the science system. However, this concern currently lacks empirical substantiation and ignores the complex geopolitical relations, researchers' motivations, and centre-periphery narrative inherent in the predatory publishing debate. Thus, we propose a mixed-methods approach to answering three questions: i) how have publishing practices in different national settings emerged, ii) how do academic communities define and react to predatory publishing practices (PPPs), and iii) how do evaluation systems influence (P)PPs? Our aim is to elucidate the relationship between evaluation systems and (P)PPs, accounting for the contextual processes of labelling practices as questionable. Our approach combines systematic review, quantitative and bibliometric methods to identify (changing) publishing practices associated with evaluation systems, together with qualitative methods to understand the motivations for these practices in six national systems: Germany, Poland, Portugal, Nigeria, India, and Brazil. Comparing multiple case studies lends validity to causal inferences and the results of this project would have implications for the design of evaluation systems.

#### SCIENTIFIC ABSTRACT (GERMAN):

Die jüngste Umstellung der Bewertungssysteme auf vielfältigere Qualitätskriterien hat die Sichtbarkeit nicht-exzellenter Forschung erhöht und unterstüzt Befürchtungen um Auswirkungen von Predatory Publishing auf das Wissenschaftssystem. Diese Befürchtungen sind bisher nicht ausreichend empirisch untermauert, da die komplexen geopolitischen Beziehungen, die Motivationen der Forschenden und die Zentrum-Peripherie-Struktur des wissenschaftlichen Publikationssystem in der Debatte zu wenig Beachtung finden. Daher schlagen wir einen Multimethodenansatz zur Beantwortung von drei Fragen vor: i) wie haben sich Publikationspraktiken in verschiedenen nationalen Kontexten entwickelt, ii) wie definieren akademische Gemeinschaften fragwürdige Publikationspraktiken (PPPs) und wie reagieren sie darauf, und iii) wie beeinflussen Evaluationssysteme (P)PPs? Unser Ziel ist es. die Beziehung zwischen Evaluationssystemen und fragwürdigen Publikationspraktiken zu klären, wobei wir den Einfluss des kulturellen Kontexts auf die Ausübung und problematisierende Bezeichnung (labelling) solcher Praktiken berücksichtigen. Unser Ansatz kombiniert einen systematic review, quantitative und bibliometrische Methoden, um (sich ändernde) Publikationspraktiken in Verbindung mit Evaluationssystemen zu identifizieren, mit qualitativen Methoden, um die motivierenden Faktoren hinter diesen Praktiken in sechs verschiedenen nationalen Systemen aufzudecken: Deutschland, Polen, Portugal, Nigeria,

Indien und Brasilien. Internationaler Vergleich und Methodenmix sollen robustere kausale Rückschlüsse ermöglichen, die u.a. für die zukünftige Gestaltung von Evaluationssystemen von Bedeutung sein können.

#### LAY SUMMARY (ENGLISH):

Evaluation systems in academia usually seek out the best quality research. Recently, a change in focus has uncovered potentially lower quality research in predatory journals that disseminate articles without quality checks. However, there is currently little evidence to support the academic community's concern about this research and the situation is complicated by the devaluing of research from peripheral countries. Thus, we propose to address three questions: i) how have publishing practices in different national settings emerged, ii) how do academic communities define and react to predatory publishing practices (PPPs), and iii) how do evaluation systems influence (P)PPs? Our aim is to elucidate the relationship between evaluation systems and (P)PPs, while considering how cultural context influences labelling practices as predatory. Our approach combines several methods, including reviewing literature and examining publication databases to identify (changing) publishing practices associated with evaluation systems, and surveys and interviews to uncover the motivating factors behind these practices in six countries: Germany, Poland, Portugal, Nigeria, India, and Brazil. The results of this project could have implications for how evaluation systems are designed to minimise unintended outcomes.

#### LAY SUMMARY (GERMAN)

Die Bewertungssysteme in der akademischen Welt zielen in der Regel auf die beste Forschungsqualität ab. Eine Änderung der Sichtweise hat jedoch Forschungsarbeiten von minderer Qualität aufgedeckt, die durch Predatory Publishing in Zeitschriften ohne Qualitätskontrolle veröffentlicht werden. Derzeit gibt es jedoch nur wenige Belege für diese Befürchtungen und die Situation wird durch die Abwertung der Forschung aus peripheren Ländern verkompliziert. Wir schlagen daher vor, drei Fragen zu beantworten: i) wie haben sich Publikationspraktiken in verschiedenen nationalen Kontexten entwickelt, ii) wie definieren akademische Gemeinschaften fragwürdige Publikationspraktiken (PPPs) und wie reagieren sie darauf, und iii) wie beeinflussen Evaluationssysteme (P)PPs? Unser Ziel ist es, die Beziehung zwischen Evaluationssystemen und PPPs zu beleuchten und dabei den Einfluss des kulturellen Kontexts auf die Kennzeichnung und die Ausübung bestimmter Verhaltensweisen zu berücksichtigen. Unser Ansatz kombiniert mehrere Methoden, darunter die Durchsicht von Literatur und die Untersuchung von Publikationsdatenbanken, um (sich ändernde) Publikationspraktiken im Zusammenhang mit Evaluationssystemen zu ermitteln, gemeinsam mit Umfragen und Interviews, um die motivierenden Faktoren hinter diesen Praktiken in sechs Ländern aufzudecken: Deutschland, Polen, Portugal, Nigeria, Indien und Brasilien. Die Ergebnisse dieses Projekts könnten Auswirkungen darauf haben, wie Evaluationssysteme gestaltet werden sollten, um unbeabsichtigte Effekte zu minimieren.

# **PROJECT DESCRIPTION**

#### 1. Project background and motivation:

Evaluation systems in science have primarily focused on "good quality" and have been predicated on identifying the "best" through meritocratic and increasingly formalised quality assessments, e.g., the best papers published in the best journals by researchers hired by the best institutions because they were the best candidates, and so on. Only recently has this singular focus on "excellence" been criticised, as the structural and socioeconomic disparities

in the system are given – albeit limited – attention, and new criteria have been introduced, e.g., societal impact and openness. This change stems from the need to evaluate not just selective aspects of science but to evaluate more holistically, e.g., all universities in a country. In such situations it becomes obvious that, i) not everyone can be excellent, and ii) scientific practices and outputs are more diverse than can be captured by a narrow focus on the "best". As part of this historical shift to a more diverse set of quality criteria, labels for poor or insufficient quality science have emerged, e.g., questionable research practices, predatory publishing, scientific fraud, etc, and a moral panic in academia has resulted [1]. Moral panic refers to when a "person or group ... emerges to become defined as a threat to societal values and interests" [2]. The threat may be real, but agents with a vested interest in a particular outcome stoke a response that outweighs the actual risk. We have seen moral panics previously in academia in response to the introduction of both Pergamon Press, which rapidly expanded the journal landscape [3], and online publishing [4]. In each case, the community feared the change heralded a decline in the quality and integrity of academic publishing. However, over time, the system adapted and the fears waned. Recently, as evaluative criteria moved toward openness, the Open Access (OA) publishing system was introduced, in which authors pay publishers Article Processing Charges (APCs) to make their research freely accessible. While OA is a positive step in addressing inequalities in academia, opponents of the system, such as publishers in the academic publishing oligopoly, argued unscrupulous journals were misusing the OA system for their own financial benefit at the cost of academic quality [5], generating the latest moral panic: predatory publishing [1].

Predatory publishers exhibit ethically dubious behaviours, such as falsely claiming impact and indexation in key databases, foregoing peer review, and spamming researchers for submissions. They may even engage in cyber-crimes as they sometimes clone legitimate journals' websites or use phishing to attract authors [6]. Such practices indeed risk undermining the academic system when poor quality, or even harmful, research enters the mainstream scholarly literature. However, currently the bulk of the research on predatory publishing is editorials and informational material warning of the issue, with comparatively little empirical research examining the causes, risks, and impact of predatory publishing to the academic system [7], reflecting the key characteristics of a moral panic; intense concern without sufficient justification [2]. Further, the term predatory publishing obscures complex geopolitical relations, researchers' motivations for publishing, and the local contexts in which the so-called predatory journals proliferate [8]. The debate on predatory publishing focuses almost entirely on journals publishing in English in non-English-speaking countries, e.g., [9]. Various "blacklists" of predatory journals have been used to flag undesirable journals and provide a false dichotomy of good journals published mostly in central countries and bad journals published mostly in semi-peripheral countries. However, there are many bad journals with aggressive business models in central countries and many good journals published in English and – primarily – in local languages in semi-peripheral countries. Moreover, articles in journals labelled as predatory are often cited by journals considered 'legitimate' or 'prestigious' [10], suggesting the quality of these articles is perhaps sufficient.

As such, the label "predatory" may be part of a more general trend of increasingly ascribing at least part of the causes of misconduct and questionable research practices to so-called foreign research cultures that cannot or will not follow the "rules" of the academic community installed by the centre [11]. While criminological research about the actual causes of questionable research practices is difficult to perform due to their invisibility, the effects of labelling practices as questionable are much more immediate [12]. Due to the important role

that reputation plays in the scientific reward system [13], accusations of misconduct or the retraction of journal articles have serious consequences for the accused [14]. In line with the societal reactions' perspective in criminology [15], the foremost research questions relate to how these labels are used and assigned to understand how rewards or punishments for good or bad academic work come about. This is especially pertinent in academia as evaluation systems increasingly rely on such negative labels and many modern-day academic systems emulate academic capitalism or neo-liberalism, where effectiveness of procedures, value-for-money research and competitive funding are wide-spread [16].

Thus, regardless of the veracity of the labelling, the costs associated with predatory publishing practices (PPPs), e.g., publishing in predatory journals, are diverse and farreaching. Directly, costs include approximately \$75 million of funding per year to pay APCs for low-visibility outputs [17], the waste of animals in trials or human participants' time, and disciplinary action for researchers [18]. More indirectly, PPPs can also contaminate the academic discourse with unreliable information, contributing to the diminishment of public trust in science, and tarnishing the reputation of OA journals [17], which are critical to the global accessibility of research.

We propose to analyse the shift in evaluative cultures and the resulting spotlight on – or panic about - PPPs by focusing on two aspects. First, evaluative cultures in academia centre around published work because such outputs are frequently used for evaluation (e.g., bibliometric indicators). However, the role of published work is also implicated in global, i.e., publishers' economic models, and local logics, i.e., national evaluation systems. The value of a specific publication can depend on whether it is included in a citation index (global, centre) or counts in a national assessment exercise (local, periphery). We thus focus on how research is published in an evaluative setting that is simultaneously global and local and varies substantially across the world. Second, labels for poor quality move evaluative cultures in academia from highlighting excellence to potentially incriminating assessments, direct attacks on reputation, and an overall suspicion of certain regions (e.g., Asia), areas of knowledge (e.g., social psychology), research practices (e.g., irreproducible results), and dissemination efforts (e.g., publishing in so-called predatory journals). Analysing the processes of negatively labelling people or behaviours requires a criminological perspective, by which it is possible to analyse how and why labels such as "predatory" are created, disseminated and amplified. Such an analysis allows us to question whether these processes are attempts to assess something as objectively as possible or rather exclusionary means that provide a mechanism for micro-politics with macro-structural consequences.

Thus, given the current panic about PPPs and the damaging effects of labelling behaviours as predatory, we propose an explorative and comparative mixed-methods study with an overarching aim to elucidate the relationship between evaluation systems and PPPs, considering that negatively labelling behaviours and outcomes relies heavily on cultural context, which cannot be ignored in a global academic community that readily compares and evaluates research produced in different contexts.

## 2. Research questions:

The project addresses three key questions: i) how have publishing practices in different national settings come about, ii) how do academic communities define what is understood as PPPs and how to react to them, and iii) how do evaluation systems influence (P)PPs? We first describe the context for each of these research questions, then in the following section detail the mixed-method approaches we will use to address these questions.

## 2.1. How have publishing practices emerged in different national settings?

First, we will identify how publishing practices emerged in different countries by examining the recent historical and current local and national circumstances shaping how and why researchers publish, such as evaluation and science policy, and socio-economic and political circumstances. We propose to use Germany, Poland, Portugal, Brazil, India, and Nigeria as case studies, maximising the diversity of evaluation systems and research cultures represented, while remaining achievable given the data and project resources available.

Germany is an interesting case study as the 4<sup>th</sup> largest producer of research globally [19] and a Western European country central to the global academic system. Also, little research has thus far examined PPPs in Germany. However, we have observed reduced international collaboration and over-representation of non-university institutions among German authors in predatory journals [20], indicating potential structural differences to explore. In contrast to Germany's stability, India's science system is rapidly growing: its output has doubled since the 1990s to account for 3.8% of global publications, now barely trailing Germany's 3.9% [19]. India epitomises the emerging multipolarity in the science system that questions the Western hegemony [21]. However, researchers in India, and also Nigeria, often comprise the largest contingent of authors in predatory journals (e.g., [22]). Nigeria's evaluation system has been implicated in encouraging such authorships [23], while India seeks to address the situation with science policies [24]. Further, while India and Nigeria are peripheral countries in the global science system, English is an official language in both countries, so inequalities incurred by language barriers will be analysed by juxtaposing India and Nigeria with other semi/peripheral countries where English is not an official language, e.g., Poland and Brazil.

Poland provides the valuable perspective of an Eastern European, semi-peripheral country. Poland also has a more than 30-year history of national evaluation systems that sway publishing practices, including toward using predatory journals [25]. Further, the examination of predatory publishing in Poland has recently increased as a direct result of an evaluation of national higher education and research institutions. Thus, Poland's historical and ongoing discussions on this topic provide the foundation for international comparison of its evaluation systems and their effects. South America, in particular Brazil, has the strongest uptake of OA publishing worldwide [3]. Spurred by poor coverage of Latin American research in "core" bibliometric databases that left Brazil struggling in global evaluations, Brazil was instrumental in developing Scientific Electronic Library Online (SciELO) to increase publications' visibility and ensure the quality of the indexed journals [3]. With Brazil then, we can examine a system that embraces OA and has a strong focus on publishing in local languages. Brazil also shares an official language with our partners in Portugal, facilitating engagement. Portugal itself is also an under-examined European system, considering its peripheral nature and locale in southern Europe. The distance from central Europe, recurrent financial crises, and rates of higher education that only recently met the EU average all influence low rates of research funding, labour precariousness for researchers and a biased and uncompetitive evaluation system [26] that produces "conflicting priorities and signals" that do not allow for decisions about mid to long-term investments in research priorities or strategies [27].

These six countries provide a diverse but achievable level of representation of South Asia, Africa, Europe, and South America. In answering this first research question, we establish each country's publishing practices and the influential factors, which form the basis upon which we later contrast the countries to identify the effect of evaluation systems on (P)PP.

Here we ask how scientific communities define PPPs and how to react to them. Academic tribes, epistemic communities and shared meanings emerge by communicating values, practices and ways of modelling and seeing the world or "interpretative frameworks" [28]. As professional communities with shared perspectives on what science is or how it should be done [29], academics' social practices ought to be analysed not only on epistemological and methodological grounds, but also because members interact with each other and offer classifications, creating and sharing perspectives and messages about the world. However, as expected, different academic communities construct different perspectives about what ought to be considered bad and questionable practices in research. Different disciplines, countries, and cultural contexts vary in their ways of labelling [30] what ought to be considered predatory and, consequently, how to deal with publications labelled as such. These processes of social construction of what is considered questionable are social mechanisms of delineating moral boundaries (Ben-Yehuda, 1985, cited in [31]). An example of the cultural context of labelling can be seen in the debate surrounding the Multidisciplinary Digital Publishing Institute (MDPI): while researchers in the Global North argue that MDPI's model is conceivably predatory, researchers in the Global South emphasise that their model allows them to publish internationally and in core indices and thus indicates good quality.

As such, here we seek to understand if and how behaviours are labelled as questionable by the academic communities of the case study countries and how such labels are constructed collectively. Moreover, we will analyse the social processes and factors behind the construction and application of such labels to specific practices or individuals and whether that creates moral panic [2, 31], stigmatisation [32], and exclusion effects [28, 30], or even if the labelling of certain publication practices as questionable or predatory amplifies – rather than prevents [31] – bad science by leading to "role engulfment" by the people deemed to engage in PPPs [28]. We will also examine what tangible consequences such labels have for individuals and their effectiveness in discouraging PPPs. Contrasting the practices deemed questionable and their outcomes in each case study lets us bring together the national practices established when answering the first research question with the cultural context necessary to understand what is considered questionable and why, leading into our third question about how evaluation systems influence (P)PPs within the context of each system.

#### 2.3. How do evaluation systems influence (P)PPs?

Via our third research question, we elucidate the relationship between evaluation systems and (P)PPs, considering what we have previously discovered about publishing practices and if and how they are labelled as questionable. Evaluation occurs at each stage and every level of research, e.g., manuscripts, researchers, institutions, journals, and is implemented globally, nationally, and locally, often with tensions between the requirements of each layer. These systems have the power to affect researchers' daily practices and thus collectively the local and national-level practices. These effects can be intended, such as the achievement of goals and successful public interventions. However, some are unintended. For instance, the introduction of quantitative publication and citation-based criteria for appointments in Italy resulted in questionable citation practices among Italian researchers [33]. The requirement to publish a certain number of articles to graduate, be promoted, or receive monetary rewards was also cited by academics as a motivation to publish in questionable journals [34]. This occurs as researchers, who are under pressure to perform and have much at stake [16], often respond to evaluation systems by fulfilling the requirements of the system at the least possible cost to themselves, e.g., publishing in questionable journals to achieve quotas [25].

The novelty and a key strength of our proposed study is that we would examine several national case studies with similarities but also distinct features and compare their research cultures and the resultant effects of evaluation systems on (P)PPs. Further, we will combine bibliometric methods to identify and isolate patterns of behaviour with qualitative methods to provide explanatory power to our observations. Using this mixed methods design, we anticipate being able to establish evidence for and explain the relationships between evaluation systems and (P)PPs. Understanding the mechanisms through which evaluation systems influence PPPs will inform evidence-based recommendations for counteracting these negative effects when designing evaluation systems.

# 3. Work packages (WP)

#### 3.1. Review the current and historical evaluation systems

First, we will review relevant publications from bibliographic databases and national science policy documents for each of the countries to develop detailed summaries of their current and historical evaluation systems and the local circumstances that have influenced these systems. We will also conduct exploratory, unstructured interviews with 1-2 science policy experts in each country to supplement our literature review regarding the key topics to be examined. As a thorough knowledge of the local context and language is required, this work will be undertaken by the research teams at each partner institute (see budget for details) and we will contract one researcher each in Nigeria, India and Brazil to assist. Both the Latin American Forum on Research Assessment (CLASCO-FOLEC) and the Indian Institute of Science's DST-Centre for Policy Research, key institutions examining research evaluation in Latin America and India respectively, have expressed interest in supporting us throughout the project. This WP will identify country-specific themes to examine and generate overviews of the countries' evaluation systems, which will be used to contextualise results from the later WPs regarding the emergence of publishing practices and the effects of evaluation systems.

## 3.2. Genealogy of the discourse about PPPs

This WP will examine the history of discourses on PPPs: their causes, consequences, and the academic strata engaging in them. We assert that a moral panic about the declining quality of scholarly publications is a common phenomenon that occurs in parallel with every substantial innovation in scientific communication infrastructure. As such, the genealogy of discourses on the deterioration of science due to the introduction of science and evaluation policies or new technological advances, e.g. Pergamon Press and online publishing, will serve as a historical background to contextualise the current concerns about declining research quality driven by predatory publishing. We will conduct a systematic review of the literature in English and selected languages from the six countries to examine how the discourse of the declining quality of scientific publications has emerged in and is contextualised to each country. Further, considering the role of the media in the construction of moral panics and the relevance of social media in current days, we will also conduct a content analysis of several samples of exchanges on social networks (e.g., Twitter) related to PPPs.

We will then focus on (1) the global level, mapping the general discussion, controversies and contradictions emerging around the technological innovations in science communication infrastructure, and (2) the national and (3) local level, where different modes of evaluation will be traced and used as context for understanding broader controversies and their local dynamics. We will identify a map of discursive hot spots and comparatively analyse the global and national levels, as well as between the case study countries.

This WP will provide a literature-based perspective of how (P)PPs emerge in and between cultures and the circumstances around labelling behaviours as predatory. It will also serve to define the range of publishing behaviours within scope of the project and country-specific terminology, which will inform later WPs. The WP will be led by Prof. Kulczycki, a prominent researcher of predatory publishing with extensive experience in investigating the causes and effects of PPPs and broader philosophies of scholarly communication (e.g., [7, 8, 25]). The other partners and researchers in Nigeria, India and Brazil will contribute to this WP by analysing local-language content and interpreting country-specific findings.

#### 3.3. Surveys

The third WP is a large-scale survey to collect data to contribute toward establishing what the usual and PPPs are and the motivations or influences on these practices in each context. We use a survey as this format allows for the collection of both quantitative and qualitative data from a broad range of respondents. Here we aim for a large and diverse sample of participants from all disciplines, career stages, etc in each of the six countries. We will also survey individuals who have left academia, as these individuals may have different perspectives of (P)PPs and evaluation systems than those still engaged in these systems. The results from WPs 1 and 2 will inform the survey's content. Core questions regarding, for instance, the type and frequency of (P)PPs and the engagement in, endorsement of, and perceived consequences of PPPs, will be presented to all participants. However, we will also include country-specific questions to investigate the local issues identified in WPs 1 and 2. Thus, we will obtain quantitative estimates of the prevalence of typical and PPPs and quantitative and qualitative self-reports of the factors motivating these behaviours from a broad range of participants in each country.

Prof. Reinhart will lead this WP as he has comprehensive experience in empirical research – both quantitative and qualitative – on research cultures from sociological and criminological perspectives. A current research project at the Merton Center on quality and integrity issues in the Berlin Research Area, the <u>Berlin Science Survey</u>, will inform the survey techniques for this WP and we will draw on the DZHW's experience with their regular <u>national survey of all scientists</u> for national sampling procedures and ensuring GDPR compliance. Each partner and the supporting researchers will assist in identifying local distribution channels to maximise visibility, ensuring content is culturally appropriate, and interpreting results.

#### 3.4. Interviews

We will then use interviews to drill further into topics uncovered in the surveys in WP3, adding depth to different publishing practices, definitions of what is understood as PPPs and reactions to them, and how participants consider evaluation systems to influence (P)PPs. We will conduct semi-structured interviews with scholars and ex-scholars from different academic communities in each country sampled via intentional and snowball strategies. The interview guide will be developed based on the identified research questions and the results of the prior WPs. We will use a narrative analysis to better understand how social meanings (including labels) of individuals and activities are created, and how people make sense of them in their disciplinary, regional, and institutional contexts, ideally providing us with causal stories for PPPs. Moreover, a narrative approach is useful considering scholars' intense professional identities, which are central to understanding how they react to PPPs.

Face-to-face interviews are preferred, where possible. However, we anticipate that the interviews will mostly be conducted online to facilitate scheduling of interviews with busy

scholars [35]. Moreover, the diversity of countries involved and the need to include a contingency plan for situations where face to face interaction is limited makes online a more practical platform. If online methods were previously considered less reliable than face-to-face interviews, views have changed dramatically since the pandemic both due to social distancing and the fact that online activity has become as important as offline activity to understand social processes [36]. Participant confidentiality and compliance with GDPR, also for data collected outside the EU, will be assured. The risk for participants is minimal and mostly pertains to negative feelings potentially experienced when discussing PPPs or professional cultures, and we will take measures to reduce or address these responses.

Prof. Faria will lead this WP as, through her work as a criminologist specialising in conducting empirical research with qualitative research methods, she has extensive experience investigating research misconduct using interviews and qualitative analysis techniques. The partners and supporting researchers will assist with conducting interviews and interpreting results to ensure cultural context is retained and participants may use their local language, if preferred.

#### 3.5. Bibliometrics

Bibliometrics is a set of analytical techniques fundamental to research on research studies. It enables the examination of inputs to and outputs of the science system, such as publications, citations, and authors, and the interactions between these features. Bibliometrics has been utilised extensively to investigate, among many other topics, both publication practices and the effects of science policies, such as evaluation systems. This WP will use bibliometric analyses to examine the publishing practices of researchers in each country, such as the journals and languages used, publication frequency, collaboration practices, etc. These observations will establish a baseline of practices before an evaluation system is introduced or changed, against which later practices can be compared to identify the evaluation systems' impact, directly addressing our third research question. We will also use bibliometrics to estimate the prevalence of PPPs in each country, such as via the prevalence of the countries' researchers as authors of articles in predatory journals or of retracted articles, and other specific local PPPs identified in preceding WPs over time and in the context of the timing and features of evaluation systems.

This WP will be led by Dr Stephen and will draw upon her experience with bibliometric analyses and the existing resources of the DZHW and the Kompetenznetzwerk Bibliometrie (KB). These resources include the commercial, quality-controlled but Global North-oriented sources Web of Science and Scopus, and the open data sources with broader coverage, Dimensions, Crossref, and OpenAlex. We will also integrate nationally-relevant data sources, such as SciELO – prioritising OA datasets to facilitate data sharing – and use recognised lists of predatory journals, e.g., Cabell's Predatory Reports, to identify these journals in the bibliometric databases. As this WP is iterative and both supports and draws on results from other WPs, it runs for the duration of the project. This WP will receive support from the other German partner, the Merton Center, by expanding ongoing collaborations in the KB.

## 3.6. Amalgamate results from WPs

In this WP we draw together results from finalised WPs to inform upcoming WPs and, in the final stage, use results from all WPs to address the three key research questions: i) how publishing practices in different national settings come about, ii) how academic communities define what should be understood as PPPs and how to react to them, and iii) how evaluation

systems influence (P)PPs. All project partners will work collaboratively to integrate the results of their respective WPs to answer these questions using our mixed-methods approaches. For instance, we will identify how evaluation systems influence (P)PPs by aligning the characteristics of the evaluation systems in place (WP1) with the quantitative, bibliometric observation of changes in publishing practices (WP5) and their motivating influences informed by the literature (WP2) and self-report of participants in the system (WPs 3 & 4). Comparing and contrasting these effects between national systems, we will make recommendations for the design of evaluation systems in each country to minimise unintended consequences. We will undertake this amalgamation process at the end of each WP and develop the results into submissions for ≥1 conference and journal article per year.

#### 3.7. Conference

In the last WP we will plan and convene a conference, presenting an opportunity to bring together researchers and other relevant groups in the field to discuss the project's findings and how they could be translated and applied to positive effect in the science system. We will hold the conference in the first half of the final year so that resulting feedback can be integrated into the last publication(s). Dr Stephen will lead the organisation of the conference.

#### 4. Time schedule

The timeline of the project's WPs, including expected outputs, is outlined in the table below.

Work Package	1 <sup>st</sup> half year 1	2 <sup>nd</sup> half year 1	1 <sup>st</sup> half year 2	2 <sup>nd</sup> half year 2	1 <sup>st</sup> half year 3	2 <sup>nd</sup> half year 3	1 <sup>st</sup> half year 4	2 <sup>nd</sup> half year 4
Set up advisory board								
WP1 Review eval sys	Conduct							
WP2 Genealogy			Reiterative process drawing on results from other WPs					
WP3 Survey		Prep	repare, conduct, and analyse					
WP4 Interviews				Prepare, conduct, and analyse				
WP5 Bibliometrics	Preparation of datasets and analyses conducted throughout project							
WP6 Amalgamation		WPs to date		WPs to date		WPs to date		All WPs
WP7 Conference						Prepare	Convene	
Output: Conf. paper								
Output: Publication								
All partners active	Lead: Pro	of. Kulczycki	ılczycki Lead: Prof. Reinhart		Lead: Prof. Faria Lead: Dr.		Stephen	

#### 5. Anticipated outcomes

Our project would extend the knowledge of how evaluation systems influence researchers' behaviours, particularly PPPs. In using national case studies, we achieve a comprehensive understanding of the interaction in each country between evaluation and (P)PPs in their specific research culture. We could thus map in, for instance, Germany the specific aspects of the evaluation systems that trigger particular behaviours, which behaviours German researchers consider questionable, the rates of engagement in and consequences of these behaviours, and so on. In then juxtaposing each country's circumstances with one another, we achieve a unique insight into the responses of each culture to its systems, highlighting consistencies or differences between cultures to similar stimuli. The labelling of academic output as questionable has substantial consequences for the institutions and researchers involved, regardless of the veracity of the labelling. As such, understanding the aspects of evaluation systems that motivate these behaviours is key to designing systems that minimise the likelihood of inducing such practices. We aim to translate our findings into practice by regularly disseminating our results to the international academic community via conferences and journal publications. We will also engage key local stakeholders to examine how our results may be translated to positive effect in the national and global academic systems.

#### 6. Project team

The project team consists of the four primary partners and their team members in Germany, Poland, and Portugal, and three contracted researchers in India, Nigeria, and Brazil, as outlined in the budget. Dr Stephen, as the main applicant, assumes the overarching role of project management. As described in Section 3, each partner will be responsible for delivering a particular WP, which accords with their expertise and skill sets. However, to capitalise on the partners' diverse specialities, all partners will contribute to designing and interpreting the results of each WP. This diversity is central to achieving the project's objective of using multidisciplinary approaches to study and contrast varied evaluation systems by researchers working within them. Such an approach does incur travel costs, however. To facilitate collaboration, the partner teams will meet in-person twice per year to plan, align, and discuss results in accordance with the project stage. In addition, virtual meetings for regular communication will be held at intervals appropriate to the workload intensity, e.g., monthly. Further, we will establish a scientific advisory board of experts in the fields of evaluation systems and academic publishing, from which we can periodically seek strategic external feedback, e.g., bi-annually.

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