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INVITED ARTICLE

The impact of tourism research

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ABSTRACT

The exceedingly competitive climate of academia has increased the emphasis on performance-based research funding. In this paper we evaluate the UK's government assessment of research impact and critically comment upon the implications for future research conduct. The key findings are as follows; firstly we provide a summary of UK tourism research impact. Secondly, we demonstrate the effect of the resulting significance gap, and comment upon the consequences of the Research Excellence Frameworks' (REF) research impact assessment in terms of a research culture change. Lastly, we proposition that the current assessment structure can have negative long-term consequences in that key issues facing tourism fall outside 'good' research impact.

Introduction

In 2014 UK academics encountered a new Key Performance Indicator (KPI). Their academic complexity is now further hollowed out and simplified to a series of scores covering not just teaching, publications and research income but now also impact (Sayer, 2014). Where this is the case significant challenges and potential conflicts arise between economic feasibility, intellectual integrity, and democratic values (Collins, 2014). In the long development of, performance-based research evaluation and funding, the focus on assessing scientific quality based on its *research impact* represents the latest addition to the KPI family (Wouters et al., 2015). Such commitment to impact is understandable, because if discovering new knowledge does not improve the lives of people, societies and/or economies, then what else is its purpose or telos? However, the problem does not lie in the stated goal, but rather in what are the appropriate checks and balances in how to best facilitate whatever telos may be chosen (Brauer, 2018). The conflict arises, because any evaluation of impact cements an associated value structure into the assessment in relation to tourism research *"the key is that we can't separate characteristics of impact from the process imposed on value and recognise it as such"* (Derrick, 2018:160).

This study analyses the introduction of research impact into the assessment of UK universities with special reference to tourism. The first UK Research Assessment Exercise (RAE) was proposed in 1986, with subsequent exercises taking place in 1989, 1992, 1996, 2001 and 2008. The intention was to ensure research quality and promote academic excellence. The main focus was on research outputs, esteem and environment. In 2014 the RAE was superseded by the Research Excellence Framework (REF) and research impact was evaluated for the first time. According to the REF the evaluation of research impact is; increasing "*accountability for public investment*"; and provides "*benchmarking information and establish*[es a] *reputational yardstick*" (REF, 2011:4). The REF represents a trailblazing new direction in research evaluation and to date no similar research impact evaluation has been conducted on this scale.

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In the light of this, the aim of the research is to evaluate the outcomes and effects of the research impact evaluation for tourism research impacts. The research objectives are fourfold: firstly, to identify and classify tourism research impacts that were reported to the REF; secondly, to evaluate the effect the assessment has on the type of impact that is presented; thirdly, to critically evaluate the significance of the reported impact and finally to discuss the implications on the future research KPIs and their behaviour which will now be governed through the impact assessment regime.

The structure of the study is as follows; firstly we outline the background of research evaluation for universities. Next, we discuss the impact phenomenon in general, outlining the connection between impact, disciplining and the potential for changing academic culture. Within the method section we elaborate upon our methodological choices in relation to data and analysis, alongside commenting upon key definitions of impact, reach and significance used by the REF and the assessment format in general. Afterwards, we comment upon the type of research, tourism and impact that was reported to the REF 2014 assessment of tourism research impact, of which we evaluate its significance and reflect upon the consequences for future research conduct. Finally, conclusions are drawn.

Background: research impact as a new evaluation tool

In this paper, we specifically focus on the conduct of UK universities and the effect that the use of research impact as a rigidly defined performance indicator to evaluate the quality of research has for the future direction of academic culture. Such emergent ethical issues in relation to the telos of research seem to have been on the heart of academics concerns from the very beginning of the commercialisation of academic scholarship (cf. Weber, 1946), when engaging with public policy (Merton, 1936) or society in general (Hayek, 1943). This section first reviews general phases of development of Western universities and then focusses on assessment regimes that have influenced the contemporary phase.

Drawing with the broadest brush, Western universities initially started out as places of higher spiritual learning (the metaphysical university), that developed into scientific institutions (the scientific university) and now are becoming ever more networked in a global economy (the entrepreneurial university, Barnett, 2010). As such they exhibit a long tradition that has spanned several centuries involving a long list of changes in their respective ecosystems (Koch, 2008). The latest change towards the networking phase started at the end of the Second World War, and the university sector has been ever growing since. The increasing focus on marketing for job prospects as a commodity that the universities can deliver has also had some unintended consequences in its own right (e.g. Lahr et al., 2014). Further there seems to be an increasing focus in much contemporary academic culture on ever refining and introducing new assessment standards (Strathern, 2000). In the UK, the impact agenda was initiated with a pilot exercise (REF, 2010) and followed up with full implementation in REF 2014, continuing with the REF 2021.

But these changes extend beyond the UK. Globally many countries have now adopted their own performance-based funding approaches to ensure academic excellence. With regard to research impact we can see that the European Union's Horizon 2020 with its three mutually reinforcing priorities (responsible research, innovation and societal benefit, EEA, 2013) is reinforcing such an approach. Similarly, in the Netherlands there is a focus on "*socially relevant*" research (Spaapen & Van Drooge, 2011:212). In Spain the health sciences programmes are starting to be assessed based on impact performance (Adam et al., 2012). In Sweden, after a formal investigation around the feasibility to introduce a country wide assessment of the quality of (Swedish) research, concluded that the REF research impact assessment is something to be emulated (Vetenskapsrådet, 2015). In the United States the National Science Foundation in combination with the National Institute of Health aim to create a repository for the impacts of research (DHHS, 2018). In Canada, there has been an increased emphasis on the benefit of research for society with the *Research Impact Canada* scheme (cf. RIC, 2018). Australia signalled its intention to "*introduce, for the first time,* […] *non-academic impact*" (Australian Government, 2015:11). It introduced its first engagement and impact assessment (EI) in 2018 as a companion to its Excellence in Research for Australia (ERA) assessment. Such changes are not only restricted to Anglophone or Western universities, emphasis on research impact as KPI can also be found in Argentina (Angelelli et al., 2011), Brazil (Angulo-Tuesta & Santos, 2015), Guatemala (Brambila, Ottolenghi, Marin, & Bertrand, 2007) and Hong Kong (Kwan et al., 2007). Still, how effective such performance-based evaluations are for raising academic productivity remains questionable (Auranen & Nieminen, 2010).

With an ever growing global call to include research impact into the evaluation of research (cf. Adam et al., 2018), the implementation of such schemata not only seeks to evaluate but inevitably also steers research excellence and regiments best conduct (cf. Hammarfelt, de Rijcke, & Wouters, 2017). Such a focus on *best* conduct creates discussions around wider societal implications in respect to academic institutions or democratic values in general (e.g. Sivertsen & Aagaard, 2017) as certain value structures are disciplined by the assessment regimes (Porter, 1995). Most contemporary Western governments use some interpretation of a social contract ideal (c.f. Rousseau [1762], 2009), i.e. governments ought to use their resources for the benefit of the wider population in allocating government funds. As such, if research is using government resources, then by extension this argument should apply to the use of these funds as well. Tourism research does represent a latecomer, compared to other traditional disciplines, yet it is beyond a doubt that tourism research has the potential for considerable impact (cf. Airey, Tribe, Benckendorff, & Xiao, 2015) and is part of a larger tourism research culture (cf. Tribe, 2010). The place of tourism in UK research evaluation has moved from outsider status (Tribe, 1997; 2003)) to being recognised and named as a significant research area in the REF 2014 Unit of Assessment 26 - Sport and Exercise Sciences, Leisure and Tourism.

Theory: impact, disciplining and research culture

In this section we foreground how impact assessment can subtly discipline and shape research and influence the broader research culture. Impact in different forms has always been a part of research conduct. For example, journals express a form of impact within

their impact factors (Law, 2012), researchers make claims about their impact upon social issues (Minnaert, Maitland, & Miller, 2009) and industry welcomes impact that increases sustainability whilst maintaining profitability (Hoarau & Kline, 2014). However, according to the REF 2014, academic impact (measured by citations) and impact through teaching[1] are not counted as research impact (REF, 2011:48). These boundaries create a specific new interpretation of research impact. As the subsequent assessment then cements an associated behavioural regime that essentially includes and excludes, rewards and punishes, or disciplines and educates, the underlying value structure is then also validated (cf. Foucault, 1977). There is a further challenge where assessment is seen to favour contemporary *in vogue* values (e.g. climate change, equality and diversity, anti-racism, multiculturalism, atheism, neoliberalism etc.). The point is not so much that such values are unimportant, but rather the ethical contradiction and challenges to research integrity that this creates (cf. Munar, 2018) Furthermore, there can be unintended consequences from any value structure (cf. Dymitrow & Brauer, 2016) and when such values are enshrined into KPIs, the subsequent disciplining then consecrates such contemporary values as *facts* (cf. Hicks, 2012). The unintended consequence of this is a homogenisation of the intellectual debate that clusters around meeting predetermined standards rather than intellectual originality, significance and rigour (e.g. Duarte et al., 2015). This dimension of ontological politics happens due to the materiality of the knowledge institutions that enact that knowledge, i.e. its own impact and institutional inertia (cf. Jóhannesson, van der Duim, & Ren, 2015). The created nexus of institution, research culture, funding philosophy, societal values, REF assessment standards etc. has created an intricate research ecosystem that the universities now have to navigate with their codes of practice.

The case study assessment format required by REF with its focus on *best case scenarios* also leads to a form of disciplining, as this officially incentivises researchers to boast about their research. Traditionally, researchers went through great pains to disassociate themselves from taking sides in political, ideological, religious or other special interests in order to establish their integrity (Shapin, 2010). Combined with the Enlightenment goal of furthering knowledge and a scholastic tradition of intellectual pursuits, an academic culture emerged with its own forms of disciplining and institutions to perpetuate its traditions (cf. Hirst, 1974).[2] The Mertonian CUDOS norms[3] represent an articulation of the associated disciplinary dicta that have been inscribed into traditional Western academic culture (Merton, 1973). These norms are not easily followed; take for instance, the norm of disinterestedness. This ethical conflict has always been a part of the research conduct (cf. Mitroff, 1974), however it undoubtedly becomes further exacerbated by systems like the REF impact assessment, in that such an end-focused assessment legitimises an external value hierarchy. Proclaiming how 'impactful' one is implies a validation of the external value structure that identifies the impact as meaningful. The potential problems arise because the traditional moral economy of science (Kohler, 1994) played a vital role in ensuring that a multitude of different opinions are allowed to be held by the academic community simultaneously.[4] Resolving this multiplicity by internal means (e.g. through peer review, citation counts, amount of PhD students etc.) then creates the perception of objectivity as its end result (cf. Latour, 2010). Yet, when such internal negations of research are put into the public realm, political expediency, internal politics or other factors are being revealed and the credibility and reliability of research conduct are put into jeopardy (Collins, 2014). Nevertheless, that's precisely why CUDOS norms or similar, represent aspirational values in order to protect the integrity of the research culture ensuring the legitimacy of the university as place of production for knowledge (cf. Barnett, 2010:22–24).

The value conflict not only relates to what is considered *good* research, but impact in general. For example, judgments of positive or negative impact also have moral implications as they depend on the context and time passed (Wadmann, 2014). What is 'positive' is a function of many different factors. Notable examples are the discovery of chlorofluorocarbons, leaded fuel or dichlorodiphenyltrichloroethane (DDT) (Taleb, 2014). At the time of their implementation they were all thought to be beneficial to society, hence their widespread application (cf. Dymitrow & Brauer, 2018 for more examples). Such research impacts could have been easily commodified into a REF case study with the backing of powerful industrial/political/societal interest, *yet now we know* of their negative long-term consequences that far eclipsed the 15-year timeframe of the REF. Regardless of such theoretical objections, the commodification of research activity and higher education seems to be a contemporary reality (cf. Barnett, 2017). As Law (2004:7) argues, the pragmatic choice "*is not to seek disengagement but rather with how to engage*". As the UK universities are now compelled (i.e. disciplined) to conduct evaluations based on research impact, they have the incentive to showcase their best and most significant research (impact) practice. Thereby, the assessment outcome should represent an excellent opportunity to learn from.

In general, our argument here is not concerned whether the (social) sciences did or did not have an impact on society (cf. Bastow, Dunleavy, & Tinkler, 2014), how individual academics can a have a beneficial impact upon society (Badgett, 2015) or what are the best ways to commercialisation (cf. Bozeman, Fay, & Slade, 2013). Rather, we are concerned with the academic culture in general,

[1] In the REF 2021, teaching is now considered part of research impact.

[2] Latour (2010) proposes that research culture can be understood as any human cultural activity. Artefacts, rituals and trust are as important for research as they are for other cultural activities. The craft of producing cultural significant artefacts is usually transmitted from teacher to apprentice. This activity is ritualised, as potential prospects are initiated by the village elder, minister or PhD supervisor, which not only teaches techniques to create the artefacts but also disciplines a right way of how to interpret reality. Such rituals collectively, create a small select group of an epistemic elite (the shamans, the priests or the researchers), meanwhile the tribe, congregation or public at large are meant to trust the authority of their judgements of *facts*.

[3] CUDOS stands for: **communalism** – conceptualising research as a collaborative enterprise, u**niversalism** – postulates that every person can contribute, **disinterestedness** – stresses that the gain is for the advances of scientific knowledge, not personal gain, **originality** – emphasises the advancing of knowledge and finally **scepticism** – as it is essential within research claims, as these must be exposed to scrutiny before being accepted, i.e. trusted (cf. Ziman, 2000).

[4] The whole grievance studies affair is an example of when the traditional norms of western universities are not being followed, with detrimental effects for the rigour, significance and originality of research (cf. Lindsay, Boghossian, & Pluckrose, 2018).

relating to issues of research integrity (cf. Van de Ven, 2007), increases in consumerism of higher education (cf. Brown & Carassso, 2015), the influence of managerial systems (Watts, 2017) and what viable alternatives are there (Rustin, 2016). By analysing and evaluating the end product of such impact focused assessment, in relation to tourism research we can help identify instructive ways to meet these challenges. Primarily, we aim to contribute to identifying approaches of how we can engage with this new disciplinary regime around research impact without jeopardising research integrity. However, one thing is clear, the introduction of the assessment of impact changes the disciplinary dicta of traditional academic culture (cf. Chubb & Reed, 2018), although it might still be too early to appreciate its full scope of long-term consequences.

Method: identifying UK's reported tourism research impact

This study examined tourism research impact case studies that were submitted to the REF 2014 impact assessment as its empirical data material. It conducted a content analysis of the type of impact and also critically assessed the significance of the reported impact. In our analysis we use the definition of research impact as employed by the REF 2014, in that impact can be:

> "[A]*ny social, economic or cultural impact or benefit beyond academia that has taken place during the assessment period, and was underpinned by excellent research produced by the submitting institution within a given timeframe.*"
>
> (REF, 2011:4).

In this definition impact has to be linked to some underpinning research.[5] Thereafter the research can have impact directly or indirectly, meaning that the researchers can, but not necessarily have to, be involved in its implementation. Research can be undertaken by individuals, collaboratively within an institution, or between different institutions (REF, 2011:29). The main assessment criteria are based on its significance and reach and the research impact should be independently verifiable by evidence. Reach and significance are defined by each main panel separately. As tourism research was located within main panel C,[6] **reach** is defined as: "*the extent and diversity of the communities, environments, individuals, organisations or any other beneficiaries that have benefited or been affected*" (REF, 2012:74). **Significance** is defined as: "[the] *degree to which the impact has enriched, influenced, informed or* ***changed*** *policies, opportunities, perspectives or practices of communities, individuals or organisations*" (REF, 2012:74, emphasis in the original). Neither reach nor significance are geographically defined or dependent. The research impact is to be presented in a case study format and the impact account *should* include the following aspects (REF, 2011:50–52):

- **Summary of the impact** (indicative maximum 100 word limit)
- **Underpinning research of the impact in question** (indicative maximum 500 words)
- **References to the research** (indicative maximum of six references)
- **Details of the impact** (indicative maximum 750 words)
- **Sources to corroborate the impact** (indicative maximum of 10 references)

The impact case studies were to be written in a coherent and concise style and within "*their narrative* [… the] *institutions should provide the indicators and evidence most appropriate to the impact*(s)" (REF, 2012:71). However it should be noted that what is "best" in relation to research impact is not only contingent on the disciplining upon the underlying value structure, but many other technical consideration that are imposed by the idiosyncrasies of the REF assessment of impact as well (Watermeyer & Hedgecoe, 2016). The first step in the content analysis consisted of data identification and collection. All case studies were published on the 18th of December 2014.[7] Tourism was located within sub panel 26 (Sport and Exercise Sciences, Leisure and Tourism). However, within sub panel 26 we could only find six case studies that related to tourism impacts. Therefore, we decided to expand the search to all panels using keywords that had previously been suggested by Tribe and Liburd (2016). These keywords were: 'tourism', including its derivatives like 'tour,' 'tourist' 'touristy' (equivalent of tour*), vacation, adventure, resort, globetrotting, retreat, travel, traveller, journey, destination, getaway, holiday, visit and pilgrimage. Out of these; getaway, holiday, vacation, adventure, retreat, resort and globetrotting had no search results. Furthermore, search terms like "traveller" found 3 case studies relating to Roma, Gypsy and indeed 'Traveller's', reading such case studies then was the demarcation if these related to tourism or not. In the specific example of the 'Traveller's' these case studies were concerned with matters of public exclusions, ethnicity and empowering these communities, as such they were not included here. Finally, to validate that no tourism impact was omitted, we triangulated our selection by ensuring that impacts from reputable tourism studies departments were not omitted. As such, the authors are confident that they have sampled all research impact related to tourism that was submitted to the REF 2014 (23 in total).

The next step was data analysis. The analytical guide for the content analysis was divided into three topical sections to show how the significance of the presented research impact was constructed and framed (Table 1). This created three different sensitising issues (types). The first focus was on the type of research [1], in as much as to identify what type of research has been submitted to the REF.

[5] The underlying research had to be carried out at the institution in question in the time period of 15 years prior to the assessment period, effectively giving it a time period from 1 January 1993 to 31 July 2013 (REF, 2011:29). Vital research that underpinned impact before this period could be submitted, but a strong case had to be made why it was important.

[6] The REF 2014 was structured into four panels, corresponding to; life science (A), STEM fields (B), social sciences (C) and the humanities (D)

[7] The data set can be accessed here: http://results.ref.ac.uk/Search, all impact case studies were first accessed on the 12th of July 2016, but have been accessed throughout the entire research process.

Table 1
Analytical guide to identify the tourism research impact.
Source: authors

Sensitising issue	Empirical aspect
[1] type of impact (REF's own definition of *impact* used to identify research impact in the case studies) [2] type of research (Universities own definition of what type of *research* they do) [3] type of tourism (Different broad definitions of tourism are derived from the tourism studies literature)	[1] research impact What types of impacts are mentioned within the documents? [2] research affiliation What type of research caused the claimed impact? [3] tourism framing What type of tourism is mentioned as end-user of the research impact?

In order to evaluate the impacts that were submitted we also found it necessary to classify the reported impacts, hence a focus on the type of impact [2]. In order to identify and critically evaluate what type of influence this assessment has on tourism, we needed to identify what type of tourism is contained within the presented impact claims [3]. All this was done in order to understand what influence the assessment has on the (tourism) research culture.

We prepared the identified case studies to comply with common strategies of document analysis in printed media (Wodak & Krzyzanowski, 2008:30–53). The analytical process was that all identified data material were printed several times, each exemplar corresponding to one type of analysis in regard to the sensitising issues. These were analysed consecutively, each time only one analytical focus was identified. Each relevant section was highlighted on the page and then summarised and elaborated to what specific subcategory it corresponded to. Those subcategories represented the 'proto-themes' for the summarisation of the material. Afterwards, a table was created for each of the different proto-themes (impact, research and tourism) with an example of the most indicative quote from the original case study. This step was followed by removing the quotes and streamlining the table into coherent themes. The last step represented the strategic selection of the most indicative quotes that could be used to present the impacts.

Findings and discussions

Tourism research impact revealed

This section discusses the tourism research impact claimed by UK universities that was submitted to the REF 2014 (cf. Table 2). The impact case studies are labelled in the fashion that the first letter indicates the REF's main panel, the second ID indicates the sub panel and the third ID is a consecutive number in order of presentation. For ease of presentation we have subdivided our discussion along the; type of research (5.1.1), type of tourism (5.1.2) and type of impact that was presented within the REF impact case studies.

The type of research

Firstly, we can observe that the entire academic spectrum (i.e. the main panels covering sciences, social sciences and the humanities) reported research impact upon tourism. However, the bulk stemmed from social sciences (main panel C) and arts and humanities (main panel D). Another general trend, was that the majority of case studies from main panel C, were concerned with underlying social issues. Meanwhile the conservation of cultural heritage was at the heart of the concern for case studies that submitted to main panel D. Such discursive framing fits well with the area of interest of these respective disciplines.[8]

Another noteworthy observation is that; firstly, only a few tourism research centres produced tourism based case studies. There may be many different reasons to this omission; it may be simply due to the difficulties in identifying tourism research's research impact in general (cf. Thomas & Ormerod, 2017). However, a different observation points that some other strategic considerations were also involved. The impacts that were submitted to UoA 19 did not diverge substantially from the impacts submitted to UoA 26, begging the question of why they choose to submit to a different panel? Thereby, presumably, they did a cost-benefit analysis and decided that they would be more favourably judged within a business unit of assessment (19) rather than a composite unit of assessment which included sport science and leisure alongside tourism (26). Furthermore, included into with this ignorance comes another huge ethical issue to be raised in that many universities paid professional, non-academic, writers to craft high-impact case studies. By freely crossing disciplinary boundaries and employing professional writers, the assesse/assessors may abide by other values than the advancement of knowledge or the CUDOS norms that researchers in that particular research discipline are expected to.

Based on our results, it is difficult to ascertain if research impact in tourism is a low priority for subjects that fall within main panel A and B. All that we can note is that there is an absence of case studies. In general, the absence may be explained due to a lack of interest, lack of impact, a strategic reasons or some combination of all of them. The last factor we cannot discount is ignorance, i.e. lack of expertise. The individuals that developed the case studies may not only lack expertise in sociologically tracing their own impact, but also lack the presentation and writing skills to present their impact. Without anyone actively investigating what the

[8] There were too few case studies submitted to panel A & B in order to identify such a general trend there as well, same applies to types of tourism (5.1.2) and impact (5.1.3) below.

Table 2
Identified case studies relating to research impact upon tourism submitted to the REF 2014 research impact assessment.
Source: REF 2014 and authors.

ID	Name of Unit of Assessment	Higher Education Institution	Case study title	Type of research	Type of impact	Type of tourism
A-5-1	*Biological Sciences*	*University of Leeds*	Biosecurity and sustainable tourism in the Galapagos Islands	*Biological-research*	*Wildlife conservation* *policy advice*	*mainstream tourism* *ecotourism* *wildlife tourism*
B-10-2	*Mathematical Sciences*	*University of York*	MAT03 - Traffic control and traveller choice	*Mathematical-research*	*no explicit tourism impact note: tourism was only mentioned once, as a potential application, but not further elaborated*	*impossible to determine*
C-17-3	*Geography, Environmental Studies and Archaeology*	*University College London*	Supporting tourism and recognition of Maya heritage at Lamanai and on Ambergris Caye	*Archaeological-research*	*lobbying* *economic impact* *heritage conservation*	*mainstream tourism* *heritage tourism*
C-17-4	*Geography, Environmental Studies and Archaeology*	*University of Leicester*	Coin Hoards and Helmets: Iron Age treasure boosts tourism, underpins museum expansion and inspires new sense of community pride	*Archaeological-research*	*economic impact* *heritage conservation*	*heritage tourism*
C-19-5	*Business and Management Studies*	*University of Nottingham*	Informing Social Tourism Policy and Practice	*Tourism-studies-research*	*raised awareness* *policy advice* *improving QOL* *lobbying*	*social tourism*
C-19-6	*Business and Management Studies*	*Cardiff University*	Understanding the economic and environmental impacts of tourism	*Tourism-studies-research*	*environmental sustainability* *policy advice* *economic impact*	*mainstream tourism* *event tourism*
C-19-7	*Business and Management Studies*	*University of Kent*	Backpackers or Cruise Ships? Shaping the Tourism Policy Agenda for Small Island States and Coastal Communities	*Tourism-studies-research*	*raised awareness* *economic impact* *policy advice* *lobbying*	*mainstream tourism* sustainable tourism
C-24-8	*Anthropology and Development Studies*	*University of Roehampton*	Effects of Tourism on Wild Primates	*Anthropological research* *biological research*	*raised awareness* *policy advice* *wildlife conservation* *lobbying*	*mainstream tourism* *wildlife tourism* *ecotourism* sustainable tourism
C-26-9	*Sport and Exercise Sciences, Leisure and Tourism*	*University of Sunderland*	Integrated e-Services for Advanced Access to Heritage in Cultural Tourist Destinations (ISAAC)	*Tourism-studies-research*	*DMO development*	*heritage tourism* sustainable tourism *cultural tourism* *eTourism*
C-26-10	*Sport and Exercise Sciences, Leisure and Tourism*	*University of Bedfordshire*	The impact of food tourism on sustainable development in rural regions	*Tourism-studies-research*	*lobbying* *DMO development* raising awareness	*cultural tourism* *food tourism* *sustainable tourism*
C-26-11	*Sport and Exercise Sciences, Leisure and Tourism*	*University of Surrey*	Modelling and Forecasting International Tourism Demand: Methodological Advancements and Innovations	*Tourism-studies-research*	*economic impact* *policy advice* *DMO development*	*mainstream tourism*
C-26-12	*Sport and Exercise Sciences, Leisure and Tourism*	*University of Surrey*	Reducing social exclusion through participation in tourism	*Tourism-studies-research*	*raised awareness* *policy advice* *improving QOL* *lobbying*	*social tourism*
C-26-13	*Sport and Exercise Sciences, Leisure and Tourism*	*University of Brighton*	Redesigning tourism policy and practices in Africa	*Tourism-studies-research*	*DMO development* *policy advice* *economic impact* *environmental sustainability* *social sustainability*	*mainstream tourism* *ecotourism* *volunteer tourism*
C-26-14	*Sport and Exercise Sciences, Leisure and Tourism*	*Bournemouth University*	Modelling economic impact for national governments	*Tourism-studies-research*	*economic impact* *environmental sustainability* *policy advice* *DMO development*	*mainstream tourism* *wildlife tourism* *cultural tourism*
D-29-15	*English Language and Literature*	*University of Exeter*	The Evliya Çelebi Way Project: history, travel, culture	*Historical-research*	*raised awareness* *heritage conservation,*	

(*continued on next page*)

Table 2 (*continued*)

ID	Name of Unit of Assessment	Higher Education Institution	Case study title	Type of research	Type of impact	Type of tourism
					economic impact *lobbying*	*sustainable tourism* *heritage tourism*
D-29-16	*English Language and Literature*	*Swansea University*	The Library of Wales: influencing Government Policy to benefit the Creative Industries, Cultural Tourism, Education and General Readers	*Literature-research*	*DMO development* *heritage conservation* *economic impact*	*heritage tourism*
D-29-17	*English Language and Literature*	*University of Bristol*	The Revival or *Re*-invention of Early European Performing Arts as an Instrument of Civic Regeneration and Cultural Tourism	*Historical-performance-research*	*heritage conservation*	*heritage tourism* *cultural tourism* *event tourism*
D-30-18	*History*	*University of Leicester*	KEPT – Knowledge Exchange Partnerships for Tourism: supporting the tourist economy and improving visitor experience at historic destinations.	*Digital-humanities-research*	*raised awareness* *heritage conservation* *economic impact*	*heritage tourism* *cultural tourism* *eTourism*
D-30-19	*History*	*University of Durham*	The Lindisfarne Gospels Exhibition, Durham 2013: cultural heritage, education, and tourism	*Historical-research*	*public education* raising awareness economic impact *heritage conservation*	*heritage tourism* *event tourism*
D-33-20	*Theology and Religious Studies*	*University of St Andrews*	Promoting Pilgrimage in Churches, Cultural Heritage and Tourism	*Historical-research* *Theological-research*	*heritage conservation* *economic impact* *DMO development*	*religious tourism*
D-34-21	*Art and Design: History, Practice and Theory*	*University of East Anglia*	Butrint (Albania), Archaeology, Heritage and Tourism	*Archaeological-research* *Historical-research*	*economic impact* *heritage conservation*	*heritage tourism*
D-35-22	*Music*	*Liverpool Hope University*	The Annotated Beatles Bibliography: Supporting tourism in Liverpool	*Music-research*	*DMO development* *economic impact* *heritage conservation* *policy advice*	*heritage tourism* *cultural tourism* *eTourism*
D-36-23	*Communication, Cultural and Media Studies, Library and Information Management*	*York St John University*	Cultural Heritage, Tourism and Engagement	*Heritage-research*	*DMO development* *heritage conservation*	*cultural tourism* *heritage tourism*

impact has been **and** the ability to competently present such impact claims, any causal claims about research impact are mere speculation. As there now exists individuals who wrote case studies, having first-hand experience, and there are guides on the emerging risks for research impact (cf. Reed, 2018) technical problems in creating future research impact are now presumably less. Yet, as universities are highly risk averse institutions and they are now meant to boast about their research impact this does further intensifies the 'schizophrenic university' (cf. Shore, 2010) that now has to juggle such and other contradictory agendas. Therefore, any speculative claims in relation to impact may simply have been deemed too risky for universities to put forth to an REF impact style assessment.

The type of tourism

Secondly, we can observe that mainstream tourism was presented in an almost exclusively negative fashion regardless of research affiliation, only three case studies specifically focused on improving mainstream tourism (C-19-6, C-26-11 & C-26-14). The rest of the case studies always presented alternatives forms of tourism or just did not bother to outline how the tourism experience could be improved. Any references to 'improving' mainstream tourism either took the form of Destination Management Organisation (DMO) development or improving tourism activities without giving detailed elaborations on how such an impact was achieved. In general the stance towards mainstream tourism was that negative impact has to be mitigated and the research was rhetorically located as an intermediary in solving such a negative (tourism) impacts. In general the emergent picture is complex to say the least, with no major type of impact being dominated (cf. Terämä, Smallman, Lock, Johnson, & Austwick, 2016 for an overview of all research impact submitted to the REF 2014 impact assessment).

In general, ecotourism, wildlife tourism, heritage tourism, social tourism, event tourism, sustainable tourism, cultural tourism, food tourism, volunteer tourism, eTourism or religious tourism were not treated as ends in and of themselves, but rather facilitators to achieve other more "pressing" concerns. In order to exemplify, it is instructive to describe how economic figures were utilised within panel D. The economic contribution that the tourism activity generated was presented to help with the conservation effort, which was the 'real' research impact presented within the case study. This was done regardless of what type of tourism was referred to. In

contrast, the studies that submitted to panel C showed no particular preference for any type of tourism. However, in regard to the reported social tourism, it also became clear that the emphasis was not on tourism per se, but rather what tourism could generate for these marginalised people. In regard to sustainable forms of tourism, the discourse of (environmental) sustainability was treated as a 'catch all phrase' to summarise the achieved impact. Now the primary reason why we can observe such a stratification of the different research interests may not be so much that the universities were *not* interested in the tourism experience per se, but rather the cultural, social or environmental significance was deemed more important. Nevertheless, such discursive framing factored over in how the case study narration was structured.

Overall, the necessary detail required to substantiate the claimed impact upon tourism were often lacking, being more implied than actually accounted for. Such, a contingency further strengthens our postulation that the expertise needed to create research impact claims that communicate the research findings (interactional expertise) is not the same expertise needed to conduct the underlying research (contributory expertise, cf. Collins, 2014 for the categorisation of the different levels of research expertise). A Dutch example, Franssen, Scholten, Hessels, and de Rijcke (2018) showed how the tight regimentation of research funding applications restricted innovation and mitigated against updating of outdated organisational structures because early career researchers and other outsiders lacked the skill necessary to articulate their claims. It seems similar here in relation to what type of tourism is imaginable (cf. Hollinshead & Suleman, 2018).

The type of impact

Third, in regard to what *type of impacts* are present, we can find the following; in panel C the pressing concerns revolved around, DMO development, wildlife conservation, improving quality of life, environmental sustainability and social sustainability with raised awareness being mentioned in connection to these concerns. The specialist tourism research units offered case studies that addressed more than just a one dimensional concern in relation to tourism. In comparison, in Panel D the primary concern revolved around heritage conservation with public education and DMO development being mentioned as facilitators for the heritage conservation effort. Furthermore, raised awareness in panel D related exclusively to issues of heritage, which makes the presented *types of impact* rather limited.

When economic impacts were mentioned, they were often reported in conjunction with visitor figures or other forms of indirect indicators (e.g. book sells, ticket sales or revenue figures) or it was simply stated that the research had an economic impact without further elaboration.[9] The same applied for DMO development where all case studies reported that their research had aided DMO development in some way. In regard to the lobbying and policy advice, there is the potential for ethical transgression of what it means to be a good academic. The reason being, because in some of the cases the separation is more an arbitrary consequence of the used labels, i.e. researchers actively lobbied for the *same* social cause they were researching on. In regard to raised awareness, it was generally unclear what specific aspect of the awareness was "raised," only that it related to the presented concern in some way. The majority of the case studies evidenced their "raised awareness" by presenting; exhibitions, workshops, being quoted in policy reports or that some form of educational benefit had been achieved, without indication of what the result had been from this participation. Such a lack or vagueness of impact indicators was common to all the case studies, expect a few exceptions, when impact claims were made.

In general, all impact claims appear to be primarily focused on small scale, local changes with a specific research projects being mentioned as having *impacted* the contingency at hand. Now in a sense, this discourse of research impact has created an *inversion* of the understanding of a 'best case study'. In the sense that instead of the universities having a *case study* on a specific *research impact*, they departed from a specific *research case* and then reported the impact of that specific research. As such, it appears that the linear understanding of the REF's view on how research impact manifests itself found its way into the narration of the research impacts, rather than an understanding the complexities of a significant research impact and reporting upon it. The risk is, that akin to the previous output evaluation, this will create a homogenisation of what is considered acceptable (e.g. Lee, 2007).

Research impact evaluated

In order to further investigate this point about significance, this section attempts to evaluate the impact of UK university tourism research differently from the REF by asking a simple question: To what extent do the claimed impacts contribute to solving the most pressing issues facing tourism? To do this we have evaluated the reported impacts against a framework of the key issues facing contemporary tourism. For this purpose, we have utilised David Edgell's list of the 'top ten issues of tourism', which he publishes annually based on his many years of research experience studying tourism.[10] These are reproduced in Table 3.

Our confidence in the usefulness of this list is underpinned by two factors. First Edgell himself invites comment and feedback and amends it in the light of these. Second we seek triangulation from other sources. Here we are able to corroborate Edgell's issues as a good heuristic of salient concerns surrounding tourism. Table 4 lists the institutions we have sampled to triangulate Edgell's list. We find validation from the UK Economic and Social Research Council, in their definition of impact.[11] Further, in terms of sustainability, the Global Sustainable Tourism Council emphasises "*greater market access to* [a] *sustainable* [tourism] *product.*"[12] The United Nations'

[9] Notable exception were; *University of Leicester* (C-17-4), *Cardiff University* (C-19-6), *Surrey University* (C-26-11) and *Bournemouth University* (C-26-14) which all provided an estimate of their generated economic impact on a regional scale, based on an economic calculation.

[10] http://www.travelmole.com/news_feature.php?news_id=2028620 accessed 2017-09-24

[11] http://www.esrc.ac.uk/research/impact-toolkit/what-is-impact/accessed 2017-10-24

Table 3
Edgell's list of the top 10 issues in tourism.
Source: Edgell, 2017.

(1) Maintaining a destination's sustainable tourism development: social, cultural, natural and built resources
(2) Concerns for safety and security remain an important issue for the travel and tourism industry
(3) Impact on the travel and tourism industry resulting from a global economic-political perspective
(4) Responding to increased interest in the long-term impacts on tourism of climate change and global warming
(5) Necessity for increased local/regional/national leadership in tourism policy and strategic planning
(6) Educating users about optimizing the application of new technologies in the tourism industry
(7) Resolving barriers to travel: visas, passports, airline services, fees, and delays
(8) Understanding the transformative effect that tourism has on the geopolitics of socio-economic progress
(9) Effect on travel and tourism from natural/human-induced disasters, health issues, and political disruptions
(10) Changes in tourism demand resulting from increased travel by emerging nations

World Tourism Organisation encourages researchers "*to maximize tourism's socio-economic contribution while minimizing its possible negative impacts*, [whilst also…] *reducing poverty and fostering sustainable development.*"[13] Similarly, the Pacific Asia Travel Organisation, also stresses the need "*to develop travel and tourism* [capabilities],"[14] whilst addressing issues relating to environmental and economic sustainability.[15] In terms of access to travel, the World Travel and Tourism Council implore researchers to ensure "*that people have the right to cross international borders safely and efficiently*."[16] Visit Britain and England emphasize the need of "[c]*utting red tape with sensible regulation*"[17] to facilitate more tourism. The European Commission echoes such wishes, stressing researchers to focus on: security, safety, economic competitiveness, incorporating technological advancement, and being able to respond to changing markets and competition.[18] In terms of education, the Association for Tourism in Higher Education wants to "*promote the development and recognition of tourism as a subject of study*".[19] Similarly the International Academy for the Study of Tourism describes their twin goals as: "*encouraging the application of tourism research findings and advancing the international diffusion and exchange of knowledge about tourism.*"[20] Even the International Sociological Association Research Council 50 stresses that "*maintaining a continuous academic dialogue on tourism*"[21] is of paramount importance.

Edgell's list can be challenged for not placing tourism within a larger context or having too short of a focus. The list could also be challenged on the ground that it is primarily developed by academics with little or marginal input from industry and government. However, such criticism seems to be unfounded based on the corroboration offered above. As such, due to the overlap with significant issues declared elsewhere within the tourism research literature (Tribe & Liburd, 2016), we deemed this list as a satisfactory heuristic for our analytical purpose. The crosses in Table 5 showcase how the REF's reported research impact corresponds to these key issues. Self-identified tourism studies faculties are marked with a bold outline.

It is important to stress that this is only the research impact that was submitted to the REF 2014. But what is surprising is that the universities' *best* research impact does not seem to be influence areas of high significance. In terms of reach, the reported research impacts seem to be much localised. Almost all research impacts related to some form of development or maintenance of a specific destination (issue No. 1). Undoubtedly, this is a consequence of the case study assessment approach manifesting the disciplining we talked about within the theory section. Only the self-identified tourism studies departments (with their social science expertise of conceptualising tourism as a more holistic phenomenon) seem to have a broader focus.[22] Still, even these exceptions all departed from a specific locale. Presumably, such a localised focus made it easier to account for and identify evidence within the guidelines set by the REF. Thereby, the consequence is the emergent significance gap, as the evaluation structure seems to discipline/enforce standards of what *good* research impact is.

The disciplining occurs as a consequence of the universities playing it safe and only claiming impacts they have evidence for. When it comes to issues of significance we can see the consequences of such conduct. For example, research impacts that relate to issues of global safety and security (No. 2), climate change (No. 4), resolving travel barriers (No. 7) and/or tourism trends within emerging nations (No. 10) were not addressed at all. This not to say that there are no (tourism) scholars who are working on such issues, but rather that such types of impacts do not seem to be *good* research impacts within a REF-style assessment. Furthermore, as the narrative account of the REF impact case study does not provide any space to elaborate on potential methodological, ethical or practical issues in accounting of research impact (cf. REF, 2011:50–52), we are unable to draw instructive conclusions in terms of

[12] https://www.gstcouncil.org/ accessed 2017-06-10
[13] http://www2.unwto.org/content/who-we-are-0 accessed 2017-06-10
[14] http://www.pata.org/chapters/about-pata-chapters/#sthash.b8XvNkFd.dpuf accessed 2017-07-06
[15] http://sustain.pata.org/ accessed 2017-07-06
[16] https://www.wttc.org/mission/freedom-to-travel/ accessed 2017-06-10
[17] https://www.visitbritain.org/governments-tourism-action-plan accessed 2017-06-10
[18] https://ec.europa.eu/growth/sectors/tourism_en accessed 2017-06-10
[19] https://www.athe.org.uk/accessed 2017-07-06
[20] https://www.polyu.edu.hk/htm/academy/about.php accessed 2017-07-06
[21] http://hom4309.wix.com/rc50-website-build1 accessed 2017-07-07
[22] Whilst the underlying research that is causing the impact can be anything from the entire academic spectrum, technical social science research expertise necessary for **evidencing** impact claims is presumably absent.

Table 4
Reputable institutions consulted in order to corroborate Edgell's top 10.
Source: author.

Name	Type of body
Economic and Social Research Council	Research funding body
Global Sustainable Tourism Council	Environmental advocate
United Nations World Tourism Council	Industry advocate
The World Travel & Tourism Council	Industry advocate
Pacific Asia Travel Organisation	Industry advocate
Visit Britain	UK government/DMO
Visit England	UK government/DMO
(UK) Tourism Industry Council	UK government/industry advocate
European Commission on internal Market, Industry and Entrepreneurship	EU government/industry advocate
Association for Tourism in Higher Education	Tourism research advocate
International Academy for the Study of Tourism	Tourism research advocate
Research Committee on tourism of the International Sociological Association	Tourism research advocate

what the best praxis is in accounting research impact.[23] Once again, tourism research seems to be more peripheral than it needs to be (cf. Tribe, 1999, 2003, paper A), although for very different reasons. Regardless of the reasons, it appears that the hopeful rhetoric around research impact is being squashed by the stone-cold boot of a cost-benefit-focus, with significant areas of research focus being its first victims.

Research impact consequences

In this section we seek to evaluate the broader consequences for (tourism) research culture of this change in the assessment regime. It seems that there are serious challenges posed by the impact assessment for the integrity of researchers, due to lack of expertise in claiming for impact, difficulties in accounting for impact within the existing structure and general issues of framing what is considered to be significant impact. As much as the significance gap may seem to result from differences in values, more banally, it might stem from a lack of expertise. Law and Urry (2004) discuss all the nuances and difficulties that arise in accounting for claims about society.[24] Researchers outside the social sciences context may simply lack such expertise when evidencing their impacts. For example, we can observe that mainstream tourism was presented in exclusively negative fashion or only cast in a facilitating role outside of specialist tourism studies faculties. In lieu of this lack of expertise, it becomes understandable why universities choose the 'safe' options, instead of tackling more significant albeit more complex issues.

Irrespective of lacking expertise, no amount of additional effort will turn a **story of impact** into an **impact fact**; this is a conceptual problem (cf. Dymitrow, 2017) of how the assessment template is structured and designed. Furthermore, presenting such a complex causality chain creates practical difficulties when adhering to the REF's restrictive word guidelines. The difficulty of presenting impacts within the case study format was explicitly commented upon in the pilot exercise, which stated:

> "*Keeping to word counts: Succinctly describing an impact and giving its context in only 500 words* […] *were found to be problematic in several cases*."
>
> (REF, 2010:28).

Thereby, the REF's definition of impact may indeed be fairly broad (as noted by Stern, 2016:23), yet the assessment structure quite rigidly codifies research as *causing* impact. Thereby, articulating the recursive mechanisms of how impact manifests may be difficult within such a narrowly defined format. For example, try to argue for the research impact of the photoelectric effect; just the timeline of discovery, implementation and recognition vastly exceeds the 15 years' time frame of the REF (cf. Sayer, 2014: 27–28), not to mention the complex causality.[25]

Additionally, we face a framing problem in regard to what is the *best* research impact. For example, we can find the following: in panel C the pressing concerns revolved around DMO development, wildlife conservation, improving quality of life, environmental sustainability and social sustainability with raised awareness being mentioned in connection to these concerns. Meanwhile, in panels A and D the impacts clustered around environmental and heritage conservation, respectively. In relation to impacts with regard to lobbying and policy advice, such issues of framing have the potential for ethical transgression of what it means to be a *good* academic. Nowhere within the case study is there a possibility to address such ethical conflicts. In general, the case study format did not maintain a distinction between the aims of the researcher and that of the impacted activists, organisations or industries, opening up for a whole host of ethical issues and conflicts of interest (cf. Derrick, 2018). It appears that the 'easiest' way of conduct is to stay away from controversial issues (cf. Dymitrow, 2018) and focus on expediently accounting for impacts (instead of significant impacts). As such, the narrative focused evaluation now literally equates "stories of impact" with actual impact, purely based on the word of the

[23] An important point to make here is; if the universities choose to omit such impacts due to the difficulties in the evidencing (1), issues of ignorance (2), strategic considerations (3) or simple negligence (4) is impossible to tell based on our analysis alone.
[24] Any impact claim is in essence a social science research claim.
[25] In the REF 2021, the time frame hast been increased to 20 years.

Table 5
Top 10 issues in tourism compared to the reported impact to the REF 2014.
Source: authors inspired by Edgell (2017)

Top 10 issues in tourism compared to the reported impact to the REF 2014																						
Universites with tourism impact / Edgell's top 10 issues in tourism 2018	A-5-1	B-10-2	C-17-3	C-17-4	C-19-5	C-19-6	C-19-7	C-24-8	C-26-9	C-26-10	C-26-11	C-26-12	C-26-13	C-26-14	D-29-15	D-29-16	D-29-17	D-30-18	D-30-19	D-33-20	D-34-21	D-35-22	D-36-23
	University of Leeds	University of York	University College	University of Leicester	University of Nottingham	Cardiff University	University of Kent	University of Roehampton	University of Sunderland	University of Bedfordshire	University of Surrey	University of Surrey	University of Brighton	Bournemouth University	University of Exeter	Swansea University	University of Bristol	University of Leicester	University of Durham	University of St. Andrews	University of East Anglia	Liverpool Hope	York St John University
1) Maintaining a destination's sustainable tourism development: social, cultural, natural and built resources	X		X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
2) Concerns for safety and security remain an important issue for the travel and tourism industry																							
3) Impact on the travel and tourism industry resulting from the global economic perspective							X				X			X									
4) Responding to increased interest in potential long-term consequences of climate change impacts on tourism																							
5) Necessity for increased local/regional/ national leadership in tourism policy and strategic planning						X			X	X	X			X									
6) Educating users about optimizing the application of new technologies in the tourism industry									X									X				X	
7) Resolving barriers to travel: visas, passports, airline services, fees, and delay																							
8) Understanding the transformative effect that travel and tourism has on global socio-economic progress					X		X				X	X	X	X									
9) Effect on travel and tourism from natural/human-induced disasters, health issues, and political disruptions	X				X			X				X	X										
10) Changes in tourism demand resulting from increased travel by emerging nations																							

Source: authors inspired by Edgell, 2017

author. Thereby, all of the complex choices that led to identifying this impact are 'black-boxed' by the assessment format. The argument is not that universities were embellishing their impact, but rather based on the assessment format it is impossible to estimate if they did or did not, which removes organised scepticism from the assessment and the subsequent reliability of such claims. Still, cognisant of other alternatives that were being discussed at the time of implementation of research impact (cf. Sayer, 2015:19–52) in principle, the impact approach is very meritocratic, and thereby there should be modes of being within that discursive space that align with the traditional (CUDOS) norms of science. Nevertheless, in relation to tourism research impact seems to just be another indicator in the "metric tide" (cf. Wouters et al., 2015) with questionable effects if it is really increasing the quality of research conduct (e.g. Good, Vermeulen, Tiefenthaler, & Arnold, 2015). Future research should further investigate the related knowledge gap of how and where does the border lie between scientific expertise and democratic values (c.f. Collins & Evans, 2008; Dymitrow & Brauer, 2016; 2018; Brauer & Dymitrow, 2017) in the context of research impact evaluation. The upcoming assessment in 2021 should provide ample ground for a future comparative study.

On a positive note, the REF impact agenda does seem to re-orientate research towards engaging more with real world issues and engaging more with potential end users. The resultant conflict involved in maintaining disinterestedness and academic reliability practically seem to stem from a lack of expertise of framing and researching the impacts. Presumably, the significance gap is the result of how the universities choose to solve this predicament. Nevertheless, as the impact assessment outcome will now influence future decisions around research funding, research conduct and indeed impact, a peculiar precedent case has been created. This means that the universities' desires to meet the assessment criteria are now compounded by the difficulties around value judgements, which leads to a very narrow interpretation of what *good* research impact is. The potential future consequence is that this creates a homogenisation of academic thought, just like the focus on journal rankings has done in the past (cf. Lee, 2007). However, unlike before, due to the nature of research impact this has now political implications for society as whole, and not just for departmental politics (e.g. Kobylarek, 2016). Thereby, akin to the 'fake news' phenomenon plaguing journalism today, a similar contingency will most likely manifest in the future for academia if not actively addressed within the research ecosystem (cf. Brauer, 2018).

Conclusion

This research adds to the metacritique of tourism research in line with the previous literature (cf. Liburd, 2012; Ren, Pritchard, & Morgan, 2010; Sánchez, Makkonen, & Williams, 2019; Xin, Tribe, & Chambers, 2013). Our first key finding is that UK universities are developing strategies in order to best satisfy the impact evaluation frameworks imposed upon them. It is the adherence to the formalities around research impact assessment, and the unintended consequences that such conduct can generate which is at the heart of our paper. As such, exemplified with the case of the REF 2014 assessment of research impact, our research is not only an account of UK tourism research impact, but also an indication of future changes of academic culture in universities affected by impact assessment regimes. Our second key finding revealed a significance gap in the reported impact. The research submitted did not seem to have much impact on the big tourism challenges and issues. We argue, albeit the definition of research impact may be very generous, the assessment format itself is what is enacting the disciplining and causing this gap. Our last key finding was, that the significance gap may not necessarily result from universities gaming the system, but rather may arise through the difficulties in accounting of complex research impacts. Such issues may relate to framing what is 'good' impact or be due to a lack of expertise by the academics reporting and assessing such impacts. If such a significance gap is not actively addressed, the consequence may be that academic endeavour will be drawn to safe, simple and tellable impacts. In any event the room for blue sky research will be squeezed by the increased weight attached to impactful research. As such, the inclusion of impact KPIs for academics may lead to the diminution of meaningful research (cf. Alvesson, Gabriel, & Paulsen, 2017) in the scramble to hit such KPI targets.

The key theoretical inference here is that the REF's onus on research impact is creating a disciplinary mechanism that is changing the UK research culture. This happens as a trivial consequence of the universities with their risk averse nature merely participating in the impact assessment structure. As such, the REF represents a material bottleneck within the research ecosystem that the universities have to navigate if they intend to stay relevant within the system. Merely by participating within the assessment, its KPIs (output, impact and environment) are validated and such "good" research impact will then propagate outwards to the wider research culture. Such a creeping re-interpretation due to a change in disciplinary guidelines happens as the universities are pre-occupied with playing the 'impact game'; thereby 'good' research will be re-conceptualised to meet these set criteria. Such pragmatic conduct hides the disciplinary machinery that is now set in motion. Before we know it, a new emergent (tourism) research culture will be hammered out, where 'good' research conduct is reconceptualised along what is expedient to account instead of its significance.

The limitations of our study arise from the temporal and contextual nature of our empirical case. As such, our argument is most secure with reference to UK universities - but it will also have implications for universities that follow this UK initiative. Of course many other universities have different histories and traditions. Nevertheless, we still think it is vital to acknowledge the wider implications of our work, because only by promoting a collective research ethos can some of the negative consequences of research impact evaluation regimes be apprehended (Brauer, 2018). We hope that this article gives rise to an emerging research field that studies the unintended consequences of (impact) KPIs in relation to research conduct and integrity. New directions might include longitudinal studies (comparing our results to future iterations of the REF) or comparative studies (by contrasting other countries' approaches to assessing research impact), or indeed by comparing and evaluating outcomes in countries which do and do not implement this form of impact assessment. Future studies could further investigate the voices of; policy makers, administrators, end-users, funders, researchers, etc. who are all part of the tourism research ecosystem. Investigating in more detail the unintended consequences of the disciplinary mechanisms that selects what impact claims are put forth, that is enacting a different value structure compared to that of the traditional values of research.

Statement of contribution

The article is concerned with the introduction of research impact as an evaluation of research quality. The knowledge gap for the article represents understanding; what are the consequences of such change in the assessment regime upon research conduct? In order to address this gap, we sampled all tourism research impact that was submitted to the UK's Research Excellence Framework 2014 impact assessment. Our contributions to knowledge is that we, firstly identified all tourism impact reported to the REF. Secondly, we identified what we call a significance gap in what type of impacts are being reported compared to salient concerns in relation to tourism. Lastly, we identified potential causes for such conduct within changing practice of the research ecosystem. We argue that the significance gap arose due to a lack of expertise of the academics in accounting research impact, rather than a conceited effort to 'game the system'.

This study deals with the sociology of science, tourism research and research impact upon tourism, hence we believe that such a broad perspective is well suited for ATR, which constantly encourages such inter-disciplinary discussions. Furthermore, the subject matter is relevant for all tourism researchers, within and beyond the UK, as the assessment of research impact is becoming an evergrowing part of research conduct. Therefore, our sociological approach to analysing the 'impact' of research impact in terms of what are its effect is upon research conduct can shed some light the legitimacy of the research impact agenda. Finally, we believe our method of utilising the UK's best tourism research impact, subjecting it to a content analysis and critically comparing the significance of such impact, puts us into a position where we can speak with confidence and authority about the consequence for future research conduct.

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