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CORAZZO, James <<http://orcid.org/0000-0002-9542-6551>>, HARLAND, Robert, HONNOR, Alison and RIGLEY, Steve

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The Challenges for Graphic Design in Establishing an Academic Research Culture: lessons from the Research Excellence Framework 2014

James Corazzo

Sheffield Hallam University

Dr Robert George Harland

Loughborough University

Alison Honnor

Sheffield Hallam University

Steve Rigley

Glasgow School of Art

Correspondence details

Sheffield Hallam University, Head Post Office Building, Fitzalan Square, Sheffield, S1

2GH

j.corazzo@shu.ac.uk

James Corazzo is a Principal Lecturer in Graphic Design at Sheffield Hallam University. His research/practice draws from social science and design and focuses on the cultures, values and contexts of graphic design education.

Dr Robert Harland is a Senior Lecturer at Loughborough University. His research explores questions about the relationship between graphic form and urban context. This challenges ideas

about what graphic design is, why it is relevant, what it can be, and how it is understood as a visual form of knowledge production.

Alison Honnor is a researcher at Sheffield Hallam University. Her background is in contemporary art history and colonial history. Alison worked as Panel Secretary for Main Panel D in REF2014 and across all main panels for the criteria setting phase of REF2021.

Steve Rigley is a designer, lecturer and writer based in the department of Communication Design at Glasgow School of Art. Steve's current research interests focus upon the relationship between typography and concrete poetry and how the mapping of practice and creative writing may be used as tools for understanding graphic design history.

The Challenges for Graphic Design in Establishing an Academic Research Culture: lessons from the Research Excellence Framework 2014

This paper examines why graphic design has struggled to establish an academic research culture, despite significant gains in design research over the last 20 years. It considers the criticisms levelled against graphic design research submitted to the 2014 Research Excellence Framework (REF2014). Through analysis of publicly available data, we identify a low volume of graphic design research adhering to traditional academic, non-practice-based forms, and concentrated amongst few institutions. Results confirm graphic design is yet to establish an academic research culture that accords with its widespread standing in higher education. We identify the absence of consensual nomenclature, lack of confidence and exemplars with practice-based graphic design research, the uncertain expectations of research audits, lack of venues for dissemination, heavy teaching loads and few established career pathways for research. In response we make a series of recommendations towards a sustainable graphic design research change agenda.

Keywords: REF, Graphic Design, Graphic Design Research, Design Research, Graphic Design Education, Research Excellence Framework, Nomenclature

INTRODUCTION

Graphic design and academic research culture

This paper examines why graphic design has struggled to establish an academic research culture, despite significant gains in design research over the last 20 years (Walker 2017). The aim is to contribute to debates on graphic design and research emerging in both the UK (Walker 2017; Ross 2018) and North America (Davis 2016; Cabianca 2016; Townsend & Armstrong 2017).

Our concern is the UK context, where discussions have been motivated by criticisms of the quality of graphic design research submitted to the last national (UK) research audit – the 2014 Research Excellence Framework (REF2014). The REF assesses the quality of research across all Higher Education Institutions (HEIs) in the UK. The central aims of the REF are: to provide accountability for the spending of public funds, direct the future allocation of funding and provide reputational yardsticks for institutions. This last one, in 2014, was followed by an official report that praised the high quality outputs of photography, film, digital arts, history of art, architecture and design, but criticised the quality of graphic design outputs:

‘The sub-panel noted a number of weaker discipline areas that, on the evidence of submitted outputs, appeared not to have developed since RAE2008. While there were high quality exceptions, the intellectual and theoretical underpinning of graphic and communication design was thought to be generically weak’ (REF2014 Panel overview reports UoA34: Art and Design: History, Practice and Theory p.85).

Such criticisms prompted this research, along with four key convictions as to why graphic design should establish a research culture. First, discovery-orientated approaches, on which others build new knowledge, have the potential to demonstrate the value and impact of graphic design to others (Davis 2016) and drive the continual transformation of graphic design into more meaningful practice (Poynor 2009; Ross 2018). Second, there is still work to be done to shift persistent perceptions of graphic design as an aesthetic-led and intuition-based activity (Walker 2017; Cagianca 2016). Third, an established research culture would present clearer pathways for career progression. Fourth, in a UK context, the growth in numbers of students studying graphic design over the last twenty years provides added impetus and responsibility to establish an academic research culture that amounts to more than the reproduction of

industrial practice as the dominant paradigm. In the decade before REF2014, the number of students studying creative art and design subjects grew by 14.7% (Universities UK 2015). Within this figure, graphic design continues to be the largest subject. A UCAS search for undergraduate UK higher education courses in ‘graphic design’, ‘graphic communication’, and ‘illustration’ for the academic year 2019–2020 returned 378 courses from 131 providers.

Research Excellence Framework

The census period for REF2014 ran from 1 January 2008 to 31 December 2013, with a submission date of 29 November 2013. Submission data, therefore, provides a snapshot of HE research activity in the UK for the census period. Results were published in December 2014, along with overview reports at Unit of Assessment level. These are available to view on the REF2014 website, however individual scores for outputs are not available.

Outputs were assessed against criteria of significance, originality and rigour using a star rating system reflecting quality as follows: 4* world-leading, 3* internationally excellent, 2* recognised internationally, 1* recognised nationally, and unclassified, falling below the standard of nationally recognised work or not satisfying the REF definition of research. Submissions were made by 154 HEIs to 36 Units of Assessment (hereafter UoA). UoA34 Art & Design: History, Practice and Theory (referred to as UoA34 from here on), attracted 84 submissions from 81 institutions and consisted of 6,356 outputs across 21 output types (see figure 1). Table 1 provides a breakdown of the UoA34 average quality profiles (see Main Panel D report).

Table 1: Quality profiles for UoA34.

	4* (%)	3* (%)	2* (%)	1* (%)	Unclassified
Overall quality	26.0	42.0	25	6.0	1
Outputs	18.5	42.6	30	7.7	1.2

All REF2014 submission data, with the exception of staff contractual details, was made publicly available in January 2015. Output data and staff data were published separately and so it is not possible to link outputs to individual staff names.

RESEARCH QUESTIONS

We undertook a retrospective analysis of the publicly available data in UoA34 to assess the contribution and validity of criticisms levelled against the intellectual and theoretical underpinning of graphic design made in the overview report. Three research questions steered the research:

1. What were the volume, output types and institutional distribution of graphic design outputs submitted to REF2014?
2. What does an analysis of the additional information fields reveal about the criticisms directed towards graphic design research in REF 2014?
3. What contextual factors contributed to a poor showing in REF2014 and what can be done to improve this situation?

METHODOLOGY AND RESULTS

We adopted a mixed-methods approach, utilising quantitative and qualitative REF data. The number and type of outputs were established through a combination of keyword search and a content analysis of the additional information fields. In parallel, a series of focus group activities were undertaken with graphic design academics. These methods and the results are reported below.

Method (part one): keyword search of REF 2014 UoA 34 outputs

This approach sought the volume, types and institutional distribution of graphic design outputs submitted to REF2014. The process of identifying graphic design research outputs focussed on the submissions data, downloaded as MS Excel spreadsheet, from the REF2014 website. Of the 6,356 outputs assessed by the sub-panel, 6,321 were made publicly available following the removal of outputs flagged as confidential (for commercial or other reasons). It is important to note that HEIs were free to select which staff and outputs to include in each UoA, so REF2014 outputs do not provide the full picture of all research activity within any given discipline. They do, however, provide evidence as to how institutions have interpreted research activity against the criteria set by the REF.

Identifying the graphic design outputs submitted to REF2014 presented significant methodological challenges. UoA34 did not require submitting institutions to associate outputs with a taxonomy of disciplines or sub-disciplines. While there was an option to categorise outputs by associating them with a named 'Research Group' this facility was neither widely nor consistently used by institutions. Only 19 of 84 submissions opted to specify 'Research Group' and these generally reflected internal organisational structures or research themes, none of which referred specifically to graphic design. Without an embedded taxonomy of disciplines it was agreed that a keyword search would provide the clearest account of graphic design submissions.

Keywords

We developed a list of graphic design related keywords (Table 2) that would be used to identify potential graphic design outputs from the 6321 publicly available ones.

Particular attention was paid to outputs from prominent departments in the field

(specifically the Department of Typography and Graphic Communication at the University of Reading) to test the appropriateness of keywords.

Shortly after the process began, these keywords were presented to a focus group at the Graphic Design Educators Network (GDEN) conference in September 2017 (detailed below). Following input from the focus group, further keywords were added, as indicated in Table 2. After a period of testing, we removed some keywords as they did not identify graphic design research outputs and were deemed to belong to separate domains (also see Table 2).

Table 2: List of keywords developed by the project team for analysis

Advertising	Graphic design	Interaction design	Page design*	Visual design
Book Design*	Graphics	Interaction + design	Printmaking	Visual information*
Branding	Graphic	Legibility	Service design	Visual media
Calligraphy	Graphic novel*	Letterpress	Signage	Visualisation
Cartography	History of graphic design	Lithographic	Sign-post/signposting*	Wayfinding
Co-design	Illustration	Manuscript	Typeface	
Communication design	Imaging	Notational systems*	Type design	
Design Thinking	Information design	Print history	Typography	
Exhibition design*	Inscription	Print process / printing process	Visual communication	

*added post focus group

~~R~~ removed post testing

Having established a list of keywords, searches were applied both to output titles and the additional information fields which offered space (up to 300 words) to describe the research content. Particular attention was paid to a small number of text-based outputs where no additional information was required to ensure these were not overlooked. In

these cases, library searches were used to assess whether the output stemmed from graphic design research.

Samples of outputs containing these key search terms were reviewed by the research group to assess their relevance and suitability. Precise categorisation of outputs proved problematic because many outputs with a graphic design element emerged from interdisciplinary work and may have borrowed terminology from beyond the discipline. Overlaps between research categories were accounted for by admitting multiple categorisations, so an output might feature in both 'Advertising' and 'Visualisation' or 'Communication Design', 'Print History' and 'Typography'.

Outputs captured by keyword searches frequently demonstrated 'shared terminology' with other disciplines. Further review was required to permit the inclusion of relevant interdisciplinary work while eliminating research without a graphic design basis. For instance, it emerged that terms such as 'visualisation' and 'illustration' were frequently used in additional information fields provided for outputs from fine art, music and dance. To address this, searches were refined to eliminate those beyond the boundaries of graphic design. At regular intervals, we reviewed the additional information fields of captured outputs to confirm relevance and suitability.

Results

The results of the keyword search were broken into four sections: i) volume (of graphic design outputs); ii) types; iii) comparison of types; iv) volume of outputs by institution.

Volume of graphic design outputs submitted

From the total of 6,321 outputs our analysis identified 190 graphic design research outputs falling within our established search criteria. This figure represents 3% of the

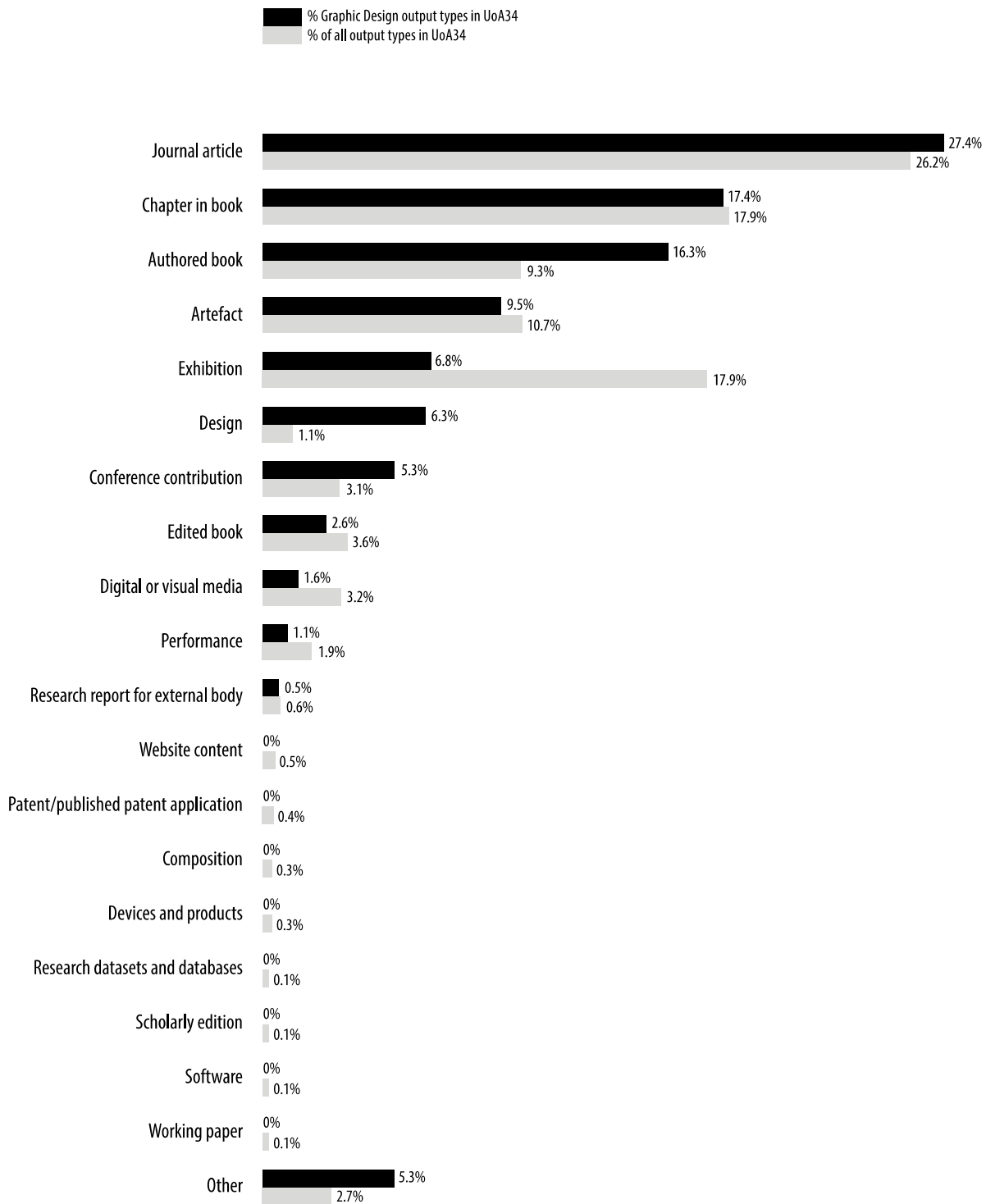
total number of outputs submitted to UoA34.

Types of graphic design output

REF2014 provided a choice of 21 different output types (see Figure 1). Through analysis, we mapped the distribution of graphic design research by output type (Figure 1). Two notable observations are worth mentioning here: i) 63.7% of graphic design outputs were in 'traditional' written forms, (Authored Book, Edited Book, Chapter in a Book or Journal Article); ii) 15.8% of graphic design outputs were artefacts or designs. While these results suggest a tendency to gravitate towards traditional academic forms, they may also be reflective of institutional selection criteria.

Figure 1: The distribution of graphic design research by output type compared with the distribution of all research by output types in UoA34 submitted to REF2014

REF output type and % of total submissions



Comparison of output types

The distribution of graphic design research output types were compared with the

distribution of all output types submitted to UoA34 (Figure 1). The results show that graphic design broadly parallels output types across UoA34. However, there are noteworthy differences. First, 16.3% of graphic design outputs were authored books as opposed to 9.3% for UoA34 as a whole. Secondly, and as noted previously, 63.7% of graphic design outputs took ‘traditional’ text-based forms compared to 57% of all UoA34 outputs in ‘traditional’ text-based forms. And finally, 6.8% of graphic design outputs were in the form of an exhibition, as opposed to 17.9% for UoA34 as whole. However, there was a significantly larger proportion of design artefacts types: 6.3% compared to 1.1% for UoA34 as a whole.

Volume of graphic design outputs by institution

Analysis revealed that out of the 81 HEIs submitting to UoA34, only 36 (44.4%) submitted at least one graphic design output. While institutional submissions to REF2014 are publicly available, it was concluded that to reveal graphic design outputs by institution would be potentially sensitive, and so data has been anonymised. However, to ensure some level of meaning could be attributed to the results, each of the 36 institutions submitting at least one graphic design output were classified within the following UK institutional types (see Table 3):

Table 3: Types of University in the UK

Ancient universities	Refers to the six universities founded before 1800
Other	Institutions that are part of University of London and are neither classified as Ancient or Red-Brick.
Plate Glass	New institutions created in the 1960s as residential universities with degree-awarding powers.
Post-1992 universities	Granted University status by an instrument of government under the Further and Higher Education Act 1992, including former Polytechnics, Colleges and Institutes of Higher Education, and other Higher Education Corporations.
Red brick universities	Founded in provincial cities as non-residential university colleges in the later 19th and early 20 th .
Specialist institutions	Can include Specialist Arts, Teaching, Music or Agriculture.

Table 4: Volume of Graphic Design outputs submitted to UoA34 REF 2014 by HEI
(Higher Education Institution)

Institution	Graphic Design outputs submitted to UoA34	Total outputs submitted to UoA34	Graphic Design outputs as a percentage of total outputs submitted to UoA34	Institution's Graphic Design outputs as a percentage of all Graphic Design outputs submitted to UoA34
Red Brick D	38	86	44.2%	20.0%
Specialist Arts D	23	343	6.7%	12.1%
Post-1992 A	14	53	26.4%	7.4%
Post-1992 G	14	203	6.9%	7.4%
Specialist Arts B	8	95	8.4%	4.2%
Post-1992 Q	8	112	7.1%	4.2%
Post-1992 K	7	81	8.6%	3.7%
Plate Glass B	6	206	2.9%	3.2%
Post-1992 S	5	14	35.7%	2.6%
Post-1992 O	5	43	11.6%	2.6%
Post-1992 E	5	133	3.8%	2.6%
Specialist Arts E	5	433	1.2%	2.6%
Post-1992 D	4	40	10.0%	2.1%
Post-1992 B	4	76	5.3%	2.1%
Post-1992 H	4	102	3.9%	2.1%
Post-1992 C	4	110	3.6%	2.1%
Post-1992 R	4	114	3.5%	2.1%
Post-1992 L	4	221	1.8%	2.1%
Plate Glass C	3	34	8.8%	1.6%
Post-1992 J	3	93	3.2%	1.6%
Post-1992 P	3	137	2.2%	1.6%
Other C*	2	27	7.4%	1.1%
Post-1992 N	2	57	3.5%	1.1%
Red Brick B	2	155	1.3%	1.1%
Ancient	2	164	1.2%	1.1%
Red Brick A*	1	16	6.3%	0.5%
Post-1992 M	1	46	2.2%	0.5%
Specialist Arts A	1	51	2.0%	0.5%
Other A*	1	78	1.3%	0.5%
Post-1992 I	1	88	1.1%	0.5%
Post-1992 F	1	103	1.0%	0.5%
Plate Glass A*	1	116	0.9%	0.5%
Red Brick C	1	130	0.8%	0.5%
Other B*	1	131	0.8%	0.5%
Other D*	1	147	0.7%	0.5%
Specialist Arts C	1	179	0.6%	0.5%
TOTAL	190	6321		100.0%

*does not have a graphic design / illustration UG/PG course

Table 4 identifies five institutions where graphic design outputs accounted for 10%, or

more, of the institutions total outputs submitted to UoA34: Red Brick D (44.2%), Post-1992 A (26.4%), Post-1992 S (35.7%), Post 1992 O (11.6%) and Post-1992 D (10.0%). Furthermore, the top four institutions in Table 4 accounted for nearly half (46.9%), suggesting outputs were highly concentrated, despite the large number of institutions offering graphic design programmes. Specialist Arts E submitted the largest number of outputs, however, only 5 (1.2%) were graphic design outputs. This can be viewed in contrast to Red Brick D, where nearly 50% were graphic design outputs.

Method (part two): content analysis of 'additional information fields'

Having identified the extent and distribution of graphic design outputs, we undertook an analysis of the additional information fields to understand the criticisms of 'generically weak intellectual and theoretical underpinning'. Benefitting from the initial keyword search described above, the additional information fields of the 190 outputs were systematically examined to make inferences about the nature of the graphic design research. A first reading was undertaken to establish the breadth of topics and themes as well as identify statements for a second, closer read. Finally, a full submission from three institutions presenting the most consistent set of additional information statements was further analysed. From a number of exemplars, three were finally agreed and two are featured below as being aligned or closely resembling graphic design research (the third was known to be from outside of the discipline, but featured graphic design elements).

Results

Analysis revealed a general absence of research questions across the range of statements, with most lacking an awareness of contemporary discourse in the field. Two further facets are noteworthy: the topics and themes that feature in graphic design

research, and the structure of the additional information field.

Topics and themes

A review of the additional information fields indicated a wide range of themes but, with the exception of general ‘histories’ and biographies, few statements were explicit in their reference to graphic design. Themes such as typographic history, typographic classification/taxonomic systems, printing history, print production, legibility, readability and information usability, were presented as stand-alone subjects, alongside letterpress, the design of pictographs, ideographs and abstract symbols. Different types of artefact featured in the sample selection, from typography/type design, typography as illustration, illustration, graphic novels, fanzines, printed dictionaries, picture language, picture books, screen titles, exhibition design, and branding. Research on design for children was evident from several institutions, ranging from the teaching of children to read, visual literacy in picture books, research into illustration for the production of children’s books, and guidelines for the design and evaluation of warning signs for young children. However, although several institutions shared research themes, there did not appear to be collaboration between researchers.

Structure of additional information fields

With regard to the structure of the additional information fields, the sampled red brick and some specialist arts providers were more consistent in content and structure, whereas statements from post-1992 and other specialist arts institutions were much less so and often haphazardly assembled. As shown in Table 5 *Example 1*, the specialist arts institution statements followed three standard paragraphs, using up most of the 300-word count allowance. By comparison, and as shown in *Example 2*, one red-brick university prepared narratives that varied in length between 58 to 302 words. In essence,

the most cohesive statements came from two of the four institutions that accounted for more than half of the submission. *Example 1* makes explicit reference to the field of graphic design whereas *Example 2* does not. *Example 2* includes ‘book design’, ‘graphic’, ‘illustration’, ‘legibility’, ‘typography’ and was deemed graphic design research for not only these components but also an emphasis on ‘graphic attributes’.

Table 5: Two examples of 300-word statements submitted to REF2014

<p>Example 1 <i>Fanzines</i></p> <p>This book is a high-impact, visually curated collection of the most significant fanzines (fan magazines) ever produced, and has become a key reference point within the field of graphic design. It brings together images from a personal collection of previously unpublished fanzines with substantial context-setting essays representing over 40 years of self-publishing activity. Print magazine (February 2011) called it a ‘meticulously curated visual history of this world’. The New York Times (February 2011) reviewed the book as ‘both a fanzine of fanzines and a scholarly record’.</p> <p>The book has been reviewed to critical acclaim in Time Out (four stars), Notion, The Wire, Eye, Love, Tantrum Magazine, It’s Nice That and others. The research has also been presented in conferences (e.g. Monash University Australia; Grafill, Bergen, Norway), radio (e.g. BBC Radio Night Waves; Resonance FM), a BBC News Audio Slide Show (29 October 2011), commissioned articles for mainstream press (e.g. b magazine, What’s Next), zine fairs, zine workshops and independent zine publications (e.g. OWT Creative and Things Happen, Manchester) in the UK and abroad (e.g. ‘UnBox Festival’, New Delhi, India sponsored by the British Council, 2013).</p> <p>The book opens with a historical introduction of 8,000 words and is divided into five thematic chapters, each with a 2,500-word essay followed by a curated image section. The book has over 750 fanzine images with extended captioning for each – many of which have never been catalogued, and includes an extensive bibliography. The work emerged from research undertaken as part of a PhD (University of Reading) and builds upon peer-reviewed research previously published in academic journals (e.g. Journal of Design History, 19:1, 2006, pp.69–83]). The primary research (e.g. archives, interviews) is framed by popular and visual culture theory using a range of theoretical models including design history, publishing history, political science and subcultural theory.</p>	<p>Example 2 <i>Book design for children’s reading: typography, pictures, print</i></p> <p>This research considers the factors that have influenced the design of books for teaching young children to read, including educational directives and reports, legibility research, methods of teaching reading, the availability of typographic resources and the economic constraints faced by publishers. The book includes numerous illustrations including an annotated timeline showing examples of reading books published in each decade from the 1890s to the end of the twentieth century. The underlying method for the description of the graphic attributes of reading books is described in Walker, S. (2012) ‘Describing the design of children’s books: an analytical approach’. Visible Language, 46 (3). ISSN 0022-2224</p>
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These offer alternative ways to describe and contextualise research. *Example 1* opens with claims for significance substantiated by the scope of coverage across a wide range

of both industry and mainstream media, and demonstrates rigour through reference to reputable academic journals. Noting the ‘previously unpublished’ nature of the source material emphasises the originality of the research. *Example 2*, although much shorter, proffers an endorsement of the underlying method, having been published in a reputable academic journal to demonstrate rigour.

Method (part three): Focus groups

Two focus groups with graphic design academics were undertaken with the aim of identifying contextual factors that may have contributed to the poor performance of graphic design in REF2014. These were conducted at conferences organised by the Graphic Design Educators’ Network offering the potential to yield collective views (Denscombe 2007) and explore issues of shared importance (Breen 2006).

Focus Group 1: Graphic Design Educators’ Conference 2017

The aim of the session was twofold: to gather a range of views on the context of poor performance for graphic design research, and share the keywords we were using to guide the data analysis stage. The session attracted 19 participants, representing a broad range of age and gender. These were all design academics from UK HEI’s, with the majority responsible for teaching graphic design. The session lasted 60 minutes and was facilitated by two of the authors, with a third author nominated as a note taker. Having outlined the session aims and secured permission to collect data, the group then proceeded to address four questions:

1. What possible explanation might there be for ‘weakness’?
2. Why do participants think the quality of GD research was considered weak?

3. What examples of good graphic design research have you found/use in your teaching?
4. Could there be a link between the volume of teaching undertaken and the amount of research produced?

Focus Group 2: Graphic Design Educators' Conference 2018

The primary aim of this second focus group session was to present the interim findings and key themes. The discussion was framed by an outline of the emergent findings from analysis of the REF data, along with a first-pass analysis of the key views emerging from focus group 1. Mindful that reliability in focus groups comes, in part, from the frequency of agreement (Breen 2006) the group provided opportunity to discuss existing viewpoints from the graphic design academic community on the poor performance of REF. 24 participants took part, drawing once again from a range of UK and, this time, international HEIs. The focus group lasted 60 minutes and was facilitated by two of the authors, with a third (non-author) as note taker.

Results

The data from the first focus group led to a set of themes that were then refined in light of the data generated by the second group. Analysis of the data was undertaken by open coding (Strauss and Corbin 1990), and then codes were grouped into categories. This resulted in five categories, each of which summarised the participant's collective views on graphic design research: i) the nature of the discipline; ii) the demands of teaching; iii) the currency of research; iv) the lack of exemplars and pathways; v) misconceptions about research and the REF.

The nature of the discipline

This theme, which encapsulated views connected to the nature of graphic design, was considered significant by both focus groups. The observation that graphic designers engage with a broad range of activities (van der Waarde 2009: 5) was deemed a virtue, and yet the consequent lack of common ground proved challenging. While graphic design is a relatively young discipline, it draws from a diverse range of vocational ‘histories’, such as advertising and printing. The groups also acknowledged the challenge of nomenclature and lack of consensual terminologies (see below for further discussions). Finally, a number of participants noted the difficulty in identifying graphic design research with ‘typical’ academic research.

The demands of teaching

A number of participants commented on the demands of teaching workloads and large cohort sizes, and the suggestion that graphic design courses function as ‘cash cows’. Participants also reported an ongoing ambiguity with the allocation of time for research and teaching.

The currency of research

A number of participants in the first focus group shared the view that being recognised as excellent in research was not necessary, essential or even relevant to being a graphic design academic. Some comments were made about the preferred focus and energy to undertake commercial projects and maintain profession practice.

The lack of exemplars and pathways

A recurring theme emerged around the dearth of examples of practice-based graphic design research and concomitantly the lack of trailblazers, mentors and senior graphic design researchers. Such paucity was clearly contributing to the pervading question: what does graphic design research look like? Participants also shared difficulties in

understanding the REF, and a frustration about not knowing the ‘rules of the game’.

Misconceptions about research and REF

This final category refers to a number of shared misconceptions noted during the focus groups. For example, some participants commented on the lack of graphic design academics in senior REF panel positions [clearly unaware of the pivotal roles undertaken by Professors Sue Walker and Bruce Brown in REF 2014]. Similarly, there was the widespread assumption that publication in a higher quality journal would automatically result in better REF rating.

For explanatory purposes we have presented the five categories as distinct, yet we consider them to be interwoven. For example, the lack of mentors in senior positions might serve to perpetuate the idea that undertaking research has limited relevance for graphic design academics.

DISCUSSION

In this section, we discuss the results from the analysis of the keyword search, content analysis of additional information fields, and the focus groups. We also turn to an extended discussion of the problems of nomenclature.

Volume

Graphic design outputs contributed 3% of the total submitted outputs to UoA34. This low figure extends the criticisms of quality raised in the subpanel report to issues of quantity too, with the low figure at odds with the relative size of the subject. The paucity might be reflective of the value graphic design academics assign to both ‘formal research’ and the REF (as evidenced in our focus group results), choosing instead to

position their practice in areas considered to wield more influence and credibility (Ross 2018). The results from the focus groups suggest this may also be symptomatic of graphic design academics attitudes towards the currency of graphic design research within institutions. In addition, the general lack of ‘research know-how’, examples of practice-based graphic design research and graphic design research mentors, in parallel with the demands of teaching large cohorts, works to stifle development.

Types

Analysis of types (Figure 1) confirmed a reliance on traditional, non-practice based outputs, with 63.7% adhering to peer-review journals, books, or biographies compared to the overall UoA34 figure of 56%. This substantiates Walker’s (2017) observation of a strong historical focus to graphic design research. But, perhaps this also reveals a lack of understanding and confidence when submitting practice-based graphic design research – as further evidenced in the focus groups themes. Furthermore, the apparent lack of appropriate venues for the dissemination of practice-based graphic design research outside of traditional exhibitions may be another contributing factor.

Institutional Distribution

Results revealed less than half (36 of the 81) HEIs in UoA34 submitted one or more graphic design output. Of these 36, four institutions accounted for 46.9% of all graphic design outputs. With significant funding following REF success, this signals a potential danger beyond REF2021 that such uneven institutional representation will create a ‘vicious circle’, with an upward spiral of increased funding for the few successful institutions and a corresponding downward spiral of diminishing funding for those less successful. We speculate that the likely effect could be to create a small number of research centres, whilst simultaneously reducing the academic reach of the vast majority

of institutions. Lacking the funding to develop research cultures will have negative impacts upon career progression, mentorship and research-teaching linkages, and may limit the curriculum to the reproduction of industry practices and a continuation of the status quo. This is a significant concern.

Quality

The criticisms of ‘generically weak’ intellectual and theoretical underpinning proved the most challenging to respond to. A combined lack of clarity as to the nomenclature agreed and adopted by the REF panel and inability to map star ratings to individual outputs limited a more thorough and focused analysis of outcomes. Consequently, the REF panel’s criticism of the field is to some degree vulnerable to conjecture and speculation.

The significant lack of research questions within the 300-word additional fields suggest why the types of enquiry submitted to (or withheld from) REF2014 struggled to meet the key REF criteria of significance, originality and rigour. We suggest these results may also be reflective of Davis’ (2016) assertion of an ongoing tendency amongst graphic design academics to valorise creative production and commercial practice over discovery-orientated research.

Nomenclature

As outlined above, the inconsistent use of nomenclature has proved a significant challenge. The terms graphic design, visual communication and communication design have been applied without any apparent consensus. Furthermore, it remains unclear as to how these have been interpreted and applied by the REF2014 panel. To accentuate the problem, a number of associated practices, many of which would seek distance from graphic design, have nevertheless included the various terms in output narratives.

Again, there appears to be no clear consensus about their use. The analysis repeatedly revealed significant variations in the interpretation and use of nomenclature, particularly around the terms graphic design and communication design. Such variance was not surprising, but reflected a widespread confusion, arguably linked to research performance (Walker 2017). For example, in the period of assessment for REF2014, it had been noted that graphic design had been unable to frame a coherent and agreed history (Poynor 2011, Triggs 2011, 3), that it lacked any single unified theory to guide practice (Davis 2012), had no generally accepted overview of practice (van der Waarde & Vroombout 2012), and that practitioners were operating under a variety of titles and without recourse to a body of established and reliable knowledge (van der Waarde 2014).

Such instability is clearly evident within the very environments making REF submissions, with institutions changing names for programmes, departments and schools, often without clear rationale beyond personal preferences. The most striking demonstration can be seen in the shifting identities of Icograda – ironically what was the ‘International Council for Graphic Design Associations’ – whose Design Education Manifesto of 2000 announced that ‘The term graphic design has been ‘technologically undermined’ and that visual communication design would offer a more accurate description (Icograda 2000). Yet, by the time of the Manifesto update in 2011, visual communication had itself given way to communication design as an ‘intellectual, creative, strategic, managerial, and technical activity’. It essentially involves the production of visual solutions to communication problems’ (Icograda 2011: 8), which, some would argue, provides a conventional description of graphic design! In 2015, Icograda announced that it was formally changing name to ico-D to ‘better reflect its mission and activities’ (Ico-D 2014). In essence, the manifesto lacked any significant

alternative to contemporary descriptions of graphic design.

The Icofrada approach suggests a linear and progressive evolution from graphic design through visual communication and onto communication design, consistent with the views of Buchanan (2001). However, this approach is not shared by key historians such as Margolin (1994) and Hollis (1994); they both distinguish between the specific professional practice of graphic design, which emerged in the twentieth century, and the broader human activity of visual communication, which reaches back to Lascaux cave paintings, and which Margolin (1994: 238–9) described as being ‘inherently sociological and does not exclude anyone on professional grounds.’

Yet critically, these observations remain far from consensual. Reflecting upon the findings of the REF2014, UoA34 panel member Walker (2017:550) noted that graphic design and communication design were often used interchangeably. She did not confirm whether the panel had relied upon, or been able to establish any clear definitions or boundaries for their purposes; only that she preferred the term communication design. While acknowledging the possible negative impact of ‘nomenclature issues’ upon graphic design research, Walker also stated a preference for a more inclusive definition, to incorporate what she described as the sub-disciplines, of illustration, interaction, exhibition, branding and corporate identity. Having also, in the same paper, recognised that graphic designers work with ‘illustrators, photographers, coders, editors, writers, and others involved in the graphic presentation of language’ (Walker 2017: 549) it would follow that the field of graphic design must first and foremost be acknowledged for its integrative nature, and not be confused with communication design. Questions arise as to whether the various collaborators – illustrators, type designers and coders in particular – would be comfortable describing their practice as a sub-discipline of either; we suspect not. This clearly has a major impact upon the findings, with a high

percentage of those outputs reviewed coming from the sub-disciplines or sub-sets of illustration, typeface design and typography.

Limitations of this Study

In the absence of a stable, consensual definition of graphic design, we relied upon case-by-case analysis and discussion to establish the suitability of the outcome. Balancing elasticity and specificity continued to prove a challenge, and different researchers may well have identified a different set of outcomes. Yet, while this may be considered a weakness in the research, the 190 graphic design outputs submitted presented a workable sample to analyse and make some recommendations.

CONCLUSION

In this study, we have responded directly to criticisms of graphic design research following REF 2014 and specifically, the claims of ‘generically weak’ intellectual and theoretical underpinning and the lack of improvement since the 2008 research audit. In response, we set out to examine the veracity of these criticisms – although the focus of this study has been upon a UK research audit, the issues remain pertinent to emerging debates on graphic design research in US contexts and further afield. The need to respond is given added impetus because of the comparative growth, over the past twenty years, in the research cultures of other art and design disciplines. During this period graphic design has continued to be the largest art and design subject in UK higher education.

Graphic design accounted for 3% of research submitted to REF 2014. Such a low figure, when put in context of the size of the subject, clearly suggests graphic design academics – through choice or institutional decision making – are not engaging, or

meeting expected standards of research as measured through the REF.

Where research was successfully submitted, our findings show 63.7% of graphic design outputs submitted to REF2014 were in 'traditional' written forms compared with 57% in UoA34 as a whole. Clearly, submitted graphic design research demonstrates the ability to undertake and disseminate credible research. Furthermore, this provides a good foundation for exploring the potential for so-called practice-based and practice-led approaches

Our findings also raise concerns about where graphic design research is emanating from. The analysis revealed only 36 of the 81 institutions submitting to UoA34 had graphic design outputs. Of equal concern was the fact that almost half of these submissions came from four institutions, raising fears of uneven distribution of research and the funding and esteem that follows REF success.

We found responding to the criticism of 'generically weak' intellectual and theoretical underpinning of graphic design research less straightforward. However, analysis of additional information fields revealed an absence of research questions and, despite certain commonalities of theme, a lack of collaboration.

Based on our analysis of submissions to REF 2014, we confirm that graphic design is yet to establish a comprehensive academic research culture in the UK that accords with its widespread standing in higher education. Among the contributing factors, we note a lack of confidence with regards to the nature and value of practice-based graphic design research, the uncertainty of the expectations of the REF, lack of venues for dissemination, heavy teaching loads and a lack of exemplars and established career pathways for research. In addition, we would suggest that the absence of stable and consensual nomenclature has hindered both the articulation and the assessment of

submissions. In order for graphic design academics and institutions to begin to address this situation, we make the following recommendations.

Recommendations

For Academics

- Deeper reflection upon the research dimensions and opportunities within their current practice
- Pursuit of formalised research training. This might be in the form of a part-time PgCert in research methods within creative practices, or bespoke, localised staff development offering, for example, access to appropriate MRes modules
- Negotiation of adequate research and research training time during workload planning
- Confidence identifying and articulating their work as graphic design research.
- Clearer focus upon identifying and addressing specific research questions.
- Locating their research within its particular field.
- Clarity and confidence when defining and articulating their interdisciplinary and multidisciplinary credentials and roles within research projects.

In offering a set of recommendations to graphic design academics, we emphasize, with Townsend and Armstrong (2017: 67), that graphic design research does not emerge simply from the minds of academics, but rather as a consequence of “the conditions, contexts, and values of our discipline, programs, and faculty”. Therefore, we address these recommendations to research leaders and heads of departments:

For Institutions

- Provision of formal research training for suitable staff (see above)

- Provision and protection of adequate research time during workload planning
- Clear pathways, with developmental support, for graphic design academics to progress to Readers and to Professors.
- Provision of opportunities for cross-institution research projects to help create an academic research culture in graphic design.
- Consideration as to how incomes generated by numbers of students studying on graphic design programmes may be re-invested into building a research cultures to support and enrich the delivery.
- Further research into the balance and allocation of research time across varying cohorts and institutions

Other

- Clearer articulation regarding the centrality of research to education and practice
- The pursuit of a stable, shared nomenclature between submitting institutions and future REF review panel members
- A sharable Database of REF 2014 outputs
- Access to a collection of graphic design research exemplars
- Production of a guide tailored to help graphic design academics prepare future REF submissions

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