THE STATE OF SPORT PHOTOJOURNALISM
Concepts, practice and challenges

Richard Haynes, Adrian Hadland, and **Paul Lambert**

Based on a global survey of photojournalism and case studies of recent transformations in the use of photography in sport, this paper critically analyses current professional practices of sport photojournalists focusing on the contemporary challenges faced by this industry. Rhetoric proclaiming the death of the photographer in the age of video technology and self-mass communication of digital photographs, has presented a major challenge to the survival of photographers and photography as a professional practice in news media. In the specific field of sport photojournalism, photographers have faced added challenges of accreditation to sport with the selective access to sporting venues or events through commercial licensing of 'preferred media partners' and increasing management of 'image rights' and anti-piracy measures. This has occurred at a time when sport images and the digital distribution of sporting images are greater than ever. The data for this article are taken from a World Press Photo Foundation-University of Stirling longitudinal project on photojournalism and represents the views and experiences of over 700 photographers who are engaged in sports photojournalism.

KEYWORDS amateur; digital; photography; photojournalism; sport

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Introduction

"To save money, instead of hiring real sports photographers, sports/news publications are telling their sportswriters to shoot games with their cellphones and use these still pictures to illustrate their sports columns. This puts freelance sports photographers out of work, and results in lousy pictures" – Sports Photojournalist, World Press Photo survey, 2016

London. Thursday 9 August, 2012. Jamaican sprinter Usain Bolt wins the 200 meters Olympic final making him the first man to successfully defend both Olympic sprint titles. "Half man, half superhero," gushed the admiring *Daily Telegraph* of London. Within minutes of his success, Bolt borrows a camera from one of the photographers crowding around him and mimics their moves, down on one knee, turning the camera on the cameras. Then, with a Jamaican flag wrapped around his shoulders, Bolt assumes the frozen archer position that has become his signature. In mid pose, he turns to his right and smiles. The photograph is used across the entire front page not just of the *Telegraph* the next morning, which accompanies the image with the words 'The Greatest', but all around the world. The use of powerfully evocative images in print, online and on television has not just tracked Bolt's stellar career, a partnership he acknowledged with his little camera show in the Olympic Stadium in London, it has been a fundamental component of the transformation of sport in the contemporary era.

But, just as sports and sports journalism have evolved and changed, so too has the process by which sport images are captured, transmitted and published. Sports photojournalists[i] must grapple with a range of challenges that collectively threaten the very sustainability and future of their art, ironically at a moment when the image has never been as ubiquitous or as important as an expression of human creativity or as a medium for demonstrating athletic prowess. With billions of images uploaded onto the internet everyday, the field has become crowded. The massification of image production has also coincided with media company cutbacks as legacy businesses struggle to adjust to the disruption of the digital era. If any sector has suffered from the commonly described 'crisis' of journalism (Reinardy, 2011), photojournalists have been among them. In newspapers, photographers and photographic departments are frequently the first to go, at times suffering disproportionate cutbacks, especially in America (Mortensen, 2014; Anderson, 2013). The findings of this research reflect the impact of this crisis on the work patterns and prospects of those making a living illustrating news storytelling with images. There have been shifts, too, within the photographic industry marked notably by the concentration of photographic agencies, many of which have been bought up by big corporate players such as Getty Images[ii].

In the specific field of sport photojournalism, photographers have faced added challenges of accreditation to sport with the selective access to sporting venues or events through commercial licensing of 'preferred media partners', (Edwards 2015, Greenslade 2010, 2013) and increasing management of 'image rights' and anti-piracy measures (Haynes 2007). This has occurred at a time when sport images and the digital distribution of sporting images proliferate.

This confluence of developments provokes a series of questions concerning the current state and future of sports photography: How are sports photographers coping in the digital era? What are the key challenges they face? Is there a future for professional sports photography?

Surprisingly, very little research has been conducted on photographers generally and there is almost nothing on sports photographers in particular. This article aims to begin the process of addressing this absence. It does so by considering recent data from more than 700 professional photographers involved in sport to varying degrees. This study focuses on the changing practices of sport photojournalism based on an international survey of photographers. It is therefore based on the experiences, perceptions, professional values and practices of sport photojournalists, which have been relatively ignored in the field of sport and communications more broadly. The results provide fascinating insights into the world of sports photography and into the challenges, opportunities and threats faced by sports photographers on a daily basis.

Sport Photojournalism; Literature Review

Beyond work commissioned by World Press Photo (see, especially, Campbell 2013) only a handful of research studies have been published on photojournalists as a group (Mortensen, 2014; Caple, 2013; Papadopolous & Pantti, 2011, Pantti & Bakker, 2009; Taylor, 2000). Often this research included other groups, such as amateur or citizen photographers (see Allan 2015). Mäenpää's (2014) is one of the few papers dedicated specifically to photojournalists. Mäenpää's work is based on Finnish data obtained from 20 interviews and an online survey of 200 people and while the focus is on photojournalists' values, the respondents include a wide range of people associated with the photography industry such as graphic designers and art directors. Vauclare and Debeauvais (2015) have also published a

French language study of French photographers commissioned by the Ministry of Culture and Communication (see Sutton, 2015 for an overview).

Sport photojournalism is an established part of the sport-media complex, which has been identified as the dominant mode of elite sport and increasingly characterised as being heavily commodified, mediatized and global in a digitally networked communications environment (Hutchins and Rowe, 2012). In spite of the broadening of the media-sport complex, both in terms of networked media sport and globalisation, the cultures of sport continue to reflect some deep-seated prejudices in terms of sexism, racism and homophobia (Messner and Cooky, 2010). As well as the very important issue of media representation of women, ethnic minorities and the LGBT community in sport, the issue of equality in media sport and communications is of genuine concern in the context of this study. For example, the paucity of women in sport media professions and the 'gendered' roles in which they tend to occupy continues to present a major challenge to the industry in terms of equality and diversity (Franks and O'Neil, 2015).

Recent studies on the changing nature of photojournalism, both in terms of the professional role of photographers in news outlets and transformations in visual storytelling, have also emphasised the impact of processes of digitisation and networked communications on the profession (Yaschur, 2011; Zavoina and Reichert, 2000 and Campbell, 2013).

As has been recognised more broadly in the media and communications industries, digitisation has transformed 'media work' (Deuze, 2007) and convergent, networked communications have transformed the power relations between producers, distributors and consumers of media (Castells, 2013). Most notable in the case of photojournalists has been a shift from the standard production of the printed still image to more diversified roles of digital visual storytelling; producing videos and slideshows for online news content, which sit alongside the more established editorial shots of events, people and places.

One of the central questions such developments pose is what are the continuities and discontinuities from print photojournalism, long established in the 20th century, and the user-created, software enabled, networked photography, which has blossomed in the early 21st century? A common observation would suggest there are significant discontinuities in terms of the scale of popular photography and image distribution, but it is less clear whether the actual form of photography has been transformed quite as radically. As Manovich (2016) has identified, this raises a further question concerning variability, that is, has the recent explosion of digital photography led to more diversity in image capture and distribution? Or, conversely, has it led to more repetition of themes, uniformity and social mimicry? For example, while 'the selfie' may be a new visual form, it is also a uniformly mimicked and creatively constrained visual culture.

Newsrooms and photographers, of course, have changed their routines to accommodate such changes, and many news outlets now join the online conversation on Twitter or Instagram to provide instantaneous visual feeds from breaking news stories. Photojournalism has always adapted to technological advances, whether it be the move to colour printing in the 1970s and 1980s, or the shift to digital in the 1990s. For example, research in the late-1990s by Russial and Wanta (1998) revealed sport photojournalism, especially during the coverage of major events like the Olympic Games or the Super Bowl, was at the forefront of adaptations to digital photography, even where cost and variable quality issues constrained the use of such technologies in everyday news gathering routines. They also noted how recruitment patterns

changed in terms of skillsets, where the ability to process photographs in a dark room were usurped by computer literacy and an ability to edit images in specialist software packages such as Photoshop.

In the context of sports media, the expansion of digital content across news services (print, broadcast, online, mobile) and in particular through the rise of networked social media, means that sport photography has mushroomed in both volume and contributors, most of which is supplied by amateurs sharing their images online through applications such as Instagram, Pinterest, Facebook, Twitter and Snapchat among many others. For professional photojournalists, the broadening of visual culture around sport may be viewed as a direct challenge to their previously privileged position to provide visual storytelling around sport. The multi-variegated access to images from sport, where a sport star's 'selfie' can become a more socially valued mode of engagement than a professional photograph, can potentially undermine the economic value of professional sport photography as the main visual record of an event or sport star.

A challenge also comes from the user-generated images of fans, whose access to networked mobile photography brings new perspectives on the sporting event which can be instantaneously produced, distributed and shared during live action to various online communities. The speed of distribution is key to the cultural capital of fan-made digital photography from sport, and in terms of accessibility to a visual record of an event, usurps the professional distribution of images that have to be processed via editorial controls and syndication. In short, fan-made media, in this case sporting images distributed in networked social media, do not face the same professionalised, routinised and conventionalised practices of sport photojournalists. However, they may quite rapidly become distributed and shared as the visual image telling the story of a sport event or happening that render industrially produced media images as either redundant or lacking relevance to the fan experience.

In addition to the competition brought by fan-made media, the expansion of digital images from sport online has brought with it new constraints and forms of sport industry regulation. As the volume of sporting images increased, so too have attempts to increase regulation of accredited access to sporting venues, as well as mechanisms to increase the control of licensing rights of sporting images in the online environment. This is mainly due to an increased awareness on the part of governing bodies of sport, individual venues and professional sports clubs of the value of visual culture in sport (Hutchins and Rowe, 2012). The ownership and control of intellectual property rights to sport, in particular the regulation of the rights of access to either broadcast or distribute commercial images from sport have become incredibly lucrative aspects of contemporary sport economics (Haynes, 2007). For example, there has been a marked increase in preferred media partnerships between sports organisations and media outlets that are prepared to collaborate on exclusivity contracts regarding access and syndication of images to competing new organisations.

In the Premier League (football) in England, this has included exclusive media partnerships between Newcastle United FC and media outlets Sky Sports and the national *Daily Mirror* newspaper (Edwards, 2015), as well as internally-run photography syndication by Southampton FC (Greenslade, 2010), which effectively monopolises the commercialisation of images from these stadia. In other cases, such as Nottingham Forest FC, football clubs in England have taken access rights away from particular news outlets because sports journalists have upset the owners of such clubs with critical news stories (Greenslade, 2013). For news agencies and the fans such developments present a closure on access to what may be

privately owned sports organisations but are more broadly viewed as essential parts of the local community and cultural traditions of the area.

In particular, from within our general survey of international photojournalists from the World Press Photo Competition, we were interested in gathering some basic data on the range and specialization of photographers on the sports they covered. We wanted to know about the demographic breakdown of sport photojournalism in relation to the wider survey, including gender balance and regional distribution, as well as how these factors related to the coverage of particular sports.

Through a survey of photographers around the world we were keen to analyse the extent to which the processes identified above are actually having an influence on the practices of those working in a sporting context. To what extent have sport photographers adopted the broader visual culture of digital media and introduced video capture in to their work? How many photographers have identified the issue of access to sporting venues and events as a problem or a challenge to their daily work in sport? Are developments in networked social media felt by photographers to be affecting the value of their work in sport? Our analysis of sport photojournalists around the world is, therefore, a first attempt to map some of the key patterns of work in the contemporary networked digital media environment, and the extent to which issues related to access and social media are viewed as having an impact on the practices of sport photojournalists.

Methods

Our focus on sport photojournalists draws on data from a broader questionnaire survey of photography practice and routines in wider news contexts. The broader study investigates the attitudes and values of photographers on a range of issues relevant to contemporary developments in their profession, covering for instance employment arrangements, professional practices, and opinions about future developments in the field (see Hadland et al. 2015). Many of these issues are relevant to the study of sports photojournalism and will be factors in the contemporary responsibilities and work roles of professionals in the industry, many of whom are struggling to survive the impacts of declining circulations in newspapers and the proliferation of images online (Mortensen, 2014; Anderson, 2013).

We gained access to a sample of more than 700 sports photographers through collaboration with the World Press Photo Foundation (WPPh), host of a leading international photography competition. In early 2016, 5,775 photographers from more than 100 countries and territories sent in their work to be judged across a variety of categories, including best sports photograph (single image and story). After submitting their work, the entrants were contacted by email and encouraged to link to a voluntary online survey. More than a third of the entrants, 1,991 photographers, responded and worked their way through almost 70 questions about subjects ranging from equipment and pay to ethics[iii]. A similar survey was undertaken in early 2015 (see Hadland et al. 2015), but the 2016 study (which is due to be published by the end of 2016) has a special focus on photographers working in sport.

Photographers responding to the survey were commonly engaged in multiple forms of photography at the same time. In the 2016 survey, 713 of the 1,991 respondents (36%) indicated that sports photography was one of the forms of photography that they undertook (usually in combination with other forms). Of these respondents, 362 (or 18% of the full

sample) reported that sports photography was the major focus of their news work. The survey also collected information on the income (if any) generated by respondents through their photography, as well as data on other features of their employment status. By comparing responses across several related questions, we could also identify 284 respondents whose answers indicated that they generated an important element of their income through sports photography[iv]. Most of our results below are presented for each of these three groups: the wider category of 713 who engage in some level of sports photography; the 362 respondents who report that sports photography is one of their main activities; and the smaller group of 284 for whom sports photography is an important element of their income.

Results are presented below in the form of summary statistics that give a profile applicable to the respective groups of sports photographers. This is contrasted, when relevant, with a corresponding figure for all survey respondents, and with indicators of the 'statistical significance' of the difference between the relevant group of sports photographers, and others. In broad terms, a 'significant' difference between the group and others suggests that the pattern of difference in the profiles, as revealed in our sample of data, is strong enough that it is very plausible that the difference holds genuinely in the underlying population of all photographers and photojournalists.

Results and Analysis

Table 1 presents a number of summary statistics about sports photography among the survey respondents. Based on our data, the average sports photojournalist is male, well-educated (usually to degree level) and in his late 30s or early 40s. He is more likely to be employed by a media company or agency than self-employed, though the proportion is roughly 60:40. This is higher than for the photojournalists in this study as a whole, most of whom are self-employed.

Table 1: Aspects of sports photojournalism from the 2016 WPP survey

	All responses (N = 1991)	Any sports photography (N = 713)	Mostly sports photography (N = 362)	Sports photography important part of income (N = 284)
Background characteristics				
Percent male	15.5	8.7*	6.6*	4.9*
Percent aged 30-50	67.5	69.3	67.1	66.2
Percent employed (cf. self-employed)	43.4	59.6*	58.6*	61.6*
% Saying access to sports venues is… (N=921)				
'difficult' or 'very difficult'	20.6	18.5*	19.7	18.7

'difficult' or 'very difficult' *(women)*	28.2	16.7*	18.2	7.7
'diff.' or 'very diff.' *(self-employed)*	23.5	20.0*	18.8	20.4
'difficult' or 'very difficult' *(for photographers covering football)*	19.0	18.4	19.3	18.5
..becoming a little/much harder to access grounds in last few years		34.8	39.0	40.5
Range of sports covered				
% who 'cover a wide range of sports'		42.9	56.9	59.9
% who cover 'a small number'		29.7	28.5	30.3
% who only shoot one or two sports		19.4	12.7	9.9
% employed rather than self-employed (of those covering football)		34.0	36.8	34.4
Risks related to livelihood from sports photography (% mentioning…)				
..access/rights restrictions		47.4	50.8	50.7
..Amateur/citizen photography		35.5	39.0	41.6
..Social media		15.4	18.5	17.3
..Copyright issues		28.3	30.9	30.6
..Cost of equipment		37.0	40.9	39.8

Notes: Analysis of 1,991 respondents to 2016 WPP questionnaire.
* in first two panels indicates that the category proportion is significantly different from the value for all other respondents at the 95% statistical significance level.

In our sample, there are proportionally fewer sports photographers in Africa and Europe compared to the Americas. For example, of the 220 respondents from either North America or Australasia in this year's study, 53 (24%) said they mainly worked in sports photography. This compares to 18% across the sample as a whole, and reminds us that those patterns

revealed in the sample for those respondents who are engaged in sports photography are for respondents from a somewhat different national distribution to those of photographers as a whole.

The gender gap, already so evident in photojournalism as a whole, is even more pronounced in sports photojournalism, the data suggests. Across our whole sample, over two years, the gender spread is roughly 85% male and 15% female. Among the sports photojournalists, only 6,6% are female and 92.4% are male, and the gender disparity increases when we isolate those photographers for whom sports photography is an important part of their livelihood.

Many of the sports photographers covered a wide range of sports, particularly those who gained relatively more of their income from sport. For all those undertaking sports photography, 43% report covering a wide range of sports, 30% a few sports, and 19% report that they shoot only one or two sports.

Respondents were also asked to indicate which from a list of popular sports they were engaged in covering. Figure 1 summarises the responses received.

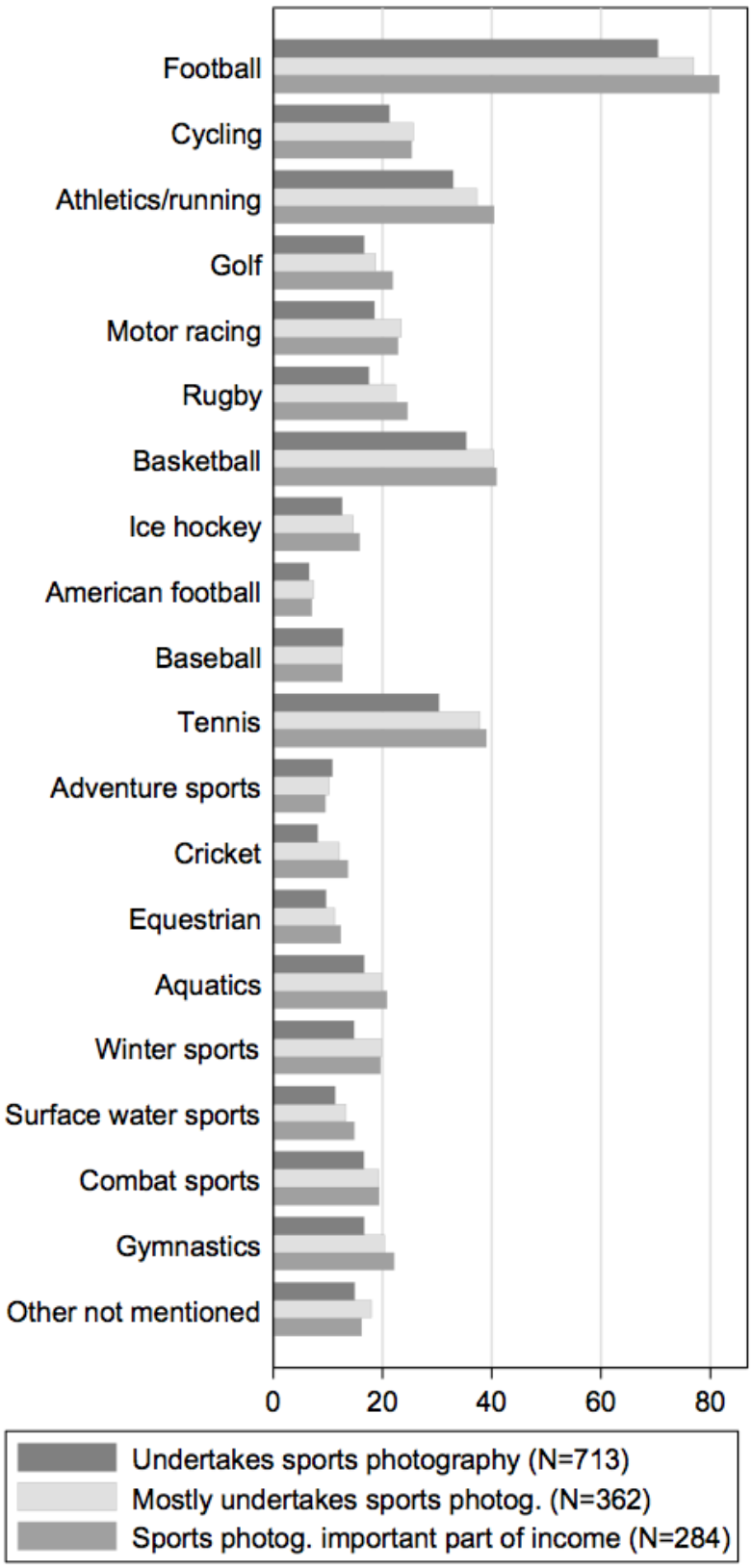

Figure 1: Percent of respondents shooting images in the following named sports

We can see that football/soccer is by far the most covered sport with around 70-80% of the sports photojournalists surveyed saying that it is one of the sports they most often work on.

There is a considerable gap before other sports feature as among those that respondents most often cover – for example, basketball, athletics and tennis are mentioned by around a third of relevant respondents.

In terms of the link between country and football, sports photographers in Asia, Africa and Central and South America were more likely to cover football than any other sport. By contrast, North American sports photographers were more likely to be covering golf, basketball or ice hockey than photographers from other regions. Sports photographers focusing on football were relatively less likely to be self-employed than other sports photographers.

As a group, just under 20% of the respondents said they found it difficult (or very difficult) to gain entrance to stadiums or clubs. A third of all the sports respondents said they believed this had become more difficult in recent years. It is possible that difficulties of access are more pronounced for women photographers than men. From all respondents who answered a question on access to sports venues, a higher proportion (28%) of women described access as 'difficult' or 'very difficult', compared to 20% of their male counterparts. However, this pattern does not hold for those respondents for whom sports photography is a relatively more important part of their professional lives – in these groups, more men than women report difficulties of access. However, self-employment status, and also data on what specific sports were covered, was not strongly linked to reported difficulties of access. Additionally, many respondents (in all categories) reported that in their view it had become harder to access sports venues over the last few years (34% of all responses among people engaged in sports photography). Though access may not be an especially prominent issue in the mindset of respondents, it is clearly influencing a number of photographers, and many believe it has been increasingly problematic in the recent past.

Respondents were also asked to identify if they considered a number of factors that are thought to be relevant to the practice of sports photography as potential threats to their livelihoods (Table 1, panel 4). Around 50% of relevant respondents listed access to venues as an issue that was a risk to their livelihood as sports photographers. The cost of equipment and the threat of amateur photographers was cited by around 40% while copyright infringements concerned around 30% and social media around 15%. Concerns were generally higher in those groups where photography was a more important part of their income, and it was noticeable that North American and Australasian sports photographers (the regions with higher levels of sports photography amongst the sample) were considerably more concerned about the threat of amateurism (with 55% expressing that this was a serious danger).

In an open section of the questionnaire where respondents were invited to give more detail on their livelihoods as sports photojournalists, some respondents expressed their concerns with the use of 'hobbyist' photographers working on low or no commissions often producing poor quality images. A similar sentiment is expressed in the comments in the quote at the beginning of the introduction of this article, which were also taken from the open section of the questionnaire.

The rising cost of equipment was cited by many of the respondents as a real threat to the sustainability of their work as sports photographers. Ordinarily, the sports photographer needs much larger, more expensive lenses than other types of photographer in order to capture the high-speed, close-up action shot that are the hallmark of their business. Male photographers (20%) appeared to be slightly more worried than female photographers (13%)

about the cost of equipment and African and Central/South American photographers considerably more concerned about this than their counterparts in Europe, Asia and North America.

Table 2: Aspects of photography as experienced by sports photojournalists in the 2016 WPP survey

	All responses (N = 1991)	Any sports photography (N = 713)	Mostly sports photography (N = 362)	Sports photography important part of income (N = 284)
Digital practices and social media				
% Using film camera	17.7	9.1*	8.0*	6.3*
% Often/always enhance digital images (e.g. contrast, hue)	43.5	34.6*	30.4*	32.0*
% Images used without permission	75.3	77.6	76.0	76.0
% Often/Always uses social media	51.0	48.3	47.2	46.1
Financial situation at present…				
..is difficult/very difficult (%)	35.6	28.1*	32.3	28.5*
..is worse than last year (%)	31.0	31.8	34.5	32.4
.. income less or a lot less now compared to 5 years ago (%)	38.4	35.8	40.2	37.9
Imputed mean annual income from photography (USD)	25600	30500*	30500*	35800*
Indicators of satisfaction with photography (% happy with, or % stating that they have control over…)				
Current mix of assignments	62.1	63.5	63.0	63.0
Control over what work I do	30.2	40.3*	39.8*	43.3*
Work rarely edited without permit	79.1	75.3*	74.3*	75.0

Not too overwhelmed by tech. change	73.5	72.9	74.0	76.1
Feel photography is valued	50.5	51.6	51.4	51.4
Positive on future of photography	51.6	50.4	48.3	48.2

Notes: Analysis of 1,991 respondents to 2016 WPP questionnaire.
* indicates that the category proportion is significantly different from the value for all other respondents at the 95% statistical significance level.

Table 2 summarises some other ways in which sports photographers were similar to or different from the other photographers who participated in the WPP survey in 2016. On many issues the pattern is one of similarity, for instance with few significant differences between sports and other photographers in levels of social media use and in experiences of the use of images without permission (panel 1); in attitudes to financial circumstances (panel 2); and in general satisfaction with the profession (panel 3).
There are however a few exceptions: sports photographers, particularly those for whom sports photography is a relatively more important part of their livelihood, are relatively less likely to use a film camera than other photographers (panel 1), but when using digital images they are also relatively less likely to report that they often enhance images such as by adjusting contrast or colour (panel 1). In terms of their financial situation, sports photographers are somewhat more positive about their circumstances than other photographers, and it is certainly the case that among survey respondents, those who were engaged in sports photography reported on average higher annual incomes from photography than those who were not (panel 2). Lastly, panel 3 suggests that sports photographers generally felt they had more control over their daily work than did other photographers, although in contrast they were slightly more likely to report that their work could be edited without their permission. This latter pattern may suggest that sports journalists work in an environment in which they feel relatively autonomous and are generally satisfied by their circumstances, but are nevertheless aware that the products of their work may be controlled by others such as editors.

Table 3: Logistic regression model results for influences on mentioning 'Amateur/Citizen photographers' and 'Access restrictions' as 'an important risk to your livelihood as a sports photojournalist'

	Amateur/ citizen photography a threat to livelihood		**Access restrictions a threat to livelihood**	
	Model 1a	**Model 1b**	**Model 2a**	**Model 2b**
Gender				
Male (reference)	0	0	0	0
Female	ns	ns	ns	ns

Age				
29 years old or younger	-	--	ns	ns
30-49 years (reference)	0	0	0	0
50 years old or older	ns	ns	ns	ns
Continent				
North America or Australasia	+++	+++	ns	+
All other continents (reference)	0	0	0	0
Sports covered				
Mentions football		+++		+++
Any other mentions (reference)		0		0
Positive financial situation (likert score, 1=Very difficult, 5=Very good)		--		ns
Psuedo-R2	0.024	0.040	0.003	0.012
N	713	713	713	713
Notes: Analysis restricted to 713 cases who reported some level of sports photographic activity. n.s. = no significant effect. + / ++ / +++ and - / -- / --- indicate significant effects in a positive and negative direction respectively, at the 90%, 95% and 99% significance thresholds. Reference category coefficients are zero by design.				

Regression models allow us to assess the relative influence of nominated explanatory factors upon an outcome of interest, in a manner that controls for other relevant differences between cases. In Table 3, results from four regression models are shown. Models 1a and 1b summarize relative influences upon the probability of a respondent stating that amateur/citizen photography is an important risk to their livelihood in sports photography, and Models 2a and 2b summarize similarly selected influences upon the probability of stating that access restrictions are an important risk.

Overall the models show that the highlighted factors are in combination only a small influence upon the chances of mentioning these risks (evident in the small 'pseudo=R2' values, which indicate the percent of variation in the outcome that can be attributed to the various explanatory variables). The table also shows in summary form whether or not the highlighted measures had a distinctive and significant impact upon the outcome. Only a few variables are seen to have a discernible influence across the models (net of the effects of other variables).

From models 1a and 1b, we see that photographers based in the North America or Australasia were more likely to mention amateur photography as a threat, but gender was not influential net of other measures, and age was associated only with a slight pattern (whereby younger respondents were more likely to consider amateur photography a threat). In Model 1b, we see that those photographers who mentioned shooting images of football were relatively more likely to see amateur photography as a threat, but having a more positive attitude to their current financial situation was associated with a lower chance of seeing amateur photography as a threat (net of other factors). From models 2a and 2b, we see that gender, age and continent have no important influences (net of each other) upon the chances of regarding access restrictions as an important threat (model 2a), however when we also take account of field of photography and financial attitudes, we see a slight pattern whereby those who shoot football are relatively more likely to mention the threat of access restrictions, and, in the context of the other variables included in the model, a slight influence of continent in which those based in North America and Australasia are slightly more likely to mention access as an issue (net of other factors included in the models).

Conclusion

At the outset of this paper we identified three key questions concerning the current practices and outlook for photojournalists specializing in sport: How are sports photographers coping in the digital era? What are the challenges they face? Is there a future for professional sports photography? Certainly, the results and analysis give us an initial impression of the answers.

In terms of how sports photojournalists are coping in the digital era, in spite of the restructuring of the industry and the 'crisis' so frequently alluded to, the loss of formal employed positions and the technical challenges, photojournalists who mainly cover sport are doing relatively well. Their income is generally higher than photographers as a whole and they are somewhat more positive about their circumstances than are other photojournalists. Sports photographers are more likely to be formally employed by media companies and only a relatively modest proportion are finding access to stadia and sport clubs difficult. Most photographers tend to cover a wide range of sports, particularly those who gain relatively more of their income from sport. The sports photographers who participated in this study generally felt they had more control over their daily work than did other photographers while the general feeling was that sports photographers tended to work in an environment in which they felt relatively autonomous and were generally satisfied with their circumstances.

There were some national and regional variations in terms of general conditions of work with, for instance, sports photographers in Asia, Africa and Central and South America more likely to cover football than any other sport.

The key challenges were identified in the study as the persistent gender gap in sports photojournalism, pervasive copyright infringements, the anticipation of increasingly difficult access to sports stadia and athletes, the rising cost of equipment and the threat of both social media and amateur photographers. There were gender-based and regional variations in how keenly these challenges were felt.

The question of the future sustainability of sports photojournalism is less clear from the data. Certainly there are challenges and the manner in which these are resolved or allowed to develop will have an impact on the profession going forward as well as on the representation

of sport. The gradual disappearance of women sports photographers will not help correct the sexism, racism, homophobia and lack of diversity already evident in the cultures of sport. The capturing of iconic sports moments and their inspirational impact may be undermined by a lack of quality images and inadequate equipment. A new narcissistic aesthetic of subject-generated content may be looming. These diverse factors may encourage or discourage young people from entering the profession or force sports photojournalists in their prime to leave.

In highlighting the threat of amateur photographers, free images, copyright theft and dwindling levels of full employment, the data support the notion that sports photojournalists have been in the frontline of the crisis spawned by the advent of online news and images. They have, however, been slightly less affected than news photojournalists as a whole. Certainly, it is important to track the work patterns, trends and vulnerabilities of those who make a living populating the world online and offline with quality images. This study is a reminder of the importance of gathering data from the people who have made such a profound contribution to the commercialisation and sustainability of sport itself. Given the scarcity of studies on photojournalists, and on sports photo-journalism in particular, there is evidently a need for more in-depth research in this area.

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Richard Haynes, Division of Communications, Media & Culture, University of Stirling, UK. E-mail: r.b.haynes@stir.ac.uk

Adrian Hadland, (author to whom correspondence should be addressed), Division of Communications, Media & Culture, University of Stirling, UK. E-mail: adrian.hadland@stir.ac.uk

Paul Lambert, Division of Sociology, Social Policy and Criminology, University of Stirling, UK. E-mail: Paul.lambert@stir.ac.uk

NOTES

[i] Photojournalists describe themselves in many different ways from visual storytellers to sports photojournalists. In this paper, photographers covering mainly sport and sports photojournalists are interchangeable concepts. Variations in proportion of time spent taking pictures of sport or the extent to which income is determined by sports work are outlined as relevant.

[ii] Getty Images has a history of aggressive purchasing in the sector including sports photography agency Allsport in 1998, the Image Bank in 1999, Mediavast in 2007 and Jupiterimages in 2009.

[iii] A full copy of the survey questionnaire is available at: http://rms.stir.ac.uk/converis-stirling/person/18027.

[iv] This number was calculated by identifying those who mainly worked in photography and who also stated either (i) that they mostly undertake sports photography and that photography generated the bulk of their income (266 respondents), or (ii) in response to a separate independent question, that sports was the type of photography that generated the most of their income (148 respondents).