ICFI

# THE STATE OF TECHNOLOGY IN GLOBAL NEWSROOMS



2019

## **ABOUT**

#### The 2019 State of Technology in Global

**Newsrooms** is a benchmark study that builds on the 2017 report of the same name, conducted by the International Center for Journalists (ICFJ). ICFJ empowers an unparalleled global network of journalists to produce news coverage that leads to better governments, stronger economies, vibrant societies and healthier lives. Working at the nexus of journalism and technology, we support our network to increase the flows of reliable, trustworthy news — a cornerstone of healthy democracies. Since 1984, ICFJ has worked with more than 140,000 journalists and media managers from 180 countries.

ICFJ worked with Georgetown University's Communication, Culture, & Technology (CCT) program to administer and analyze the study. CCT is an interdisciplinary graduate program focusing on challenges posed by new communication technologies in a range of fields, including journalism, government, politics, arts, media, business, health, and medicine.

Diana Owen, Professor at CCT, conducted, analyzed, and wrote the study. Fatima Bahja and Sharon Moshavi of ICFJ provided assistance in the writing of the report.

The survey was supported by:







## ADVISORY COMMITTEE

Astudestra Ajengrastri, ICFJ TruthBuzz Fellow — ICFJ

Felicitas Carrique, Director of Innovation — Sembra Media

David Clinch, Global News Editor — Storyful

Jon Cohen, VP, Survey Research — SurveyMonkey

**Zoe Cullen,** Assistant Professor of Business Administration — Harvard University

Yunus Erduran, Founder — Dokuz8

Ali Ghamloush, Editor-in-Chief — MBC

Mira Milosevic, Executive Director — Global Forum for Media Development

Hannah Ojo, ICFJ TruthBuzz Fellow — ICFJ

Shaheryar Popalzai, Consultant Digital Strategy — Dawn Media Group

Tali Rosen Shoham, Senior UX Researcher — Google

Alan Soon, Co-Founder and CEO — Splice Newsroom

H R Venkatesh, Director of Training and Research — Boom Live

Mackenzie Warren, Senior Director of News Strategy — USA Today

Jose Zamora, Senior VP, Strategic Communications — Univision News



## **EXECUTIVE SUMMARY**

Around the world, journalists are increasingly turning to digital technology to help address daunting challenges such as the spread of misinformation and increasing attacks on reporters, according to ICFJ's 2019 survey of the State of Technology in Global Newsrooms.

The use of fact-checking and social media verification tools is on the rise, while many newsrooms are securing their communications to protect themselves and their sources. Journalists are also using a multitude of new techniques and platforms to better engage their audiences – and earn their trust.



The survey updates and expands upon ICFJ's pioneering 2017 study, which determined that journalists were struggling to keep pace with the digital revolution. Our 2019 survey reveals a marked increase in the adoption of digital technology by the media industry over just the past two years.

ICFJ, working with Georgetown University, conducted the study in 14 languages and received more than 4,100 responses from journalists and news managers in 149 countries. The responses are divided into eight regions of the world: East/Southeast Asia, Eurasia/former USSR, Europe, Latin America/Caribbean, Middle East/North Africa, North America, South Asia, and sub-Saharan Africa.

The study shows that traditional news outlets are transforming into hybrid newsrooms as they embrace digital platforms. Data journalism is clearly on the rise. And small outlets, most of them digital, now represent a majority of newsrooms.

That said, few new digital start-ups are emerging in seven of the eight global regions. Newsrooms still aren't investing in enough tech staff or in the appropriate training for their employees.

Traditional news outlets are transforming into hybrid newsrooms.

## Women are playing a much stronger role in the newsroom than ever before.

But they are diversifying their revenue sources. Advertising is no longer the top revenue source for more than half of newsrooms. And while subscription/membership revenues are still low, most news managers expect them to increase at least fivefold in the near future.

On the personnel front, women are playing a much stronger role in the newsroom than ever before. Women account for half of the managerial positions in four regions: Eurasia/former USSR, North America, Europe, and Latin America. That said, on average, women are hired with fewer digital skills than their male counterparts.

As the global news landscape continues its relentless transformation, journalists and their newsrooms are stepping up. Of course, there's still a ways to go. But if the improvements of the last two years are any indication, the trend is positive, despite the formidable challenges facing the industry.



#### We discovered the following key trends:



#### THE CHALLENGES

Journalists are increasing their use of technology to respond to the pressing issues facing the news media today.

More than two-thirds of journalists and newsrooms secure their communications – a significant improvement over 2017. Less than half of journalists used cybersecurity techniques two years ago. The percentage of North American newsrooms that secure their communications has doubled, to 82%. Europe, at 92%, remains the leader. The preferred method of security: encrypted messaging apps. All other security measures are used by one-quarter or fewer of newsrooms.

More than half of journalists regularly use digital tools to fact-check information. Among the 16 technical skills we surveyed, digital fact-checking is the most common.

One-third of news organizations have dedicated fact-checkers on staff. Additionally, 44% of newsrooms and 37% of journalists have engaged in more fact-checking activities over the past year.

More than twice as many journalists use social media verification tools today as did two years ago. Only 11% of journalists used any kind of social media verification tools in 2017. Currently, one-quarter of journalists say they use the tools at least weekly, and more than one-third of news managers report the same.

Most news organizations are making efforts to tackle misinformation and build trust.

More news managers than journalists say misinformation is a major problem. Seventy-five percent of managers are concerned about the impact of misinformation on the industry, while less than half of journalists say it affects their day-to-day work.

News managers say they are featuring more public-interest stories and



citing more sources to increase audience trust. Over 60% of newsrooms are reporting more public-interest stories and citing more sources to gain trust. Nearly half of newsrooms are also better separating news stories from opinion pieces.

News organizations in North America and sub-Saharan Africa are the least worried about building audience trust. Concerns have grown in North America, where 37% of news managers view building trust as a major challenge, compared to 29% in 2017. Yet the region remains among the least concerned about this issue, ranking second to last ahead of sub-Saharan Africa (29%). In Eurasia/former USSR, where worries about misinformation (21%) were the lowest in 2017, concern has more than doubled to 48% in 2019.



#### II. THE ORGANIZATIONS

While newsrooms that use a hybrid of traditional and digital formats are on the rise, digital-only start-up growth is flat.

**Hybrid newsrooms are growing as traditional newsrooms shrink.** From 2017 to 2019, the number of hybrid newsrooms increased across all regions. Approximately half the newsrooms in six of eight global regions today are hybrid. Even in South Asia, where traditional outlets (those that rely on legacy formats) reigned just two years ago, hybrid newsrooms now dominate.

Surprisingly, digital-only newsroom growth is flat or down everywhere except in East/Southeast Asia, suggesting that fewer online start-ups are launching. In seven of eight regions, the percentage of digital-only newsrooms has either declined or remained flat since 2017. The biggest decline in digital-only newsrooms has been in North America (from 33% to 22% of newsrooms) and Eurasia/former USSR (down from 55% to 45% of newsrooms).

The only newsrooms that are expanding are small ones.

While most newsrooms continue to cut staff, nearly half of outlets with 25 or fewer employees have increased in size over the last two years. Most of those outlets are digital.



Most newsrooms are small. More than half of newsrooms have ten or fewer full-time employees. Digital-only organizations are the smallest, with 75% employing up to ten full-time staff.

Smaller newsrooms are twice as likely to report on local news as larger outlets. Twenty percent of small newsrooms cover local and hyperlocal events, compared to 10% of larger newsrooms (26+ employees). Globally, an average of 15% of newsrooms report exclusively on local news.

## Reporting on government and politics dominates, but other beats are grabbing attention.

While government and politics is the dominant beat, about a third of all journalists now regularly cover education, the economy and health. More than half of journalists worldwide cover politics and government, making it the dominant news beat of the industry, followed by education (33%), economy (32%) and health (32%). North American journalists are the least likely to report on education and the economy. Journalists in Eurasia/former USSR are the least likely to cover politics.

Radio outlets are most likely to cover specialized beats. Forty-two percent cover education and 43% cover health, compared to 27% of websites that cover these topics.

Nearly one-third of journalists do some investigative reporting, though only 12% identify as investigative reporters. Journalists in print news organizations are slightly more likely to engage in investigative reporting than journalists in other newsrooms. South Asian journalists (33%) are the most likely to do investigative reporting and East/Southeast Asian journalists (17%) are the least likely.



In four regions of the world, women are making significant headway in the newsroom.

Women hold half or more of newsroom management positions in four of the eight regions we surveyed: Eurasia/former USSR, North America, Europe and Latin America/Caribbean. On average, one-third of management jobs globally are held by women – but the regional differences are vast. The leaders: Eurasia/former USSR at 62%, followed by



North America at 56%, Europe at 51% and Latin America/Caribbean at 49%. The laggards: the Middle East/North Africa with 29% and South Asia, where women hold just 26% of management roles.

#### The majority of journalists in Europe and North America are women.

Women represent 56% of newsroom employees in North America and 51% in Europe. On average, women account for 40% of journalists in newsrooms worldwide. The regions with the fewest women are South Asia, where just 26% of journalists are women, followed by the Middle East/North Africa at 29%.

When they are hired, women are less likely to have digital experience than men. About one-quarter of women had no digital experience compared to 15% of men at the time they were hired. Forty-eight percent of women had experience with two or more tech skills compared to 55% of men.

#### Newsrooms aren't hiring more tech specialists.

Technical experts are still few and far between in newsrooms. Only 4% of newsroom employees are tech professionals such as product developers, an increase from 2% in 2017.

Newsroom managers and journalists are only slightly more likely to hold a degree in a tech-related field in 2019 than they were in 2017.

Compared to 5% two years ago, today 12% of newsroom managers and 8% of journalists hold a degree in a tech-related field.

More journalists are being hired with digital content creation skills, but few bring more advanced experience such as cybersecurity or analytics. The percentage of journalists hired with experience using digital and video tools increased from 33% in 2017 to 43% in 2019. Yet in 2019, few still brought advanced digital experience. When hired, 19% had analytics skills and 7% brought cybersecurity skills.

Twenty-one percent of employees hold digital roles such as social media editor and digital content producer. This is almost flat compared to 2017. Core writing and reporting skills and associated positions continue to dominate in the digital era.

Newsrooms are having a tough time filling jobs while journalists are struggling to find employment.



**Even as many newsrooms are laying off journalists, they can't find and keep top talent.** Across the world, 55% of newsrooms find it difficult to recruit and retain journalists. The outlier: North America, where only 28% of newsrooms say this is a challenge.

Freelancing has become prevalent as more journalists lose their jobs. Nearly 40 percent of journalists have lost a position due to budget cuts or reorganization. At the same time, 70% report they have freelanced at some point in their career.



#### **IV.** THE TOOLS

Most journalists believe digital tools have transformed every aspect of their work, mostly for the better.

More than two-thirds of journalists and news managers believe digital tools have a positive impact on their work. Respondents overwhelmingly say that these services improve news quality and audience engagement. A slightly smaller majority believe that digital tools increase productivity.

Data-driven journalism has become much more common today than just two years ago. An increasing reliance on data marks the biggest change in the way journalists work. Data journalism is among their most regularly used digital skills.

Journalists' use of messaging apps to engage audiences has spiked – even surpassing Twitter. More than two-thirds of journalists (69%) engage their audiences at least weekly via instant messaging. This surpasses the 63% of journalists who use Twitter and other microblogs at least weekly.

Newsrooms worldwide rely on a greater mix of formats to distribute their content. Two-thirds of news organizations disseminate content in at least four formats, a significant increase from the 40% that did in 2017. Journalists covering hyperlocal news use the widest variety of tools and platforms to interact with audiences.

Journalists demand more advanced training than their newsrooms offer.

Journalists want more training in data journalism than any other area.



Seventy-nine percent of journalists want training on analyzing data, while only 35% of newsrooms provide it. More journalists than news managers also believe that data journalism has a positive impact on their work: On average, 65% of journalists believe that data journalism helps engage audiences, improve quality and raise productivity, compared to 55% of managers.

Journalists prefer intensive training rather than short-term initiatives. Journalists (57%) overwhelmingly find hands-on, multi-day workshops most effective, while only 41% of newsrooms offer that kind of training. Journalists and managers basically agree on the appropriate level of online training: Seventeen percent of journalists and 22% of news managers like this format.

Journalists and their employers differ on the specialized training needed in the newsroom. While newsrooms mostly offer training in video and audio production, journalists are eager for more training on topics such as cybersecurity, podcasting, fact-checking tools and promoting work on social media. The gap in demand and availability is largest in using and understanding AI (artificial intelligence); 42% of journalists want training in AI, and only 5% of newsrooms offer it.



#### THE BUSINESS

Newsroom managers aren't as obsessed with key metrics such as pageviews as they were two years ago.

Pageviews is still the most important metric for newsrooms, but reliance on it and most other metrics has declined. In 2019, 59% of newsrooms consulted pageviews regularly – a steep decline from 73% in 2017. The use of almost every metric has decreased, with the exception of only one: reach (number of people exposed to a piece of content).

Business and editorial managers consult analytics less frequently than they did two years ago, while individual journalists use them more. Forty-four percent of journalists use analytics at least once a day, compared to 29% two years ago. At the same time, senior editors' daily use of analytics has declined a steep 18 percentage points, from 64% to 46%. Business-side employees' use has decreased by 20 percentage points.

Newsrooms use analytics more to track performance of individual



**journalists' articles.** In 2017, one-third of newsrooms regularly kept tabs on how reporters' stories were performing. In 2019, that increased: 37% tracked the performance daily and 59% did so at least weekly.

Advertising is no longer the largest revenue source for a majority of newsrooms, as they diversify their funding sources.

**Fifty-four percent of newsroom managers say that advertising is NOT their top revenue generator.** They are also relying on philanthropic contributions/grants, government funding, sponsored content, print subscriptions, audience donations, and online subscriptions/memberships. Thirty-six percent of non-profit news managers identify digital display ads as an important revenue stream – the same percentage who named philanthropic contributions as a key funding source. Overall, we see a greater diversity of revenue sources among non-profits, including sponsored content (28%), paid services (24%), and government funding (20%).

More than one-quarter of news managers expect online subscriptions/membership to become a key revenue stream in the upcoming year. Though only 4% of news organizations say it is currently their most important funding source, managers anticipate that this will grow dramatically. At 27%, online subscriptions/memberships are among the top anticipated revenue streams.

Forty percent of news managers believe that data journalism helps increase news revenue. In addition, 58% believe that social media helps to raise revenue, 56% say digital video and audio content does, and 53% say interactives/visuals do.



## CONTENTS

1.	A Changing Landscape	2
2.	Journalism Professionals	11
3.	The Job Market for Journalists	18
4.	News Coverage ·····	22
<b>5</b> .	Fact-Checking and Verification	27
6.	Skills and Expertise	30
<b>7.</b>	Regularly Used Digital Skills	34
8.	Training and Professional Development	39
9.	Digital Security	45
0.	Audience Engagement	48
11.	Analytics	<b>5</b> 1
2.	Newsroom Business Models	58
3.	Impact of Digital Technology	63
4.	Major Challenges	67
5.	References	72
6.	Methodology	79

## A CHANGING LANDSCAPE?

How has the news media landscape changed? How are newsrooms distributing their content?

Newsrooms are classified in three types based on their primary distribution platform:

- **Traditional news organizations** disseminate information primarily in the legacy formats of newspaper, television, print magazines, and radio. Though these organizations may have a website or some digital presence, their primary platform is a traditional format.
- **Digital-or online-only news organizations** exclusively publish in an online format.
- **Hybrid news organizations** use a combination of traditional and digital formats Many hybrid organizations have transitioned from being traditional news outlets.



#### **KEY FINDINGS**

Digital-only newsroom growth is flat or down everywhere except in East/Southeast Asia, suggesting fewer online start-ups are launching.

Hybrid newsrooms are on the rise while traditional newsrooms are declining.

Newsrooms worldwide rely on a greater mix of formats to distribute their content, but social media remains dominant.

Fewer journalists use instant messaging apps to distribute content than they did two years ago.

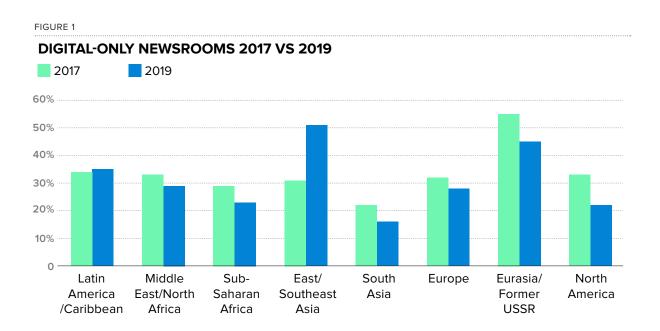


## Digital-only newsroom growth is flat or down everywhere except in East/Southeast Asia, suggesting that fewer online start-ups are launching.

In 2017, roughly one-third of journalists worldwide worked for digital-only newsrooms – highlighting the sharp turn away from traditional outlets. Two years later, that number has stayed virtually flat, suggesting that digital start-up growth has stalled.

In seven of eight regions, the percentage of digital-only newsrooms has either declined or remained flat. The largest declines have been in North America and Eurasia/former USSR, each down by at least ten percentage points.

The only region that has seen growth is East/Southeast Asia, where the percentage of digital-only newsrooms has grown from 31% to 51% of all outlets.

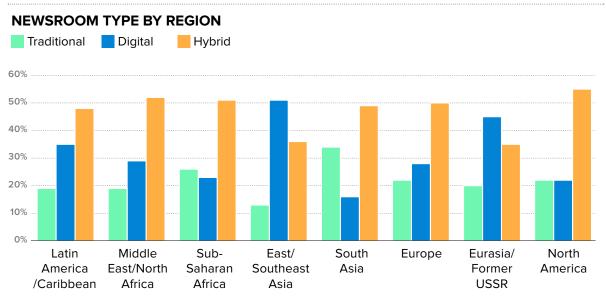


### Hybrid newsrooms are on the rise while traditional newsrooms are declining.

From 2017 to 2019, the number of hybrid newsrooms increased across all regions. Approximately half or more newsrooms today are hybrid in Latin America/Caribbean, the Middle East/North Africa, sub-Saharan Africa, South Asia, Europe, and North America. Hybrid newsrooms were not a majority in any region in 2017. Even in South Asia, hybrid newsrooms have surpassed traditional ones as the dominant outlets in the region.



FIGURE 2



#### A CLOSER LOOK

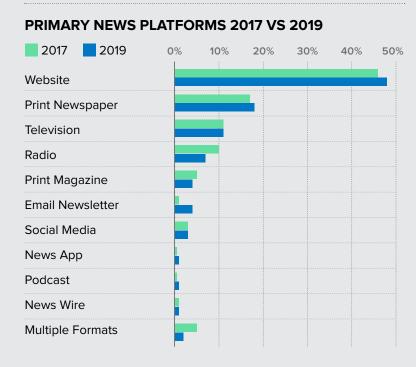
#### **Primary News Platforms**

Primary platforms used by news organizations have remained stable since 2017, with only a slight decrease in radio and print magazines. Very few newsrooms rely primarily on alternative digital products such as email newsletters, social media, news apps, and podcasts to disseminate news (See Figure 3).

Almost 80% of newsrooms where print is the primary platform are for-profit organizations.

Nearly 65% of television newsrooms are for-profits.



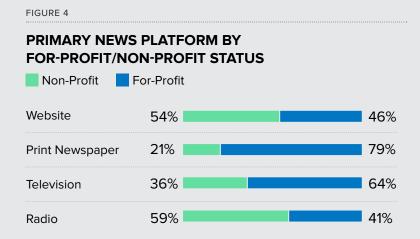




Newsrooms where websites (54%) and radio (59%) are the primary platforms are more likely to be non-profit organizations (See Figure 4).

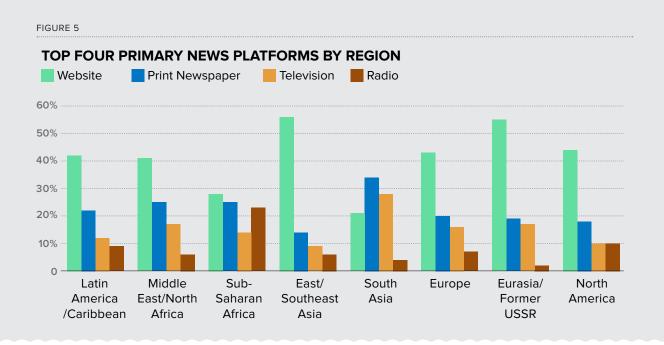
#### By region

Radio outlets are much more prevalent in sub-Saharan Africa than any other region.



South Asia is the leader in print newspapers and television.

East/Southeast Asia is almost completely dominated by news websites. Print newspapers account for only 14% of outlets. TV (9%) and radio (6%) are even smaller.





ICFJ surveyed newsrooms and journalists on what additional formats, social media, and instant messaging tools they are using to disseminate content outside of their primary platforms.

#### ADDITIONAL FORMATS FOR CONTENT DISTRIBUTION

## Newsrooms worldwide rely on a greater mix of formats to distribute their content, but social media remains dominant.

Two-thirds of news organizations distribute content in at least four formats, a significant increase from the 40% that did in 2017. Despite the greater diversity of formats adopted by news organizations, social media still leads. A strong majority of managers (78%) said their newsrooms use social media as an additional platform to distribute content.

Other popular formats include video (35%), messaging apps (27%), email newsletters (27%) and livestreaming (24%).

ICFJ did a deeper dive into social media tools to better assess how they are affecting the way news organizations operate. Similar to our findings from 2017, the results reveal a near-universal dominance of Facebook and Twitter. The social

FIGURE 6

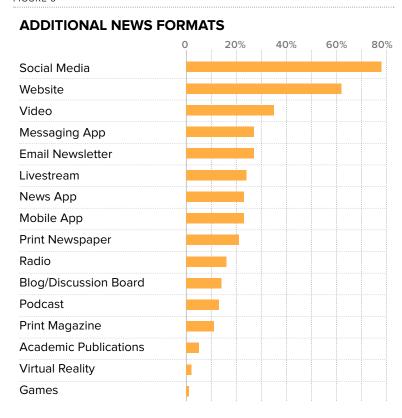
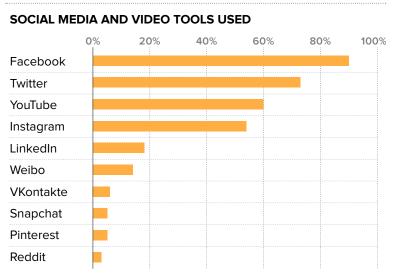


FIGURE 7





media tools are used by 90% and 73% of newsrooms respectively. YouTube's popularity has also grown since 2017, now used by 60% of news organizations to distribute content, compared to 48% then. Instagram has also seen growth, with 54% of newsrooms using it, compared with 33% in 2017.

#### SOCIAL MEDIA AND VIDEO FOR CONTENT DISTRIBUTION

In 2018, Facebook introduced changes to its news feed algorithm to de-emphasize news content in favor of posts from friends and family.

Nearly a year later, the change appears to have had no effect on news organizations' reliance on the social media giant to disseminate content, as compared to our 2017 survey.

This is especially true in North America, where 100% of news managers surveyed say Facebook is the preferred social media tool in their organization (See Figure 8). The site's global popularity is underscored by only minor regional differences. Even in Eurasia/former USSR, which lags behind all other regions in use of Facebook, the platform is used by 86% of newsrooms.

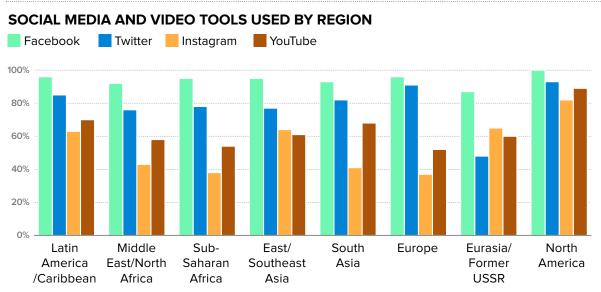
The regional differences are more evident for Twitter, Instagram, and YouTube. North America has by far the highest usage of all three: 93% of newsrooms use Twitter, 89% use YouTube, and 82% use Instagram. The second highest user of YouTube is Latin America/Caribbean, at 70%, and Eurasia/former USSR has the second highest use of Instagram at just 65%.

Twitter maintains a strong lead in the majority of regions surveyed, with only Eurasia/ former USSR as an exception. Less than half of the newsrooms there report using the platform to distribute content compared to the 77% or more elsewhere.

European newsrooms lag behind all regions in use of audiovisual sites YouTube (52%) and Instagram (37%).



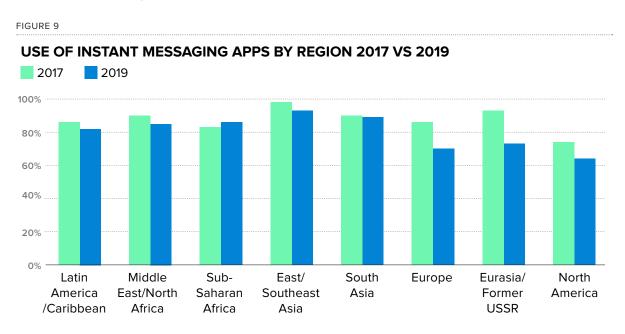




#### INSTANT MESSAGING FOR CONTENT DISTRIBUTION

## Fewer journalists are using instant messaging apps to distribute content than two years ago.

Journalists' use of instant messaging apps as content distribution channels has declined in seven out of eight regions over the last two years. The steepest drops are in Eurasia/former USSR (20 percentage points), and Europe (16 percentage points), and North America (10 percentage points).

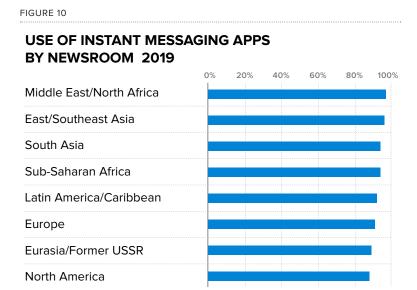




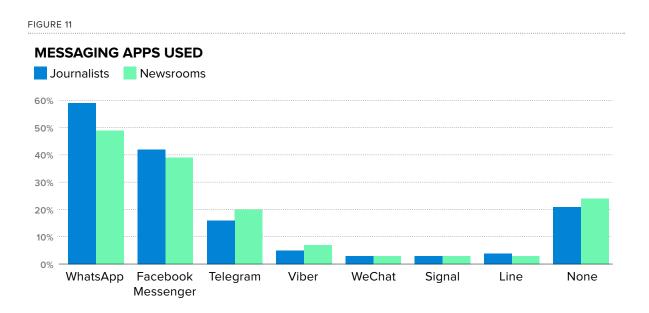
While messaging apps are used more by news organizations in North America, Europe and Eurasia/former USSR than by individual journalists, these outlets use them less than their counterparts in other regions (See Figure 10).

Facebook's messaging platforms dominate news content distribution. Nearly half of newsrooms worldwide use Facebook-owned WhatsApp to disseminate their content, and 39% use Facebook Messenger. The tools are even more popular among individual journalists – 69% say they use WhatsApp to share their stories, and 42% use Facebook Messenger.

Telegram is the only other instant messaging app used by at least



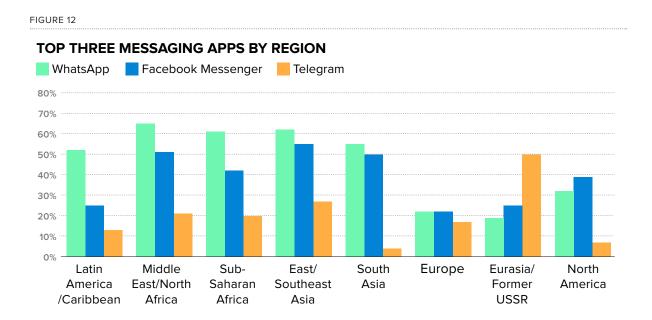
10% of newsrooms and journalists worldwide, with others such as Viber, Signal, and Line capturing a much smaller portion of the market.



Eurasia/former USSR and Europe lag in their use of the most popular instant messaging tools – Facebook Messenger and WhatsApp. Interestingly, however, Telegram is most prevalent in Eurasia/former USSR, where it is used by half of the newsrooms in the region.



WhatsApp continues to dominate in the Middle East/North Africa, East/Southeast Asia, and sub-Saharan Africa, where it is used by at least 60% of newsrooms in each. Facebook Messenger is a close second in the Middle East/North Africa (51%) and East/Southeast Asia (55%).





## **DESCRIPTION OF LANGE OF LANGE**

Who is working in newsrooms? What positions are prominent in journalism today?



#### **KEY FINDINGS**

News organizations are not investing more in tech or digital staff than they were two years ago.

Newsroom managers and journalists are only slightly more likely to hold a degree in a tech-related field in 2019 than they were in 2017.

The majority of journalists in North America and Europe are women.

Women hold half or more of newsroom management roles in four of the eight regions surveyed.

### News organizations are not investing more in tech or digital staff than they were two years ago.

ICFJ identified two types of newsroom roles:

- **Established roles** that have long been the backbone of the news industry, such as reporter or correspondent, news writer, editorial writer, and news editor.
- **New roles** created to keep pace with the digital era, such as digital content producer, social media editor, and analytics editor.

The types of roles that dominate the news industry have remained remarkably stable in an environment marked by constant change. Since 2017, very little has shifted in terms of newsroom roles. Seventy-nine percent of positions in newsrooms are



established roles, even in digitalonly organizations where they represent 76% of positions (See Figure 13). Writers and reporters, at 64%, continue to represent the bulk of positions in newsrooms.

Only 21% of employees hold new roles in newsrooms – virtually flat compared to 2017 – with only a 2%

## NEWSROOM ROLES BY NEWSROOM TYPE Established Roles New Roles Traditional 84% 16% Digital 76% 24% Hybrid 81% 19%

increase in tech professionals (4%), over the last two years (See Table 1).

TABLE 1

#### **BREAKDOWN OF ESTABLISHED AND NEW NEWSROOM ROLES 2019**

Established Roles	79%
News Reporter/Writer	24%
Beat Reporter	13%
Investigative Reporter	12%
Feature Writer	7%
Freelance Writer	8%
Editorial Writer	3%
News Broadcaster	1%
Editorial Leadership	3%
News Editor	2%
Fact-Checker	1%
Photojournalist	3%
Cartoonist	2%

New Roles	21%
Digital Content Producer	7%
A/V Producer/Editor	5%
Social Media Editor	4%
Design/Multimedia/Tech	4%
Professional	
Analytics Editor	1%



#### A CLOSER LOOK

#### **Newsroom Roles**

New roles are more prevalent in digital-only newsrooms, but not by much.

#### Digital-only news organizations staff:

- 8% are digital content producers
- 6% are tech professionals

Hybrid news organizations staff:

- 7% are digital content producers
- 4% are tech professionals

#### Traditional news organizations staff:

- 4% are digital content producers
- 3% are tech professionals

#### FIGURE 14 **NEWSROOM POSITIONS BY NEWSROOM TYPE** Digital Traditional Hybrid 0% 10% 20% 30% 40% 50% **Editorial Leadership** Reporter/Correspondent **News Writer Editoral Writer News Editor** A/V Producer/Editor Digital Content Producer/Editor Social Media Editor Tech Professional **Analytics Editor**

#### Digital-only newsrooms have:

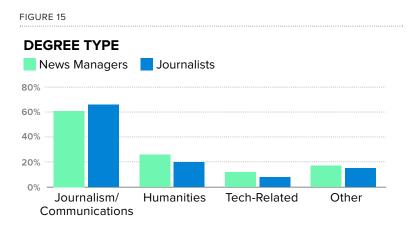
- Fewer reporters and correspondents (22%) than traditional (31%) and hybrid newsrooms (28%).
- More social media editors (15%) than traditional (6%) and hybrid newsrooms (11%).



## Newsroom managers and journalists are only slightly more likely to hold a degree in a tech-related field in 2019 than they were in 2017.

When it comes to tech-related degrees, our survey results start to show a slight change over the last two years. Compared to the 5% in 2017, today 12% of newsroom managers and 8% of journalists hold a degree in a tech-related field.

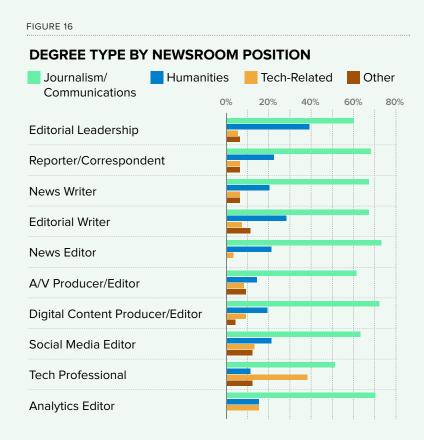
Otherwise, the educational background of newsroom professionals has remained virtually



unchanged since 2017, with the majority of managers (61%) and their employees (66%) holding degrees in journalism and communications.

Journalism/communications degrees remain the most popular among newsroom professionals with a few exceptions...

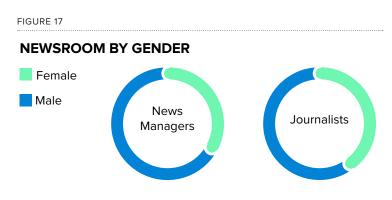
- Just 38% of tech professionals have a degree in a technologyrelated field
- 51% of tech professionals had journalism degrees compared to 9% in 2017, a sign of growing interest in technology among journalists and changes in journalism school curricula.



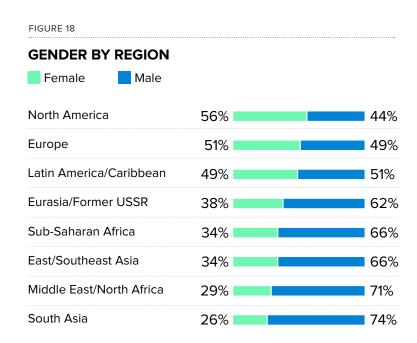


### The majority of journalists in North America and Europe are women.

Though gender diversity¹ continues to be a problem for most newsrooms, some regions show signs of progress. In North America, female journalists (56%) outnumber their male counterparts. In Europe, women are a slight majority, at 51%. Latin America/Caribbean isn't far behind; 49% of journalists there are women (See Figure 18).



Elsewhere, men hold at least two-thirds of newsroom jobs. The difference is most pronounced in South Asia, where women constitute only 26% of journalists.



<sup>1</sup> ICFJ received responses from 6 non-binary respondents, a sample too small to analyze.

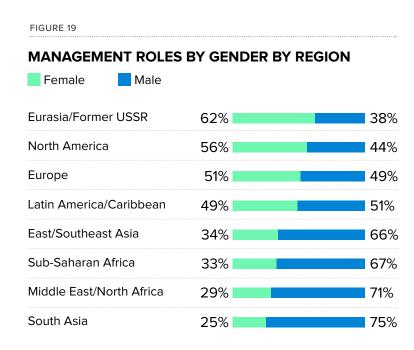


15

### Women hold half or more of newsroom management roles in four of the eight regions we surveyed.

On average, one-third of management jobs globally are held by women -- but the regional differences are vast. The leaders: Eurasia/former USSR at 62%, followed by North America at 56%, Europe at 51% and Latin America/ Caribbean at 49%.

Top leadership roles though are still more elusive. While women hold the majority of management positions in North American newsrooms, they hold just onethird of top leadership positions.



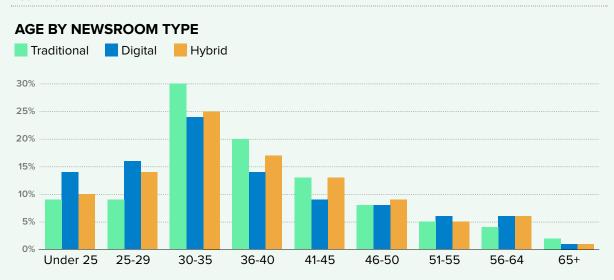
Interestingly, management positions in Eurasia/former USSR are dominated by women (52%), though the majority of journalists are male.

One-third or fewer of management roles are held by women in four regions: East/Southeast Asia (34%), sub-Saharan Africa (33%), the Middle East and North Africa (29%), and South Asia (25%). Only 12% of top leadership positions in South Asia are held by women.



#### **By Age**





#### Journalism continues to be a younger person's profession.

- Median age for journalists 35
- Median age for newsroom managers 42

#### This is the case across all newsroom types. Some notable findings:

- The highest percentage of journalists aged 30-35 work for traditional newsrooms organizations that are perceived to employ older professionals.
- The average age of employees in digital-only newsrooms has increased since 2017 from 25-29 to 30-35.



## THE JOB MARKET FOR JOURNALISTS

How is newsroom staff size affected in the digital age? What is the job market like for journalists?



#### **KEY FINDINGS**

Most newsrooms are small – and digital-only organizations are the smallest.

More newsrooms have cut their staff size since 2017. The exception: Nearly half of smaller organizations with a staff of 25 or fewer have increased in size.

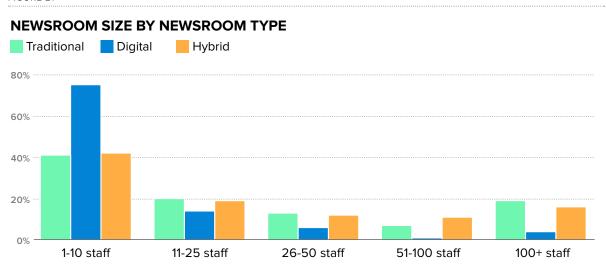
Freelancing has become prevalent as more journalists lose their jobs.

### Most newsrooms are small – and digital-only organizations are the smallest.

More than half of newsrooms around the world have ten or fewer full-time employees. Digital-only organizations are the smallest, with 75% employing only up to ten full-time staff members. Though their presence is shrinking globally, traditional outlets are the most likely to have a larger full-time staff than their hybrid counterparts. Nineteen percent of traditional newsrooms have a staff of at least 100, compared to 16% of hybrid and four percent of digital-only organizations (See Figure 21).



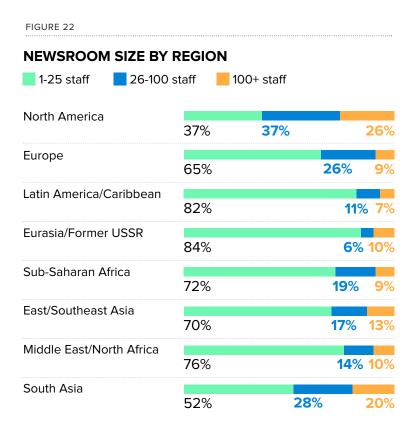
FIGURE 21



#### **NEWSROOM SIZE BY REGION**

North America has the widest range of newsroom sizes. No single size category holds a majority of the market -37% of organizations have up to 25 employees, 37% employ 26-100, and another 26% have a staff of more than 100, putting North America in the lead when it comes to larger newsrooms.

Small organizations with a staff of 25 or fewer are the majority in all seven other regions, ranging from 84% in Eurasia/former USSR to 52% in South Asia.





## Non-profit news organizations have the smallest staffs.

- 67% of non-profit newsrooms have ten or fewer full-time employees compared to 45% of for-profit organizations.
- 15% of for-profit organizations have more than 100 employees, compared to 7% of non-profits.

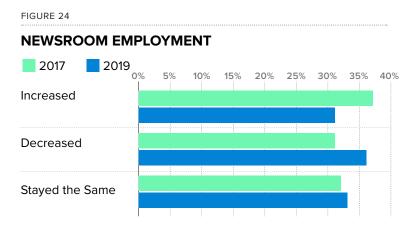


## More newsrooms have cut their staff since 2017. The exception: Nearly half of smaller organizations with a staff of 25 or fewer have increased in size.

Our results show that newsrooms continue to cut staff, with 36% of managers saying they lost employees in 2019 compared to 31% in 2017. At the same time, the percentage of newsrooms that increased in size declined from 37% to 31% since 2017.

Smaller organizations are the exception to this trend. Nearly half of outlets with a staff of 25 or fewer (46%)

have increased in size over the last year. Meanwhile, 59% of newsrooms with 100 or more employees have lost staff. This finding is consistent with trends showing a decline in the number of employees in large newsrooms, at both print and online outlets, for more than a decade (Grieco, 2019).

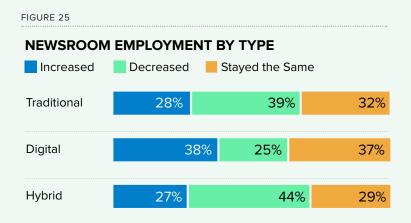






Digital-only newsrooms have increased in size while traditional and hybrid have gotten smaller:

- 38% of digital-only newsrooms have grown, while...
- 44% of hybrid newsrooms and 39% of traditional outlets have cut staff.



### Freelancing has become prevalent as more journalists lose their jobs.

Nearly 40% of journalists worldwide have lost their jobs due to budget cuts or reorganization. At the same time, freelancing has become highly prevalent, with 70% of journalists worldwide reporting that they have freelanced at some point in their career. The results indicate that freelancers are filling a gap left behind by continued downsizing in the industry -60% of the news organizations that reported cutting staff also said they hire freelancers.



## NEWS COVERAGE

What type of news are news organizations and journalists covering? What beats are journalists covering?



#### **KEY FINDINGS**

Smaller newsrooms are twice as likely to report on local news as larger outlets.

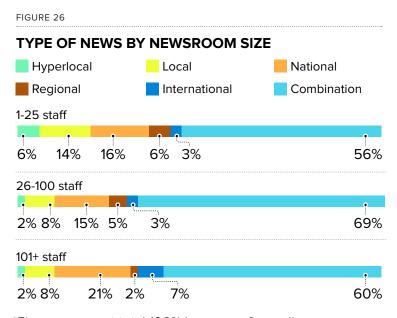
While government and politics is the dominant beat, about a third of all journalists regularly cover education, the economy and health.

Nearly one-third of journalists do investigative reporting, though just 12% identify as investigative reporters.

Radio outlets are most likely to cover specialized beats.

#### Smaller newsrooms are twice as likely to report on local and community news as larger outlets.

Regardless of their size, type and region, most news organizations (45%) and journalists (58%) worldwide report on a combination of local, national, and international events. This is consistent with other studies that point to a general decline in outlets dedicated to serving local



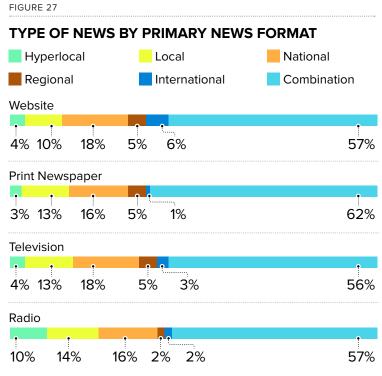
<sup>\*</sup>Figures may not total 100% because of rounding.



audiences – only 15% of newsrooms and 13% of journalists report exclusively on local news.

Twenty percent of small newsrooms cover local and hyperlocal events, compared to 10% of larger newsrooms (See Figure 26). One-quarter of radio stations worldwide are also devoted to local and hyperlocal news, making the medium the most relevant for local audiences (See Figure 27).

While government and politics is the dominant beat, about a third of all



\*Figures may not total 100% because of rounding.

#### journalists now regularly cover education, the economy and health.

More than half of journalists worldwide (52%) cover politics and government, making it the dominant news beat of the industry. The education beat is a distant second; still, one-third of journalists report on it (See Figure 28). Nearly 60% of journalists in broadcast newsrooms cover government and politics compared to 45% of journalists in print and digital newsrooms (See Figure 29).

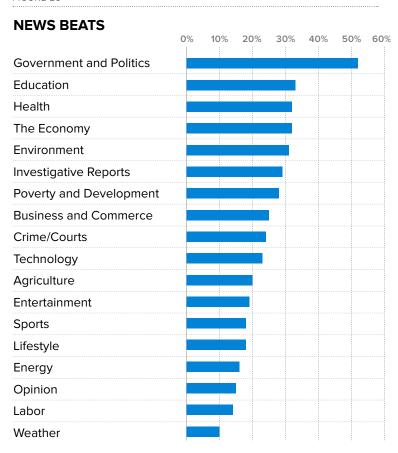
The trend is uniform across all eight regions, with government and politics in the lead, and one-third of journalists reporting on each of the following beats: education, economy, health, and investigative reporting.

### Nearly one-third of journalists do investigative reporting, though just 12% identify as investigative reporters.

Investigative journalism is widely practiced. While only 12% identify themselves as investigative reporters (See Table 1 on Page 12) 29% say investigative reporting is a regular part of their jobs. Journalists in print news organizations are slightly more likely to engage in investigative reporting than journalists in other newsrooms.



FIGURE 28



#### Is long-form journalism alive and well?

• **36**% of newsrooms increased the number of long-form pieces they ran over the past year.

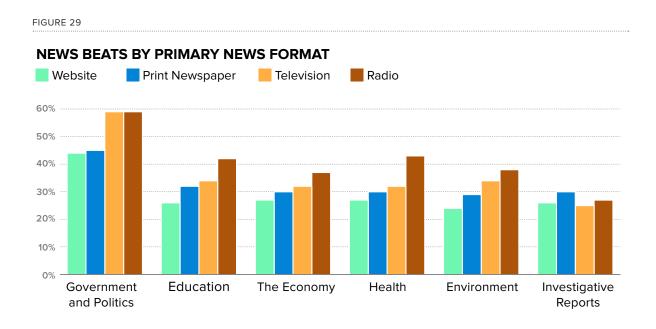
#### Yet...

• **32**% of newsrooms decreased the number of long-form pieces they ran over the past year.



### Radio outlets are most likely to cover specialized beats.

Most journalists covering specialized beats are concentrated in radio outlets. They are more likely than others to report on education (42%) and health (43%). Since radio stations are also more likely to cover local news (Figure 27), these data suggest that community news outlets focus more on bread-and-butter issues that directly impact their audiences.





### Notable regional differences

#### North American journalists are the least likely to report on:

- Education (16%)
- Economy (19%)

#### Journalists in Eurasia/former USSR are the least likely to cover:

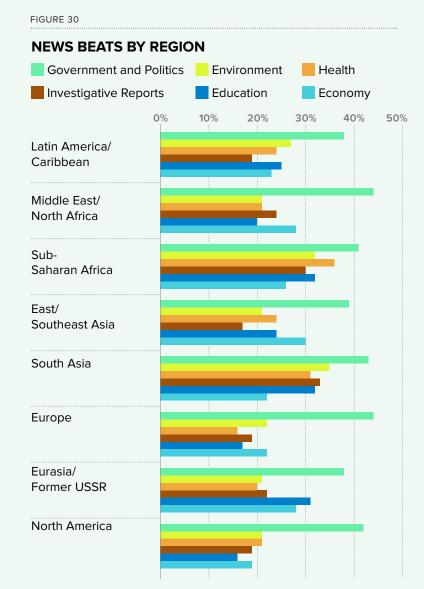
- Government and politics (38%)
- The environment (21%)

#### East/Southeast Asian journalists are:

- The least likely to do investigative reporting (17%)
- The most likely to cover the economy (30%)



- Fewer journalists in Europe report on health (16%) than elsewhere.
- South Asian journalists are by far the most likely to focus on the environment (35%) and investigative reporting (33%).





## FACT-CHECKING AND VERIFICATION

How much of a problem is misinformation for journalists and newsrooms? What kinds of tools do journalists and newsrooms use for fact-checking and verification? What steps have journalists and newsrooms taken to increase audience trust?



### **KEY FINDINGS**

More news managers than journalists say misinformation is a big problem.

More than twice as many journalists use social media verification tools today as did two years ago.

One-third of news organizations have dedicated fact-checkers on staff.

News managers say they are featuring more public-interest stories and citing more sources to increase audience trust.

## More news managers than journalists say misinformation is a big problem.

Three-quarters of news managers believe that misinformation has become a major problem for the industry, given the uptick in false and misleading narratives in recent years. However, slightly fewer than half of journalists worldwide believe that misinformation affects their day-to-day work.

Only three percent of managers think misinformation is not much of a problem compared to 18% of journalists.



## More than twice as many journalists use social media verification tools today as did two years ago.

In 2017, ICFJ found that only 11% of journalists used any kind of social media verification tools such as Dataminr and Storyful. Two years later, this trend has changed significantly, as more professionals adopt a variety of digital verification tools in their day-to-day work.

TABLE 2

#### USE OF FACT-CHECKING AND VERIFICATION TOOLS AT LEAST WEEKLY

	Newsrooms	Journalists
Tools for identifying trusted news sources (such as Google Fact Check Tools, Facebook Fact Checker)	49%	52%
Use reverse image search to verify the source of photos and other images (such as Google Image Search)	48%	40%
Fact-checking websites (such as Factcheck.org, Politifact)	41%	38%
Tools for verifying photos and videos (such as Google Earth Pro, Tin Eye)	40%	35%
Tools for detecting plagiarism (such as Grammarly, Copyleaks)	38%	30%
Social media verification platform (such as Storyful, Dataminr)	36%	25%
Recording apps for interviews with sources (such as Google Automatic Call Recorder)	36%	33%
Tools for identifying fake news websites (such as KnowNews)	32%	25%
Consult fact-checking and verification resources (such as Verification Handbook, Verification Junkie, First Draft News)	32%	24%
Tools for tracking contact details for content uploaders (such as Pipl)	27%	19%



One-quarter of journalists say they use social media verification tools at least weekly, and more than one-third of news managers report their organizations are doing the same.

Tools for identifying trusted news sources are the most frequently used by news professionals. Half of newsrooms and journalists use these tools, such as Google Fact Check Tools and Facebook Fact Checker, at least weekly.

Forty-eight percent of newsrooms and 40% of journalists use reverse image tools, such as Google Image Search. Newsrooms (40%) and journalists (35%) also use tools for verifying photos and videos, such as Google Earth Pro and Tin Eye.

## One-third of news organizations have dedicated fact-checkers on staff.

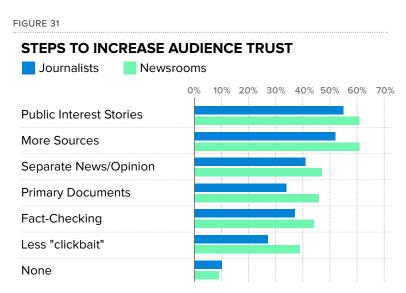
News organizations are also taking other steps to combat misinformation and increase audience trust. One-third of news managers say their organizations employ specialized fact-checkers to verify stories. Forty-four percent of newsrooms and 37% of journalists have engaged in more fact-checking activities over the past year (See Figure 31).

## News managers say they are featuring more public-interest stories and citing more sources to increase audience trust.

In the past year, more than 60% of newsrooms and over 50% of journalists are focusing more on public-interest stories and citing more sources to build audience

trust. Nearly half of newsrooms and 42% of journalists are also taking steps to separate news stories from opinion pieces.

Forty percent of newsroom managers claimed that their organizations were focusing less on sensational stories and "clickbait." Just 10% of newsrooms and journalists say they have taken no steps to increase audience trust (See Figure 31).





## SKILLS AND EXPERTISE

What kinds of skills and expertise are journalists bringing with them to the newsroom?



#### **KEY FINDINGS**

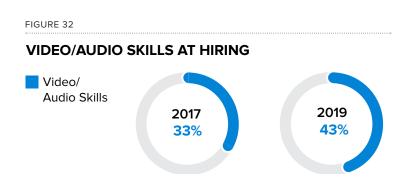
More journalists are being hired with digital content creation skills, but few bring cybersecurity or analytics experience.

Journalists in Latin America/Caribbean and Eurasia/former USSR have less digital expertise.

## Most journalists are being hired with digital content creation skills, but few bring cybersecurity or analytics experience.

Most professional journalists came into their positions with at least some basic digital skills. In fact, more than half (52%) had at least two digital skills at the time they were hired.

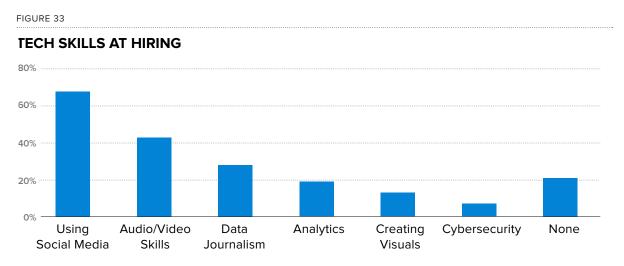
Globally, we see improvement in digital video and audio skills. In our 2019 study, 43% of journalists had experience with digital video, photo, and audio tools when hired, compared to 33% in 2017. These skills rank highly across all eight regions.



When it comes to other digital content creation skills, the vast majority (68%) had experience when hired in using social media to research and distribute content. A significant proportion (28%) brought data journalism experience, also a key content creation skill.



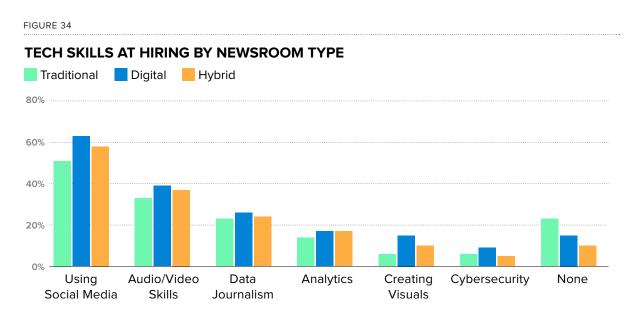
By comparison, few hires had more advanced tech skills. Only 19% of journalists had experience with analytics when they came into their positions. Sixteen percent had skills in creating visuals such as gifs and animations. A mere 7% had cybersecurity skills when they started their jobs.



#### **SKILLS AT HIRING BY NEWSROOM TYPE**

Even among those working for digital-only organizations, fewer than 10% brought any cybersecurity skills at the time they were hired.

Digital skills associated with content production are highly valued even in traditional organizations. Half the journalists hired had experience in social media, and one-third had worked with digital video, audio, and photos.







Men are more likely to have digital experience at the time of their hiring than women.

- 24% of women had no digital experience compared to 15% of men.
- 48% of women had experience with two or more tech skills compared to 55% of men.

Journalists who have been working in the profession longest tend to have been hired with fewer tech skills.

- Average of 12.5 years professional experience 

   no digital skills
- Average 10.5 years  $\longrightarrow$  1 digital skill
- Average of 10 years  $\longrightarrow$  2+ digital skills

### Journalists in Latin America/Caribbean and Eurasia/former **USSR** have less digital expertise.

Journalists in Latin America/Caribbean (27%) and Eurasia/former USSR (22%) were the most likely to have no tech skills when they were hired (See Figure 35).

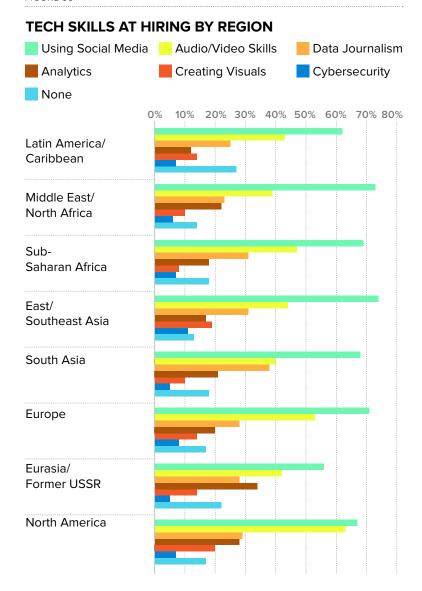
Journalists from Eurasia/former USSR (56%) and Latin America/Caribbean (62%) are also the least likely to have social media experience at the time of their hiring.

### Other key regional highlights:

- Data journalism expertise among new hires is becoming more prevalent across all regions, with South Asia in the lead at 38% and the Middle East coming in last at 23%.
- The greatest regional variation in digital experience is in video and audio tools. Journalists in North America (63%) and Europe (53%) were far more likely to come to their position with these skills than their counterparts in other regions, especially the Middle East/North Africa (39%) and South Asia (40%).
- Cybersecurity experience is low everywhere, with East/Southeast Asia holding a small lead at 11%.



FIGURE 35





## REGULARLY USED DIGITAL SKILLS

What kinds of digital skills do journalists regularly use?



#### **KEY FINDINGS**

Social media skills are used more frequently than any other in every aspect of journalism.

Data-driven journalism has become much more common today than just two years ago.

More than half of journalists regularly use digital tools to factcheck information.

ICFJ surveyed journalists on the digital skills they apply to their day-to-day work. We examined three categories of skills: social media, data, and technical.



#### **SOCIAL MEDIA SKILLS**

- Posting stories and comments on social media
- Competitive research checking on what other news organizations are doing
- Finding user-generated or other social media content to add to stories
- Engaging with audiences online and on social media
- Promoting your work and develop your brand
- Using social media analytics to measure your audience engagement



#### **DATA-RELATED SKILLS**

- Analyzing and using data to create stories
- Creating data visualizations and infographics
- Creating maps
- Administering surveys
- Performing statistical analysis





#### **TECHNICAL SKILLS**

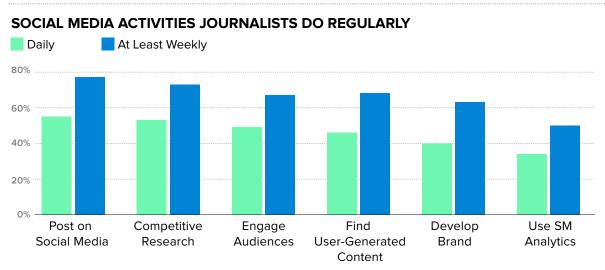
- Audio production and editing
- Video production and editing
- Website and page layout/design
- Website development
- Creating visuals (e.g., animations, gifs)
- Working with live video
- Working with VR/360
- Podcast production
- Building or adapting digital tools/apps for newsroom use
- Using artificial intelligence (Al and robo-journalism)
- · Mobile and backpack reporting
- Using a content management system for newsrooms
- Using tools to verify and fact-check information
- · Understanding and using data analytics
- CMS management and coding
- Search engine optimization (SEO)
- Cybersecurity

## Social media skills are used more frequently than any other in every aspect of journalism.

Social media sites have become increasingly fundamental to the day-to-day work of journalists, used for everything from generating new content to interacting with audiences to scoping out the competition. Only 3% of journalists worldwide say they rarely or never use these sites to do their work.







Journalists are using social media more frequently to post and share their stories (77%) and engage audiences (67%) today than in 2017, a clear sign that these sites are only growing more important for the industry. More journalists are also turning to social networks regularly to research the competition (73%) and find user-generated content (68%) than they did in 2017 (See Table 3).

TABLE 3

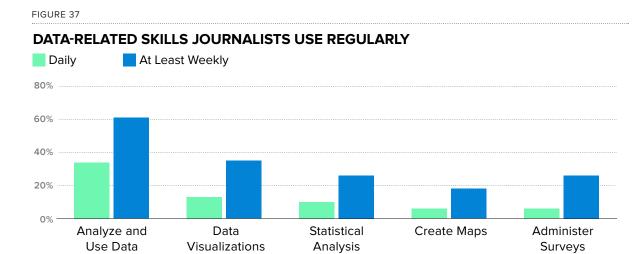
#### SKILLS USED BY AT LEAST 50% OF JOURNALISTS

	2017	2019
Posting stories and comments on social media	55%	77%
Competitive research	64%	73%
Finding user-generated or other social media content to add to stories	53%	68%
Engaging with audiences on social media	49%	67%
Promoting your work and develop your brand	48%	63%
Analyzing and use data to create stories	36%	61%
Using tools to verify and fact-check information	51%	56%
Using analytics to measure audience engagement	50%	50%

## Data-driven journalism has become much more common today than just two years ago.

The increasing reliance on data marks the biggest change in the way journalists practice their profession today. Data journalism skills (the use of data to produce and distribute stories) are among the top tier of regularly employed activities among journalists.





Sixty-one percent of journalists analyze and use data to create stories at least weekly, compared to 36% who did the same just two years ago (See Table 3). Thirty-five percent are also producing data visualizations and infographics compared to 27% in 2017.

Roughly one-quarter of journalists administer surveys at least weekly, indicating that many are engaging their audiences in data collection for their stories. Fewer journalists perform statistical analysis (26%) or create maps (18%) as regularly, though the overall results point to the increasing importance of data in journalism.

Just 16% of journalists never use data-related skills.

### More than half of journalists regularly use digital tools to factcheck information.

Among all the technical skills we surveyed, digital fact-checking is the most common. Thirty-nine percent of journalists use digital tools to fact-check and verify information daily, and 56% do so at least weekly. These include the use of tools such as fact-checking websites, tools for detecting plagiarism, Google Fact Check and Facebook Fact Checker, reverse image search and social media verification platforms (See Figure 38).

#### **RANGE OF DIGITAL SKILLS**

With the exception of data, journalists have not embraced advanced digital skills.



The percentage of journalists who use skills such as cybersecurity, VR/360, and podcast production has changed very little in the past two years (See Table 4). The most significant change is among journalists building or adapting digital tools/apps for newsroom use, up to 23% from 16% since 2017.

Only a small number of journalists are acquiring skills associated with the latest technological innovations. Six percent of journalists are using Al and robo-journalism daily, and 10% are using them weekly.

FIGURE 38

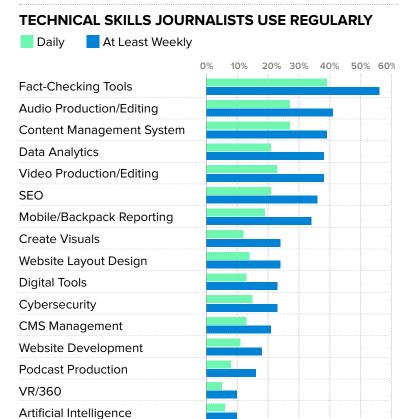


TABLE 4

#### LOWER-TIER SKILLS USED BY JOURNALISTS REGULARLY

Skills used by less than 30% of journalists worldwide

	2017	2019
VR/360	6%	10%
Podcast production	11%	16%
Cybersecurity	22%	23%
Building or adapting digital tools/apps for newsroom use	16%	23%



# PROFESSIONAL DEVELOPMENT

What types of training do newsrooms offer? What types of training do journalists want?



#### **KEY FINDINGS**

Training on data journalism lags.

Journalists demand more specialized training than newsrooms offer.

Journalists want hands-on, intensive training workshops while newsrooms offer short classes.

Training on digital tools for verification has remained flat or decreased.

East/Southeast Asia newsrooms lead in training; Latin America and Eurasia trail.

### Training on data journalism lags.

ICFJ surveyed journalists and news managers on the digital training they have received, which we divided into three categories: social media, data journalism, and general tech skills such as audio/video production and CMS management.

Only one-third of journalists have received data journalism training, compared to approximately half who have received instruction on social media and tech skills. Data journalism ranks even lower among newsroom managers, with only 22% reporting

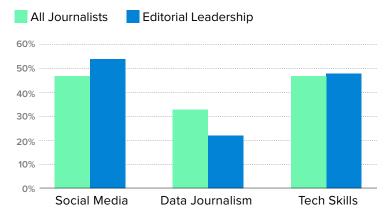


that they have received training in this area (See Figure 39). This is far below the training that managers received in social media (54%) and tech skills (48%).

Overall, journalists who hold established positions such as writer and reporter are less likely to have received digital training than those in new roles such as social media editor and digital content producer. However, the gap in training is smaller for data journalism, with

FIGURE 39

#### RECEIVED TRAINING IN SOCIAL MEDIA, DATA JOURNALISM, AND TECH SKILLS BY NEWSROOM POSITION

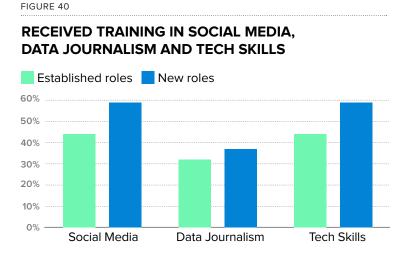


32% of journalists in established roles and 37% in new roles having participated in this type of instruction (See Figure 40).

## Journalists demand more specialized training than newsrooms offer.

Journalists value intensive training on specialized skills that newsrooms have failed to offer – a trend that has continued since 2017. This is the case for training on virtually all social media, tech, and data journalism skills. More than 90% of journalists want digital skills training.

Journalists place a greater value on highly specialized digital skills than their employers. For example, 40%



of journalists want training in cybersecurity, but it is offered by only 11% of newsrooms. Training on fact-checking is prioritized by half of journalists, but offered by only 20% of newsrooms. Nearly half of journalists want training in analytics, but only 11% of newsrooms offer it. In new technologies such as AI, 42% of journalists want training but only 5% of newsrooms make it available (See Figure 41).



More newsrooms (40%) offer training in video production than in any other tech skills, yet the demand (60%) for this kind of instruction is still substantially greater than what is offered.

The gap between demand and availability is especially evident in data-related skills (See Figure 42). At least half of journalists report that they value these skills with a vast majority (79%) saying they want training on analyzing data. Yet only 35% of newsrooms offer any training on data analysis and even fewer provide professional development in other data-related skills.

Just 6% of journalists say they did not need any data-related training.

The only area where journalist demand matches newsroom availability is training on posting stories and comments on social media, 48% for journalists and newsrooms (See Figure 43).

Journalists want handson, intensive training workshops while newsrooms offer short classes. FIGURE 41

## TECHNICAL SKILLS TRAINING JOURNALISTS FIND HELPFUL/NEWSROOMS OFFER

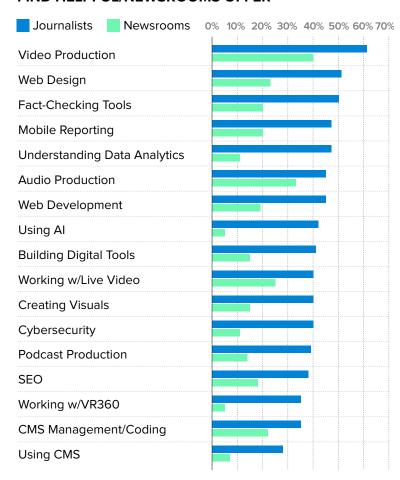
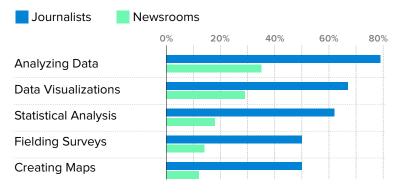


FIGURE 42

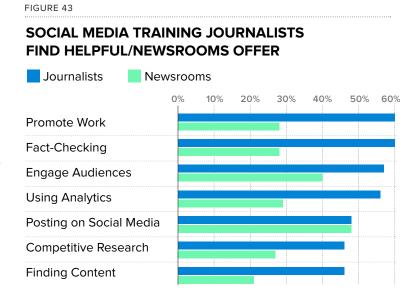
## DATA-RELATED JOURNALISM TRAINING JOURNALISTS FIND HELPFUL/ NEWSROOMS OFFER





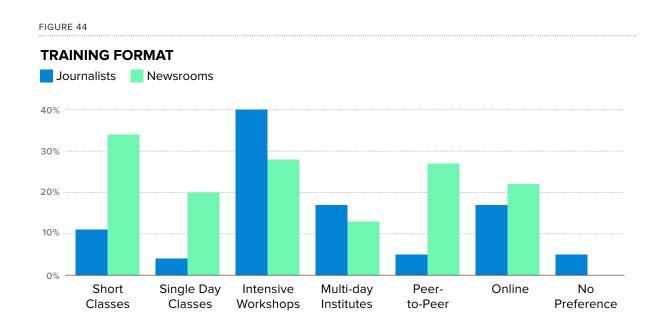
There is a similar disconnect between journalists and news managers in their views of training formats.

Journalists (40%) overwhelmingly prefer hands-on, intensive workshops and lab sessions, while only 28% of newsrooms offer that kind of training (See Figure 44). Instead, more than one-third of newsrooms provide classes of a half-day or shorter and 27% say they offer peer-to-peer training —



both formats that do not rank highly among journalists.

The smallest gap between demand and availability is online classes, offered by 22% of newsrooms and valued by 17% of journalists.





## <u>Training on digital tools for verification has remained flat or decreased.</u>

Though use of digital verification tools has increased, training on them has decreased since 2017 among hybrid and digital-only organizations, while remaining stable at 16% for traditional outlets. Training on other skills such as mobile/backpack reporting and using analytics have also declined across most types of newsrooms.

Training is increasing in a few topic areas, such as posting stories on social media. That has grown substantially across all newsroom types, nearly doubling for digital-only organizations. More news outlets are also offering training on web coding/design and podcast production today than two years ago.

TABLE 5

#### **TRAINING TOPICS 2017 VS 2019**

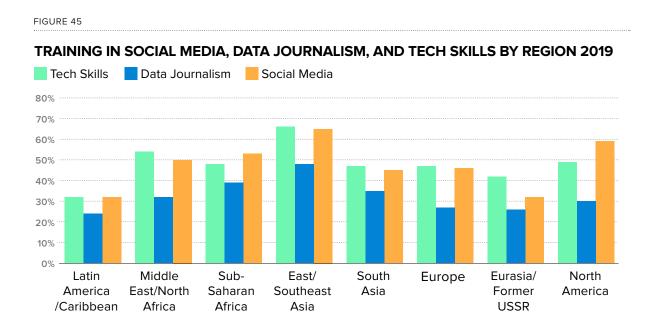
		Traditional	Digital	Hybrid
Posting Stories on Social Media	2017	18%	23%	36%
	2019	31%	42%	38%
Using Digital Tools for Verification	2017	16%	28%	26%
	2019	16%	26%	21%
Mobile/Backpack Reporting	2017	14%	24%	23%
	2019	14%	28%	14%
Using Analytics	2017	8%	18%	17%
	2019	2%	14%	14%
Building Digital Tools/Apps	2017	5%	12%	19%
	2019	7%	12%	13%
Web Coding/Design	2017	4%	14%	8%
	2019	14%	20%	16%
Podcast Production	2017	3%	4%	9%
	2019	7%	11%	12%



## East/Southeast Asia newsrooms lead in training; Latin America and Eurasia trail.

Journalists in East/Southeast Asia are the most likely to have received training on technical skills (66%), social media (65%) and data journalism (48%). East/Southeast Asia is the region where digital-only outlets dominate, suggesting that the news media there are embracing the digital era perhaps more than others.

On the other hand, Latin America/Caribbean and Eurasia/former USSR, also regions that have a high proportion of digital-only outlets, are lagging in specialized training. Journalists in both regions are the least likely to receive training in all three areas: social media, technical skills, and data journalism (See Figure 45).





## 9 DIGITAL SECURITY

How do newsrooms and journalists secure their communications? What types of security measures do they employ?



#### **KEY FINDINGS**

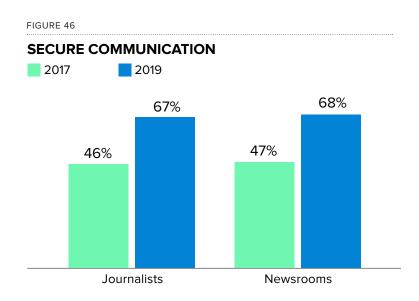
More than two-thirds of journalists and newsrooms secure their communications — a significant improvement over 2017.

Only a small percentage of journalists and newsrooms go beyond messaging apps to secure their digital communications.

Newsrooms in Europe and North America are the most likely to secure their communications.

## More than two-thirds of journalists and newsrooms secure their communications – a significant improvement over 2017.

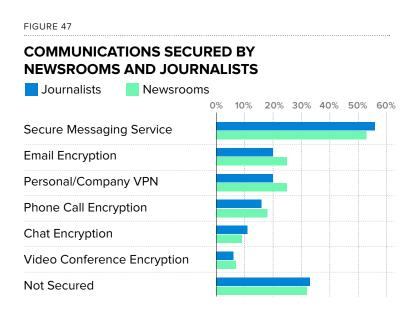
In 2017, more than half of journalists and newsrooms used no cybersecurity techniques.
Today, that number has dropped to one-third. The increase in secure communications is largely driven by encrypted messaging apps such as WhatsApp,
Telegram and Signal. Over 50% of journalists and newsrooms use messaging apps to secure their communications (See Figure 47).





## Only a small percentage of journalists and newsrooms go beyond messaging apps to secure their digital communications.

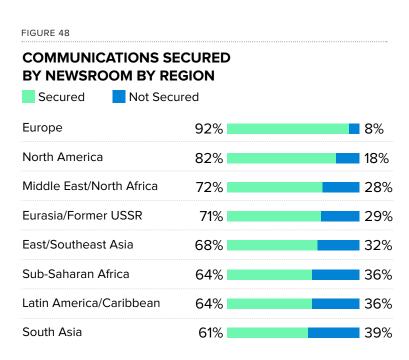
All other security measures are used by no more than one-quarter of newsrooms and by even fewer journalists. Email encryption and VPN, second to messaging apps, are used by 25% of newsrooms and 20% of journalists. In 2017, email encryption was used by almost half of newsrooms (44%) and journalists (45%); in 2019, that percentage dropped to 25% for newsrooms and 20% for journalists.



## Newsrooms in Europe and North America are the most likely to secure their communications.

As we found in 2017, Europe is the leader in secure communications; 92% of newsrooms in the region take at least one measure to protect their digital exchanges. North America is a close runner-up with 82% of newsrooms securing their communications. The percentage of North American newsrooms that secure their communications has doubled since 2017, from 41%.

Messaging apps are the most popular security tool in most regions. In North America,





however, they tie with VPNs, at 50%, as the most commonly used digital security measure.

Newsrooms in South Asia (39%) are the least likely to take any measures to secure their communications. Fewer journalists use encrypted messaging apps as a security tool in the region.



## AUDIENCE ENGAGEMENT

What tools and platforms do journalists use to engage their audiences?



#### **KEY FINDINGS**

Journalists' use of messaging apps to engage audiences has spiked since 2017 – even surpassing Twitter.

North American journalists are the least likely to engage audiences on messaging apps.

Journalists covering hyperlocal news use the widest variety of tools and platforms to interact with audiences.

## Journalists' use of messaging apps to engage audiences has spiked since 2017 – even surpassing Twitter.

Social media continues to be the primary method for engaging audiences. Eighty-two percent of journalists use social media at least weekly to interact with audiences, and 62% use it daily. Instant messaging tools, however, have gained traction. More than two-thirds of journalists (69%) engage their audiences at least weekly with instant messaging apps (57% daily). This surpasses the 63% of journalists who use Twitter and other microblogs at least weekly (46% daily).



TABLE 6

#### REGULARLY USED AUDIENCE ENGAGEMENT TOOLS

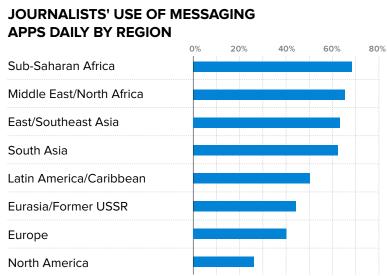
First-Tier Audience Engagement Tools – Used by At Least 50% of Journalists Weekly	<ul> <li>Social Media (such as Facebook)</li> <li>Instant Messaging Apps (such as WhatsApp and Facebook Messenger)</li> <li>Microblogs (such as Twitter and Weibo)</li> </ul>
Second-Tier Audience Engagement Tools – Used by At Least 30% of Journalists Weekly	<ul> <li>Video Sites (such as YouTube and Vimeo)</li> <li>Email Newsletter</li> <li>Professional Networking Sites (such as LinkedIn)</li> <li>Live Video</li> </ul>
Third-Tier Audience Engagement Tools – Used by Less Than 30% of Journalists Weekly	<ul><li>Discussion Boards</li><li>Crowdsourcing</li></ul>

## North American journalists are the least likely to engage audiences on messaging apps.

More journalists engage their audiences via messaging apps in sub-Saharan African (68%), the Middle East/North Africa (65%), East/ Southeast Asia (63%), and South Asia (62%) than in other regions.

In contrast, only 26% of journalists in North America engage their audiences using messaging apps. Europe (40%) and Eurasia/former USSR (44%) round out the bottom three regions. The difference in journalists' use of messaging apps



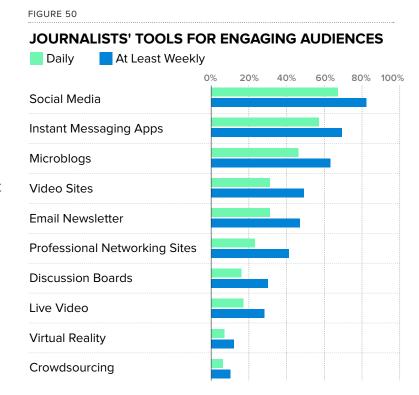


between sub-Saharan Africa and North America is 42 percentage points.



Tools used to a lesser extent, but still popular (used weekly by at least 30% of journalists), are: video sites (such as YouTube and Vimeo) by 49% of journalists and email newsletters by 47% of journalists. Thirty percent of journalists engage their audiences with live video at least weekly.

Only 10% of journalists crowdsource information from audiences at least weekly (See Figure 50).



## Journalists covering hyperlocal news use the widest variety of tools and platforms to interact with audiences.

Journalists covering hyperlocal news tend to use social media, instant messaging, video sites, and crowdsourcing more than other journalists.

Eighty-nine percent use social media at least weekly (more than the 82% for all journalists), 75% use instant messaging apps (more than the 69% for all journalists), 63% use microblogs (no difference from the overall percentage), and 58% use video sites (above 49% for all journalists).

Journalists reporting hyperlocal news also are more likely to use crowdsourcing at least weekly (15% compared to 10% for all journalists).



## 11

## **ANALYTICS**

How often do newsrooms and journalists consult analytics to measure how people access and use content? Who uses analytics regularly in the newsroom? Which metrics are used regularly by newsrooms and journalists? How do newsrooms use analytics?



#### **KEY FINDINGS**

Both editorial and business managers use analytics less frequently than they did in 2017.

Individual journalists are consulting analytics much more frequently than they were two years ago.

Pageviews is still the most important metric for newsrooms, but reliance on it and most other metrics has declined.

Newsrooms use analytics more to track performance of individual journalists' articles.

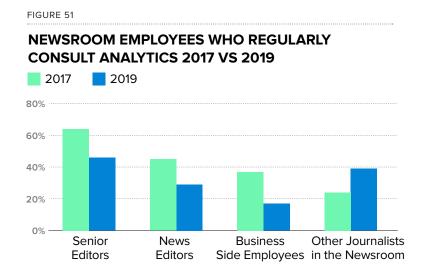
## Both editorial and business managers use analytics less frequently than they did in 2017.

The percentage of senior editors, news editors, and business-side employees in the news organization who regularly consult analytics has dropped between 2017 and 2019. Senior editors' use of analytics has declined a steep 18 percentage points, from 64% to 46%. Business-side employees' use has decreased 20 percentage points, from 37% to 17%, and news editors' regular use has dropped from 45% to 29%. This is a clear sign of the decline in use of audience analytics among newsroom managers (See Figure 51).

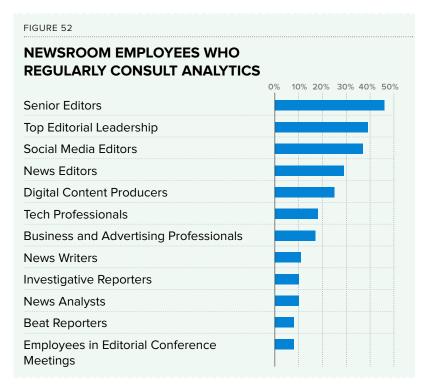


Newsroom managers are also showing less daily reliance on data analytics than they were just two years ago. Thirty-nine percent consult analytics daily (real-time plus once a day) in 2019 versus 45% in 2017 (See Figure 53).

While news managers are using analytics less daily or weekly, slightly more are consulting them monthly – 19%, up from 12% in 2017.



The percentage of newsrooms that rarely or never consult audience analytics was similar across the two study years – suggesting that no new newsrooms have adopted analytics as a tool over the past two years.



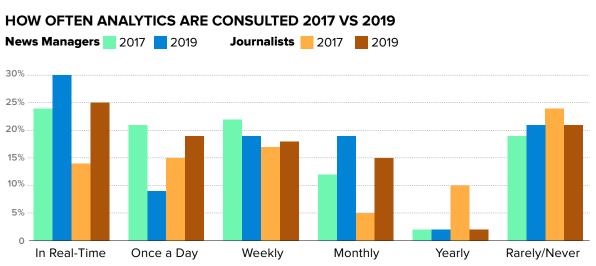
## Individual journalists are consulting analytics much more frequently than they were two years ago.

In 2017, journalists seldom consulted analytics regularly. In just two years, that has substantially changed. Today, 44% of journalists use analytics at least once a day (25% in real-time plus 19% once a day), compared to 29% two years ago. One-quarter consult them in real-time yersus 14% in 2017.



However, the number of journalists who never or rarely use analytics at all has stayed the same over the last two years. This is a clear sign that use is deepening among those who already engage with analytics, but that these tools are not being adopted by more journalists.





## Pageviews is still the most important metric for newsrooms, but reliance on it and most other metrics has declined.

In 2017, pageviews were by far the most popular metric. That hasn't changed – but the gap between pageviews and other metrics has narrowed. In 2019, 59% of newsrooms consulted pageviews regularly – a steep decline from 73% in 2017. The use of almost every single metric has decreased since 2017 (See Table 7). The only metric that showed growth is reach (number of people exposed to a piece of content). That grew from 43% to 51% in 2019.

The three metrics consulted most often by newsrooms and journalists in 2019 are the same as in 2017. Newsrooms (59%) and journalists (51%) both consulted pageviews significantly more than any other metric, followed by reach and visitors. Newsrooms and journalists were equally likely in 2019 to track social shares. The level of consistency in the rankings of the metrics used by news professionals between 2017 and 2019 is striking.



TABLE 7

#### **METRICS 2017 VS 2019**

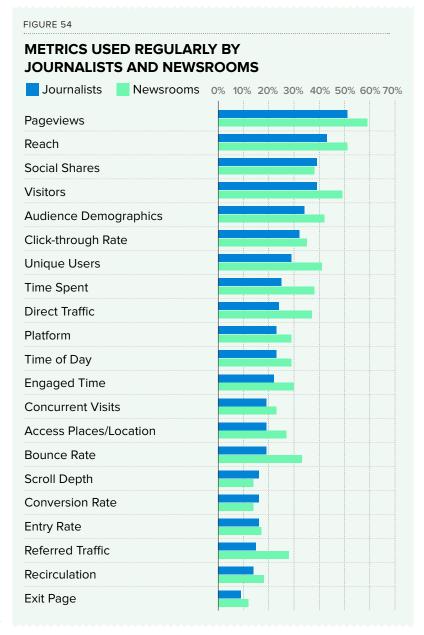
	2017	2019
Pageviews (any time a user views a page)	73%	59%
Reach (number of people exposed to a piece of content)	43%	51%
Visitors (number of new users, returning users, and loyal users)	58%	49%
Audience demographics	50%	42%
Unique users (number of people who have visited a website)	57%	41%
Social shares (number of times a piece of content has been shared via social media)	46%	38%
Time spent (amount of time visitors have spent on a site)	54%	38%
Direct traffic (traffic that comes directly to the site)	39%	37%
Click-through rate (percentage of visitors who follow a hypertext link)	45%	35%
Bounce rate (users who land on a site and leave immediately)	46%	33%
Engaged time (amount of time users spend actively interacting with a story)	36%	30%
Time of day (when users are accessing content)	36%	29%
Platform (where users are accessing content)	34%	29%
Referred traffic (traffic that comes from an external source)	32%	28%
Access places/location (places from which users are accessing content)	30%	27%
Concurrent visits (total number of people on a site at a time)	25%	23%
Recirculation (percentage of the audience that engages with more than one piece of content)	16%	18%
Entry rate (percentage of visits starting on a particular page)	16%	17%
Conversion rate (percentage of users who take a desired action, such as subscribing or registering)	18%	14%
Scroll depth (how far users scroll down a page)	16%	14%
Exit page (last page accessed before a user leaves a site)	13%	12%



## Newsrooms use analytics more to track performance of individual journalists' articles.

For the most part, news managers are using analytics to inform the same strategic and operational decisions that they did in 2017. The most prevalent use is to inform day-to-day editorial decisions (65%). Other top uses of analytics are to drive traffic to the website (61%), and inform technical decisions, such as headlines and placement of photos (59%).

One trend stands out: Newsroom managers' use of analytics to track the performance of articles by individual journalists has substantially increased over the past two years. In 2017, 32% of newsrooms tracked journalists' performance regularly; in 2019, 37% tracked the performance daily and 59% did so at least weekly.





The table below shows the ranking of how newsrooms used analytics in 2017 and 2019. Driving traffic to the website, informing editorial decisions, and engaging audience members are in the top five for both years. Guiding creation of content for third-party platforms and tracking audience demand for products are ranked consistently in the bottom five.

FIGURE 55

### **NEWSROOM USE OF ANALYTICS** At least weekly 20% 40% 60% Inform day-to-day editorial decisions Drive traffic to website Track articles by individual journalists Inform technical decisions Engage audience members Promote home page Monitor referrals from sources Workflow recommendations Target specific users Schedule notifications and push alerts Identify users across channels and platforms Attract advertisers Align editorial/business priorities Track audience demand for products

Inform long-term newsroom strategies

Guide creation of content 3rd party platforms



#### **NEWSROOM USE OF ANALYTICS 2017 VS 2019**

	2017	2019
1.	Drive traffic to website	Inform editorial decisions
2.	Engage audience members	Drive traffic to website
3.	Inform editorial decisions	Inform technical decisions
4.	Promote home page	Track articles of individual journalists
5.	Inform long-term newsroom strategies	Engage audience members
6.	Make workflow recommendations	Promote home page
7.	Monitor referrals/sources	Monitor referrals from sources
8.	Inform technical decisions	Make workflow recommendations
9.	Attract advertisers	Target specific users
10.	Align editorial/business priorities	Identify users across platforms
11.	Target specific users	Schedule notifications and push alerts
12.	Identify users across platforms	Attract advertisers
13.	Track articles of individual journalists	Align editorial/business priorities
14.	Schedule notifications and push alerts	Track audience demand for products
15.	Track audience demand for products	Inform long-term newsroom strategies
16.	Guide creation of content for 3rd	Guide creation of content 3rd
	party platforms	party platforms



## 1 NEWSROOM BUSINESS MODELS

How are media businesses faring in the digital age? What are the primary revenue streams for newsrooms?



#### **KEY FINDINGS**

Advertising is NOT the largest source of revenue for a majority of newsrooms.

Non-profit news organizations count equally on philanthropy and digital display ads for funding.

More than one-quarter of news managers expect online subscriptions/membership to become a key funding source in the upcoming year.

European media anticipate the greatest diversity in revenue streams.

## Advertising is NOT the largest revenue source for a majority of newsrooms.

ICFJ asked newsroom managers to identify the top revenue generator in their organization (See Figure 56). Surprisingly, over half (54%) said it wasn't advertising. Of the newsrooms that rely primarily on advertising, most (29%) say traditional advertising is most important, followed by digital display ads (15%) and programmatic ad networks (2%).

Larger organizations are the most reliant on advertising. More than half of news

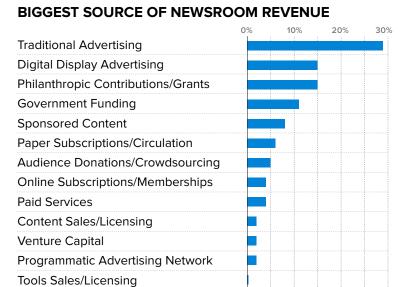


organizations with 26-100 employees and 40% with a staff of more than 100 identified traditional advertising as their most important revenue source (See Figure 57).

Meanwhile, organizations with a staff of 25 or fewer are attracting alternative revenue sources. Less than one-quarter of these organizations name traditional advertising as an important revenue stream.

More small outlets are relying on philanthropic contributions/

FIGURE 56

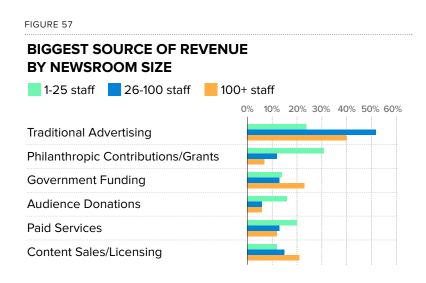


grants (31%), paid services (20%), and audience donations (16%) than their larger counterparts (See Figure 57).

Government funding is more important for newsrooms with over 100 employees (23%) than for smaller newsrooms (13%).

## Non-profit news organizations count equally on philanthropy and digital display ads for funding.

There are significant differences in the revenue streams of for-profit and non-profit newsrooms. For-profit newsrooms rely more on advertising, but it's also an important source of revenue



for non-profits. Digital-display ads are identified as an important revenue stream by 36% of non-profit managers – the same percentage who named philanthropic contributions as a key funding source (See Figure 58).



Overall, we see a greater diversity of revenue sources among non-profits, including sponsored content (28%), paid services (24%), and government funding (20%).

## PHILANTHROPIC CONTRIBUTIONS AND AUDIENCE DONATIONS

Overall, 15% of news managers identified philanthropic contributions/grants as their primary source of revenue, making it second only to traditional advertising (29%) and tied with digital display ads (See Figure 56).

Just 9% of news managers say audience revenue from online subscriptions/membership and crowdsourced donations is their biggest source of funding. That surpasses the 6% that still rely on paper subscriptions and circulation.

#### BY NEWSROOM TYPE

Digital-only news organizations are more likely to generate funding from alternative sources to advertising than their traditional and hybrid counterparts.

The difference is most pronounced with philanthropic





#### FIGURE 59





contributions/grants, considered important for 32% of digital-only newsrooms compared to 20% of hybrid and 18% of traditional organizations. Online subscriptions/ memberships are also more important to digital-only newsrooms (20%) than traditional (9%) and hybrid (9%). Sponsored content is a more important revenue source for digital newsrooms (41%) than for traditional (32%) and hybrid (35%) organizations.

#### More than one-quarter of news managers expect online

FIGURE 60

subscriptions/
membership to become
a key funding source in
the upcoming year.

When asked to select important revenue streams for the next year, news managers anticipate diversified funding, with no single source selected by a majority. Only digital advertising, selected by 44%, comes close. Sponsored content is the second most important, selected by 37% of news managers.

At 27%, online subscriptions/ memberships are among the top ANTICIPATED REVENUE STREAMS 20% 30% 40% 50% Digital Display Advertising **Sponsored Content** Traditional Advertising Online Subscriptions/Memberships Philanthropic Contributions/Grants Paid Services Government Funding Programmatic Advertising Network Paper Subscriptions/Circulation Content Sales/Licensing Audience Donations/Crowdsourcing Venture Capital Tools Sales/Licensing

anticipated revenue stream – even though only 4% of news organizations say it is currently their most important funding source.

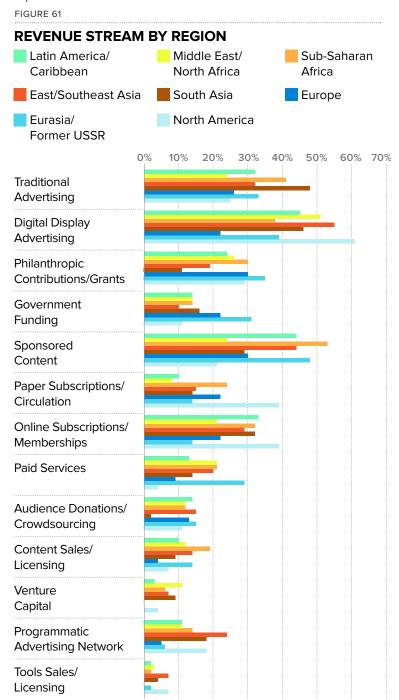
### **European media anticipate the greatest diversity in revenue streams.**

European newsrooms anticipate the most balanced revenue portfolio. Just under one-third of newsrooms identify philanthropic contributions/grants and sponsored content as important. One-quarter selected traditional advertising. Digital display ads, along with paper subscriptions, online subscriptions/memberships, and government are considered important revenue sources for 22% of newsrooms in the coming year.



#### Other notable regional differences:

- Digital display ads play a particularly key role in North America, where they are expected to become the most important source of revenue for a vast majority of newsrooms (61%).
- Sponsored content (48%) surpasses traditional advertising (33%) and digital display ads (39%) in Eurasia/former USSR.





# 13 IMPACT OF DIGITAL TECHNOLOGY

How have digital tools influenced audience engagement? News quality? Productivity?



#### **KEY FINDINGS**

More than two-thirds of news professionals believe digital tools have a positive impact on their work.

More journalists than news managers believe data journalism has a positive impact on their work.

Forty percent of news managers believe that data journalism helps increase revenue.

News managers are more likely than journalists to believe that analytics increase productivity.

## More than two-thirds of news professionals believe digital tools have a positive impact on their work.

There is a near-universal consensus among respondents on the positive impact of digital tools on their work. On average, 74% of managers and 72% of journalists say digital tools improve the quality of news. Approximately three-quarters of managers and journalists also believe that these tools improve audience engagement.

However, a smaller majority (67%) believe that these services increase productivity. In fact, news managers are more likely to believe that digital tools have a negative impact on productivity (15%) compared to news quality (8%) and audience engagement (10%).



Both news managers and journalists agree that social media, more than any other digital tool, has a positive impact on their work.

AUDIENCE ENGAGEMENT: About 90% of newsroom managers and journalists believe that social media has made it easier to engage with their audiences. Audiovisual tools come in second, selected by just over 80% of both groups as the most effective means of audience engagement (See Figure 62).

#### **NEWSROOM PRODUCTIVITY:**

Seventy-six percent of both news managers and journalists say that social media has increased productivity in their organization. Slightly fewer, 74%, believe that audiovisual tools have had a positive impact on productivity (See Figure 63).

NEWS QUALITY: Journalists and news managers are most divided regarding the impact of social media on news quality. Their opinions diverge here more than with any other digital tool. A substantially smaller percentage of journalists (73%) than managers (90%) believe that social media improves news quality. In fact, 20% of journalists believe that social media hurts news quality, compared to only 6% of news managers (See Figure 64).

FIGURE 62

### IMPACT OF DIGITAL TOOLS ON AUDIENCE ENGAGEMENT

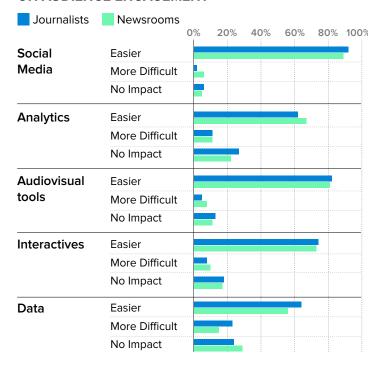
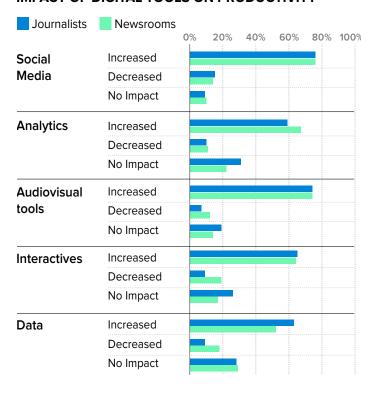


FIGURE 63

#### IMPACT OF DIGITAL TOOLS ON PRODUCTIVITY

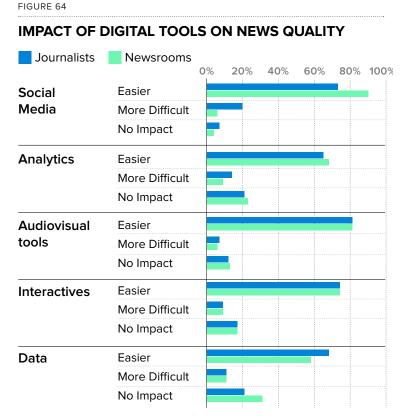




## More journalists than news managers believe data journalism has a positive impact.

Journalists and newsroom managers are split on the usefulness of data journalism and analytics. On average, 64% of journalists believe that data journalism helps engage audiences, and improves quality and productivity compared to 56% of managers.

In fact, twice as many newsroom managers (18%) as journalists (9%) said that data journalism decreases productivity (See Figure 63). Thirty-one percent of newsroom managers also believe that data journalism has no impact on news quality compared to 21% of journalists (See Figure 64).



## Forty percent of newsroom managers believe that data journalism helps increase revenue.

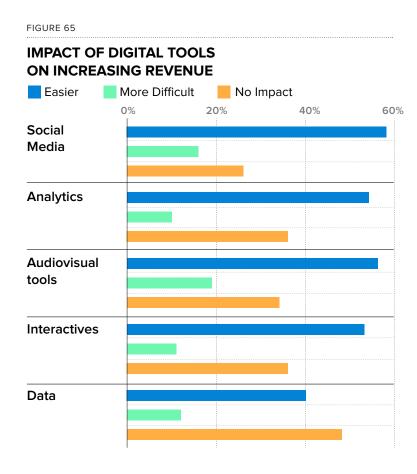
Four in 10 executives said that data journalism made it easier to increase revenue, though almost half reported that it had no impact (See Figure 65).

Of the four areas of impact addressed in the study, newsroom executives report that data journalism has the least impact on increasing revenue. More than half of newsroom managers say that social media, analytics, audio/video tools, and visuals/infographics help attract revenue.



## News managers are more likely than journalists to believe that analytics increase productivity.

Even though they are not consulting analytics as frequently, newsroom managers believe that analytics positively impact their work. Managers (68%) and journalists (65%) nearly equally report that analytics positively impact news quality. The breakdown is similar for engagement; 67% of managers and 62% of journalists say analytics make it easier to engage audiences. News managers (67%), however, are more likely to believe that analytics increase productivity than journalists (59%).





# 1 4 MAJOR CHALLENGES

What major challenges do newsrooms face in the digital age?



#### **KEY FINDINGS**

Shifting revenue streams is the top concern for the majority of news outlets everywhere.

Almost two-thirds of managers say introducing Al into the newsroom is a major challenge.

News organizations in North America and sub-Saharan Africa are the least concerned about building audience trust.

Recruiting and retaining journalists is a major challenge in most regions. The outlier: North America.

## Shifting revenue streams is the top concern for the majority of news outlets everywhere.

The biggest challenge reported by newsroom managers in 2019 is shifting revenue models and developing new funding streams. Nearly three-quarters consider shifting revenue models to be the biggest challenge and an additional 22% consider it to be somewhat of a challenge (See Table 9). This concern has not abated since 2017, when 70% of executives reported shifting revenue sources to be a major challenge.



TABLE 9

NEWSROOM CHALLENGES	Major Challenge	Somewhat of a Challenge	Not a Challenge
Shifting revenue models/developing new revenue streams	73%	22%	5%
Introducing artificial intelligence (AI) into the newsroom	62%	20%	18%
Attracting advertisers	57%	31%	12%
Recruiting and keeping quality journalists	55%	33%	12%
Improving the speed and performance of digital platforms	54%	34%	13%
Recruiting and keeping employees in the tech and analytics fields	52%	35%	13%
Digital security	52%	35%	13%
Developing new formats and experiences for storytelling	50%	35%	15%
Incorporating virtual reality into the news product	50%	32%	18%
Attracting and keeping loyal audience members	48%	39%	13%
Mobile design and improving the experience of the mobile web	48%	37%	15%
Building audience trust	44%	36%	20%
Engaging diverse audiences	44%	40%	16%
Trolling and online harassment	44%	22%	23%
Creating quality content that will engage audiences	43%	40%	17%



Shifting revenue streams is the leading concern in five out of eight regions (See Figure 66). Fewer managers in Europe (55%) than elsewhere identify it as the top priority. The biggest concerns for European newsrooms are developing new formats and experiences for storytelling (68%), mobile design (59%), and recruiting and retaining journalists (59%). This may be explained by the fact that European newsrooms anticipate having greater diversity in revenue streams (See Figure 61 on Page 62).



Overall, introducing Al is the second biggest challenge for newsrooms (62%). In six of the eight regions, 50% or more of

FIGURE 66

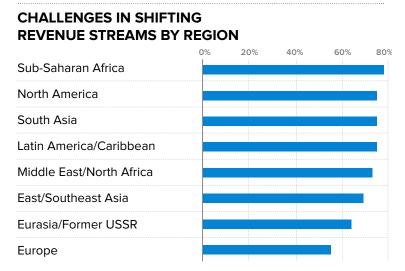
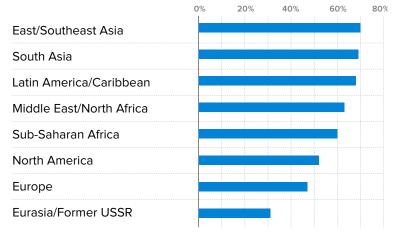


FIGURE 67

#### **CHALLENGES IN INTRODUCING AI BY REGION**



news managers named AI as a top concern (See Figure 67). Those most concerned are in East/Southeast Asia (70%), South Asia (69%), and Latin America and the Caribbean (68%).

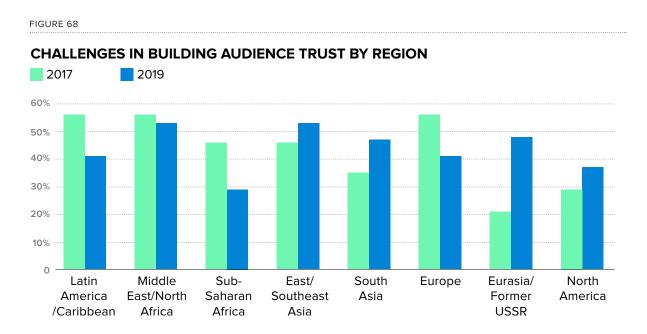
### News organizations in North America and sub-Saharan Africa are the least concerned about building audience trust.

Overall, building audience trust ranks among the lowest concerns for news managers. Forty-four percent of news managers globally say it is a major challenge today, roughly the same number as 2017.



Significant changes appear in the regional comparison: News managers from East/Southeast Asia and the Middle East/North Africa express the most concern about building trust, at 53%. Notably, concerns in East/Southeast Asia have increased since 2017 by seven percentage points, while they have declined slightly in the Middle East/North Africa.

Worries about building trust have declined the most in sub-Saharan Africa, down from 46% to 29%. Currently, it is the region least concerned about building audience trust, replacing Eurasia/former USSR which held the same position in 2017.



Attitudes in Eurasia/former USSR have changed over the past two years. In 2017, just 21% of news managers worried about building audience trust. Today, that number has jumped to 48%.

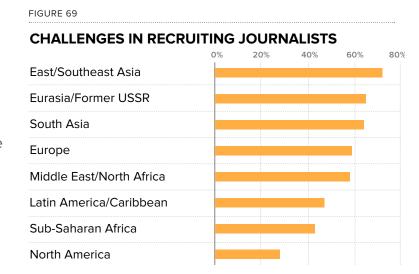
Concerns have also grown in North America, where 37% of news managers view building trust as a major challenge compared to 29% in 2017. Yet the region remains among the least concerned about this issue, ranking second to last after sub-Saharan Africa.



## Recruiting and retaining journalists is a major challenge in most regions. The outlier: North America.

Finding and hiring new talent are among the top challenges reported by news managers worldwide – considerably more than building trust and attracting loyal audiences.

Hiring is a top concern among the majority of news managers in five regions, with East/Southeast Asia in the lead (72%). The exception is North America, where just 28% of news managers identify it as a major concern.





## 7 REFERENCES

Alejandro, Jennifer. 2010. Journalism in the Age of Social Media. Research Report. (Oxford: Reuters Institute for the Study of Journalism, University of Oxford). https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Journalism%20in%20the%20Age%20 of%20Social%20Media.pdf

Anderson, Monica, and Andrea Caumont. 2014. "How Social Media is Reshaping News," Fact Tank, September 24. (Washington, D.C.: Pew Research Center). http://www.pewresearch.org/fact-tank/2014/09/24/how-social-media-is-reshaping-news/

Anderson, J., and Lee Rainie. 2017. "The Future of Truth and Misinformation Online." Internet and Technology. Washington, D.C.: Pew Research Center. https://www.pewinternet.org/2017/10/19/the-future-of-truth-and-misinformation-online/

Ali, C., and Radcliffe, D. 2017. Life at Small-Market Newspapers: A Survey of Over 400 Journalists. Research Report. Tow Center for Digital Journalism. https://www.cjr.org/tow\_center\_reports/local-journalism-survey.php

Allcott, H., and M. Gentzkow. 2017. "Social Media and Fake News in the 2016 Election." Working Paper 23089. National Bureau of Economic Research, January 2017, revised June 2017. http://www.nber.org/papers/w23089

Barthel, Michael. 2019. "How citizens and investigative journalists handle privacy protection". Fact Tank. Washington, D.C.: The Pew Research Center. https://www.pewresearch.org/fact-tank/2015/03/27/how-citizens-and-investigative-journalists-handle-privacy-protection/

Belair-Gagnon, Valerie, Colin Agur, and Nicholas Frisch. 2016. How Foreign Correspondents Use Chat Apps to Cover Political Unrest. Research Report. Tow center for Digital Journalism. https://www.cjr.org/tow\_center\_reports/foreign\_correspondents\_chat\_apps\_unrest.php



Bradshaw, Samantha, and Philip N. Howard. 2017. "Troops, Trolls and Troublemakers: A Global Inventory of Organized Social Media Manipulation." Working Paper 2017.12. Oxford Internet Institute, 2017. http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/07/ Troops-Trolls-and-Troublemakers.pdf

Carroll, Matt. 2017. "How Newsrooms Large and Small are Learning to Grow New Revenue Streams," Storybench, Northwestern University School of Journalism, June 21. http://www.storybench.org/small-newsrooms-can-learn-larger-organizations-diverse-revenue-streams/

Cherubini, Federica, and Rasmus Kleis Nielsen. 2016. Editorial Analytics: How News Media Are Developing and Using Audience Data and Metrics. Research Report. (Oxford: Reuters Institute for the Study of Journalism).

Cornia, A., Sehl, A., Simon, F., Nielsen, R. K. 2017. Pay Models in European News. Research Report. Oxford: Reuters Institute for the Study of Journalism.

Cornia, Alessio, Annika Sehl, David A. L. Levy, and Rasmus Kleis Nielsen. 2018. Private Sector news, Social Media Distribution, and Algorithm Change. Research Report. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-10/Cornia\_Private\_Sector\_News\_FINAL.pdf

Downie, Jr., Leonard, and Michael Schudson. 2009. The Reconstruction of American Journalism. Research Report. Columbia Journalism Review. https://archives.cjr.org/reconstruction/the\_reconstruction\_of\_american.php

European Commission. 2018. Final report of the High Level Expert Group on Fake News and Online Disinformation. https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation

Finberg, Howard. 2014. Constant Training: New Normal or Missed Opportunity? Research Report. (Poynter Institute and Knight Foundation).

Franklin, Bob. 2014. "The Future of Journalism," Journalism Studies, vol. 15, no. 5: 481-499.



Fletcher, Richard, and Rasmus Kleis Nielsen. 2017. "Are News Audiences Increasingly Fragmented? A Cross-National Comparative Analysis of Cross-Platform News Audience Fragmentation and Duplication." Journal of Communication vol. 67, no. 4: 476–98.

Fletcher, R., Nielsen, R. K. 2018. "Are People Incidentally Exposed to News on Social Media? A Comparative Analysis", New Media and Society, vol. 20, no. 7: 2450-2468.

Graves, Lucas. 2018. Understanding the Promise and Limits of Automated Fact-Checking. Factsheet. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-02/graves\_factsheet\_180226%20FINAL.pdf

Grieco, Elizabeth. 2019. "U.S. Newsroom Employment Has Dropped a Quarter Since 2008, With the Greatest Decline at Newspapers." Fact Tank. Washington, D.C.: The Pew Research Center. https://www.pewresearch.org/fact-tank/2019/07/09/u-s-newsroom-employment-has-dropped-a-quarter-since-2008/

Grieco, Elizabeth. 2018. "Newsroom employees are less diverse than U.S. workers overall" Fact Tank. Washington, D.C.: The Pew Research Center. https://www.pewresearch.org/fact-tank/2018/11/02/newsroom-employees-are-less-diverse-than-u-s-workers-overall/

Hindman, Matthew and Vlad Barash. 2018. Disinformation, 'Fake News And Influence Campaigns on Twitter. Research Report. Knight Foundation. https://knightfoundation.org/reports/disinformation-fake-news-and-influence-campaigns-on-twitter

Holcomb, Jesse. 2018. Digital Adaptation in Local News. Research Report. Tow Center for Digital Journalism. https://www.cjr.org/tow\_center\_reports/digital-adaptation-in-local-news.php

InterMedia. 2012. Evaluation of ECA's Professional Journalism and Media Exchange Programs: International Visitor Leadership Program. Edward R. Murrow Program for Journalists. Citizen Exchange Program. Report. https://eca.state.gov/files/bureau/journalism-and-media-report.pdf

Jenkins, Joy and Rasmus Kleis Neilsen. 2018. The Digital Transition of Local News. Research Report. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-04/JenkinsNielsenDigitalTransitionLocalNews.pdf



Jurkowitz, Mark. 2014. "The Growth in Digital Reporting." Research Report. (Washington, D.C.: Pew Research Center). http://www.journalism.org/2014/03/26/thegrowth-in-digital-reporting/

Knight Foundation and The Aspen Institute. 2019. Crisis in Democracy: Renewing Trust in America. Research Report. https://knightfoundation.org/reports/crisis-in-democracy-renewing-trust-in-america

Lazer, David M. J., Matthew Baum, Nir Grinberg, Lisa Friedland, Kenneth Joseph, Will Hobbs, and Carolina Mattsson. 2017. "Combating Fake News: An Agenda for Research and Action." May 2017. https://www.hks.harvard.edu/publications/combating-fake-news-agenda-research-and-action

Lynch, Dianne. 2015. Above & Beyond: Looking at the Future of Journalism Education. Research Report. Knight Foundation. https://kf-site-production.s3.amazonaws.com/publications/pdfs/000/000/177/original/KF-Above-and-Beyond-Report.pdf

Kaul, Vineet. 2013. "Journalism in the Age of Digital Technology," Online Journal of Communication and Media Technologies, vol. 3, no. 1. http://www.ojcmt.net/articles/31/317.pdf

Lee, Jayeon. 2015. "The Double-Edged Sword: The Effects of Journalists' Social Media Activities on Audience Perceptions of Journalists and Their News Products," Journal of Computer-Mediated Communication, vol. 20, no. 3: 312-329.

Mahoney, Robert. 2015. "Securing the Newsroom," Committee to Protect Journalists, June 25. https://cpj.org/blog/2015/06/securing-the-newsroom-cpj-journalists-and-technolo.php

Martin, Nicole. 2018. "How Social Media Has Changed How We Consume News". Innovation. Forbes.com.https://www.forbes.com/sites/nicolemartin1/2018/11/30/how-social-media-has-changed-how-we-consume-news/#18e170473c3c

Mitchell, Amy, Jeffrey Gotofried, Michael Barthel, and Elisa Shearer. 2016. The Modern News Consumer: New Attitudes and Practices in the Digital Era. Research Report. Pew Research Center. file:///C:/Users/kgh48/Downloads/PJ\_2016.07.07\_Modern-News-Consumer\_FINAL.pdf



Mutter, Alan D. 2015. "Why Online News Sites Keep Failing," Los Angeles Times, June 25. https://www.latimes.com/opinion/op-ed/la-oe-0625-mutter-news-startups-20150625-story.html

Narayanan, Vidya, Vlad Barash, John Kelly, Bence Kollanyi, Lisa-Maria Neudert, and Philip N. Howard. 2018. Polarization, Partisanship and Junk News Consumption over Social Media in the US. Data Memo 2018.1.Oxford, UK: Oxford Internet Institute, February 6, 2018. https://arxiv.org/pdf/1803.01845.pdf.

Newman, Nic. 2019. Journalism, Media, and Technology Trends and Prediction 2019. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2019-01/Newman\_Predictions\_2019\_FINAL\_2.pdf

Newman, Nic, Richard Fletcher, Antonis Kalogeropoulos, and Rasmus Kleis Nielsen. 2019. Reuters Institute Digital News Report 2019. Research Report. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/inline-files/DNR\_2019\_FINAL\_27\_08\_2019.pdf

Newton, Eric. 2014. Constant Training: New Normal or Missed Opportunity. Research Report. Poynter: Knight Foundation. https://kf-site-production.s3.amazonaws.com/publications/pdfs/000/000/171/original/Poynter\_Knight\_Newsroom\_Training\_Report\_2014.pdf

Nicholls, Tom, Nabeelah Shabbir, Lucas Graces, and Rasmus Kleis Nielsen. 2018. Coming of Age: Developments in Digital-Born News Media in Europe. Research Report. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-12/Nicholls\_Developments\_of\_Digital\_News\_Media\_FINAL\_0.pdf

OI, Job. 2017. "A Comparative Study of Digital Competence and Response to Digital Innovations by Korean and Nigerian Newspaper Journalists," Journal of Mass Communication & Journalism, vol. 7, no. 3: 1-6. https://www.omicsgroup.org/journals/a-comparative-study-of-digital-competence-and-response-to-digital-innovations-by-korean-and-nigerian-newspaper-journalists-2165-7912-1000335.pdf

Oshiro, Sandra. 2014. "Virtual Newsroom: Getting Journalism Done In a Digital Age," Poynter, May 29. https://www.poynter.org/2014/virtual-newsroom-getting-journalism-done-in-a-digital-age/241606/



Picard, Robert G. 2015. Journalists' Perceptions of the Future of Journalistic Work. Research Report. (Indianapolis, IN: Society of Professional Journalists).

Pew Research Center. 2016. State of the News Media 2016. Research Report. (Washington, D.C.: Pew Research Center). http://assets.pewresearch.org/wp-content/uploads/sites/13/2016/06/30143308/state-of-the-news-media-report-2016-final.pdf

Posetti, Julie. 2017. Protecting Journalism Sources in the Digital Age. (Paris: UNESCO). http://unesdoc.unesco.org/images/0024/002480/248054E.pdf

Posetti, Julie, Felix Simon, and Nabeelah Shabbir. 2019. Lessons in Innovation: How International News Organisations Combat Disinformation through Mission-Driven Journalism. Research Report. Oxford: Reuters Institute for the Study of Journalism. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2019-04/Posetti\_Lessons\_in\_Innovation\_FINAL.pdf

Revear, Eva. 2016. "Busy Newsrooms Need a Smarter Workflow," New York University, Arthur L. Carter Journalism Institute, February 28. http://projects.nyujournalism.org/newsliteracy2016/topics/content-management-systems/

Revers, Matthias. 2014. "The Twitterization of News Making: Transparency and Journalistic Professionalism," Journal of Communication, vol.64, no. 5: 806-826. Royal, Cindy. 2016. Managing Digital Products in a Newsroom Context. Research Report. (Austin, Texas: International Symposium of Online Journalism, University of Texas). http://isoj.org/research/managing-digital-products-in-a-newsroom-context/

Saltzis, Kostas. 2009. "News Production: Changing Practices and Roles of Journalists," in N. Fioretti and S. Russ-Mohl, eds., Merging Media, Converging Newsrooms. (Lugano, Switzerland: European Journalism Observatory/Università della Svizzera Italiana).

Schudson, Michael, and Barbie Zelizer, eds. 2017. Understanding and Addressing the Disinformation Ecosystem. Annenberg School of Communication at the University of Pennsylvania, Philadelphia, PA, December 15-16, 2017. https://firstdraftnews.org/wp-content/uploads/2018/03/The-Disinformation-Ecosystem-20180207-v2.pdf.

Shearer, Elisa, and Jeffrey Gottfried. 2017. "News Use across Social Media Platforms 2017." Pew Research Center, September 7, 2017. http://www.journalism.org/2017/09/07/news-use-across-social-media-platforms-2017/



Sonderman, Jeff. 2016. Best Practices for Product Management In News Organizations. Research Report. (Washington, D.C.: American Press Institute). https://www.americanpressinstitute.org/publications/reports/white-papers/product-management-best-practices/single-page/

Stroud, Natalie Jomini. 2012. Niche News. (New York: Oxford University Press). Usher, Nikki. 2016. Moving the Newsroom: Post-Industrial News Spaces and Places. Research Report. (New York: The Tow Foundation and the John S. and James L. Knight Foundation). file:///C:/Users/owend/Dropbox/ICFJ%20Study/Moving\_the\_News\_Post-Industrial\_News\_Spa.pdf

van der Haak, Bregtje, Michael Parks, and Manuel Castells. 2012. "The Future of Journalism: Networked Journalism," International Journal of Communication, vol. 6: 2923-2939.

Vir, Jason and Kathryn Hall. 2018. News in Social Media and Messaging Apps. Qualitative Research Report. Kantar Media. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-09/KM%20RISJ%20News%20in%20social%20media%20and%20messaging%20apps%20report%20\_0.pdf

Weeks, B. E., and R. L. Holbert. 2013. "Predicting Dissemination of News Content in Social Media: A Focus on Reception, Friending, and Partisanship." Journalism & Mass Communication Quarterly 90, no. 2: 212–32.

Wenger, Deborah and Bob Papper. 2018. Local TV News and the New Media Landscape. Research Report. Knight Foundation. https://kf-site-production.s3.amazonaws.com/publications/pdfs/000/000/251/original/TVNews\_bundle-v5.pdf

Williams, Alex T. 2016. "Employment Picture Darkens for Journalists at Digital Outlets," Columbia Journalism Review, September 27. https://www.cjr.org/business\_of\_news/journalism\_jobs\_digital\_decline.php

Willnat, Lars, and David H. Weaver. 2014. The American Journalist in the Digital Age. Research Report. (Bloomington, IN: School of Journalism, Indiana University).



## **METHODOLOGY**

The 2019 surveys of journalists and newsroom managers expands upon the study conducted in 2017. Surveys of journalists and newsroom managers were conducted in 149 countries. Separate surveys were developed for journalists and newsroom managers. Before the surveys were fielded, the items were vetted by professionals in the field. The journalist and newsroom survey instruments were translated into fourteen languages—Arabic, Chinese, English, French, German, Hindi, Indonesian, Japanese, Korean, Portuguese, Russian, Spanish, Turkish, and Urdu. In 2017, the study was conducted in twelve languages and 130 countries. The translated surveys were reviewed by people proficient in each language prior to being fielded. The surveys were pretested and revised before being administered. (The methodology for the 2017 study can be found at: https://www.icfj.org/sites/default/files/2018-04/ICFJTechSurveyFINAL.pdf p. 69.)

The surveys were disseminated online using the SurveyMonkey platform from February 28 to May 6, 2019. The study was promoted widely through a variety of digital methods. ICFJ sent e-blasts to its extensive network of industry contacts and publicized the survey through the IJNet Bulletin. Facebook ads were run in each language. A large number of associations and organizations promoted the surveys.

A total of 4,111 respondents—3,060 journalists and 1,051 newsroom managers—completed the surveys (See Table 1). 4,516 respondents entered the survey by clicking on the initial question asking whether they were a news manager or a journalist, which then directed them to the appropriate survey. 346 respondents to the journalist survey and 92 respondents to the newsroom survey—a total 438 respondents—left the study. Some of these respondents answered the initial question asking if they were a journalist or a newsroom manager and did not go any further. Others answered questions at the beginning of the survey and then quit.

The number of survey respondents was substantially higher in the 2019 survey than in 2017. There was an increase of 32% in total respondents, with a 33% increase in journalist respondents and a 31% increase among newsroom manager respondents (See Table 2).



TABLE 1

N	UIN	1RF	RO	FR	<b>FSP</b>	ONI	DEN.	TS
	$\mathbf{v}$		$\sim$			$\sim$ 141		

	Journalist	Newsroom	Total
Number of respondents who entered the journalist and newsroom	3,406	1,143	4,549
Number of usable surveys	3,060	1,051	4,111

TABLE 2

#### **COMPARISON OF NUMBER OF RESPONDENTS IN 2017 AND 2019**

	Journalist	Newsroom	Total
2017 Survey	2,053	728	2,781
2019 Survey	3,060	1,051	4,111
Increase in number of usable surveys	1,007	323	1,330

The 149 countries represented in the study were coded into eight regions—Latin America and the Caribbean, the Middle East and North Africa, Sub-Saharan Africa, East and Southeast Asia, South Asia, Europe, Eurasia and the former USSR, and North America. The regions and associated countries appear in Table 3. The percentage of journalists and newsroom managers responding from each region is presented in Table 4.

TABLE 3

#### **GLOBAL REGIONS AND COUNTRIES**

LATIN
AMERICA
AND THE
CARIBBEAN

 Dominican Republic Argentina Paraguay Bahamas Ecuador Peru El Salvador Saint Kitts and Nevis Belize Bolivia Grenada Saint Vincent and Brazil Guyana the Grenadines Chile Honduras Suriname Columbia Mexico Trinidad and Tobago Costa Rica Nicaragua Uruguay Cuba Panama

NORTH AMERICA

- Canada
- United States



#### MIDDLE EAST AND NORTH AFRICA

South Sudan Algeria Lebanon State of Palestine Egypt Libya Mauritania Sudan Iran Morocco Syrian Arab Republic Iraq Oman Israel Tunisia Jordan Qatar United Arab Emirates Kuwait Saudi Arabia

#### SUB-SAHARAN AFRICA

 Ghana Angola Senegal Benin Guinea Bissau Sierra Leone Botswana Somalia Kenya Burkina Faso Liberia South Africa Burundi Madagascar Swaziland Cape Verde Malawi Togo Cameroon Mali Uganda Congo Mauritius United Republic of Cote D'Ivoire Mozambique Tanzania Democratic Republic Namibia Zambia of the Congo Niger Zimbabwe Ethiopia Nigeria Gambia Rwanda

#### EAST AND SOUTHEAST ASIA

 Soloman Islands Australia Mongolia Cambodia Taiwan Myanmar China New Zealand Thailand Timor-Leste Indonesia **Philippines** Japan Republic of Korea Vanuatu Malaysia Singapore Vietnam Sri Lanka

#### **SOUTH ASIA**

AfghanistanBangladeshBhutanIndiaNepalPakistan

#### EURASIA/ FORMER USSR

Estonia

Georgia

Armenia
Azerbaijan
Belarus
Kazakhstan
Kyrgyzstan
Latvia
Russian Federation
Tajikistan
Ukraine

Republic of Moldova

Lithuania



#### **EUROPE**

<ul> <li>Albania</li> </ul>	<ul><li>Italy</li></ul>	<ul> <li>Slovakia</li> </ul>
<ul> <li>Andorra</li> </ul>	• Malta	• Spain
<ul> <li>Austria</li> </ul>	<ul> <li>Netherlands</li> </ul>	<ul> <li>Sweden</li> </ul>
• Bulgaria	<ul> <li>Norway</li> </ul>	<ul> <li>Switzerland</li> </ul>
<ul> <li>Croatia</li> </ul>	• Poland	<ul><li>Turkey</li></ul>
<ul> <li>Czech Republic</li> </ul>	<ul> <li>Portugal</li> </ul>	<ul> <li>United Kingdom</li> </ul>
<ul> <li>France</li> </ul>	<ul> <li>Republic of</li> </ul>	of Great Britain and
<ul> <li>Germany</li> </ul>	Macedonia	Northern Ireland
• Greece	<ul> <li>Romania</li> </ul>	
<ul> <li>Hungary</li> </ul>	• Serbia	

TABLE 4

### REGIONAL BREAKDOWN: JOURNALIST AND NEWSROOM SURVEYS PERCENTAGE AND NUMBER OF CASES

	Journalist Survey		Newsroom Survey	
	%	Number	%	Number
Latin America/Caribbean	22%	673	23%	242
Middle East/North Africa	18%	551	16%	168
Sub-Saharan Africa	17%	520	18%	189
East/Southeast Asia	15%	459	16%	168
South Asia	12%	367	10%	105
Europe	5%	153	4%	42
Eurasia/ Former USSR	7%	214	9%	95
North America	4%	122	5%	53

