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# Comprehensive guide covering key aspects of data analytics in the media industry, from data maturity to content distribution and success assessment

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## A. Introduction and Methodology

When preparing the Digital Whitepaper on the use of data in journalism, the authors based their work on the approach presented by John W. Creswell in the book *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Although the book discusses a wide range of research methods (used in academia as well as in the development of advanced reports, analyses, marketing studies, public opinion research, etc.), the authors focused primarily on qualitative methods, which were best suited to the nature of the project. Due to the lack of access to advanced statistical tools that would enable extrapolation of the results to the entire population of journalists in Europe, or even selected countries, the authors decided to conduct an in-depth qualitative exploration of the experiences and opinions of smaller groups.

The use of qualitative methods, such as in-depth interviews and observation, made it possible to capture individual perspectives and behaviours of journalists in the context of data usage more precisely. These activities enabled the authors to understand motivations, needs, and challenges related to this topic, as well as to gain insights into processes that are difficult to capture using quantitative data alone. Thanks to these techniques, it was possible to obtain



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valuable information that became the foundation for the conclusions presented in the document.

In addition, the authors also drew from the knowledge contained in the book *Qualitative Research. Methods and Applications* (Available only in Polish as: *Badania jakościowe. Metody i zastosowania*) by Olejnik, Kaczmarek and Springer. This publication provided practical guidance on conducting qualitative research, which helped the authors refine the methodological approach and ensure that the methodology was robust and aligned with the nature of the project. The combination of Creswell's research design framework and the practical applications described by Olejnik and co-authors ensured that the Digital Whitepaper was not based solely on online research.

## B. Data Maturity in Media Organisations

### Definition of Data Maturity

According to journalists who participated in in-depth individual interviews conducted for the Digital Whitepaper, the term *data maturity* is largely unknown to newsroom employees (with the likely exception of professional data analysts with educational backgrounds in statistics, data science or big data – however, such specialists are very few in newsrooms, and in small and medium-sized media organisations they are virtually non-existent).

Therefore, this concept requires a broader explanation and should first be introduced – also from a theoretical perspective – in the context of organisations in general, and only then in the specific context of journalism, newsrooms and media companies.

Data maturity in organisations refers to the level of advancement in how a company collects, manages, analyses and utilises its data in decision-making. It is a process that encompasses the entire organisation, not only analytics or IT departments. Data maturity represents an organisation's capability to use data strategically and systematically to support business decisions and operational processes. In short, a data-mature organisation is able to collect and process data, using it to forecast future developments, identify hidden patterns and implement optimisation measures. In practice, the term *data maturity* is partially a conceptual simplification, as its essence is the overall organisational maturity in working with data. However, for the sake of clarity and consistency, this paper will continue to use the term *data maturity*.

Data maturity is now a key factor for many, if not all, organisations, as it enables:

- **Optimisation of business processes:** Collecting and processing data allows organisations to identify areas where time and resources can be saved.
- **Improved decision-making:** With accurate data, organisations can make more effective decisions compared to relying solely on intuition.



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- **Increased competitiveness:** Using data to predict market trends enables organisations to adapt their strategies to changing market conditions.

## Levels of Data Maturity

Data maturity is not a uniform state; instead, it progresses through distinct stages that reflect how an organisation uses data. These levels help organisations assess their current position on the path toward full data maturity. Five primary levels can be distinguished:

### Level 1 – Ad hoc (No structure)

At this stage, the organisation collects data randomly and without structure. Reporting is sporadic and ad hoc, and data is only used in urgent situations, such as preparing a report. There is no integrated approach to data, and information is often stored across different systems, making analysis difficult.

### Level 2 – Standardised Reporting (On-demand reporting)

At this stage, the organisation transitions to a more structured approach to data, beginning with standardised reports. Data is collected in a defined manner, but analysis remains mainly retrospective. Reports are prepared on demand and still rely on manual processes. Data storage systems begin to be more organised, although data may still be fragmented.

### Level 3 – Descriptive Analytics

At this level, the organisation starts to use descriptive analytics to better understand past events. Key tools include analytical reports, dashboards and data visualisations, which facilitate the interpretation of historical results. There is a structured approach to accessing data and reports; however, advanced predictive analytics is not yet in place.

### Level 4 – Diagnostic Analytics

At this stage, the organisation is able to analyse the causes behind past events. Diagnostic analytics is used to understand *why* something has occurred. Tools such as trend analysis and regression analysis become increasingly common. Analytical capabilities become more advanced, and the organisation is able to predict outcomes based on historical data.

### Level 5 – Predictive and Prescriptive Analytics

At this stage, the organisation uses data to forecast future events (predictive analytics) and to recommend optimal courses of action based on these forecasts (prescriptive analytics). The use of advanced mathematical models, artificial intelligence and machine learning enables automated decision-making and process optimisation. The organisation has full awareness of its data and uses it to drive actions in real time.

## How Organisations Can Assess Their Data Maturity



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To assess their level of data maturity, organisations may adopt several approaches, including:

- **Data maturity assessment models:** Various models assess organisational advancement in data management based on dimensions such as data infrastructure, analytical culture, data governance and analytical technologies.
- **Self-assessment:** Organisations can evaluate their practices by responding to questions about data collection methods, data quality, analytical tools and decision-making processes. These assessments identify gaps and areas for improvement.
- **Benchmarking:** Organisations compare their practices with industry best practices to evaluate their position relative to competitors or market leaders.

## Data Maturity in Newsrooms and Media Companies

In the context of newsrooms and media organisations, data maturity is becoming a critical factor influencing competitiveness and operational efficiency. In today's digital environment, data management is an integral part of content creation, distribution and monetisation processes. Media organisations that successfully collect, analyse and apply data can better match their content to audience expectations, predict trends and make more accurate editorial decisions.

Data maturity in newsrooms refers to the ability to use data strategically and systematically. For example, media outlets can collect data on which content types are most frequently consumed, how and when users engage with content and which sources attract the most attention. With this information, editorial teams can optimize publication strategies, personalise content offerings for different audience segments and adapt advertising strategies to market needs.

Unfortunately, in many newsrooms – especially small and medium-sized ones – data maturity remains at an early stage. A lack of adequate analytical tools, limited resources and a shortage of data specialists result in data being used sporadically or in an unstructured manner. Most editorial decisions are still based on intuition or outdated methodologies, making it difficult to unlock the full potential of data.

Newsrooms that begin to recognise the value of data may start by progressing through basic stages of data maturity, such as implementing standardised reporting, collecting data from multiple sources or using descriptive analytics to understand historical performance. In the long term, media organisations may develop diagnostic and predictive analytics capabilities, which enable them to better anticipate user preference changes and adjust editorial strategies in real time.

## Challenges Faced by Media Companies

Media organisations, like other types of companies, face several challenges related to data maturity, including:



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- **Fragmented data:** Data is often dispersed across different systems and databases, making central management and analysis difficult.
- **Departmental silos:** Teams responsible for advertising, content production or market research frequently operate in isolation, which limits the full potential of data usage.
- **Legacy systems:** Many media organisations still rely on outdated systems that are not suited to modern data requirements.
- **Data quality management:** High-quality data is essential for effective analytics, yet many organisations struggle with inaccuracies, incompleteness or outdated datasets.

## Summary

Data maturity is an evolutionary process requiring both technological advancement and cultural transformation. As organisations become more advanced in their data capabilities, they gain a competitive advantage through improved decision-making, process optimisation and adaptability to changing market conditions. Employee awareness of data maturity varies depending on the organisational stage; in highly data-mature companies, data becomes an integral part of organisational culture.

## C. Collecting and managing data in media and journalism

Data is the lifeblood of newsrooms today: from topic planning, through distribution and monetization, to reporting results for partners and advertisers. The following guide—based on reliable English and Polish journalistic, business, and scientific sources—organizes data types, acquisition tools and methods, ethical and legal standards (including GDPR), as well as best practices for storing, managing, and improving data quality in media organizations.

### Types of Media Data

- **Audience Data** : These are metrics describing who the recipients are and how they access content: users, sessions, new/returning visitors, location, devices, traffic sources. In newer tools (e.g., Google Analytics 4), the core is the "engaged session"—lasting >10 seconds, involving a key event or  $\geq 2$  views; the percentage of such sessions is the engagement rate. In newsroom analytics, engaged time, calculated based on real user interactions on the page (scroll, click, cursor activity, etc.), is increasingly more important than mere "views," as precisely described by the Chartbeat methodology.
- **Engagement Data** : Beyond engaged time and engagement rate, it's worth measuring: scroll depth, interactions with page elements, newsletter sign-ups, comments, and in audio/video—playback time and completion rate. Editorial and industry research (Tow



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Center, Nieman Lab) has long emphasized that chasing only PVs leads to distortions; organizations are creating their own metrics for content "impact" and "utility" instead of just traffic. Journalists interviewed by the authors of the Digital Whitepaper agree with this approach: "— On our portal, uncritically prioritizing views led to a situation where we published galleries of 300 photos that had less than 1,000 text characters. Images replaced content, which naturally resulted in less than high quality with such numbers," said one of our interviewees.

- **Distribution Data** : These are the pathways to reach the audience: SEO, aggregation services, notifications, newsletters, apps, social media platforms. Changes on the platform side affect the availability and completeness of data—example: Meta's closure of the CrowdTangle tool and its replacement with the Meta Content Library, which has restricted access for newsrooms, a move the research community considered a blow to the ecosystem's transparency (Source: "The Wall Street Journal").
- **Social Media Data** : In addition to platform metrics (reach, clicks, CTR, watch time), quality signals are crucial: contextual shares, substantive comments, mentions from influencers/institutions. We must also remember API limitations (e.g., X/Twitter—paid access and limits that affect monitoring and costs).
- **Advertising Data** : The privacy environment is changing in the advertising sphere: Google backed down from the plan to completely phase out third-party cookies in Chrome and abandoned earlier Privacy Sandbox ambitions in their previous form; the "user choice" model has been maintained instead of a strict elimination of 3rd-party cookies. This has direct consequences for targeting, attribution, and data modeling in media.
- **Revenue Data** : Alongside advertising, the importance of reader revenue and diversification is growing: subscriptions, memberships, events, e-commerce, licensing, syndication, premium video. WAN-IFRA and DCN reports show the maturation of subscription models and moderate growth in 2024/2025, with an emphasis on audience quality and retention.

## Best Practices for Data Collection

### Tools and Methods

- **Editorial Analytics:**
  - Google Analytics 4 with raw event export to BigQuery (full control and ability to combine editorial, advertising, and subscription data in one environment)
  - Chartbeat / Parse.ly for measuring engaged time, audience flow, and benchmarking (with a clear *engaged time* methodology)
  - CDP (Customer Data Platform) Tools—Adobe Real-Time CDP, Twilio Segment, Tealium—to unify identification, map consents, and orchestrate data between channels and systems (with governance features)
- **Qualitative and Survey Research:**
  - Short-form onsite surveys, feedback forms, subscriber interviews (survey tools + CRM/CDP to link with behavioral data).
  - As a supplement: user journey audits (heatmaps, session recordings)—in compliance with GDPR and the principle of minimization.



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- **Integrations and ELT/ETL:**

- Collecting data into a central warehouse (BigQuery, Snowflake), then modeling it for newsroom, advertising, and management reports. Cloud solutions facilitate data joining and sharing without replication (e.g., Analytics Hub in BigQuery).

## Ethical Considerations

- **Purpose and Proportionality.** Measure what is necessary to improve journalism quality and the audience experience. Avoid metrics that distort editorial priorities (e.g., chasing clickbait). Academic works and environmental analyses (Tow Center, Nieman Lab) criticize the fetishization of PVs in favor of **"attention," impact, and utility** indicators. Experienced media publishers confirm the common sense of this approach.
- **Transparency towards Users.** Clear data collection purposes, a transparent privacy policy, and a real choice for the recipient are the foundation of trust. EDPB guidelines on **"dark patterns"** (deceptive interfaces) clearly indicate that interfaces forcing choices or hindering refusal of processing are incompatible with GDPR—this also applies to social media platforms, but practices extend to the general design of consent banners.

## GDPR Compliance (GDPR)—A Practical Summary for Publishers

- **Consent and Cookie Banners.** The European body EDPB and national authorities (e.g., CNIL) indicate that so-called cookie walls do not provide voluntary consent and that refusal must be as simple as acceptance. In 2024, CNIL fined entities precisely for making it difficult to refuse cookies. For a publisher, this means, among other things, visible "Reject All" / "Manage" buttons on the first layer and no pre-ticked categories necessary for marketing/tracking.
- **International Data Transfers.** Cases against Google Analytics (CNIL and other DPA post-*Schrems II*) showed the legal risk associated with transferring data to the USA. Even with GA4 and new mechanisms, the compliance of transfers and legal bases (SCCs, TIA) must be assessed. This is a flashpoint when designing the analytical stack in the EU.
- **Browser Cookie Changes.** Google ultimately did not phase out 3rd-party cookies in Chrome and moved to a "user choice" model; earlier Privacy Sandbox plans were abandoned or heavily restricted, as reported by industry media and Reuters. Nevertheless, compliance regarding consents and profiling remains required—the status of browsers does not exempt from GDPR obligations.

## Operationalizing Compliance (Tools)

- Consent Management Platform with vendor auditing and consent logging (e.g., built-in modules in Tealium/Segment, IAB Europe's TCF v2.2).
- Data usage policies and data labeling in the CDP (Adobe has built-in "data usage labels" and policy enforcement).

## Data Storage and Management



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Modern newsrooms operate across multiple channels simultaneously—website, app, newsletters, advertising, subscriptions, social media. Each of these channels generates a huge amount of data that was previously scattered across separate systems. This is why more and more media outlets are transitioning to a "single data spine" model, i.e., a shared cloud database. It's as if all information—from pageviews to ad revenue to subscriber activity—flows into one command center. Tools like BigQuery or Snowflake automatically collect data from various sources (Google Analytics 4, CRM, advertising platforms, newsletters, payment systems) and combine them into a coherent picture of the newsroom's operation. This eliminates the need to debate which statistics are true; the newsroom has one trusted source of information and can make decisions faster and more precisely. The cloud offers flexibility to media outlets—there's no need to buy expensive servers or hire IT departments for maintenance. You only pay for the actual computational power used, which makes it easy to scale up when traffic or the number of subscribers increases. Moreover, data can be analyzed without copying it—this is important, for example, in commercial projects or collaborations with partners. This architecture gives newsrooms access to advanced analytical tools, segmentation, or artificial intelligence, enabling them to test new formats, evaluate user engagement, and create strategies based on real reader behavior, not just intuition. In practice, the newsroom gains a digital backbone that supports all activities—from content creation to monetization.

## Security and Compliance

Data security in media is not just a technical issue but also a matter of trust for recipients, partners, and advertisers. Therefore, media companies should use widely recognized standards like ISO/IEC 27001—an international certification confirming that the organization knows how to protect data and manage risk. This acts as a set of proven rules that help organize security processes throughout the company—from the newsroom to the advertising and subscription departments. When using the cloud, it is particularly important to ensure that data is encrypted at every stage—both when stored on the server ("at rest") and during transmission ("in transit"). Equally important is access control, meaning clearly defining who can see which data—for example, through RBAC or ABAC systems that assign permissions based on the user's role or the data type. Additionally, the data environment should be divided into zones (e.g., test, production) to avoid accidental leaks, and all activities should be monitored and logged to quickly detect anomalies. ISO 27001 serves as a reference point here—it provides a ready-made structure for Information Security Management (ISMS) that large media corporations and smaller digital publishers can use.

## Data Quality and Governance

- What is "Data Quality" in Media?  
It is the accuracy, completeness, consistency, timeliness, uniqueness, and availability of data—characteristics described, among others, in the ISO 8000 family of standards. Publishers use these to minimize discrepancies (e.g., different definitions of "pageview" across departments), limit identification errors (profile duplicates), and ensure metric auditability (for advertisers and regulators).
- Data Governance Framework  
DAMA-DMBOK is a recognized body of knowledge covering, among other things, metadata management, quality, security, architecture, modeling, integration, and



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master data. In media realities, it helps define roles (Data Owner/Steward), quality verification processes, and the data lifecycle (from acquisition to archiving/deletion).

- **Newsroom Practice:**
  - **Data Steward in the newsroom:** A person connecting the newsroom with analytics, overseeing metric definitions and change backlogs.
  - **Data Committees:** Periodic reviews of definitions, quality incidents, and reporting needs.
  - **Metric Lifeline:** Brief → Definition → Sources → Calculation logic → Tests → Documentation → User Training.
- **Quality Improvement Processes:**
  - Input validations (event schemas, tests, data contracts with suppliers).
  - Stream continuity monitoring (alerts, SLOs for delays).
  - Deduping and identifier cleaning (especially in CDP/CRM).
  - Transformation tests (dbt tests) and comparison of sets (e.g., GA4 pageview count compliance vs. CDN logs within tolerance limits).
  - Data catalog and metadata (who uses it, for what, with what permissions).

## Data Labeling and Usage Policies

Modern Customer Data Platform (CDP) systems allow labeling every piece of information with a tag indicating whether it can be used in advertising, newsletters, analysis, or only for specific internal purposes. This way, the newsroom or marketing department doesn't have to manually check if the data meets GDPR requirements or partner agreement terms—the system automatically blocks the use of a given audience segment if it would violate law or regulations. Adobe calls this "data usage labels" and "policy enforcement." In practice, this means that large media groups and advertising networks can safely use reader data, confident that any error—such as sending a campaign to people who have not consented—will be automatically stopped before publication.

## Operationalizing Data: From Information to Decisions

Data only makes sense when it helps in the daily work of the newsroom. That's why many modern newsrooms introduce regular rituals, such as morning analytics meetings, where key signals are discussed: which articles are gaining attention, where traffic drops are visible, and what could be the trend of the day. These meetings are not about analyzing tables but about finding conclusions and ideas. Separate dashboards show the "health of distribution": the situation in SEO, newsletter opens and unsubscribes, and effectiveness on social media. The newsroom also looks at revenue indicators—how much we earn per thousand pageviews, the average user value, and the share of subscriptions and advertising. This allows every department to make decisions based on concrete facts, not intuition.

## Data in Editorial and Product Decisions

Modern newsrooms increasingly use data to plan formats, publication times, and distribution strategies. Engagement analysis shows whether short or long video works better, whether



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users prefer Q&A formats or explanatory articles. Publication times, notification channels, and the impact of pushes, social media, and newsletters on reach are tested. Through segmentation, it's also possible to identify "super-users"—the small group that generates most pageviews and revenue. Loyalty strategies, subscription models, and retention efforts are built based on them.

### **Data in Advertiser Relations**

Advertisers are less and less focused solely on the number of pageviews. The focus is now on qualitative indicators: time spent with the content, level of engagement, and brand perception. Newsrooms that can demonstrate that their audience spends time attentively and that ads are displayed in a safe, credible environment have a competitive advantage. Audience quality is becoming more important than reach itself.

### **Current Challenges and How to Address Them**

One of the hottest topics is the phase-out of third-party cookies. Even if it doesn't happen immediately, publishers in Europe must still comply with GDPR, data minimization, and clear user consents. Those who develop first-party data, have a transparent consent system, and don't base their strategy solely on tracking user behavior on other sites gain an advantage. Simultaneously, access to data from external platforms is diminishing. Social media monitoring tools are being restricted or shut down, making it harder to analyze trends, combat disinformation, and assess reputational risk. Newsrooms are increasingly investing in developing their own channels, newsletters, and reader communities who have consciously given consent for contact. There is also an important question: can data distort the journalistic mission? The answer is yes—if we rely only on clicks. Properly used metrics are not meant to replace journalism but to help improve it. Data can indicate where our work genuinely helps recipients understand the world, not just where it "clicks well."

### **What a Modern Publisher Should Have**

A modern media organization needs a common data map—clear definitions of key indicators like "active reader," "engaged session," or "ad impression." All data sources—website, app, newsletter, subscription system, advertising, social media—must be connected in a single ecosystem. Technically, this means having analytical tools, a user data management platform, and a newsroom dashboard showing engaged time. Concurrently, the publisher must comply with GDPR: have a consent management system, avoid manipulative interfaces, maintain a vendor registry, and block data usage if there is no legal basis. Clear roles in the organization are also needed—who is responsible for the data, who for its quality, and who for implementing changes. This approach builds a culture of work based on trust and shared metrics.

### **Key Conclusion**

Data is not valuable in itself. It only becomes valuable when it is organized, legally compliant, and translated into decisions that improve the quality of journalism and increase revenue. The media that no longer chase empty clicks but build a relationship with the recipient based on time, engagement, and trust are winning.



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## D. Data Analytics Techniques in Media

### Descriptive Analytics (What Happened)

In every newsroom, data only begins to speak when we can understand what actually happened. This is the first level of analytics—descriptive. In newsrooms, this means answering basic questions: how many people read an article, how long they stayed on the page, from what source they came, and which topics generated the most interest. It sounds simple, but it is the foundation upon which all further data work is based. Journalists who use tools like Chartbeat, Parse.ly, or Google Analytics daily know that descriptive analytics is like the newsroom's daily thermometer. It shows the current state—the pulse of what is happening on the site.

At *The Guardian*, the daily report reaches all editors in the morning. It shows which articles were read the longest, which gained the most traffic from search engines, and which had high traffic but low engagement time. This is not dry statistics. It is a story of how yesterday's editorial decisions translated into reader behavior.

At *Dagens Nyheter* in Sweden, the morning meeting starts with three simple data points: how many new subscribers were gained, what was the average reading time, and which articles were finished most often. The newsroom treats these indicators as the equivalent of the editorial organism's "health." If the number of short visits increases and the number of long sessions decreases, it's a sign that something in the content or distribution needs correction. Descriptive analytics isn't there to punish results. Its role is to provide an accurate picture of the situation. A journalist is not meant to compete on clicks but to know which texts truly reach readers and how.

*La Repubblica* introduced internal reports showing not only how many people entered an article but also how many returned after a few days. It turned out that investigative reports and longer interviews had lower reach but built loyalty—they were the ones attracting returning users. Basic descriptive indicators—pageviews, number of users, time on page, scroll depth, traffic sources—are now supplemented with qualitative data: engagement, subscriber share, conversion rate, or user loyalty.

Publishers like *El País* or *The Independent* have started regularly comparing results across channels: portal, app, newsletters, and social media. This lets them know that, for example, newsletter users spend twice as much time on an article as Facebook users. Descriptive analytics in practice are not just charts. It is the basis for daily decisions. In newsrooms with a mature data culture, it has become as natural as planning topics for the coming days. When it's visible that health articles are breaking readership records on Mondays, and investigative pieces gain the most traffic on Fridays, editors plan publications specifically for those moments. But description is just the beginning. Knowing what happened is one thing—understanding why is a different level of maturity.

### Diagnostic Analytics (Why It Happened)

When a newsroom sees a drop in readers or a surprising spike in the popularity of a specific topic, the natural question is: why? This is where diagnostic analytics comes into play. It's no longer enough to look at the numbers—one must understand the causes. Newsrooms across Europe are increasingly having separate analytical teams that help editors "break down the data."



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At *Der Spiegel*, an analyst and an editor work together to interpret the results: did an article on domestic politics get more traffic because it was well-optimized for search engines, or because a debate on that topic was happening online? Or perhaps the headline was simply clearer than usual? Diagnostic analytics involves combining different data sources—reading statistics, social media actions, newsletter results, subscription and ad data. Only this way can a broader picture be seen. For example, at *Politico Europe*, after every major publication, the team checks how the articles spread across different channels. Sometimes the same article performed averagely on the homepage, but after being sent in a newsletter, it generated high engagement and subscription conversion rates. It is important that diagnostic analytics is not used to find fault. Its role is to help understand phenomena. Analysts at *The Guardian* constantly tell editors one thing: "Don't ask who wrote the article that didn't work. Ask what we learned from it." This approach builds a culture based on conclusions, not on pressure from results. A typical practical example: if culture articles show a shorter reading time than political news, it doesn't mean "culture doesn't get clicks." It might be an issue of form—too long leads, lack of multimedia, too few quotes. Analyzing the user path, scroll maps, and "heatmaps" can show that readers drop off after the third paragraph. This is valuable feedback on how to improve the material's structure. *El Mundo* even introduced a cycle of "editorial post-mortems"—short meetings after major news events, where the team discusses not only what succeeded but also why some texts didn't work. Sometimes it's an issue of publication timing, sometimes a mismatch between format and audience expectations. These discussions become a wellspring of knowledge that later serves in planning future projects. Diagnostic analytics also provides broader context. For instance, *Le Monde* discovered that weekend traffic drops weren't due to a lack of reader interest, but because their main traffic source—Google Discover—preferred lifestyle and magazine content over political content on Saturdays. After understanding this relationship, the editorial team changed the publication schedule: political analyses were moved to Mondays, and long-form reports were introduced on weekends. Results increased by several percentage points. Journalists are often afraid of data because they associate it with tables and formulas. However, diagnostic analytics is nothing more than asking the right questions: why did something succeed? Why isn't something working? What can we improve? When these questions become part of the daily work rhythm, the newsroom gains a new perspective—it not only knows what happened but understands why.

### **Predictive Analytics (What Might Happen)**

At the predictive stage, data stops being just a record of the past and starts acting like a radar—it points to the direction the market, recipients, and user behaviors are heading. This is the level that answers the question: what might happen tomorrow, next week, next month—if we see these signals today? In newsroom practice, predictive analytics doesn't mean complex mathematical models. It means looking at trends and drawing conclusions before something becomes obvious. If, for example, we see that interest in energy-related texts has been growing for several weeks in a row, the newsroom can predict that this topic will gain importance—and prepare a series of in-depth materials earlier. This is how large European newsrooms operate; they don't wait for competitors to surpass them, but shape the agenda themselves.

At *The Guardian*, the data newsroom team analyzes data for individual sections and creates



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"editorial forecasts" that suggest topics with growing potential. It's not about guessing the future, but about seeing which topics begin to attract more attention than they did a week or a month ago. Based on such signals, the newsroom can schedule materials, interviews, or audio/video production earlier, instead of reacting. *Dagens Nyheter*, in Sweden, uses a similar approach. When the system notices a steady increase in pageviews in the "cost of living" or "public health" segments, the editorial team predicts that these will be key topics for retaining subscribers. This allows them to direct journalists to in-depth analyses, which translates into a higher user loyalty rate. Prediction also works at the business level. *El País* uses user behavior data to forecast their subscription probability. If a reader regularly returns to the site, reads thematically deep articles, and signs up for newsletters, the system predicts that this person is "close to conversion." This allows the editorial team to react sooner—by presenting them with subscription offers, premium content, or invitations to online events. Predictive analytics doesn't have to be complicated. Many European newsrooms use simple seasonal forecasting models: it's known that interest in health topics grows in January, and in tourism in August. However, mature newsrooms combine seasonal forecasts with real-time behavioral data to catch new phenomena. For instance, *Der Spiegel* discovered that interest in the energy topic started to grow even before the fuel crisis broke out—users began typing related keywords into search engines, but traffic wasn't massive yet. The newsroom prepared a series of analyses earlier than other media and gained an informational advantage. Predictive analytics allows newsrooms not only to react to the future but to co-create it. It means planning content not for today, but with a view to what needs users will have in a week or a month.

### **Prescriptive Analytics (What Actions to Take)**

The next level of analytics answers the most important question for every newsroom and publisher: what should be done? If descriptive analytics says what happened, diagnostic says why, and predictive says what will, then prescriptive analytics gives a concrete recommendation for action. In practice, this means that data begins to support operational decisions. Many European newsrooms have implemented systems that automatically suggest which actions will bring the best results. This could be a suggestion to push an article again on social media if users are returning to it organically. It could be a recommendation to change a title because the current one has a low click-through rate. They are often also tools that personalize the homepage view—each user sees a slightly different layout depending on their needs.

At *The Guardian*, prescriptive tools support the subscription team—if the system determines that a user regularly consumes economic content, it suggests not a general subscription offer but access to special premium analyses that build a sense of exclusivity. At *Dagens Nyheter*, prescriptive analytics determines which articles should be open to all users (to increase reach) and which are better placed behind a paywall (to increase revenue). It is important that prescriptive analytics is not meant to replace the editor's decision. Its role is to provide recommendations, but the final decisions are always made by a human. The best newsrooms combine data with journalistic intuition. As one *El Mundo* editor said: "Data tells us where the interest is. But it is up to us to decide if it is an important topic." Prescription can also work at the marketing and monetization level. Analytical systems suggest whom to send a subscription renewal reminder to, how to construct



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an offer package, who is in the churn risk group, and who can become a brand ambassador. This level of analytics is no longer just observation but real influence on the strategy of the newsroom, advertising, and subscriptions. Thanks to it, data stops being a report and becomes a mechanism for managing the future.

### **Tools and Platforms Commonly Used in Media**

For analytics to function at all levels—from descriptive to prescriptive—newsrooms need tools that not only collect data but can also interpret and share it in an understandable form. The most common tool is Google Analytics, especially in the version integrated with BigQuery. This suite allows understanding user traffic, real-time behavior, and the path through the site. In mature media outlets, data from Google Analytics is combined with other systems: paywall, subscriber database, CRM, or advertising system. Tableau and Adobe Analytics enable the creation of interactive dashboards for the newsroom and management. These tools make a difference in organizational culture: instead of sending Excel files around, the newsroom can go to a shared panel and see all the data in one place. Chartbeat and Parse.ly are typically newsroom tools. They show in real-time how many people are reading a given article and how long they maintain attention. This causes journalists to look not at "clicks" but at "time spent," which changes the mindset about content quality. When El País introduced engagement indicators into daily work, journalists began consciously crafting leads to encourage further reading, not just to attract a click. Social listening tools, such as Brandwatch or Talkwalker, help understand how content spreads on social media. This is especially important for newsrooms competing not only for attention but also for influence—because social data shows which topics are becoming part of the larger social conversation. CDPs (Customer Data Platform), such as Adobe Real-Time CDP or Tealium, allow newsrooms to combine behavioral, subscription, and marketing data into a single user profile. It is thanks to these that audience segments can be built and real-time personalization scenarios created. All these tools work best when connected into one coherent ecosystem. Newsrooms that have achieved analytical maturity no longer look at individual numbers but see the whole picture: a user came from Google, read the article to the end, signed up for the newsletter, returned three days later, and bought a subscription. This isn't magic—it's the result of data integration and conscious tool usage.

## **E. Content Distribution and Audience Knowledge**

In contemporary digital media, content is not enough to just be written - it also needs to be effectively delivered to the recipient. Distribution is no longer the final stage of editorial work, but an integral part of it. Analytics has ceased to be a tool that summarizes results after the fact. It has become a compass that allows the newsroom to consciously decide: where to publish, when to publish, how to present content to different audience groups, and how to use data to increase loyalty and revenue. Just a few years ago, many journalists treated distribution channels as mere additions - publishing materials mainly on the homepage. Today, we know that users reach content through various paths: via social media, push notifications, newsletters, search engines, mobile apps, video platforms, and podcasts. This means the newsroom must understand how these channels operate and how to adapt content to each of them. Analytics serves as a guide here - it doesn't say what is important from the algorithm's perspective, but shows where specific formats best fulfill their function.



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## **Analysis of Distribution Channels**

What Works and What Only Generates Noise The first step is to understand that not every channel serves the same purpose. Traffic from Facebook might bring high reach but low reading time. A newsletter may have a smaller reach but a higher subscription rate. A mobile app can be the best source of loyal users but requires specific formats and notifications. At *El País*, analysts created a model that assigns a specific role to each channel: some channels drive reach and brand awareness, while others build loyalty and subscription revenue. An example from *The Guardian*: the newsroom noticed that short news items achieved high traffic from Twitter (now X) but did not translate into reading time. In contrast, longer analyses, which were not as popular on social media, generated very high engagement time and conversions to subscriptions. This led to a strategy change - instead of publishing the same material in the same way across all channels, the newsroom began matching the format and preview to the specific channel's audience. At *Dagens Nyheter*, it was observed that newsletter users are up to four times more likely to purchase a subscription than users from a search engine. Analytical results showed that the newsletter is not just a distribution channel but a relationship-building tool. This led to a radical increase in the number of thematic and personal newsletters - run by editors, journalists, and experts.

## **Personalization and Segmentation**

Not for the "Mass User" One of the biggest myths of the digital age was the assumption that all internet traffic is uniform. However, data clearly shows that very different audience segments exist - even if they use the same medium. At *Politico Europe*, users were divided into segments: free readers, industry readers, institutional readers, and users who only use newsletters. Each of these groups receives different content suggestions, different calls to action, and a different communication style. Personalization does not mean manipulation. It means matching content to needs. At *Der Spiegel*, every logged-in user sees a homepage layout corresponding to their reading history. The goal is not to trap the user in a bubble, but to suggest materials that may have the greatest value for them. The main news of the day remains available to everyone, but additional modules are personalized. Segmentation also allows for the conscious management of user attention. Many media organizations have identified a group of so-called "super users" - this is 5-10% of the audience who generate 40-60% of revenue (through subscriptions, events, premium content purchases). Understanding their behavior is crucial for building a long-term strategy. At *Dagens Nyheter*, the process of detecting users who start spending more time on the site and move to analytical content was automated. When the system detects such behavior, it triggers a sequence of activation actions - a newsletter proposal, an invitation to a webinar, or a trial subscription offer.

## **Data as a Recommendation Compass**

Data-driven recommendations have become one of the most important elements of modern digital media. Their goal is not just to increase the number of page views. It is about keeping the user within the newsroom's ecosystem, instead of allowing them to leave after reading a single article.

At *The Guardian*, recommendation modules were tested so that they did not promote only the most popular content, but also those with high engagement rates. It turned out that users are



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more willing to click on materials suggested by the editorial team than on those based purely on ranking. Therefore, the current recommendation system is based not only on an algorithm but on editorial curation - a combination of data and journalistic intuition. At *El País*, data showed that users who read three articles from the same thematic section within a week have a 70% greater probability of purchasing a subscription. Based on this, the newsroom introduced a recommendation module that, after two read articles, starts suggesting more from that category - deepening the user's interest in one thematic area and guiding them towards a subscription.

### **Examples of Practical Implementations**

At *Dagens Nyheter*, analytics showed that users who only use social media as a source of information have a low level of loyalty. The newsroom decided to run campaigns encouraging such users to sign up for newsletters, offering unique content not available on social media. This brought over 50,000 new newsletter subscriptions within a year, and some of these users later converted to paid subscriptions. At *El Mundo*, data analysis showed that political articles achieve high results in search engines, but lifestyle content performs better in the mobile app. The newsroom created two different distribution styles: politics was optimized for SEO and widely presented, while lifestyle was personalized and sent via push notifications. As a result, the mobile app began to surpass the homepage in terms of engagement time. At Finnish Broadcasting Company *Yle*, data showed that podcast listeners rarely visit the main portal page, but are very loyal. In response, a special audio center was created with an automatic personalization function for subsequent episodes. The user did not have to search for content - the system suggested what was worth hearing next. As a result, the average listening time increased by 30%.

The conclusions are clear: content distribution in modern media is not about "dumping an article on the site." It is about consciously managing the user's path - from the first contact, through engagement, to subscription or return. Analytics allows this path to be understood, optimized, and developed.

## **F. Assessing Success and Key Performance Indicators (KPIs)**

In the digital world, media organizations must not only create content but also understand its impact—both editorially and commercially. Success assessment cannot rely solely on intuition. Journalists have long argued that the number of page views does not reflect the true value of a piece of content. Today's media measure something more: attention, loyalty, conversion to subscription, and long-term impact on the audience relationship. Key Performance Indicators (KPIs) are becoming tools not only for reporting but also for actively managing the newsroom.

### **Engagement Metrics: From Clicks to Relationships**



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A shift in thinking is underway in many European newsrooms. *Der Spiegel* has stopped treating page views as the primary indicator of success. In their internal reports, the first metric is now “engagement time.” If a user spends at least 60 seconds on an article, the piece is classified as “consumed,” meaning actually read. Why is this important? Because only content read with attention builds the authority of the newsroom and drives conversion. A similar approach is applied at *The Guardian*, which focuses on the “attention time” metric—it is directly linked to both loyalty and propensity to donate or subscribe.

Breaking news articles are evaluated differently than analytical pieces. News should be fast and widely distributed, but its success is measured mainly by reach and the number of users returning within 24 hours. In contrast, reports or investigative stories serve a different purpose—to retain attention and prompt subscription. Publishers such as *Dagens Nyheter* evaluate this type of content based on the number of subscriptions started after reading, the number of reads by logged-in users, and the “loyalty index”—how many people return to continue reading the series.

#### **Engagement metrics include:**

- average time spent on content,
- percentage of the article scrolled,
- number of interactions (comments, newsletter sign-ups, participation in surveys),
- number of return visits within a week,
- share of readers who consume more than one piece from a given section.

With this data, newsrooms understand not only which content is being “clicked,” but which content actually influences the relationship with the audience.

#### **Reach Metrics: Not Just Quantity, but Context**

Reach still matters. A high number of unique users reflects the strength of the brand. But in mature newsrooms, reach is analyzed in context—not just as an absolute figure, but as “qualitative reach.” At *El País*, the team analyzes how many new users entered the site as a result of a specific article and how many of them returned within seven days. This makes it possible to distinguish content that drives one-time traffic from content that attracts recurring audiences.

At *Le Monde*, a “first contact” metric was introduced—how many people visited the site for the first time thanks to a particular article. Articles with a high “first contact” rate are crucial for building brand presence and expanding the newsroom’s influence.

#### **Conversion and Subscriptions: From Audience to Partners**



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For newsrooms based on a subscription model, the key metric is conversion. But it is not just about how many people purchased a subscription. What matters is understanding which content led to that moment. At *Dagens Nyheter*, each article is assigned a “subscription value”—calculated based on the number of subscriptions that began after reading the article. *Financial Times* uses the RFV metric (recency, frequency, volume), which measures how recently, how often, and how intensively a user engages with the service—and based on this evaluates how close they are to subscribing.

For a journalist, such a metric is extremely valuable. It shows which topics, formats, and writing styles translate into real business value. The newsroom can invest time and resources in areas that not only increase traffic but also generate long-term revenue.

At *El Mundo* and *The Guardian*, churn rate is also analyzed—how many subscribers stop paying and why. If churn is concentrated among users interested in a single content segment, the newsroom may adapt its offering or add a content series tailored to their needs.

## Evaluating ROI: How Much Content Is Truly Worth

ROI, or return on investment, is no longer just a sales department concept. Newsrooms increasingly analyze how much revenue is generated not only by advertising campaigns but also by an individual piece of content or editorial format. At *Politico Europe*, they analyze how much revenue is generated by special reports and events created around a single major editorial topic. This allows the newsroom to understand that investing in in-depth content is not a cost—but a strategic investment.

At *The Guardian*, donor-funded social campaigns are evaluated based on the “cost of acquiring a donation.” If a video campaign attracts high-value donors, it is expanded. If another format yields low returns, it is halted or redesigned.

## Continuous Improvement: Data as a Feedback Tool

The most important change brought about by analytics in media is the move away from the mindset of “we did it – we reviewed it – we forgot it.” Instead, newsrooms are implementing a cycle of continuous improvement. Every piece of content becomes a source of insight. Every result serves learning.

At *El País*, so-called analytical cycles were introduced—after publication, after one week, and after one month, the newsroom analyzes its impact. If the topic proves important, new editions, follow-ups, and interactive materials are produced. If it proves weak, lessons are learned and the team moves on. At *Dagens Nyheter*, decisions to create new thematic sections are made exclusively based on data: trends, loyalty levels, and conversion rates.

This work culture changes the way journalism is perceived. Data is not used for punishment but for learning. It not only shows the past but also guides how to build the future. Media organizations that understand how to assess success—not through a single metric, but through a full picture of the relationship with the audience—become not only more effective but also more resilient to market changes.



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## User Loyalty: A Metric That Changes the Game

In traditional media, success was measured by reach—the number of copies sold, program viewers, or page views. Today, equally important, if not more so, is whether the user returns, how often they return, and how deeply they engage with the content. Loyalty has become one of the key metrics because a loyal user is more likely to subscribe, attend events, donate, or become a media brand ambassador.

At *Dagens Nyheter*, loyalty is measured using the “seven-day returning users” indicator, which shows how many readers visited the site at least three times in a week. It is a simple number but extremely important—its growth indicates that the medium is becoming part of the audience’s daily routine, not just a site visited occasionally.

A similar approach is used at *The Guardian*, which monitors the “loyalty index.” If a user visits the service an average of four times a week and engages in various formats—reads articles, listens to podcasts, signs up for newsletters—they are classified as a deeply engaged user. These users form the foundation of the newsroom’s financial stability.

At *El País*, loyalty has become a new strategic goal. Instead of celebrating one-off reach records, the newsroom began analyzing which content brings users back. It turned out that the most crucial drivers of loyalty are recurring formats—weekly political analyses, economic columns, and author newsletters. As a result, the newsroom plans publications not according to current trends but according to audience rhythm.

## Attention Metrics: How Much Users Truly “Give” to the Medium

Attention metrics are the response to the problem of “empty reach.” You can have a million views, but if most users spend only 10 seconds on a page, it means the content does not resonate and does not build a relationship.

Chartbeat introduced the concept of “active engaged time”—the time during which the user is actually reading (moving the mouse, scrolling, clicking). At *The Independent*, this indicator has become more important than page views. The newsroom observed that content with long engagement time has a greater impact on subscription decisions and is more attractive to advertisers, who are willing to pay more for space next to content that holds audience attention.

At *Financial Times*, the “Quality Reads KPI” was introduced, which measures how many users scrolled at least halfway through an article. It is a simple tool, but it helped the newsroom understand which texts convince users to stay on the page. It turned out that while short news pieces brought many users, it was the long analytical texts that built deep audience relationships.

## Short-Term Reach vs Long-Term Value

One of the most important lessons from working with data is distinguishing between content that drives short-term traffic and content that builds long-term value. *Politico Europe* analyzes its content through two filters: immediate impact and enduring



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impact. The former refers to content that dominates the news cycle—short news, exclusives, breaking stories. The latter refers to content that generates traffic and subscriptions over months—special reports, investigations, analyses.

At *Der Spiegel*, the newsroom observed that investigations published on Fridays received fewer clicks than those published on Tuesdays but had twice the subscription conversion rate. Based on this, the publication strategy was changed: news is published when users have more time, and strategic content is published when they are making subscription decisions.

## ROI in Journalism: How Much Content Is Truly Worth

Return on investment (ROI) is increasingly being analyzed not only in the context of advertising but the entire journalistic operation. In newsrooms such as *El País* and *The Guardian*, each department receives a report showing the revenue generated by their content—not only from advertising but also from subscriptions, events, and partnership products.

Assessing return on investment enables strategic decisions. If the economics section generates less traffic but more subscription revenue, more resources are allocated to it. If the entertainment section generates large traffic but has low engagement time and low subscription impact, the newsroom may change its format or limit resources.

ROI is also being analyzed at the format level. At *Dagens Nyheter*, it was found that informational podcasts generate fewer views than articles, but users who listen to them are twice as likely to renew their subscriptions. This led to increased investment in audio, even though traditional page view metrics did not justify it.

## Continuous Improvement: Strategy as a Process, Not a One-Time Action

The most important element of success assessment is understanding that it is not a finished process but a continuous cycle. Newsrooms that build an advantage do not wait for annual summaries—they analyze data daily, implement strategies, and test new solutions.

*The Guardian* uses “hypothesis testing”—editors create a hypothesis, such as whether shorter leads will increase reading time or whether articles with original analysis in the subheading will increase subscription conversions. They then compare two variants of publication. The result is not a judgment of the journalist but a learning tool.

At *El Mundo*, weekly “strategic meetings” are held to discuss indicators from recent days, but the focus is not on numbers, but on insights. The goal is not “reporting task completion,” but “what can we do better?” This is a fundamental shift—data stops being an accountability tool and becomes a development tool.

## What This Means for Journalists and Newsrooms

Modern KPIs are not used for control but to strengthen the value of journalism. They show which content builds influence, trust, and audience relationships. They help make informed



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decisions instead of acting on intuition. They enable balancing editorial goals with business goals without lowering quality.

Media organizations that understand how to measure success and how to use this data to improve strategy have an advantage over those that focus only on clicks. Because in the modern media ecosystem, the winner is not the one who chases sensationalism, but the one who builds lasting value—attention, trust, and audience loyalty.

## G. Implementation Recommendations

Implementing a data-driven culture in a newsroom is not about buying a new tool or hiring a single analyst. It's a process that covers the way you work, the structure of responsibilities, the language used to talk about audiences, and the decisions made every day. Newsrooms that have successfully implemented analytics didn't start with complex algorithms, but with a shift in mindset: data is not a threat to journalism — it's a tool that helps strengthen it.

### **How to start — a step from the newsroom side, not from technology**

The first step is to establish a shared language. Every newsroom should clearly define its key metrics — what an “engaged session” means, how a “unique user” differs from a “loyal user,” what we mean by “conversion.” Without such a glossary, the newsroom and the business side will look at data in completely different ways. At *Dagens Nyheter* and *El País*, the first element of implementing analytics was a “metrics map” — a document that didn't contain technical data, only definitions described in plain language. Thanks to this, every newsroom employee knew the difference between a page view and engagement time — and why the latter matters more. This step helped avoid conflicts between journalistic intuition and data analysis.

### **The role of people — who owns the data**

In mature European newsrooms, building a data-driven work culture was not an IT task, but an editorial process. Many created the role of a “newsroom analyst” or “data editor,” whose job is not to report numbers but to translate them into editorial language. At *The Guardian*, analysts are part of the editorial teams, sitting at the same tables as reporters and editors. They don't hand down reports “from above,” but discuss how data can support journalistic work. At *Der Spiegel*, each section has a person who monitors the performance of its content and plans next steps together with editors.

### **Embedding analytics in day-to-day culture**

Implementing analytics is not about producing a single weekly report. It's about making data part of daily newsroom rituals. At *Politico Europe*, the morning meeting always starts with a brief data review — and it's not about spreadsheets. The analyst presents two or three takeaways: which pieces triggered the strongest reaction, what worked well, what surprised the audience. These insights influence the day's editorial choices. At *La Repubblica*, analytics meetings take the form of “editorial conversations about the future.” They don't dwell on past mistakes, but on potential opportunities: if interest in climate topics is rising, should we launch a new series, podcast, or newsletter? If users only scroll to the halfway mark, what can we change in article structure?



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## **Tool integration — built around the user, not the system**

Technology should support the newsroom, not dominate it. The most effective European newsrooms connect a few tools into one ecosystem: behavioral analytics shows what the user does; a CDP links their activity to subscriptions and newsletters; newsroom tools surface real-time data. The key is that a journalist shouldn't have to open five programs — they see the most important information in one place. A good example is *Dagens Nyheter*, which built an internal newsroom dashboard. Every journalist can see how many subscribers read their story, the average reading time, and whether the piece led to new subscriptions. It's not a control tool, but feedback that helps improve craft.

## **A mindset shift: from “clicks” to value**

The biggest barrier to implementing analytics isn't technology, but habit. For years, many newsrooms operated in a clicks-race logic. Next-generation analytics makes it possible to shift to quality and long-term value. A journalist doesn't have to write for the algorithm — they can write to build loyalty and trust, because those are the elements being measured and rewarded. As one editor at the *Financial Times* said: “Analytics doesn't tell us what to write. It tells us how audiences use our work. The rest is our editorial responsibility.” That line neatly sums up a mature approach to data.

## **What effective implementation delivers**

When a newsroom moves to a data-informed model, three things start happening almost automatically: the quality of journalism improves (because the newsroom creates more useful content), audience loyalty grows (because material reaches people in the right form at the right time), and revenues increase (because the business supports valuable content, not just popular content). Data stops being a report and becomes the backbone of editorial and business strategy.

## H. Summary

The digital transformation of media is not about replacing paper with the internet or moving the newsroom to the cloud. Its essence is a change in mindset: from work based on intuition and chance to consciously managing the audience relationship. Data is not an end in itself — it's a tool that helps the newsroom better understand users, choose topics more accurately, distribute content more effectively, and build stable revenue.

The key lesson from European newsrooms is that success metrics must align with the newsroom's mission and business model. If a publication relies on subscriptions, success means engagement, time spent reading, and user lifetime value. If advertising is the base, then audience quality, ad viewability, and brand credibility are crucial. Regardless of model, all modern media agree: clicks alone are not enough. The future is decided by audience attention, loyalty, and trust.

Newsrooms that use data effectively do not abandon editorial judgment — on the contrary, they strengthen it. Data does not dictate topics; it helps better understand where the audience is, what questions it asks, and what answers it truly needs. In this sense, analytics becomes an ally of the media's public mission, not a threat to it.



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Here is a list of proven tools and platforms used in media — all legal, well-rated, with descriptions and without numbering. Links are provided directly in the text.

### **Chartbeat**

The Chartbeat platform (<https://chartbeat.com/>) is an analytics tool designed specifically for publishers and newsrooms. It enables real-time tracking of what users are doing — which articles draw attention, how long sessions last, and which traffic sources are most effective. Newsrooms often choose Chartbeat when they want a fast “radar” of what’s happening on their site right now and to react instantly.

### **Parse.ly**

Parse.ly (<https://parse.ly/>) is a platform focused on content analytics — it measures both article popularity and depth of engagement, interactions, and conversions (newsletter sign-ups, subscriptions). It helps reveal which content and formats are valuable not only for traffic but also for business.

### **Adobe**

### **Real-Time**

### **CDP**

Adobe Real-Time CDP (<https://business.adobe.com/products/real-time-customer-data-platform/rtcdp.html>) is an enterprise-class solution that connects user data from multiple sources — site, app, CRM, advertising — into a single user view, and then uses it for segmentation and personalization. For publishers developing subscription models and wanting a deeper understanding of readers, it’s a powerful tool.

### **Tableau**

Tableau (<https://tableau.com/>) is a Business Intelligence and data visualization tool. It lets newsrooms and analytics teams create interactive dashboards that present data in a way journalists and managers can readily discuss. It turns raw data into a form that’s easy to review at editorial meetings.

### **Google**

### **Analytics**

### **4**

### **(GA4)**

Google Analytics 4 ([analytics.google.com](https://analytics.google.com)) is the latest version of the standard tool for analyzing website and app traffic. It offers event-based data collection, better path analysis, and cross-device integration. For most newsrooms, it’s the starting point for building a measurement system.

### **A few notes on selection and implementation**

- Consider ease of adoption in the newsroom — can journalists and editors use the data themselves, or will they need constant technical help?
- Check whether the tool connects to other systems (newsletter, CRM, app), because data works best when integrated.
- Licensing and cost: some solutions are free (with limits), others require investment. The newsroom should judge whether the value justifies the cost.



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- Plan training — a tool alone won't change anything if journalists don't know how to use it.
- Remember legal compliance: user data, behavior analysis, segmentation — all must comply with data-protection laws (e.g., GDPR in Europe).

This is not another technical report about the “magic of data.” It's an attempt to build a guide for newsrooms, showing how to turn data into better editorial decisions and more stable revenue. From defining data maturity and organizing sources, through secure cloud storage and GDPR compliance, to daily operationalization: work rituals, distribution-health dashboards, audience segmentation, attention metrics, and real KPIs. The key takeaway is simple: the number of clicks is being replaced by the quality of contact with content — time, engagement, loyalty, and conversion to subscription. In-depth interviews with journalists and editors contributed a lot to this material. They show how tools are actually used in the newsroom: where GA4 can feel unintuitive, how a newsroom dashboard makes performance conversations easier, what gets in the way of daily reporting, and what works immediately. These interviews grounded the document — highlighting gaps between theory and practice and pointing to cultural (click pressure), organizational (silos), and technical (scattered data, legacy systems) barriers. We also note a limitation: this is a qualitative insight — helpful for understanding mechanisms and needs, but not statistically representative of the entire industry. The path to data maturity doesn't start with algorithms but with a shared vocabulary and a single “data spine.” When the newsroom, advertising, and product all use the same trusted source (a cloud warehouse, clear metric definitions, a semantic layer), the dispute over “whose numbers are right” disappears. Only then do metrics make sense: engaged time over PVs, loyalty over one-off reach, the “subscription value” of content over short traffic spikes. In distribution, channel fit and personalization win; in monetization, super-user segmentation, retention, and an honest ROI.

Finally — something concrete for publishers : those who standardize metrics, consolidate data in the cloud, invest in journalist-friendly tools, and weave analytics into the work rhythm will win. The interviews showed that even small steps — a shared metric glossary, a simple dashboard, a weekly “data committee” — deliver quick results. This isn't an overnight revolution but a steady evolution: less “click hunting,” more quality, trust, and user return. And that is the central message of this guide.



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