Digital Journalism

The Future of Design + Journalism: A Manifesto for Bridging Digital Journalism and Design

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INTRODUCTION

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The Future of Design + Journalism: A Manifesto for Bridging Digital Journalism and Design

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ABSTRACT

In this introduction to the special issue *Design + Journalism*, we present a manifesto about the future of design and journalism. This manifesto discusses the key areas that need attention in order to develop a more robust bridge between design and journalism. The manifesto is structured by the following three notions: (1) Recognizing design contributions in the field; (2) Integrating design into digital journalism studies through cultural shift; and (3) Widening the scope of the journalism design industry-academia interface. First, we argue that design artifacts, requirements, methods, and implications ought to be recognized as scholarly contributions in digital journalism studies. Second, we need a profound cultural shift in digital journalism studies, which entails conceptualizing design as a cultural practice, understanding design as a continuous process of shaping, and updating pedagogical approaches. Third, we argue that transversal integration between academia and industry should be more heterogeneous in terms of geopolitics, cultural norms, and values. A varied set of industries should be engaged beyond North America and Western Europe. We argue that integrating these three aspects in digital journalism studies will strengthen the understanding of design as an integral part of journalism and digital journalism studies.

Design has become an increasingly important aspect in journalism as a parallel development with the digitalization of journalism. Broadly defined, design refers to the process or outcome of producing specifications for the creation of artifacts, such as products, services, and processes (Shneiderman et al. 2016; Jackson and Aakhus 2014). It is an intentional activity oriented around taking actions that lead to preferred configurations of the sociomaterial world. In journalism, design has traditionally been understood as applying primarily to the visual structure, style, and overall presentation of news information (Cooke 2005). But with digitalization, design has permeated journalism in several additional ways, as journalism is increasingly produced, distributed, and consumed with digital interfaces.

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In the last decade design approaches and lenses have increasingly been applied in a number of ways in journalism scholarship (Chaplin 2016; Doherty 2018), from understanding how users interact with news information via user interfaces (Anderson and Borges-Rey 2019), to specifying design requirements and implications for the implementation of tools to support journalists (Diakopoulos 2020), evaluating tools or technologies which can inform future designs or understandings of journalistic practice (Thurman, Doerr, and Kunert 2017; Schifferes et al. 2014; Park et al. 2016), acting as a methodological approach for teaching and imagining the future of journalism (Angus and Doherty 2015; Doherty and Worthy 2020), and as a lens through which to consider the deliberate incorporation of journalistic values into the technological apparatus surrounding journalism (Aitamurto et al. 2019; Diakopoulos 2019a; Helberger 2019).

Beyond the design of journalistic artifacts such as article layouts or mobile applications for consuming journalism, sociotechnical understandings of journalism (Anderson 2013) introduce a broader conceptualization of the role that design can play in inscribing technological actants with the goals, aims, values, politics, and biases of humans (Lewis and Westlund 2015; Diakopoulos 2019). The values and norms of journalism not only shape designs, but those designs in turn shape journalism. The impacts of sociotechnical design can be felt in all aspects of journalism, from audience consumption and professional practice to press autonomy (Ananny 2018). It is therefore crucial to understand the role that design plays in shaping the rich set of relationships in the journalistic field—to audiences, platforms, technical artifacts, the law, and so on—and in turn how those relationships constrain journalistically relevant design. Design philosophies, often devised in industrialized societies from the Global North, are embedded in technologies and content consumed in the Global South, drastically shaping and re-shaping the cultural and social contours of societies with distinctive geo-politics that may demand their own context-specific designs. A design lens affords both new avenues for criticism of the status quo, and for the deliberate and intentional envisioning of how sociotechnical journalistic systems could or should operate in the future across and between diverse contexts. Furthermore, examining the intersection between design and journalism enables us to integrate design more deeply into the core of digital journalism studies, which is an emerging, dynamic field seeking to be informed and inspired by other disciplines and research contexts beyond journalism.

This special issue explores a range of these opportunities and highlights the many different ways in which design can be studied and understood as it relates to digital journalism, including everything from sociotechnical and material conceptions of design to more classically understood notions of visual and communication design, the application of design methods towards journalistic goals, and even historical perspectives on web design as they relate to the development of online journalism. As a backdrop to our manifesto, we next summarize the contributions of the articles in this special issue.

McKernan et al. open this special issue with an article that explores the challenges faced by journalists when covering digital political ads. Employing a human-centered design framework, the authors highlight the need for precise targeting, flexible tools, and quick identification of newsworthy items as some of the design

requirements for improving transparency within the coverage of digital political advertising.

Løvlie, Waagstein and Hyldgård present the results of their research-through-design study aimed at developing a tool to help readers understand the relevance of scientific evidence in the news coverage of health. For their article, the authors designed and evaluated a tool called the Scientific Evidence Indicator, which conveys the extent to which a scientific study reflects valid information. The authors conclude that future work could involve designing similar tools for journalists to assess evidence and present it to their readers, balancing automated assessments with journalists' qualitative considerations.

In their study, Morini, Dörk & Appelgren develop a typology of ethical values exhibited by data journalists as they engage with embodied sensing. The authors contend that data journalists, as they engage with sensing technologies, present a combination of formal and informal ethical values (privacy, transparency, diversity, truth, and respect), which were learned from established newsrooms and from their personal experience with these technologies.

Gutierrez Lopez et al. emphasize the importance of close collaboration between technologists and journalists in the AI lifecycle, to design useful tools driven by quality data. They see future efforts focusing on creating a blend of human and AI expertise in specific journalism contexts, exploring new design methods based on participatory and value-sensitive design principles.

Doherty, Johnston & Matthews's article argues that the changing boundaries and power dynamics in journalism, along with the growth of communication technologies, highlight the value of a process view of materiality in journalism. This approach focuses on doing, thinking, and imagining in order to develop innovative and original journalistic outcomes that may or may not resemble established, well-known forms of journalism. The authors suggest that design practices, such as those used in journalism hackathons, can provide a way to materialize new forms of journalism and that a process view of materiality can empower journalists to be more proactive in shaping the future of journalism.

Within more classically understood notions of visual and communication design, Billard and Moran provide a visual analysis of fake and real news websites to understand the impact of visual cues on building trust in news media. Their findings suggest that fake news websites tend to mimic traditional news visually, but also use stylistic elements to signal their editorial allegiances, which could both attract and deter certain readers. This highlights the complex relationship between visual cues, genre expectations, and credibility in building trust in news media.

In their article Dimitrakopoulou and Lewis explore the application of design methods towards journalistic goals by introducing an approach to journalism education grounded in ideas of engaged journalism. By employing design thinking they developed an actionable toolkit called the Generative Dialogue Framework (GDF), aimed at facilitating deep listening in journalists, thus helping them to engage with their audiences in a more empathetic and compassionate way. The authors argue that the intersection of design thinking, facilitation, and community-centered listening can provide journalists with a unique set of tools, methods, and mindsets to reimagine traditional journalism.

In the last article of the special issue, Mari historicises perspectives on web design as they relate to the development of online journalism. His article analyzes how the shift from analogue to digital news changed the way news organizations engage with their audience. The author explains that early web design of news sites focused on interaction with their consumers, leading to a better understanding of the current information economy.

Lastly, in her commentary article, Royal ties together perspectives of journalistic roles and culture through an explanation of how journalistic products are designed. Royal argues that the news product ecosystem has rapidly expanded to include interactive editorial products, mobile apps, newsletters, podcasts, games, AI applications, social media strategies, and tools to support journalism. The integration of software development practices in creating and launching digital properties requires reconsidering journalism's unique aspects such as news speed, ethics, audience responsibility, and role in democracy. This commentary explores the changing professional roles, emerging product culture, and relationship between product and engagement in media design and product.

The various contributions to this special issue also open a space for reflection on how design + journalism *could* or even *should* evolve in the future, which we turn to next by elaborating our manifesto for design + journalism. With this manifesto, we seek to highlight vitally important directions that deserve to be developed further and applied in practice toward advancing the role of digital journalism studies in the broader society.

A Design + Journalism Manifesto

This manifesto is structured into three main notions: 1) Recognizing design contributions in the field; 2) Integrating design into digital journalism studies through cultural shift; and 3) Widening the scope of the journalism design industry-academia interface. We argue that integrating these three aspects in digital journalism studies will strengthen the understanding of design as an integral part of journalism practice and digital journalism studies.

Recognizing Design Contributions

In a recent review of the methodologies typically used to publish research in Digital Journalism (Steensen and Westlund, 2021) content analysis, surveys, and comparative approaches top the list and there are even some nods towards computational methods like text analysis and mining, but *design methods* are curiously absent from that review. Doherty, too, finds that "within journalism research, it is rare to find studies that use design methods as a means of inquiry." (2018). There are of course some in the field writing explicitly about design more broadly (Doherty 2016; Vasudevan 2020), including by addressing aspects of developing design requirements and evaluations of designed artifacts (Diakopoulos 2020; Thurman, Doerr, and Kunert 2017), and this special issue itself is a counterweight towards this observation. But for design to really gain greater purchase in the field of digital journalism studies it will require

further development. In particular we argue that the field needs to more fully recognize, appreciate, and embrace design contributions as viable additions to scholarly knowledge.

Part of the challenge here is that design contributions can take many forms—some more familiar than others to the typical social scientist or humanist. Here we will outline four.

Outside of design or engineering disciplines, perhaps the most uncomfortable design contribution is the specific *designed artifact* or sociotechnical system/process that was created or prototyped, including an articulation of why and how it was built (i.e., design process documentation), and what was learned through the process of designing it. This type of contribution typically looks like a description of a novel system or artifact combined with reflexivity and critical reflection by the researcher on the design process and creative outcome (Brehmer et. al, 2014; Diakopoulos, Trielli, and Lee 2021). In some cases, the artifact design itself might be reported separately (Maiden et al. 2018) from an extended reflection on the design process and outcome (Nyre and Maiden 2022). As design researchers Zimmerman, Forlizzi and Evenson write, "The artifact reflects a specific framing of the problem and situates itself in a constellation of other research artifacts that take on similar framings or use radically different framings to address the same problem." (2007). Traditional notions of theory development are not typically the goal here, though theory can be used as an input to support design decisions, guide development towards specific design objectives, and bridge toward specific contexts of application (Harrison 2014; Zimmerman, Forlizzi, and Evenson 2007). Jackson and Aakus (2014) argue that the communication field should recognize the importance of "treating the designed object as the point of an inquiry and as its most important product" such that knowledge through design or embodied by design complements other empirical or critical approaches. The knowledge inheres to "the artifacts created, the creative activity of designers, and the processes of manufacturing artifacts" (Jackson and Aakhus 2014).

Another crucial design contribution involves understanding the population of target users in order to be able to inform new artifacts or sociotechnical systems that work well for those target users (Diakopoulos, Trielli, and Lee 2021; Schifferes et al. 2014; Thurman, Doerr, and Kunert 2017). These are sometimes understood as *design requirements*, though they can also be thought of as an elaboration of constraints that help shape design decisions towards an artifact, process, or system that is more likely to be usable and adoptable by users. News production and consumption are marked by extreme variability in context, process, roles, and needs and such design requirements are crucial contributions that can inform downstream design activities for specific sub-populations and contexts.

A third form of design contribution is the empirical human-centered *evaluation* of artifacts with appropriate users in order to understand efficacy and utility, how user behavior was impacted, how users adopt or reject the design, and whether design goals were effectively realized (Diakopoulos, Trielli, and Lee 2021; Wang and Diakopoulos 2021). While such an evaluation may have multiple scientific contributions, including implications for theory and/or for understanding human behavior and identifying unexpected behavioral effects, it may also have *design implications* (Sas et al, 2014) whereby the prototype is evaluated with the goal of understanding how to modify

the design in subsequent iterations and generally inform future creations in order to achieve particular outcomes of interest. In some cases, evaluation can also be accomplished through empirically informed critique of design processes or outcomes (Løvlie 2018).

Finally, design in the field of digital journalism can also bring contributions related to the application of *design methods* to imagine how to shape journalistic artifacts (i.e., communication content or sociotechnical systems, such as automated journalism) and/or processes (i.e., tasks or practices, such as engaged reporting) towards desirable states given sociotechnical constraints and ideals. By "design method" we mean generative approaches typically used in design processes, such as scenario-building, diagramming, low-fidelity prototyping, storyboarding, brainstorming (Diakopoulos 2012), sketching (Doherty and Worthy 2020) and many others[1]. Here, the contribution is recognized in terms of what the method brings towards thinking divergently and/or constructively about how to shape journalism (Doherty and Worthy 2020). Productive outcomes might include novel problem framings, insights into complex systems such as the dynamics between actors, articulations of possibilities incorporating perspectives from diverse participants, or educational outcomes which sensitize participants to possible and plausible futures.

Although this special issue reflects some of these types of design contributions, we wish to emphasize that all of these (and perhaps others too) are viable contributions from a design perspective. The field and the journal should be prepared to recognize these contributions during review by growing the editorial board with the appropriate expertise and/or by tapping into adjacent fields such as human-computer interaction (HCI) where this expertise is more prevalent.

Integrating Design into Digital Journalism Studies through Cultural Shift

For a deeper and a more productive connection between design and journalism, we need a profound cultural shift in the digital journalism studies scholarship. This shift ought to permeate the scholarship in multiple layers and dimensions in order to be meaningful. At the core of this cultural shift is to situate – or rather, shape – design into a more integral position in digital journalism studies. For that to happen, we need a deeper understanding of the important foundational aspects of design. Successful integration of design into digital journalism studies scholarship requires understanding and integration of these important elements of design. At the core are three aspects, which we will elaborate on in the following.

First, we need to conceptualize *design as a cultural practice* rather than only a skill set for designing new products or services. Design reflects the values, sociocultural norms and dreams of its immediate cultural context. For instance, in Scandinavia, there is a strong tradition of participatory design (Schuler and Namioka 1993, Aitamurto, Holland, and Hussain 2015)) and co-design practices (Sanders and Stappers 2008), which strive to create more inclusive design processes by involving ordinary citizens in the design process, thus strengthening the democratic values in society. Design is thus a socially constructed practice and as such, similar to journalism practice. The socially constructed nature of design plays a vital role in extending our

perception of design from a cluster of tools and skills to a more complex, nuanced understanding of it as a sociocultural practice. By approaching design with a broader lens than a set of engineering skills, we open up avenues for observing design as a powerful practice in society. A practice, which can strengthen equity and inclusiveness and thus contribute to democratic values in society, or in a less ideal case, a practice, which addresses the needs of the already privileged by developing yet another digital application.

Second, it is important to understand *design as a continuous process of shaping*. Through shaping, design ideas, or design hypotheses, as termed by Aakhuus and Jackson (2005) achieves its final form. In design, the solutions are found through shaping the design across multiple iterations of prototyping and user-testing. Design is an ongoing process of problem-solving, in which products and services are remolded and iterated as users' tastes and behaviors change and technologies evolve. The iteration loop is continuous. For instance, when a news publication launches its news application for smartphones, the process of observing the users' behavior with the app begins. Users' behavior, which can be observed with in-person design ethnographic methods or with behavioral log data, signals the use patterns and trouble spots, which need to be addressed by iterating the design. The iterations will continue through the application's lifetime. The examination of design in digital journalism studies scholarship needs to understand the iterative nature of design and approach it as a process rather than an individual event. Rather than publications focusing on "finished" work in a tidy format, centering the design process and what was learned along the way, may be a way to better reflect this idea in scholarly output.

Third, a meaningful and effective cultural shift requires *updating the pedagogical approaches* related to the role of design in digital journalism studies programs. A deeper integration of essential elements from engineering sciences and other design-related disciplines such as art is needed. At the core of the curriculum for both undergraduate and graduate students should be design approaches, which conceptualize design as a sociocultural practice of shaping. Human-centered design (also sometimes called user-centric design or design thinking) methods are one of the core approaches, which should be a part of any journalism program. In human-centered design, users' needs are identified with a need-finding process. Design challenges are then developed based on those needs, and solutions are brainstormed and developed in multiple cycles of iteration, prototyping and user-testing (Boy 2017). Human-centered design provides journalists and journalism scholars design skills, which enable them to shape the continuously evolving digital world in journalism. Approaches like human-centered design help them design new products, whether those are digital products or services.

Both journalism schools and digital journalism studies programs need to integrate these essential design approaches in their programs. The integration needs to permeate the curricula in multiple levels. For a meaningful connection between design and journalism, an occasional isolated, elective class is not enough. Design skills are learned best by doing, and therefore, the curricula should include project-based classes, in which the students tackle design challenges in which they design solutions for users' needs. Digital journalism studies scholars need to work in close collaboration with design programs when developing their curricula. The process would benefit

from a reciprocal exchange of visiting lecturers from design programs at journalism programs. Design and journalism scholars should also develop shared materials for classes teaching design in journalism.

Widening the Scope of the Journalism Design Industry-Academia Interface

Calls for a greater integration between academia and industry have been a recurrent trope in digital journalism studies over recent years. In an attempt to more meaningfully understand news practices beyond the study of outputs, interfacing with industry has become a major priority within research agendas that seek to understand internal news work routines, newsroom organizational cultures or technological design, development, and implementation within news outlets. And although a modest number of studies have gained privileged access to newsrooms – by either interviewing news media actors, or by deploying participant observation incursions within outlets – the ideal synergy through which scholars can gain deeper understanding of the inner dynamics of news organizations, and news industries can benefit from academic insight and knowledge, has not fully materialized yet. For such co-operation to consolidate in a significant way, digital journalism scholars would have to recognize, and engage with, three main issues.

Traditionally, digital journalism studies scholarship has depicted a *politically homogenized picture of journalism design*. The reason for this homogenization is twofold. On the one hand, the relatively small amount of studies by scholars who have successfully engaged in ethnographic research with industry, have done so in outlets operating in either North America or Western Europe, thus generating scholarship with a rather distinctive political nature, which addresses concerns and questions often associated with liberal democracy and western values. Within this political context, journalism design, driven by market forces, creates distinctiveness that separates outlets from competitors. On the other hand, scholarship derived from this western industry-academia synergy tends to be solidly rooted in the idea of innovation as the driving force of political progress. Here the study of innovation labs (Hogh-Janovsky and Meier 2021; Cools, Van Gorp, and Opgenhaffen 2022), R&D departments (Zaragoza Fuster and García Avilés 2022), the role of technologist in news technology development (Nielsen 2012), and similar, take center stage as drivers for a very sought-after democratization of technological transformation and development in journalism practice. Design, here, is driven by innovation, and often used to develop bespoke products and processes within news organizations with the financial infrastructure to afford such implementation.

Outside this westernized homogenization of journalism design scholarship, news industries and outlets from the Global South have to navigate a complex *tension between Western foreign norms and principles, and their own local norms and values*. In the same way journalism is shaped by values attached to cultures, history and geopolitics, design norms and principles are too shaped by the same. Due to the precarious financial and political environment in which many news organizations in Latin America, Africa, the Middle East, Asia and Eastern Europe have to operate, journalists in these regions normally resort to foreign aid and training (Lugo-Ocando 2020) to

build capacity, as well as third party or open-source technologies and solutions to generate their outputs and processes. In order to provide an all-encompassing theorization and problematization of journalism + design, digital journalism scholars must recognize that within media ecosystems in the Global South, journalism design is also shaped by values different to competition and individualization. Social harmony, unity, respect for central authority, and collectivism (Mutsvairo et al. 2021; Wu 2022), are often cited by journalists from these regions as important cultural values that shape their professional routines. In recent years, a push to de-centre the global research agenda in digital journalism studies has made evident the tensions that arise when journalists from the Global South try to implement institutionalized Western golden standards in their local environments and, as normal part of their job, they have to constantly switch back and forth between foreign and indigenous standards and values. Therefore, in less conventional news industries, precarity is a rich source of creativity, and intra- and extra-newsroom collaboration and unity, is, in many instances, the only way available to develop and implement journalism design ideas to, sometimes serve the public and instigate social change, at other times to consolidate the power of authorities and governments.

Finally, as news conglomerates and media organizations of more industrialized societies tend to engage more critically with their products, processes and routines, professional positions that sit at the intersection between academia and industry and move transversely across universities and news organizations are becoming increasingly popular. Arguably, this *transversal integration between academia and industry* tends to happen more fluidly between academic disciplines more closely related to design, engineering, computing, and data science, etc. In this regard, journalism + design ground-breaking work produced by industry/scholarship within disciplines like the philosophy of science, mathematics history, platform studies, critical data, algorithm, and code studies, software studies, media archaeology, and digital humanities provides alternative theoretical and methodological insight into topics that have been extensively studied over the last century of media research. Additionally, another alternative outlook can be provided by Global South, Latin American, African, Asian, Middle Eastern and Central and Eastern European studies into the ways in which colonization, post-colonization, globalization and similar forces have institutionalized a mainstream design agenda in journalism practice, and the ways in which local and indigenous cultures partially adopt or reject this agenda, whilst also exhibiting their own distinctive journalistic design ideas and standards. Opening our field of study to alternative insights like these is of prime importance, particularly as we begin to institutionalize UX, HCI and UI design in journalism as widespread practices, which are only becoming relevant in a small portion of the globe able to afford these technological developments.

It is undeniable that one of the most productive avenues through which the integration of design in journalism has taken place is the sustained synergy between academia and industry. However, it is essential to recognize that this synergy has strong political ramifications that need to be fully acknowledged by digital journalism studies if the field is to provide an accurate and truly global understanding of journalism + design. In order to offer a more heterogeneous understanding of how design functions in news organizations in the rest of the world, digital journalism studies scholars must engage with a more varied set of industries from geopolitics distinct

from those based in North America and Western Europe. It is equally essential that the field engages with the distinct values and standards that inform design initiatives and ideas within newsrooms in the Global South, as well as the cultural, historical, political and philosophical principles that underpin them. Ultimately, digital journalism studies would benefit from a necessary interdisciplinary cross-pollination with other academic fields that have engaged more meaningfully with design over the years.

Note

1. For a catalog of design methods see: https://www.designmethodsfinder.com

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