

Scientific Watchdog Journalism in Latin America: A Challenge of Broken Mirrors

Aleida Rueda 

Complexity Sciences Center (C3), National Autonomous University of Mexico

Correspondence: Aleida Rueda (aleida.rueda@c3.unam.mx)

Submitted: 28 February 2026 **Accepted:** 17 June 2026 **Published:** 3 September 2026

Issue: This commentary is part of the issue “Journalism as a Science Watchdog: Theories, Practices, and Implications” edited by Alice Fleerackers (University of Amsterdam) and An Nguyen (Bournemouth University / Van Lang University), fully open access at <https://doi.org/10.17645/mac.i498>

Abstract

The watchdog role of science journalism, as a way of revealing wrongdoings in science-driven enterprises, is a recent and rather invisible practice in Latin America. From my 20 years as a practitioner, this commentary explores some structural causes of this phenomenon: insufficient training opportunities in science journalism; a weak perspective of the watchdog role; a cheerleader posture by the media towards science; symbolic and political links between media owners and scientific elites; and the vulnerable position of journalists due to fragile incomes, which compromises independence and critical thinking. I also underline a further watchdog role: to investigate, expose, and warn society about the misuses and abuses of scientific methods, processes, outcomes, and authority in the public domain. In this role, the watchdog journalist verifies scientific arguments invoked to make decisions. Lastly, I relate successful instances of watchdog science journalism in the region for the social evaluation of scientific knowledge and its impact on urgent Global South problems.

Keywords

journalism; Latin America; media; science journalism; watchdog journalism

1. What is Watchdog Science Journalism?

Several authors describe the watchdog role of journalism as one of denunciation, investigating irregularities contrary to the public interest committed by governments, businesses, organizations, or individuals. To Wallace and Knobel (2010, pp. 11–12), the best journalists perform a critical function seeking to root out the truth: “Exposing evil, exposing impropriety, exposing something that shouldn’t be happening, is our highest calling...in hopes that by shining a light on it, the light will purify.” This function implies not just pointing to isolated instances but revealing the underlying patterns of abuse and systemic negligence.

Furthermore, it requires describing context, identifying those responsible, and outlining potential consequences to warn citizens and empower them to prevent damages or make informed decisions (Coronel, 2009). However, this is not its only role. Kovach and Rosenstiel (2021) recall a less combative definition from the mid-1600s: Being a watchdog implies going from a simple stenographer to a curious observer who examines unseen corners of society. As they note, “the purpose of holding the powerful accountable also extends beyond simply making the management and execution of power transparent, to making known and understood the effects of that power” (Kovach & Rosenstiel, 2021, p. 225).

Applied to science journalism, the watchdog role implies at least two functions: On the one hand, investigating problematic aspects of science, from research malpractice and power networks to potentially harmful effects of its findings (Fleerackers et al., 2026); on the other, performing a systematic examination of decision-making processes, which means to investigate, expose, and warn society about the use or misuse of scientific evidence in public policy and societal contexts. As Crúz et al. (2014) conclude, “in particular, when public-policy decisions are made with or without the relevant scientific information, science journalists should see it as their watchdog duty to investigate and report on it, instead of complacently settling on the narrowest possible interpretation.”

In this sense, journalists who omit scientific content from stories that require it fail to defend the public interest by withholding information necessary for citizens to assess risks or make decisions. Existing research and my 20 years of experience in Mexico suggest watchdog science journalism is scarce in Latin America, creating an obstacle for society to critically evaluate scientific knowledge and its relevance to urgent regional problems.

2. Watchdogging Science and Scientists in Latin America

Regarding the narrower conceptualization of watchdog science journalism—monitoring and exposing bad science or fraud—Latin American studies are limited, suggesting a general lack of investigative science journalism. For instance, Meneses-Fernández and Santana-Hernández (2020, p. 41) analyzed coverage across 21 newspapers in Latin America and Spain regarding malpractice and fraud, and concluded that such coverage is infrequent, “superficial, often anecdotal, descriptive, profusely derivative,” and derived from sporadic cases rather than investigative follow-up.

Several factors hinder investigative science journalism. Identifying issues like data manipulation or falsification requires understanding research processes and scientific arguments (Crúz, 2024). In Latin America, media outlets rarely allow time for this, nor are these skills taught in universities. Without formal training, science journalists learn through practice, often failing to distinguish between watchdog and cheerleader roles (Rosen, 2017).

Added to this are time constraints and weak editorial involvement. Combined, lack of time, training, and editorial support make identifying fraud exceptional. The few Latin American journalists publishing on these topics usually work for Global North outlets which, unlike most regional media outlets, do offer legal counsel in the event of a lawsuit (e.g., Basilio, 2026; Gutiérrez & Pérez Ortega, 2020; Schiermeier & Mega, 2017). In cases of sexual abuse, harassment, or corruption within academia, finding individuals willing to file formal complaints remains difficult due to fear of academic exclusion, retaliation, and public shaming (Espinosa Luna & Corradi, 2026; Guizardi et al., 2025).

A second set of challenges stems from the media landscape, where implicit and explicit links between academia and media make exposing bad science difficult (Rosen, 2017). Media outlets often promote and protect the reputation of scientific communities, treating scientists as unquestionable authorities. Conversely, scientific institutions view media and journalists as promotional allies, reinforcing this through public relations campaigns or sponsored trips to conferences (Vara, 2007). Consequently, journalists struggle to launch investigations monitoring scientists while protecting themselves from potential backlash.

Labor precarity and poor working conditions across Latin American newsrooms also limit watchdog functions (Márquez-Ramírez et al., 2021; Massarani et al., 2021). Precarity turns journalism into short-term reporting on findings, events, or awards, driving it away from investigative conditions. Demands to produce additional content for social networks further drain reporters' energy and capacity for deep investigations (Bossio & Hutchinson, 2026).

Labor instability leads many journalists to transition into press officer roles (Rueda & Rosen, 2025). These shifting dynamics blur lines between PR and science journalism, weakening the freedom and interest to report on scientific irregularities. While freelancers might seem better positioned to resist these pressures, most face severe instability, long hours, and lack of benefits (Márquez-Ramírez et al., 2021). Given this vulnerability, it is easy to understand why journalists shy away from writing lengthy, in-depth pieces on corruption, negligence, or sexual harassment within the scientific community.

Finally, some journalists fear exposing flaws could undermine public trust in science, opening doors to pseudo-scientific narratives. Hesitation also stems from considering the precarious state of Latin American science, fearing critical reporting might jeopardize resources and funding (Rosen, 2017). Journalists wonder to what extent watchdog reporting might harm individual researchers rather than exposing systemic flaws. These constraints impede the growth of robust watchdog science journalism in Latin America, leading many journalists to conclude that a vigilant approach carries more risks than benefits.

3. Watchdogging Those Misusing and Abusing Science in the Public Domain

Given the multiple structural pressures that hinder watchdog science journalism focused on monitoring irregularities within the scientific community, I propose turning the spotlight on the second dimension of this role, which is an equally (or perhaps more) important—and also more feasible—dimension of this role: defending the public interest through fact-checking the use, misuse, and abuse of science in the public domain and the strategic inclusion of scientific content into the stories that require it. This perspective centers on incorporating scientific arguments that explain the reasoning behind conclusions, rejecting the principle of authority (Crúz, 2024). Gómez Gurrola and Cruz Mena (2019) propose a teaching methodology based on these ideas, demonstrating how reporters can learn to highlight empirical evidence and explanations as the essential means to resolve conflicts in a science story.

Adopting this watchdog function of science journalism would significantly increase the relevance of science journalism in Latin America. By providing the scientific arguments necessary to understand complex issues like environmental degradation or public health, journalists transition from mere translators to key actors who create conditions for active citizen participation. Ultimately, this watchdog function would empower society by providing it with the scientific information needed to participate in democracies and public decision-making.

4. Where to Go From Here

Despite the challenges, there are several Latin American media outlets that carry out the narrower definition of watchdog science journalism by questioning the financing, ethics, gender biases, and social impacts of knowledge production. Outlets like Agencia Pública (Brazil), Chequeado (Argentina), El Surti (Paraguay), Mongabay Latam (Latin America), Ojo Público (Peru), Pie de Página (Mexico), Salud con Lupa (Peru), and SciDev.Net (regional) lead these efforts. These projects thrive largely because they do not depend on governmental or academic funding. Instead, many are supported by international organizations dedicated to investigative journalism such as the International Center of Journalists or the Knight Foundation. Furthermore, outlets like *Salud con Lupa* and *Ojo Público* were founded and are led by journalists who previously worked in investigative departments within traditional media. Conversely, initiatives aligning with the second, broader conceptualization of watchdog science journalism are far fewer, with notable examples in Mexico including Radio Educación (*Hábitat Ciencia*) or TVUNAM (*Simbiosis*).

Rather than media outlets exclusively dedicated to covering science, it is more common to find investigative stories documenting the power structures that surround scientific and medical knowledge. Examples include investigations into industry interference in the development of health regulations (e.g., *Salud con Lupa*, n.d.) or the challenges within the dialogue between diverse knowledge systems to generate new insights (e.g., Pinedo, 2021). Within the second category of watchdog science journalism, notable efforts include explaining the role of science in searching for missing persons (e.g., TV UNAM, 2019) or uncovering the systemic reasons behind the crisis of diabetes-related amputations (e.g., Climent, 2018). Despite the profound relevance of these investigations, none of the mentioned outlets or programs enjoys the financial stability necessary to guarantee long-term survival, underscoring the vulnerability of independent media and the imminent risk of losing investigative science journalism in Latin America.

Given this situation, a fundamental question arises: What is required to ensure the survival of investigative, watchdog science journalism in a region that needs it so urgently? Finding a comprehensive answer will require the expertise of scholars and practitioners—some of whom are featured in this thematic issue—yet three key approaches can be proposed.

First, in terms of education, journalism programs must ensure that graduates possess the confidence to critically question scientists, rather than feeling as though they work for them. This requires instilling the core goals of watchdog journalism from the very beginning of their training, fostering an in-depth understanding of how scientific knowledge is produced in order to demystify it and encouraging early engagement with the scientific community through critical, rigorous interviewing.

A second avenue involves professional associations and networks of science journalists, which should actively seek ways to ensure that watchdog science journalism can be practiced without jeopardizing the careers of reporters who choose to engage in it. Potential actions include securing funding from organizations that sponsor investigative science stories, issuing public statements in response to instances of scientific fraud, and training their members to recognize the consequences of cheerleader journalism—especially in cases that require a critical perspective. Moreover, it would be beneficial to engage scientists themselves, educating them on the watchdog role of journalism as an inherent and necessary function of the profession.

Finally, it is urgent to further explore and develop academic research on watchdog science journalism, precisely as this volume does, not only to advance theory, but to demonstrate, with evidence, that failing to practice watchdog science journalism has consequences for societies, for the kind of science each country produces and for the necessary level of citizen participation in public decision-making.

5. Conclusion

Watchdog science journalism in Latin America is scarce but essential for citizen participation and democratic life. The “cheerleader” model, even if well-intentioned in its wish to promote the scientific culture, can also be a way to perpetuate systemic opacity and power structures that do not always serve the public interest.

In that sense, it is fundamental to keep strengthening the watchdog function in science journalism by going back to the basics: First, reinforce training in science journalism based on fact-checking instead of being an extension of PR. Second, create regional networks for the protection of journalists, which can also give them legal and financial support to develop complex investigative stories without the fear of reprisals or financial ruin. Lastly, changing science journalists’ self-perception is essential: When reporters recognize their crucial role in providing evidence for complex issues, they help citizens actively engage in decisions affecting their lives.

The success of independent media such as those mentioned previously demonstrates that there is a path towards a more critical and useful journalism for society. Strengthening those efforts and reinforcing a watchdog perspective, vigilant about science’s failures but also about the scientific content needed to make decisions, is the only way to guarantee that science journalism in Latin America becomes a real public service.

Acknowledgments

The author thanks Javier Cruz for language editing and draft feedback. Special thanks to Mexican Network of Science Journalists members Geraldine Castro, Roberto González, Rodrigo Pérez-Ortega, and Myriam Vidal Valero for their invaluable insights.

Conflict of Interests

The author declares no conflict of interests.

LLMs Disclosure

Gemini (Google) was used for formatting the reference list and editing the manuscript to reduce word count. All edits and citations were subsequently reviewed, verified, and manually audited by the author to ensure typographic and intellectual accuracy.

References

- Basilio, H. (2026, May 14). A passion for species. *Science*, 392(6799). <https://doi.org/10.1126/science.aei8229>
- Bossio, D., & Hutchinson, J. (2026). Taking care online: Reconceptualising professional wellbeing for social media engagement in journalism. *Digital Journalism*. Advance online publication. <https://doi.org/10.1080/21670811.2026.2655242>

- Climént, M. C. (Host). (2018, September 21). La crisis de amputados en México (REPORTAJES No. 12) [Audio podcast episode]. In *Hábitat Ciencia*. Mixcloud. <https://www.mixcloud.com/HabitatCiencia/reportajes-12-la-crisis-de-amputados-en-m%C3%A9xico>
- Coronel, S. (2009). Corruption and the watchdog role of the news media. In P. Norris (Ed.), *Public sentinel: News media and governance reform* (pp. 111–136). The World Bank.
- Crúz, J. (2024). La comunicación pública de la ciencia: entre el principio de autoridad y la sociedad del argumento. In J. Linares-Salgado & M. Zapata-Clavería (Eds.), *La pandemia de la Covid-19 y sus riesgos globales*. UNAM. https://ru.atheneadigital.filos.unam.mx/jspui/handle/FFYL_UNAM/9996
- Crúz, J., Rueda, A., & Rosen, C. (2014, September 3–5). *Don't shun science—Go for it: A science journalism model for non-scientist reporters* [Paper presentation]. 13th PCST Conference, Salvador de Bahía, Brazil.
- Espinosa Luna, C., & Corradi, C. (2026). Economías de legitimidad abusiva: Explicación sociológica de la violencia académica contra mujeres. *Estudios Sociológicos de El Colegio de México*, 44, 1–27. <https://doi.org/10.24201/es.2026v44.e2873>
- Fleerackers, A., Nguyen, A., Hermida, A., & Oransky, I. (2026). Holding science to account: A qualitative study of practices and challenges of watchdog science journalism. *Science Communication*. Advance online publication. <https://doi.org/10.1177/10755470261459855>
- Gómez Gurrola, I., & Cruz Mena, J. (2019). *Manual del perfil de ciencia para periodistas*. DGDC–UNAM. <https://www.dgdc.unam.mx/labpdc/assets/pdf/manual-de-interpretacion-del-perfil-de-ciencia.pdf>
- Guizardi, M., Marroquín, N., & Araya, I. (2025). ¿Alzar la voz? Las experiencias de acoso y abuso sexual de científicas sociales en universidades mexicanas. *Papeles de Trabajo*, 48, 65–90. <https://papelesdetrabajo.unr.edu.ar/index.php/revista/article/view/257>
- Gutiérrez, I., & Pérez Ortega, R. (2020, March 20). Top neuroscientist leaves Mexican university as former trainees allege sexual harassment. *Science*, 367, 1293–1293. <https://www.science.org/doi/10.1126/science.367.6484.1293>
- Kovach, B., & Rosenstiel, T. (2021). *The elements of journalism: What newspeople should know and the public should expect* (4th ed.). Crown.
- Márquez-Ramírez, M., Amado, A., & Waisbord, S. (2021). Labor precarity and gig journalism in Latin America. In K. Chadha & L. Steiner (Eds.), *Newswork and precarity* (pp. 137–150). Routledge. <https://doi.org/10.4324/9781003057376-13>
- Massarani, L., Entradas, M., Fernandes Neves, L. F., & Bauer, M. (2021). *Global science journalism report 2021*. SciDev.Net. <https://www.scidev.net/wp-content/uploads/Global-Science-Journalism-Report-2021.pdf>
- Meneses-Fernández, M. D., & Santana-Hernández, J. D. (2020). Construcción periodística de la mala praxis científica: Análisis en diarios digitales. *Revista Prisma Social*, 31, 40–63. <https://revistaprismasocial.es/ps/article/view/3853>
- Pinedo, X. (2021, November 29). Cambiar el paradigma: El conocimiento indígena en la investigación científica. *Ojo Público*. <https://ojo-publico.com/2936/el-conocimiento-indigena-la-investigacion-cientifica>
- Rosen, C. (2017). La función social del periodismo de ciencia. In J. Gibert, B. Castro, & A. Alarcón (Eds.), *Ciencia, tecnología y sociedad en América Latina: La mirada de las nuevas generaciones* (pp. 229–250). RIL editores.
- Rueda, A., & Rosen, C. (2025). Entre tensiones y reinenciones: El periodismo de ciencia en América Latina. In L. Massarani, M. García Guerrero, & M. Cambre (Eds.), *Popularización de la ciencia en América Latina: experiencias, avances y desafíos en 35 años de RedPOP* (pp. 91–101). Fiocruz–COC.
- Salud con Lupa. (n.d.). *Redes de nicotina*. <https://saludconlupa.com/series/redes-de-nicotina>
- Schiermeier, Q., & Mega, E. (2017). Scientists in Germany, Peru and Taiwan to lose access to Elsevier journals. *Nature*, 541, Article 13. <https://doi.org/10.1038/nature.2016.21223>

- TV UNAM. (2019, May 4). SIMBIOSIS MX ¿Cómo buscar a los desaparecidos en México? [Video]. Youtube. <https://www.youtube.com/watch?v=nSnlc-iftnQ>
- Vara, A. M. (2007). Periodismo científico: ¿Preparado para enfrentar los conflictos de interés? *Revista CTS*, 3(9), 189–209. https://www.scielo.org.ar/scielo.php?pid=s1850-00132007000200011&script=sci_arttext
- Wallace, M., & Knobel, B. (2010). *Heat and light: Advice for the next generation of journalists*. Three Rivers Press.

About the Author



Aleida Rueda is a science journalist. She combines her freelance work with her role as an editor at the Center for Complexity Sciences at UNAM. She is a founding member and former president of the Mexican Network of Science Journalists and the current secretary of the World Federation of Science Journalists.