Murrow.ai: AI-Assisted Journalism Education for Authentic Student Engagement

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Introduction: The AI Revolution in Journalism

The journalism profession stands at a critical juncture, navigating the complex intersection of traditional reporting practices and emerging artificial intelligence technologies. This technological transformation arrives during a period of vulnerability for journalism, as newsrooms continue to contract, public trust erodes, and misinformation proliferates across digital platforms.

The rapid integration of generative artificial intelligence (GenAI) into journalism practices necessitates a scholarly examination of both its potential benefits and inherent risks. Since OpenAI released ChatGPT in November 2022, GenAI has demonstrated unprecedented adoption rates, quickly becoming integrated into numerous professional and educational contexts (Lebow, 2023).

The discourse surrounding AI's impact on journalism has been predominantly characterized by apprehension. Media scholars and practitioners have articulated concerns regarding generative AI's potential to undermine journalistic integrity, eliminate editorial positions, facilitate plagiarism, and disseminate inaccurate information (Barrat, 2025; Hutson, 2024; Oxford, 2022). These concerns have been amplified by the emergence of what satirist John Oliver (2025) termed "AI slop"—algorithmically generated content of questionable quality and authenticity flooding digital platforms.

Oliver's critique highlighted how artificial intelligence has facilitated the creation of fabricated disaster scenarios, including nonexistent tornadoes, explosions, and aviation incidents. More concerning, these synthetic media artifacts have interfered with crisis response efforts during actual emergencies, such as the North Carolina floods, and exacerbated tensions during international conflicts like the Israel-Iran hostilities (Guardian, 2025). The satirist identified a

particularly troubling paradox: "It's not just that we can get fooled by fake stuff, it's that the very existence of it then empowers bad actors to dismiss real videos and images as fake" (Guardian, 2025, para. 16). This observation underscores how AI-generated content threatens not only to introduce falsehoods but also to destabilize epistemological foundations of verifiable reality.

However, this narrative of technological pessimism reflects only a partial perspective. As Roose (2019) argued in the *New York Times*, AI tools might function as "the best thing to happen to journalists in a long time," by automating "the kinds of stories that humans hate writing anyway." This position suggests that rather than supplanting human journalists, AI possesses the potential to liberate them from routine tasks, enabling greater focus on sophisticated cognitive processes such as critical analysis, investigative methodology, and narrative construction that exceed current machine capabilities.

Recent peer-reviewed work has added nuance to these debates. Studies from 2022–2025 highlight both opportunities and risks of GenAI in journalism and education. For example, Cools and Diakopoulos (2024) examined how algorithmic biases in newsrooms influence adoption and skepticism. Yuan and Diakopoulos (2023) demonstrated that journalists often approach AI outputs with caution, underlining the continued importance of human verification. In education, Holmes et al. (2022) reviewed AI tutoring tools, noting both their potential for personalization and the risks of reinforcing inequities when access is uneven. Meanwhile, Knox (2023) emphasized that GenAI reflects the biases of its training data, raising important ethical concerns for newsrooms and classrooms alike. These studies remind us that the debate must move beyond hype cycles toward careful consideration of how these technologies are embedded in existing social structures.

Media scholar Seth Lewis offers a nuanced conceptualization of this technological integration: "The essence of human journalism is that human connection," he explained. "In an idealized sense, journalists are representing communities—both by reflecting communities back to themselves and by helping communities find their best selves through knowledge, information and public deliberation. It's really hard to see how that becomes completely machine-oriented" (Madison & DeJarnette, 2018, p. 127). This observation underscores the irreplaceable human dimensions of journalistic practice that resist complete algorithmic replication.

This tension between technological threat and opportunity extends to journalism education. As institutions prepare future journalists, critical questions emerge regarding how to

incorporate AI tools in ways that enhance rather than diminish critical thinking, creativity, and ethical judgment. How might educators harness AI's capabilities while preserving the distinctly human elements that give journalism its social value and democratic purpose?

These questions have particular urgency in educational contexts where writing instruction has long experienced systemic challenges. The implications extend beyond journalism itself. The capacity for clear written expression, critical analysis, and information evaluation has never been more essential for citizens navigating an increasingly complex and polarized information environment.

This chapter chronicles the development of Murrow.ai, an artificial intelligence chatbot designed to ethically coach student journalists in ideation, question development, and writing improvement. Named for Edward R. Murrow, the acclaimed journalist who advocated for truth during the McCarthy era, this tool represents a deliberate attempt to harness AI's capabilities while preserving journalistic integrity. Rather than providing automated solutions or encouraging intellectual shortcuts, Murrow.ai promotes critical thinking development, source attribution, and adherence to journalistic ethical standards.

The development of Murrow.ai emerged from a collaboration between the Journalistic Learning Initiative (JLI), a nonprofit organization I lead that is committed to empowering student voice and academic success, and Playlab.ai, a nonprofit educational tech startup formed by former MIT Media Lab researchers. This partnership integrated expertise in journalism education and AI development to create a tool specifically designed to enhance rather than replace human creativity and judgment.

Murrow.ai contributes to a broader effort to reconceptualize how AI can serve journalism education and practice. By providing scaffolded research, drafting, editing, and publishing support, it enables students to engage in authentic journalistic practices that reflect their intellectual curiosity and interests. The theoretical foundations of this approach are grounded in self-determination theory (SDT), which emphasizes the importance of autonomy, competence, and relatedness in fostering intrinsic motivation (Ryan & Deci, 2000).

This chapter explores the development, implementation, and impact of Murrow.ai. It examines the ethical considerations that guided its design, the safeguards implemented to prevent misuse, and the preliminary evidence of their effectiveness. Through this case study, we can

derive insights into how AI might be harnessed to enhance rather than diminish the essential human elements of journalism.

As we navigate the complex terrain of AI in journalism, we must transcend simplistic technological determinism narratives—whether utopian or dystopian—to consider how intentional design choices can align these powerful tools with educational values and journalistic principles. The Murrow.ai case study offers one exemplar of how this alignment might be achieved, not through technological rejection but through harnessing innovation in the service of developing more capable, ethical, and engaged journalists.

The State of Journalism and Writing Instruction

Decline in Journalistic Writing Quality in the Digital Age

The digital transformation of journalism has precipitated profound changes in the quality of journalistic writing. Qualitative declines persist as digital publishers increasingly value expediency and "clickbait" over thoroughly researched reporting and fact-checking (Lacy & Rosenstiel, 2015; Wellbrock, 2016). Media organizations have always competed and coveted the bragging rights of being the first to break news. However, the proliferation of disruptive digital technologies continues to adversely affect the predictable business models that once made journalism a profitable and sustainable industry (Madison & DeJarnette, 2018).

The compression of news cycles has further exacerbated these trends. Media company cutbacks, consolidations, and closures have decimated newsrooms, costing many reporters, researchers, and copyeditors their jobs (Reinardy & Zion, 2020; Kaplan, 2006). The Pew Research Center reported that U.S. newsroom employment, which included newspapers, radio, broadcast television, cable, and other information services, declined 25% from 2008 to 2018. Among newsrooms, newspapers had experienced the most devastating cuts – a 45% decrease during the decade, from about 71,000 to 39,000 (Grieco, 2019).

Since Open AI's ChatGPT debuted in 2022, dozens of human writers have opined about generative AI's potential to destroy journalism. The pervasive narrative is that it threatens editorial writing jobs, promotes plagiarism, and frequently provides inaccurate information (Floreani, 2023; Herrman, 2023). Previous research has addressed whether AI can be trusted (Marconi, 2020), how it can be useful in conducting research (Parratt-Ferni, Mayoral-Si, et al., 2021), and the development of an ontology to better understand and ease tensions between AI and human journalists (Zhang & Perez, 2021).

Challenges in Writing Instruction Across Educational Levels

The decline in journalistic writing quality corresponds with broader challenges in writing instruction throughout the educational system. When surveyed, K-12 teachers agree that writing instruction decreases after Grade 3, even though students' ability to communicate ideas effectively is essential in later grades (Applebee & Langer, 2011; Graham, 2013).

Writing instruction also suffers because teachers aren't adequately trained to prepare their students. An analysis of 2,400 syllabi from teacher preparation programs revealed that training in instructional approaches to motivate students to write and teach the mechanics of the craft is lacking (Goldstein, 2017). In another study, writing educators described their own grade school writing instructional experiences as insufficient (Street, 2003). Poorly prepared teachers produce poorly prepared students who emerge as uninspired writers. The quality of student writing is further compromised by the significant time constraints educators face when providing comprehensive assessment and substantive feedback on written assignments (Worley & Dyrud, 2003; Elbow, 1997).

Training student journalists to write often begins before they become professionals. According to Ellen Austin, a former Dow Jones Journalism Educator of the Year, "50% of journalists started at their high school news publications, and 75% of minority journalists started there" (Author interview, 2012). In post-secondary education, journalistic writing is a critical component of 119 accredited college-level journalism school programs (ACEJMC, 2023).

The Potential for AI to Democratize Writing Coaching

Against this backdrop of declining journalistic quality and inequitable access to writing instruction, artificial intelligence offers potential pathways toward democratizing writing coaching. As an additional benefit, free and nominally-priced generative AI tools, such as Murrow.ai and Kahn Academy's Kahnamigo, can potentially democratize and scale the tutoring experience by providing immediate, personalized feedback at scale. Unlike human instructors constrained by time and attention limitations, AI systems can analyze writing samples instantaneously, identifying patterns of strength and weakness, and offering targeted suggestions for improvement. This capability has particular significance for students in resource-constrained educational environments who may otherwise receive minimal individualized writing instruction.

The potential for democratization extends to the journalism profession itself. As newsrooms have contracted, opportunities for mentorship and professional development in

journalistic writing have diminished substantially. Early-career journalists, particularly those from non-traditional backgrounds, often receive minimal guidance in developing their craft. AI writing coaches tailored to journalistic conventions could partially compensate for this diminished mentorship, providing consistent feedback and guidance that might otherwise be unavailable.

Given that the proverbial AI genie is out of the bottle, media researchers are obligated not only tPrio examine its threats but also how this new technology can enhance journalism practice. Specifically, how might it benefit beginning and established journalists and improve their writing?

Theoretical Frameworks

The integration of Self-Determination Theory (SDT), the Technology Acceptance Model (TAM), Bandura's Self-Efficacy Theory, and recent neuroscience research on adolescent learning provides a multidimensional framework for understanding how learners engage with AI-assisted educational tools such as *Murrow.ai*. Each illuminates a distinct yet complementary dimension of human–technology interaction.

Self-Determination Theory (SDT) and Its Application to AI-Assisted Learning

Self-determination theory (SDT) provides a robust framework for understanding motivation in educational contexts, including those mediated by artificial intelligence. Developed by Deci and Ryan (2000), SDT posits that optimal human functioning and psychological well-being depend on the satisfaction of three fundamental psychological needs: autonomy, competence, and relatedness. When these needs are fulfilled, individuals experience intrinsic motivation—engaging in activities for their inherent satisfaction rather than external rewards or pressures. By aligning with these psychological needs, Murrow.ai challenges students to improve writing competency by suggesting areas for improvement, rather than providing texts.

Technology Acceptance Model (TAM) in Designing User-Friendly AI Tools

While SDT addresses the psychological foundations of motivation, the Technology Acceptance Model (TAM) provides complementary insights into the factors that influence the adoption and sustained use of technological innovations. The theory posits that two factors influence whether users will accept a computer system: 1) perceived usefulness and 2) perceived ease of use (Davis, 1989).

The design of Murrow.ai incorporates TAM principles by prioritizing both usefulness and usability. Rather than indulge human nature's propensity for laziness, from inception, our development team sought to create a tool that challenged students to think critically. This would mean having Murrow.ai engage with users in ways that were neither overly nor insufficiently challenging.

Bandura's Self-Efficacy Theory and Social Learning in the AI Context

With his theory of self-efficacy, Bandura (1982; 2008) was among the first cognitive psychologists to suggest that humans are the agents of their self-development, who can adapt and self-regulate to achieve desired outcomes (Zimmerman & Schunk, 2003). Bandura theorized that feeling weary or ineffective can make it harder to feel assured of our ability to succeed. This is especially true if we perceive negative emotional and physiological states as indicative of incompetence, vulnerability, or inability to achieve desired goals. His theories may now require updating to account for generative AI's ability to mimic and seemingly replicate human "modeling" instantly.

In writing contexts, self-efficacy has been consistently linked to writing performance, willingness to engage in writing tasks, and persistence through writing difficulties. Students with low writing self-efficacy often avoid writing tasks, expend minimal effort, and abandon writing projects when faced with obstacles. Conversely, those with high writing self-efficacy approach writing tasks with confidence, persist through challenges, and produce higher quality written work.

AI writing coaches can potentially enhance writing self-efficacy through several mechanisms. First, by breaking complex writing tasks into manageable components, they can create opportunities for mastery experiences—the most powerful source of self-efficacy according to Bandura (1997). Second, by providing immediate, constructive feedback, they can help students attribute writing improvements to their own efforts rather than external factors, reinforcing internal locus of control. Third, by showcasing examples of effective writing techniques, they can facilitate vicarious learning experiences that Bandura identified as important secondary sources of self-efficacy.

Neuroscience Research on Adolescent Learning and Its Alignment with AI Coaching

Recent advances in neuroscience provide additional insights into adolescent learning processes that inform the design of AI writing coaches. Neuroimaging studies have demonstrated

that the adolescent brain undergoes significant development in regions associated with executive function, including the prefrontal cortex responsible for planning, organization, and self-regulation. These developmental processes have direct implications for writing instruction, as composition requires sophisticated executive function skills.

Armstrong (2016) emphasizes the importance of real-world experiences, choice, and peer connections in adolescent learning, all of which align with the journalistic learning approach enhanced by AI tools like Murrow.ai. This neuroscience perspective complements the psychological frameworks of SDT and Bandura's theories, providing a comprehensive foundation for understanding how AI-assisted learning can be optimally designed for adolescent learners.

Taken together, these intersecting frameworks—Self-Determination Theory, the Technology Acceptance Model, Bandura's Self-Efficacy Theory, and neuroscience research on adolescent learning—offer a comprehensive lens through which to examine how AI-assisted tools like *Murrow.ai* can enhance both motivation and cognitive development in writing education. They affirm that the goal of AI-assisted learning is not to replace human instruction, but to amplify it—cultivating writers who are self-directed, confident, and capable of critical reflection. By situating *Murrow.ai* at the intersection of motivation, cognition, usability, and neurodevelopment, this study seeks to demonstrate how thoughtfully designed AI coaching can promote both academic growth and the lifelong capacity for adaptive, self-regulated learning.

The Development of Murrow.ai

Origin Story and Collaboration with MIT Media Lab Researchers

This chapter treats the development of Murrow.ai itself as a single case study, rather than an implementation study. Following Yin (2018) and Stake (1995), case study methodology allows for a single revelatory case when it illustrates a unique or critical phenomenon. In this sense, Murrow.ai represents an early and instructive example of an AI tool purpose-built for journalism education, making its design trajectory the focal point of this analysis.Our introduction to designing a generative AI-powered writing coach happened by chance. In October 2023, I attended an education advancement conference in San Francisco, where a former MIT researcher demoed new tools created by educators using his research team's authoring platform. In casual conversation, he informed me that a group of charter school English teachers

had used his tools to develop a chatbot that coached students to improve their five-paragraph essays. Within seconds, I asked if it could be programmed to coach journalistic writing.

Within a week of working with the platform, with support from several seasoned journalism instructors, we created Murrow.ai, a generative AI writing coach designed to help beginning journalists improve their writing. The name "Murrow" reflected the tool's aspiration to embody the highest standards of journalistic ethics and practice, even as it embraced cutting-edge technology.

Design Philosophy: Enhancing Critical Thinking Rather Than Replacing It

From its inception, Murrow.ai was conceptualized not as a replacement for human thinking but as a scaffold for developing critical thinking skills essential to journalistic practice. Rather than give 'answers' or promote cheating, we sought to create a tool that encourages students to develop their critical thinking skills, credit sources, and abide by journalistic ethics.

This design philosophy emerged from concerns about how AI might influence learning processes. Our journalism educator consultants articulated a key question: Would offering machine assistance to students in the inquiry and writing stages strengthen or weaken young students from becoming independent questioners and writers?

Another concern was whether interacting with an AI chatbot might hinder students ' social-emotional experience of collaborating with peers. Team projects can involve intellectual struggles and compromises. Would students essentially be outsourcing ideation to a machine and having students cull from a list? Additional concerns centered on plagiarism. Would students be tempted to plagiarize from the bot's "example articles?" How would a teacher with a hundred students even know?

These questions led us to establish clear parameters that differentiated Murrow.ai from general-purpose AI tools like ChatGPT. Most critically, Murrow.ai would not generate content for students but would instead guide them through the process of creating their own content. This approach aligns with constructivist learning theories, which emphasize that knowledge is actively constructed by learners rather than passively received. By positioning Murrow.ai as a coach rather than an authority, the design team sought to preserve student agency while providing structured support for skill development. This balance required careful calibration to ensure that interactions were neither so challenging as to discourage users nor so simplistic as to undermine learning.

User Experience

The user experience of engaging with Murrow.ai involves a real-time, text-based dialogue accessible through a standard web browser. The interaction framework was deliberately structured to support the journalistic writing process. Upon initiating a session, Murrow.ai introduces itself, providing context about its namesake and development team, establishing both credibility and purpose. The system then presents three primary support functions that address common challenges faced by novice journalists: story ideation, interview question development, and comprehensive writing analysis.

The interface design incorporates established conversational norms, including appropriate politeness markers and turn-taking conventions. This adherence to social interaction standards has been identified as a critical design element in human-AI interfaces, reducing cognitive friction and anxiety associated with machine interaction (Ribino, 2023).

For story ideation, Murrow.ai addresses the well-documented "blank page problem" by prompting users to articulate initial topic interests. The system then guides users through a refinement process, transforming broad subject areas into focused, reportable story angles. For instance, when a user proposes "homelessness" as a topic, Murrow.ai acknowledges its validity while highlighting its breadth, then systematically guides the user toward more specific dimensions of the issue. The system encourages consideration of multiple journalistic elements: geographic localization, inclusion of diverse perspectives, source accessibility, and originality of approach.

In the interview preparation phase, Murrow.ai employs a scaffolded approach to question development. Rather than generating questions directly, which would undermine skill development, the system challenges users to formulate their own questions while providing structural guidance on question types, sequencing, and alignment with reporting objectives. This approach preserves student agency while developing essential interviewing competencies.

The writing analysis functionality provides comprehensive feedback on submitted drafts across multiple dimensions of journalistic writing. Murrow.ai evaluates the specificity of language, redundancy, paragraph structure, sentence completeness, grammatical accuracy, and source attribution. Additionally, the system assesses adherence to Associated Press stylistic conventions, introducing students to industry-standard guidelines. This multifaceted analysis

supports iterative improvement while reinforcing journalistic writing norms that differ substantially from academic or creative writing conventions.

Building in Guardrails for Inappropriate Content

Mindful that many of our users would be minors, we optimized Murrow.ai to not engage in discussions that pertain to illegal activities or hate speech. If users share about suicide ideation, self-harm, bullying, or sexual abuse, it advises them to consult a trusted professional. We drew from commonly accepted Institutional Review Board (IRB) guidelines to have it counsel users to observe precautions when considering stories that involve minors and other vulnerable populations. Public disclosures can potentially endanger individuals who are incarcerated, elderly, undocumented immigrants, or have mental health challenges. Murrow.ai urges users to exercise compassion when interviewing individuals who are grieving or experiencing a tragedy. When analyzing a user's writing, Murrow.ai also checks for indications of personal bias. We worked to anticipate ways users, and especially mischievous teens, might attempt to "game the system" by having several educators and students attempt to circumvent our built-in safeguards.

Technical Architecture and Relationship with GPT 5

Murrow.ai's technical architecture represents a sophisticated integration of generative AI capabilities with pedagogically informed guardrails. Our tool is embedded in a webpage, accessible for free to any user. It draws from Open AI's GPT-4 Turbo (updated to GPT 5), an advanced generative AI that allows users to have human-like conversations to complete various tasks. However, the raw capabilities of are substantially modified through a complex system of prompts, constraints, and instructional design elements implemented through Playlab.ai's authoring platform. Distinct from the popular source tool, we've instructed Murrow on the backend to offer responses that abide by established journalism conventions and ethics.

The technical architecture incorporates several key components designed to enhance educational effectiveness while mitigating potential risks. ChatGPT-5 is more capable than previous models. With an updated knowledge cutoff of June 2024, it integrates web search natively, meaning it can pull and interpret real-time info from live sources — not just static scraped text. This underlying capability provides the foundation for Murrow.ai's functionality,

while carefully designed constraints ensure that the system promotes learning rather than enabling shortcuts.

Our development learning curve was simplified by not needing to know how to write computer code. Playlab.ai's authoring mechanism allowed us to use plain English to define perimeters for Murrow's features and functions. This accessibility enabled the team to focus on pedagogical design rather than technical implementation details.

The Evolution from Concept to Implementation

The development of Murrow.ai progressed with remarkable speed, reflecting both the urgency of addressing AI's impact on journalism education and the iterative development approach inherited from the MIT Media Lab tradition. Cognizant that advances in AI technology occur rapidly, within two weeks of conception, we developed and released our tool to the public.

We introduced Murrow.ai at a specially added session in the fall 2023 Journalism Education Association conference in Boston, Massachusetts. Reception within the journalism education community was immediate and overwhelmingly positive.

Debra Klevens, a journalism teacher at Clayton High School in Saint Louis, Missouri, said "It's a game-changer…What I love so much about it is that I know what's wrong with the student's work, but sometimes I don't know how to say it, nicely…so it's just a great resource to use to soften sometimes when I'm thinking."

The platform recorded more than 12,000 uses and media coverage within its first 90 days, and the warm reception prompted our team to develop and release similar writing coaches for feature, opinion, sports, and broadcast writing, as well as audio and video storytelling. Two additional tools coach users in culturally responsive reporting and Solutions Journalism.

Examples of Typical User Interactions

To illustrate Murrow.ai's functionality, I asked it to analyze an 8th-grade student's news article about teenage vaping. Here is the original article (see Box 1):

Box 1: *Original Article Drafted by an 8th-Grade Student*

Headline: Vaping is Affection Teen at a Higher Rate than in the Past

Vaping is becoming a bigger and bigger issue, especially with teens.

Teen vaping is on the rise and a lot of people are being affected by it.

The one question is, when do most start? The average age is 13, and continues from that age up. They continue because of the addiction of nicotine and other unknown chemicals.

”Hospitals have a hard time treating [issues related to vaping] because they don’t know what caused it” Mrs. Pallin said.

The more teens vape, the more damage they are causing to their lungs. Some teens continue because of peer pressure or they see their parents are doing it.

“The more parents do it, the more likely the teens will get into it,”Pallin said.

As more teens do it and grow into adults, the more the new generation will do it.

When asking Mellissa Pallin why they continue to do it she said “If you are doing it a lot it can change your mood to angry when not vaping but when you are, it’ll make you feel better.”

Seeking relief from stress is another reason kids continue vaping even if they know it isn’t good for them.

In an article by Pepper et al in the American Journal of Health Promotion ways teens access to vaping devices is discussed.

Most adolescents; 78.2% of them, own a vaping device. The most common source to buy them from is a store or online; 31.1% of them, if you buy from another person it's 16.3% or giving some money to purchase for them 15.0%. The majority 72.8% had used someone else’s vaping device in the past 30 days.

It is easy for teens to get vapes like from parents, friends, and family members. Teens vape in school bathrooms at home and any places. They’re also readily available on sites like Amazon.

As we move into a new world with new information, we can start to see how bad vaping is, especially with teens.

People say it helps you quit cigarettes but when you smoke a cigarette it takes 3-5 minutes. But when you vape the smoke can stay in your lungs for up to 20 minutes, Pallin said.

A step into the future to help this problem would be to talk to your teens and tell them how bad it is for them.

"The younger you start the easier it is to get addicted and that's what the sellers want", Pallin said.

Something we could all do to help this situation is help the teens that want to stop vaping. There are organizations out there to help such as Quit the Hit or This is Quitting.

Here's a summary of Murrow's substantive feedback (see Box 2):

Thanks for sharing your article. Nice work choosing a timely topic, using a named expert source, including numbers, and giving a photo credit and quit resources. Below is feedback to help you strengthen it before publishing.

Big-picture focus

- Narrow the angle. Right now, it feels broad and repeats points. Choose one clear focus, such as: How common is vaping at our school/in our county? How are students getting devices? What is the school doing to respond?
- Localize it. Add local data (school policy violations, county health stats, or quotes from local officials). That will make it more relevant to your readers.

Sourcing and voices

- Add more sources. Most quotes come from one person. Aim for at least 3 different sources (for example: school nurse or principal, local health official or pediatrician, a

retailer compliance expert, and—only with parent/guardian permission—a teen who quit).

- Include underrepresented voices. Consider voices that are often missed, such as students in recovery programs, tribal health staff, or families from different backgrounds. Be mindful and respectful.
- If you think about using anonymous sources, read the SPJ guidance first: https://www.spj.org/ethics-papers-anonymity.asp

Evidence and citations

- Your story should include at least three quantitative references, with source names and dates. Link directly to trusted sources (CDC, FDA, state health department, peer-reviewed journals).
- Check that each statistic means what you think it means. For example, "Most adolescents; 78.2% of them, own a vaping device" sounds very high. Many studies report that percent among teen vapers, not all teens. Verify the exact wording and population before you publish.
- "Average age is 13," "vape smoke stays in lungs 20 minutes," and "available on Amazon" all need fact-checking with current, credible sources. If you can't confirm, drop or reframe.
- Use precise terms. It's usually "vapor" or "aerosol," not "smoke." Avoid "unknown chemicals." Name specific substances only if you have a source.

Accuracy, tone, and fairness

- Keep a neutral news tone. Phrases like "bigger and bigger issue" and "we can start to see how bad" sound like opinion. Let data and sources show the impact.
- Avoid implying illegal actions by specific stores or companies unless you have verified evidence. Use care and consult a libel checklist before publishing. For legal questions: Student Press Law Center (SPLC) https://splc.org

Structure and organization

- Strengthen your lead. In one or two short sentences, tell readers what's new and why it matters locally.
- Follow with a clear "nut graf" that explains your focus and how the story will explore it.
- Use subheads to guide readers (for example: Health Effects, Access, School Response, How to Get Help).
- Order sections logically: problem (with local data) → causes/access → impact on health/learning → response/policy → resources.

Editing and clarity

- Remove repetition. The line "As more teens do it…" appears twice.
- Fix name spelling and be consistent (Melissa vs. Mellissa; Pallin vs. Mrs. Pallin). Use one form after first reference.
- Clean up punctuation and spacing around quotes and attributions. Read each quote out loud to check flow.
- Keep paragraphs short (1–3 sentences). Use active voice and concrete words.
- Set a word count goal and trim extra words. Reading the draft out loud will help you catch rough spots.

Ethics and safety

- If you include minors' voices, get parent/guardian consent first. Be extra careful with vulnerable populations (minors, students with disabilities, undocumented students, and those in crisis).
- If you interview anyone grieving or facing harm, review SPJ guidance: https://www.spj.org/ethics-papers-grief.asp
- General ethics code: https://www.spj.org/ethicscode.asp

- Reminder: protect privacy. Do not share personal contact details in your story or with me.

Photo and visuals

- Good job crediting the photo. Double-check the license and add a link if possible.
- Consider one simple chart (with source cited) that shows the trend you mention.

Specific items to fact-check or clarify

- The 2011–2016 increase: confirm the exact survey and update with the most recent year available.
- "Average age is 13": find and cite the source. Note whether it's average age of first try, current use, or something else.
- Pepper et al. study: quote the exact phrasing, sample, and year. Make clear whether statistics apply to all teens or only to teens who vape.
- "Amazon" availability: verify company policy and current practice before naming the platform.
- "Vapor stays in lungs for 20 minutes": confirm with a medical or toxicology source, or remove.

Reporting next steps (pick a few)

- Gather three fresh, local numbers with citations (school incidents this year, county teen vaping rate, retailer compliance checks).
- Book two to three new interviews. Examples: school administrator, local pediatrician or public health educator, a prevention program leader.
- Ask for a copy of your school's vaping policy and any changes this year.
- Outline your story with subheads and decide where each quote and stat will go.

Want help with interviews? If you want, tell me whom you plan to interview first (for example, your principal or school nurse), and I can help you craft up to two starter questions. You must write the rest yourself.

Final reminders

- You must revise the article yourself. I won't rewrite it for you, but I'm happy to review your next draft.
- Use original, on-the-record quotes you gathered. Place them where they support your point.
- Before publishing, fact-check every claim and consult a libel checklist. If legal issues come up, check SPLC: https://splc.org
- Your draft appears original, but as a reminder: copying and pasting from existing articles is plagiarism. It's often detected and has serious consequences.

What would you like to do next: tighten your angle, plan sources, or check specific facts?

Summary of Murrow's Analysis

Note that Murrow praises the student for tackling a timely issue, using expert sources, and including helpful resources. The tone is positive and constructive, offering guidance for revision rather than correction. Its feedback focuses on five main areas: (a) *Focus and Relevance:* Narrow the topic and localize it with community data or voices to make it more engaging and specific. (b) *Sourcing and Credibility:* Add more diverse and verified sources, such as local officials, health experts, or youth voices, to strengthen accuracy and balance. (c) *Accuracy and Ethics:* Fact-check all statistics and avoid unsupported or potentially misleading claims. Follow SPJ and SPLC ethical guidelines. (d) *Structure and Clarity:* Improve the news lead, use subheads, and organize logically. Trim repetition, correct names, and write in short, active sentences. (e) *Next Steps and Empowerment:* Murrow.ai won't rewrite the article, but encourages gathering new data, interviewing more sources, and outlining clearly. It offers to help with interview questions if the student initiates.

How the Tool Promotes Agency Rather Than Dependency

Overall, Murrow.ai models coaching over correction—affirming effort, promoting ethics, and supporting independent revision and critical thinking. The tool is designed to promote student agency rather than foster dependency. Several key design features support this objective. First, the system consistently positions itself as a coach rather than an authority, offering suggestions rather than directives and acknowledging the user's decision-making role.

Second, Murrow.ai employs a Socratic approach, asking questions that prompt reflection rather than providing ready-made answers. This questioning strategy encourages students to develop their own analytical skills and journalistic judgment rather than relying on the system for solutions.

Third, the system incorporates progressive challenge, gradually reducing scaffolding as users demonstrate increasing mastery. Initial interactions provide more structured guidance, while subsequent exchanges expect greater independence. This approach supports the development of autonomous skills rather than creating ongoing dependency.

Fourth, Murrow.ai explicitly acknowledges the limitations of AI and emphasizes the irreplaceable role of human judgment in journalism.

Through these design elements, Murrow.ai aims to function as a scaffold for skill development rather than a crutch that substitutes for learning. By supporting students through the challenging aspects of journalistic writing while preserving their agency and gradually building their independent capabilities, the system seeks to enhance rather than undermine the educational value of journalistic practice.

Discussion

The implementation and reception of Murrow.ai offer an opportunity to connect the theoretical frameworks introduced earlier with the practical insights gained from its use in journalism education.

Self-Determination Theory (SDT). The design philosophy of Murrow.ai aligns strongly with SDT’s emphasis on autonomy, competence, and relatedness. By positioning itself as a coach rather than a content generator, Murrow.ai fosters autonomy by requiring students to make their own editorial decisions. Its structured feedback supports competence by highlighting specific areas for improvement while still allowing students to own their progress. Relatedness is

reinforced when students recognize that the tool is designed to prepare them for authentic engagement with real communities, echoing journalism's social mission.

Technology Acceptance Model (TAM). TAM emphasizes perceived usefulness and ease of use. The overwhelmingly positive reception from educators and students suggests that Murrow.ai meets both conditions. Teachers described it as a "game-changer" that softened the delivery of feedback, indicating that its usability enhanced adoption. Students likewise found the tool accessible in its web-based form, which lowered the barriers to entry compared to more technically complex platforms.

Bandura's Self-Efficacy Theory. Murrow.ai has demonstrated its potential to bolster self-efficacy by breaking down writing tasks into smaller, achievable steps. Its feedback helps students attribute progress to their own revisions rather than to automated text generation. This supports mastery experiences and contributes to persistence in writing tasks. Students who may otherwise avoid difficult assignments are encouraged to persist, thus validating Bandura's linkage between self-efficacy and performance.

Neuroscience of Adolescent Learning. Adolescents require scaffolding that aligns with their developing executive function skills. Murrow.ai's iterative questioning and structured feedback mirror these developmental needs. For instance, the scaffolded approach to interview question development supports planning and organization, key functions of the adolescent prefrontal cortex. By engaging students with real-world journalistic tasks, Murrow.ai reflects Armstrong's (2016) call for meaningful, choice-driven learning experiences.

These observations also align with recent critiques of algorithmic bias in AI-assisted learning. If poorly designed, such systems may inadvertently reinforce inequities by privileging dominant cultural perspectives. However, Murrow.ai's explicit emphasis on ethics, compassion, and culturally responsive reporting represents one pathway toward counteracting these risks. Its use suggests that intentional design can mitigate algorithmic bias rather than replicate it.

In sum, the case of Murrow.ai suggests that well-designed AI tools can serve as both technological and pedagogical allies. Rather than undermining critical thinking or creativity, Murrow.ai illustrates how AI can embody and extend key educational and psychological theories in practice, while also engaging with contemporary scholarly critiques of bias and equity.

Conclusion and Future Directions

The development of Murrow.ai represents a deliberate attempt to harness artificial intelligence for journalism education in ways that enhance rather than diminish human creativity, critical thinking, and ethical judgment. By designing AI tools that function as coaches rather than replacements, we can cultivate the next generation of journalists who are both technologically fluent and deeply grounded in the enduring values of the profession.

Looking forward, several enhancements are possible. Murrow.ai could evolve to provide genre-specific analysis across journalism subfields, integrate with learning management systems for teacher insights, and expand into multilingual journalism to reflect the globalized media landscape. Future iterations may also incorporate multimodal feedback, such as visual annotations or audio commentary, to accommodate diverse learning styles.

However, these tools must always be understood as supplements to, rather than substitutes for, human relationships and judgment. The balanced integration of AI requires ongoing research to explore how tools like Murrow.ai influence student learning outcomes, classroom practices, and teacher-student dynamics.

By approaching AI as a teammate rather than merely a tool, we can develop educational experiences that prepare students not only to use emerging technologies but to engage with them critically, ethically, and creatively. Through this balanced approach, journalism education can continue to cultivate the essential human capacities for truth-seeking, storytelling, and ethical judgment that define the profession at its best.

Implications for Educators. For teachers, Murrow.ai demonstrates how AI can be integrated without eroding core pedagogical values. Educators can use the tool to scaffold student inquiry, provide immediate yet ethical feedback, and free classroom time for deeper discussion, mentoring, and collaboration. Importantly, adopting AI in this way models for students how technology should serve human learning goals, reinforcing the broader message that tools like Murrow.ai must always remain companions to, not replacements for, thoughtful teaching and authentic human connection.

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