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The Obsolescence of Enlightenment? Günther Anders, Algorithmic Public Spheres, and the Limits of Media-Pedagogical Rationality

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This article analyzes why enlightenment-based media education systematically fails against extremist mobilization on social media. Drawing on Günther Anders' "media philosophy" – the Promethean gap and the world as phantom and matrix – it shows this failure to be structurally conditioned by algorithmic public spheres that generate a threefold discrepancy: in understanding (algorithmic opacity), in feeling (affective manipulation), and in responsibility (diffuse attribution). Integrating platform studies, radicalization research, and affect theory, it develops a reflexive ideology critique that problematizes not only ex-

tremist content but the medial conditions of enlightenment itself – including its Eurocentric presuppositions. Drawing on Klafki's educational theory, intercultural philosophy, and feminist epistemology, it outlines a post-enlightenment media education that works with affects rather than against them, reflects its performative paradox, and translates structural analysis into didactic practice.

Dieser Artikel untersucht, warum aufklärungs-basierte Medienpädagogik systematisch an extremistischer Mobilisierung in sozialen Medien scheitert. Gestützt auf Günther Anders' „Medienphilosophie“ – das prometheische Gefälle und die Welt als Phantom und Matrize – wird gezeigt, dass dieses Scheitern strukturell durch algorithmische Öffentlichkeiten bedingt ist, die eine dreifache Diskrepanz erzeugen: im Verstehen (algorithmische Opazität), im Fühlen (affektive Manipulation) und im Verantworten (diffuse Zuschreibung). Unter Einbeziehung von Plattformstudien, Radikalisierungsforschung und Affekttheorie entwickelt der Artikel eine reflexive Ideologiekritik, die nicht nur extremistische Inhalte, sondern die medialen Bedingungen der Aufklärung selbst – einschließlich ihrer eurozentrischen Voraussetzungen – problematisiert. Anknüpfend an Klafkis Bildungstheorie, interkulturelle Philosophie und feministische Epistemologie wird eine postaufklärerische Medienpädagogik skizziert, die mit Affekten arbeitet, statt gegen sie, ihr performatives Paradox reflektiert und strukturelle Analyse in didaktische Praxis überführt.

Da es dem König aber wenig gefiel,
daß sein Sohn, die kontrollierten Straßen verlassend,
sich querfeldein herumtrieb,
um sich selbst ein Urteil über die Welt zu bilden,
schenkte er ihm Wagen und Pferd.
'Nun brauchst du nicht mehr zu Fuß zu gehen',
waren seine Worte.
'Nun darfst du es nicht mehr', war deren Sinn.
'Nun kannst du es nicht mehr', deren Wirkung.
Aus: 'Kindergeschichten'
– Günther Anders (1956: 97)

1. Introduction: The Aporia of Enlightenment-Based Media Education

1.1 Problem Statement: The Failure of Rational Thought

Media education faces a fundamental dilemma. For decades, it has relied on the power of enlightenment: those who are informed about media, who acquire media literacy, who practice critical thinking will – so the assumption goes – become immune to manipulation, disinformation, and populist seduction. Yet the reality of the digital public sphere contradicts this hope in disturbing ways.

The empirical observation is sobering: whether statistics on the economic significance of migration, virological expertise on pandemic measures, or criminological facts on security – none of this seems to break the dynamic of right-wing populist mobilization. Fact-checks prove to be of limited effectiveness, media education

programs often fail to reach those who need them most, and rational counter-speech only works under certain conditions.

A clarification of the key terms is necessary before the analysis proceeds. The title of this article deliberately echoes Günther Anders' *Die Antiquiertheit des Menschen* and should be read as a diagnostic provocation, not as a claim about the philosophical project of *Aufklärung tout court*. What is argued to be obsolescent is not the Enlightenment as a historical epoch or philosophical tradition in its entirety, but a specific configuration of enlightenment assumptions operative in media-pedagogical practice. The "enlightenment" at issue here is situated within a distinctly German intellectual lineage: Kant's (1784) *sapere aude* as the imperative of intellectual self-emancipation, transmitted through the *Bildung* tradition (Humboldt, Klafki) as an ideal of self-determination through rational engagement with the world, and critically refracted by the Frankfurt School (Horkheimer and Adorno, Habermas) as an awareness that enlightenment can revert to its opposite when it fails to reflect on its own conditions. This triad – the *Mündigkeit-sideal*, the *bildungstheoretische Tradition*, and critical theory – constitutes the normative substrate of what this article terms "enlightenment-based media education."

This term is not used here as a self-designation of any particular school but as an *ideal type* in the Weberian sense: a conceptual condensation of premises that manifest in varying degrees across the diverse sub-disciplines of German-language *Medienpädagogik*. *Medienerziehung* (Tulodziecki, 2015; Aufenanger, 1997) operates

most explicitly with an enlightenment mandate of protection and empowerment, seeking to immunize young people against media risks through knowledge and critical judgment. *Medienkompetenz* research (Baacke, 1996; Schorb, 2017; Groeben, 2002) presupposes a *bildungsfähiges Subjekt* capable of reflexive media appropriation and critical assessment – an implicitly enlightenment-derived assumption, even where the discourse operates in empirical-social-scientific registers. *Medienbildung* (Marotzki, 2004; Jörissen & Marotzki, 2009) shifts toward transformative *Bildungsprozesse* and maintains a more reflexive distance from the enlightenment paradigm, yet still operates within the horizon of a subject that can transform its relations to self and world through engagement with media. Even *Mediendidaktik* (Kerres, 2018), which operates in a primarily functional-instrumental register, implicitly relies on enlightenment assumptions insofar as it conceives of learning processes as forms of rational *Welterschließung*. Finally, *Mediensozialisationsforschung* (Süss, 2004; Hoffmann & Mikos, 2010) approaches media engagement primarily from a descriptive-empirical perspective, analyzing how individuals appropriate media across the life course; yet its normative implications – its assumptions about what constitutes “successful” media socialization – likewise carry enlightenment premises, particularly the notion that reflexive media appropriation is developmentally desirable and pedagogically achievable. What unites these diverse traditions – and what the ideal type “enlightenment-based media education” is designed to capture – is a shared set of four core premises that the subsequent analysis will problematize: the ra-

tional addressability of subjects; the possibility of deliberative exchange in a common public sphere; a connection between information and belief formation; and the principled correctability of errors through facts. These premises are not identical in each sub-discipline, nor equally explicit; but they constitute a common normative horizon that the algorithmic transformation of public spheres calls into question across the board.

Yet the picture is more differentiated than it first appears. The following studies are cited not as comprehensive evidence but as correctives against an oversimplified failure thesis – they compel a differentiation of the argument without refuting its structural core. The meta-analysis by Walter et al. (2020) shows that fact-checks do have a significant positive effect on correcting misconceptions. Research also documents that the much-invoked backfire effect – the thesis that corrections reinforce existing false beliefs – is empirically far less robust than long assumed. Wood and Porter (2019) found in five experiments with over 10,000 participants on 52 politically charged topics not a single case of a backfire effect. Participants generally updated their beliefs in the intended direction.

Nevertheless, the effectiveness of media-pedagogical intervention remains structurally limited. Brendan Nyhan (2021), who co-formulated the original backfire hypothesis, now argues that the persistence of misconceptions is better explained by a temporal decay of correction effects, exposure problems (corrections do not reach those who need them), ongoing misinformation by po-

litical elites, and differential inattention, as people with false beliefs rarely encounter corrective information.

The media-pedagogical challenge is that right-wing populist mobilization operates according to rules that contradict deliberative logic. In the algorithmically structured attention economy of social media, what prevails is what generates engagement – and outrage, fear, and resentment generate more engagement than differentiated analysis. Right-wing populists did not invent this dynamic, but they understood and instrumentalized it. The finding that algorithmic architectures structurally privilege affective over deliberative modes of communication – not because rational thought is inherently weaker, but because platform economies reward emotional intensity – puts the normative foundations of media education under pressure.

1.2 Research Question and Thesis

The debate so far has treated the failure of enlightenment primarily as a practical problem: wrong strategies, insufficient resources, media asymmetries. To be sure, right-wing populism has not gone uncontested: it has generated significant counter-mobilization, public outrage, and critical media coverage. Yet the very form of this opposition – itself largely affective, virality-driven, and platform-dependent – confirms rather than refutes the diagnosis. What succeeds against populist mobilization is counter-mobilization within the same attention-economic logic, not the deliberative correction that enlightenment-based media education envisions. What is missing, then, is a foundational-theoretical reflec-

tion: Does enlightenment fail despite or because of its premises? This article therefore poses the following research question: To what extent can Günther Anders' media philosophy show that the failure of enlightenment-based media education against right-wing populist mobilization is not contingent but structurally conditioned – and what consequences follow for an ideology-critical redetermination of media-pedagogical practice?

Media education fails not despite but because of its enlightenment premises – at least when these remain unreflected. The technical conditions of algorithmic public spheres generate a Promethean gap between the requirements of deliberative reason and the actual conditions of reception. Crucially, this is not an absolute failure, but structural limits that cannot be overcome by pedagogical intervention alone. Ideology critique must therefore become reflexive: it must criticize not only populist ideologies but also the ideological presuppositions of enlightenment itself – including media education.

The argument unfolds through four interconnected claims. First, there exists a structural affinity between the communication forms of right-wing populism – affective mobilization, binary friend-enemy schemas, anti-elite resentment – and the selection logic of the algorithmic attention economy, an isomorphism between populist rhetoric and platform architecture. Second, the discrepancy Anders diagnosed between human faculties and technical effects manifests in algorithmic public spheres as a threefold gap: in understanding (opacity of algorithmic systems),

in feeling (affective manipulation), and in taking responsibility (diffuse attribution of consequences). Third, the feed structure of social media operates as a matrix in Anders' sense: it does not merely transmit content but pre-forms the conditions of what can appear as content and how it is received – form precedes content. Fourth, ideology critique that exempts its own premises from critique becomes ideological itself; a post-enlightenment media education must therefore include the presuppositions of enlightenment as objects of critical analysis.

1.3 Methodological Approach

This article proceeds through a *critical-hermeneutic reconstruction* that integrates four methodological moments: hermeneutic reconstruction of historical concepts, ideology critique as immanent critique, dialectical-abductive integration of empirical research, and normative derivation through the diagnosis of immanent contradictions. Each moment addresses a distinct epistemic task, but they are not sequential steps; rather, they operate as mutually conditioning dimensions of a single analytical process. In what follows, each moment is specified in turn.

1.3.1 Critical-Hermeneutic Reconstruction

The first moment undertakes a systematic re-reading of Günther Anders' media philosophy, reconstructing his central concepts – the Promethean gap, the obsolescence of the human, the world as phantom and matrix – in their original context before transferring them to the conditions of algorithmic public spheres. The hermeneutic tradition invoked here is not that of Gadamerian *Ein-*

verständnishermerneutik, which aims at the fusion of horizons between interpreter and text, but rather the critically inflected hermeneutics developed by Paul Ricoeur (1970) as a *hermeneutics of suspicion* and by Rahel Jaeggi (2009, 2014) as an analysis of the material and institutional conditions that structure ways of thinking and acting. The difference is consequential: while Gadamer's hermeneutics privileges the authority of tradition and the text's claim to truth, a critical hermeneutics treats the historical distance between original context and contemporary application as itself a productive problem – one that demands reflection on both continuities and discontinuities.

The transfer of Anders' concepts to algorithmic public spheres is therefore not mere application but *productive appropriation*: his concepts are tested against contemporary phenomena and, where necessary, modified or supplemented. The criteria for this appropriation draw on the logic of conceptual transfer developed in Reinhart Koselleck's (1979) *Begriffsgeschichte*: historical concepts carry a *Bedeutungsüberschuss* (surplus of meaning) that can illuminate new phenomena, but such transfer is only legitimate where the structural features of the original problem – in Anders' case, the discrepancy between human faculties and technical effects – recur in the new context, even if in transformed form. Where this structural analogy breaks down, the concept must be modified or its limits acknowledged. The analysis below makes these moments of analogy and disanalogy explicit, particularly in the transition from broadcast media to algorithmic systems (Sec-

tion 3.5) and in the categorical difference between nuclear threat and algorithmic governance (Section 3.1).

1.3.2 Ideology Critique as Immanent Critique

The second moment practices ideology critique in a specific sense: following Jaeggi (2009, 2014) and Titus Stahl (2013), it does not primarily aim at correcting “false” beliefs from a purportedly external standpoint but at analyzing contradictions between social practices and their own normative presuppositions. This form of *immanent critique* differs from both transcendent critique (which measures practices against externally posited norms) and the classical ideology concept (which contrasts false consciousness with scientific truth). Immanent critique instead takes the normative self-understanding of a practice as its starting point and asks whether that practice’s conditions of possibility are consistent with its self-understanding. Applied to media education, this means examining not only populist content but the structural preconditions of enlightenment practice itself: Does media education’s presupposition of a rationally addressable subject correspond to the actual conditions under which pedagogical communication takes place in algorithmic public spheres? The contradiction diagnosed in Section 4 – between media education’s normative self-understanding and its technically conditioned impossibility – is the specific object of this immanent critique.

The relationship between the hermeneutic and the ideology-critical moment is reciprocal: the hermeneutic reconstruction of Anders’ concepts provides the diagnostic vocabulary for identifying

structural contradictions, while the ideology-critical perspective motivates the selection of precisely those concepts that illuminate the gap between media-pedagogical self-understanding and its conditions of possibility.

1.3.3 Dialectical-Abductive Integration of Empirical Research

The third moment integrates empirical research from platform studies, radicalization research, and media literacy evaluation – not to conduct original empirical investigation but to ground the theoretical analysis in documented phenomena. The relationship between theory and empirical research is thus neither deductive (applying theory to cases) nor inductive (deriving theory from data) but *dialectical and abductive*. In what follows, the term “abductive” is used in the sense specified by Charles S. Peirce (1997): abduction designates the inferential process by which surprising empirical facts prompt the formation or revision of explanatory hypotheses. In this article, the relationship between theory and empirical research is dialectical in its general orientation – theoretical concepts derived from Anders illuminate empirical patterns, while empirical findings challenge theoretical assumptions – and abductive at specific junctures, where surprising findings generate new hypotheses in Peirce’s sense. For instance, the empirical refutation of the backfire effect (Wood & Porter, 2019) constitutes precisely such a surprising fact: it compels a differentiation of the failure thesis, revealing that the problem lies not in the principled inefficacy of factual correction but in its structural limi-

tations of reach and temporal persistence under algorithmic conditions (see Section 1.1).

The empirical references integrated into this article do not follow a systematic review protocol but a *theory-guided selection* governed by three criteria: first, studies were selected that provide paradigmatic findings for the diagnosed structural affinity between platform logic and populist communication (e.g., Ribeiro et al., 2020 on radicalization pathways; Huszár et al., 2022 on algorithmic amplification asymmetries); second, the selection privileges methodologically robust research, particularly meta-analyses (Walter et al., 2020) and large-scale studies, over individual case studies; third, studies were included that serve as empirical tests or correctives for the theoretical argument – notably Kitchens, Johnson, and Gray (2020), whose findings on the limited scope of filter bubbles guard against theoretical overgeneralization. This selection necessarily has limitations: the empirical base draws heavily on Anglophone research and on studies of specific platforms (predominantly Twitter/X and YouTube); more recent platform dynamics, particularly on TikTok and Telegram, are less comprehensively represented. Furthermore, longitudinal studies on the actual effectiveness of media-pedagogical interventions under algorithmic conditions remain scarce – a research desideratum that the theoretical argument itself helps to identify. These empirical references function in three distinct epistemic roles throughout the article, which are made explicit in context: as *evidence* for theoretical claims, as *correctives* that prevent overgener-

alization, and as *illustrations* that make theoretical claims concrete.

1.3.4 Normative Derivation Through Immanent Contradiction

The normative dimension of the argument – the development of consequences for post-enlightenment media education – follows from the diagnostic dimension through *immanent critique*: if the analysis reveals contradictions between media education’s self-understanding and its conditions of possibility, then these contradictions themselves indicate directions for transformation. This is not a derivation of “ought” from “is” but an unfolding of normative implications already contained in the diagnosed situation – though it does presuppose a prior normative commitment: the judgment that the enlightenment project and its emancipatory aspirations remain worth defending through internal reform rather than abandonment. This commitment is not itself derived from the immanent analysis but constitutes the evaluative horizon within which immanent critique operates. The specific contradiction that generates the normative reorientation developed in Section 6 is the following: media education normatively presupposes a rationally addressable subject capable of critical media engagement, yet the algorithmic architecture of contemporary public spheres systematically undermines the conditions under which such rational addressability could be realized. This contradiction is not external (between media education and some independent standard) but internal to media education’s own project. The normative consequences – the turn from content critique to form cri-

tique, from fact transmission to affect work, from individual competence to infrastructure politics – emerge as responses to this internal tension, not as externally imposed prescriptions. The methodological warrant for this derivation lies in the tradition of immanent critique from Hegel through the Frankfurt School (Jaeggi, 2014; Stahl, 2013): where a practice contradicts its own normative commitments, the contradiction itself indicates the direction of its necessary transformation.

1.4 Structure of the Argument

The argument proceeds through a sequence of analytically distinct but logically interconnected steps.

The *point of departure* (Section 2) is the empirical observation of an aporia: media-pedagogical enlightenment strategies prove systematically ineffective against right-wing populist mobilization on social media. This section analyzes the logic of populist communication and its structural affinity with platform architecture, establishing Hypothesis 1. The analysis draws on current platform studies and radicalization research to demonstrate that the problem is not contingent but patterned.

The *theoretical framework* (Section 3) develops Günther Anders' media philosophy as a diagnostic instrument. By reconstructing his concepts of the Promethean gap, the obsolescence of the human, and the world as phantom and matrix, and by critically engaging with their reception history, the section provides the conceptual vocabulary for the subsequent analysis. The guiding ques-

tion is: What can Anders' philosophy – developed in the context of nuclear threat and broadcast media – contribute to understanding algorithmic public spheres?

The *core analysis* (Section 4) applies Anders' concepts to the algorithmic conditions of contemporary media education, establishing Hypotheses 2 and 3. The section demonstrates that the failure of enlightenment-based media education is structurally conditioned by the architecture of platforms: where enlightenment presupposes rational addressability, algorithms optimize for affective engagement; where enlightenment presupposes a common public sphere, personalization produces fragmented information environments.

The *reflexive turn* (Section 5) directs ideology critique at enlightenment itself, establishing Hypothesis 4. Building on the *Dialectic of Enlightenment* tradition, the section argues that media education must subject its own premises to critical scrutiny. The relationship between structural determination and room for agency is clarified through a differentiation of micro, meso, and macro levels.

The *constructive consequences* (Section 6) develop elements of a post-enlightenment media education. Connecting to German-language scholarly discourse and Wolfgang Klafki's educational-theoretical triad, the section formulates five theses and three didactic specifications that translate the theoretical analysis into pedagogical practice.

The *meta-reflection* (Section 7) addresses the performative paradox of the argument: critique of enlightenment argumentation that is itself enlightenment argumentation. Rather than resolving this paradox, the section makes it productive by situating the argument within the tradition of self-reflexive critical theory.

2. Right-Wing Populism and Platform Logic: Reconstruction and Critique

2.1 Conceptual Preliminaries

Before the analysis of right-wing populist communication strategies is developed, a terminological clarification is necessary. This article focuses on right-wing populism as a paradigmatic case, but situates it within the broader context of extremism. The argument follows the distinction established by extremism research: while populism as a *thin ideology* (Mudde & Kaltwasser, 2017) can be filled with different contents, extremism denotes the active rejection of fundamental democratic values and procedures.

Research on social media and extremism – such as Julia Ebner’s (2019, 2023) studies on “radicalization machines” and “mass radicalization” or Reinemann et al. (2019) on youth exposure to extremist content – shows that the boundaries between populism and extremism increasingly blur in digital contexts. The algorithmic logic of social media favors radicalization processes in which populist entry points can lead to extremist endpoints. The focus on right-wing populism should therefore not be understood as an

exclusion of other forms of extremism, but as an analysis of a particularly well-documented radicalization pathway that exemplifies the structural affinity between platform logic and anti-democratic mobilization. Fielitz and Marcks (2020) have characterized this affinity as *digital fascism*, elaborating that platform logic not only amplifies existing extremist movements but produces new forms of extremism that would be unthinkable without the specific affordances of digital media.

The focus on right-wing populism should not obscure the diversity of extremist formations that exploit platform logic. An intersectional perspective reveals how different extremisms – racist, sexist, classist, religious, and nationalist – operate through similar algorithmic mechanisms while targeting different identity dimensions. Ruha Benjamin's (2019) concept of the *New Jim Code* demonstrates how supposedly neutral algorithms technologically entrench historically grown patterns of discrimination, lending them an appearance of scientific objectivity. Feminist critiques of technology from Haraway (1988) to Harding (2015) offer essential insights into the situated and embodied nature of all knowledge, contradicting techno-positivist epistemology. For media-pedagogical practice, this means consistently combining technology critique with critique of racism, sexism, and classism, making the specific experiences of marginalized groups the starting point for pedagogical reflection (Filk, 2025b).

2.2 The Structure of Right-Wing Populist Communication

The analysis of right-wing populist communication strategies reveals a decisive factor: the ability to understand and strategically exploit the logic of social media. Right-wing populist parties are internet parties in a specific sense – not because they invented the internet, but because their communicative strategies and organizational structure are congruent with the mechanisms of digital platforms.

Traditional parties shaped the television age: central messages, controlled communication, professional staging. Right-wing populist movements, by contrast, operate according to the rules of platform economics: decentralized content production, emotional mobilization, virality through provocation. These strategies correspond to what José van Dijck, Thomas Poell, and Martijn de Waal (2018) have described as the basic mechanisms of *platformization*: *datafication*, *commodification*, and algorithmic selection.

A differentiation is necessary here. The term “platform logic” must not obscure the significant differences between platform types. At a minimum, three curation models can be distinguished: *attention-economic platforms* (TikTok, Instagram, YouTube) that algorithmically optimize for affective engagement and are advertising-financed; *collaborative-deliberative platforms* (Wikipedia, parts of the Fediverse) that operate through community-governed curation and non-commercial models; and *hybrid platforms* (X/Twitter, Reddit) that combine algorithmic amplification with user-governed community structures. The structural affinity between pop-

ulist communication and platform architecture diagnosed in this article applies primarily to the first type – attention-economic platforms whose business model rewards affective intensity. Collaborative-deliberative platforms like Wikipedia demonstrate that algorithmic mediation of public discourse is not technologically inevitable but a consequence of specific design decisions driven by economic interests. This differentiation, far from weakening the argument, sharpens it: the problem is not “the digital” as such but a particular political economy of attention whose architecture could, in principle, be designed otherwise. The emphasis on attention-economic platforms in the present analysis reflects both the empirical dominance of these platforms in contemporary media use and the concentration of the available research base; the question of how the diagnosed dynamics manifest on alternative architectures remains a productive desideratum for further research.

In his influential analysis of platform capitalism, Nick Srnicek (2017) has shown that platforms are not neutral intermediaries but active economic actors that extract, analyze, and monetize data. The tendency toward monopoly is not accidental but intrinsic to the platform model. Tarleton Gillespie (2018) adds that content moderation is not peripheral but constitutive of what platforms do. Platforms position themselves as setters of norms, interpreters of laws, arbiters of taste.

The analysis shows that right-wing populist actors do not passively use these mechanisms but actively shape them. They sys-

tematically generate provocations that are algorithmically rewarded. They produce content that invites sharing. They cultivate a self-image of persecution that generates engagement. Crucially, these strategies function independently of the truth of disseminated content. Algorithmic selection does not distinguish between true and false, but between engaging and non-engaging.

Empirical radicalization research confirms this finding at the individual level; the following studies serve as paradigmatic evidence for the theoretically postulated structural affinity between platform logic and extremism. In a large-scale longitudinal study on YouTube, Ribeiro et al. (2020) documented how users gradually migrate from moderate to extreme content – a process the authors call the *radicalization pipeline*. Similarly, Munn (2019) shows in his analysis of Alt-Right forums that radicalization typically proceeds via attention-economically optimized *gateway content* that initially appears harmless but algorithmically redirects to more extreme content. These findings underscore that the affinity between platform logic and extremism is not only theoretically postulated but empirically demonstrable.

2.3 Semiotic Strategies: Codes, Symbols, and Aesthetic Seduction

Digital extremism operates not only through explicit ideological content but through sophisticated semiotic strategies that often remain invisible to outsiders. These include: coded language and dog whistles that signal in-group membership while maintaining plausible deniability; appropriation of mainstream aesthetics and humor formats (memes, ironic distancing) that normalize extrem-

ist positions; strategic use of platform-native formats (short videos, emotional music, professional graphics) that optimize for algorithmic amplification; and gradual desensitization through “gateway content” that initially appears harmless but algorithmically redirects to more extreme material (Munn, 2019).

The multimodal dimension of digital radicalization deserves particular attention. Extremist actors have developed highly professional online strategies combining visual, auditory, and textual elements into affectively compelling packages. Professionally produced videos with emotional soundtracks, professionally designed graphics, and carefully crafted narratives create immersive experiences that bypass critical reflection. This aesthetic dimension of radicalization – what might be called the *sensory politics* of extremism – poses specific challenges for media education, which has traditionally focused on textual and argumentative analysis. A post-enlightenment media pedagogy must therefore develop multimodal literacy practices capable of analyzing and counteracting these aesthetic strategies.

2.4 The Selection Principle of the Attention Economy

In the digital attention economy, what prevails is not the best argument but the loudest voice. Tim Wu (2016) has shown in *The Attention Merchants* that what we call the information economy is in fact an attention economy: at a moment when access to information is practically unlimited, our attention has become the ultimate commodity. Social media rewards extreme positions because these provoke more reactions than moderate voices. The

algorithm optimizes not for truth or deliberation but for dwell time and interaction.

Empirical studies document this dynamic. Huszár et al. (2022) showed in their analysis of Twitter/X – one of the few large-scale platform-internal studies with access to algorithmic amplification data, and therefore cited here as a paradigmatic, though platform-specific, finding – that in six of seven countries studied, the political mainstream right enjoys higher algorithmic amplification than the mainstream left. An MIT study documented that false information is 70 percent more likely to be retweeted than true information and reaches the first 1,500 people six times faster (Dizikes, 2018). Whether these asymmetries hold equally on platforms with different architectures, such as TikTok or Telegram, remains an open empirical question; but the structural mechanism – algorithmic optimization for affective engagement – is platform-independent. Algorithmic logic structurally favors content that provokes strong emotional reactions.

It would be too simple, however, to characterize right-wing populist movements as hyperliberal – as a radicalization of the liberal promise of freedom that turns against any form of imposition. This interpretation misreads the research. As Jan-Werner Müller (2016) has precisely elaborated: populists are always anti-pluralists. They claim that they and only they represent the people. Cas Mudde (2007) identifies three core features of the populist radical right: nativism, authoritarianism, and populism as a thin ideology of the opposition between pure people and corrupt elite.

Right-wing populist movements do instrumentalize liberal rights – such as freedom of speech – but they do so against the deliberative preconditions of liberalism itself. Where they govern, research documents consistent attacks on liberal institutions: independent judiciary, free press, civil society, minority protection. The anti-liberal nature of these movements manifests in their fundamental challenge to the main institutions and values of liberal democracy, particularly minority rights, pluralism, and separation of powers.

2.5 Interim Conclusion and Generalizability of the Thesis

The media-pedagogical challenge that emerges from this analysis can be formulated as an aporia: enlightenment presupposes what it is supposed to produce. It addresses reasonable subjects who are willing to be convinced by arguments – but precisely this willingness is systematically undermined by the conditions of algorithmic public spheres. The media-pedagogical basic assumption of reachability through arguments is thus fundamentally called into question.

The aporia diagnosed here can also be read as a crisis of the Habermasian project. Jürgen Habermas (1962, 1981) tied the conditions of rational understanding to an idealized public sphere in which the better argument counts. This conception, however influential it was for media education, presupposes precisely what Anders doubts: that medial conditions enable deliberative exchange. The algorithmic public sphere calls into question not only individual arguments but the possibility of argumentation as

such. In this respect, Anders' media philosophy is more radical than Habermas' communication theory: it asks not how understanding can succeed, but whether technical conditions still permit understanding at all.

An important note on the scope of the argument: the focus on right-wing populist mobilization is not arbitrary but empirically and theoretically grounded. Empirically, studies like Huszár et al. (2022) show that algorithmic amplification operates asymmetrically in favor of the political right. Theoretically, there is a specific affinity between the structure of populist communication – binary friend-enemy schemas, affective mobilization, anti-elite resentment – and the logic of the algorithmic attention economy.

This does not mean that other extremisms – left-wing populism, religious fundamentalism, conspiracy ideologies of various provenance – do not also benefit from platform dynamics. The thesis of structural incompatibility between enlightenment and the algorithmic public sphere in principle applies to other contexts as well. The particular urgency of the right-wing populist case lies in the current political conjuncture and the empirically documented asymmetry of amplification effects.

The aporia diagnosed in the preceding section – that enlightenment presupposes what it is supposed to produce – cannot be resolved within the enlightenment paradigm itself. It requires a step back: a reflection on the conditions of possibility of enlightenment that the enlightenment tradition typically takes for granted. For this reflection, Günther Anders' media philosophy offers crucial

resources. Anders is particularly suited for this task because he analyzed, already in the 1950s, how technical media undermine the anthropological preconditions of deliberative reason – and because his concepts can be productively transferred to contemporary algorithmic conditions, as the following section will demonstrate.

3. Günther Anders' Media Philosophy: Theoretical Foundation

3.1 The Promethean Gap

Günther Anders (1902–1992) is one of the most significant yet underestimated philosophers of the twentieth century. His main work *Die Antiquiertheit des Menschen (The Obsolescence of the Human)*, Volume 1: 1956, Volume 2: 1980) develops a philosophical anthropology of the technological age that is remarkably relevant to the present challenges of media education. Konrad Paul Liessmann (2002) aptly characterizes Anders as an outsider of philosophy who felt committed to neither a provenance, a style, a school, nor a discipline.

The core concept of Anders' philosophy is the *Promethean gap*. Anders diagnoses a fundamental discrepancy – the constitutive asynchrony between human faculties and their technical products: between making and imagining, between doing and feeling, between knowing and taking responsibility (Anders, 1956; cf. Filk, 2006, pp. 285–286).

Anders originally developed this concept in the context of the atomic bomb. After Hiroshima and Nagasaki, he realized that humanity had created weapons whose destructive potential exceeds all human imaginative capacity. We can calculate megatons, but we cannot feel what the annihilation of a city means. This discrepancy between producing and imagining is what Anders calls the Promethean gap.

The concept can be generalized beyond the nuclear context – though the transfer requires careful reflection on both continuities and discontinuities. There is indeed a categorical difference between the absolute uniqueness and irreversibility of nuclear annihilation and the multiple, gradual, and in principle revisable forms of algorithmic influence. Yet this difference does not weaken the applicability of Anders' analysis – it radicalizes it. Anders' central insight was that the unimaginable escapes critique precisely because it cannot be felt: Hiroshima produced a mushroom cloud that, however inadequately, still offered an image for thought. Algorithmic influence, by contrast, produces no such image. Its effects are diffuse, incremental, and phenomenologically invisible. Where nuclear annihilation confronts us with the sublime terror of the unthinkable, algorithmic governance operates through the banal comfort of the convenient. The very gradualness that seems to distinguish digital media from nuclear threat is what makes them in certain respects more insidious: we do not even recognize the Promethean gap because nothing dramatic marks its presence. The absence of the mushroom cloud is not a

mitigation but an intensification of the problem Anders diagnosed. Wherever technical systems produce effects that their users – and often their producers, too – can no longer understand, a Promethean gap emerges. The algorithmic systems of the present are paradigmatic in this sense: they select, recommend, prioritize – but according to criteria that even their programmers often no longer fully comprehend. The difference is that we have learned to call this opacity “personalization” and experience it as service rather than threat.

3.2 The Obsolescence of the Human

From the Promethean gap follows the *obsolescence of the human* – a condition in which humans lag behind their own products. The machines that humans create are in certain respects more perfect than humans themselves: more precise, more enduring, faster, less error-prone. Humans appear, in comparison to their products, as defective beings. Anders speaks of *Promethean shame*: the feeling of inferiority that humans experience in the face of the perfection of their machines.

This diagnosis has three dimensions that are relevant to media-pedagogical analysis. First, the dimension of imagining: we can no longer imagine what our technologies bring about. The complexity of algorithmic systems exceeds our capacity for mental representation. Second, the dimension of feeling: we can no longer emotionally comprehend what technical processes mean. The abstraction of digital operations decouples them from affective concern. Third, the dimension of taking responsibility: we can no

longer oversee the moral implications of our technically mediated actions. The chain of causes and effects in technical systems eludes individual attribution.

Babette Babich (2022) has applied Anders' concept of Promethean shame to digital culture in the first comprehensive English-language monograph on Anders: users feel shame in the face of their inadequacy compared to the perfection of digital aesthetics. For Anders, the obsolescence of the human is not a lament but a diagnosis. It describes a historical condition that cannot be reversed by individual will or pedagogical intervention alone – which does not mean that no room for action exists.

3.3 The World as Phantom and Matrix

The part of Anders' work most immediately relevant to media education is his essay *The World as Phantom and Matrix* from the first volume of *Die Antiquiertheit des Menschen*. Here Anders analyzes the effect of radio and television on human experience. Although the text dates from 1956, its insights are remarkably relevant for understanding digital media.

Anders' analysis revolves around two concepts: *phantom* and *matrix*. The world mediated to us through media is a phantom – it is neither fully present nor fully absent. The television image shows us events taking place elsewhere, but it does not show them to us as we would experience them on site. It produces an appearance of presence that is in truth absence. This phantom-like quality of

the medial world blurs the boundary between reality and representation, between experiencing and spectating.

The concept of the matrix designates the reverse process: medial forms do not only reproduce but pre-form. The way media show the world becomes the model for how we perceive the world. We see the world through the lens of media – not only their contents but their formats become cognitive schemas. Anders speaks of media “matrixing” us: they impress their form upon our perception.

A third aspect concerns the conformism of media society. Anders describes how mass media produce a new form of socialization: millions see the same thing at the same time. This simultaneity replaces spatial community with temporal community. People sitting physically alone in front of their devices become a virtual community of receiving-the-same-signs. Anders calls this the figure of the *mass hermit*: isolated yet homogenized.

3.4 Critical Appreciation and Reception History

Anders’ philosophy of technology has been variously criticized as deterministic and culturally pessimistic. These objections require differentiated consideration. Dries (2012) has provided the most comprehensive philosophical contextualization of Anders’ work, situating it as a critical theory of modernity alongside Hannah Arendt and Hans Jonas; his reading demonstrates that Anders’ diagnosis of technological alienation is not a generalized pessimism but a historically specific analysis of the discrepancy between hu-

man capacities and technical effects. Christian Fuchs (2017) specifies in his reactivation of Anders for the age of big data capitalism. Refusing uncritical enthusiasm for technological progress as much as blanket rejection of technology, Anders (1980) held that a genuinely dialectical philosophy of technology must locate the exact point at which an affirmative relationship to technology turns into warranted doubt or principled refusal. Social media platforms generate an immediate sense of social connectedness that functions as an inverted form of commodity fetishism: by foregrounding the experience of togetherness, they render invisible the underlying labor relations, thereby elevating the Promethean gap between action and felt meaning to an altogether new register.

The appropriation of Anders' work for media-pedagogical purposes is itself not without precedent. Within German-language *Medienpädagogik*, Bachmair (1991) was among the first to develop key concepts of media education in explicit engagement with Anders' analysis of the phantom character of mediated experience, exploring how media blur the boundaries between reality and representation. Kübler (2006) situated Anders' technology critique within the broader *Medienkompetenz* debate, arguing that Anders' diagnosis of the gap between technical capacity and human understanding anticipates the structural challenges of digital media education. Hartmann (2008) systematically presented Anders' relevance for *Medienpädagogik* in the *Handbuch Medienpädagogik*, connecting his analysis of technical world-alienation with the

broader disciplinary discourse. The present article builds on these efforts but differs from them in three respects: first, it systematically transfers Anders' concepts to algorithmic rather than broadcast-media public spheres; second, it grounds this transfer in current empirical platform studies and radicalization research; and third, it turns Anders' diagnostic apparatus reflexively against the enlightenment premises of media education itself – a move that the earlier reception, still operating within an unquestioned enlightenment paradigm, did not undertake.

The relevance of Anders' philosophy lies not in adopting a pessimistic worldview but in the analytical sharpness with which he diagnoses the discrepancy between human faculties and technical effects.

3.5 Actualization: From Television Critique to Platform Analysis

Anders' television critique can be made productive for the analysis of algorithmic public spheres if the points of disanalogy are reflected upon. Nosthoff and Maschewski (2019) have demonstrated this transfer in their rereading of Anders' critique of cybernetic governance, showing how his concept of *integral power* – the totalizing logic of technical systems that render political deliberation obsolete – anticipates the governance effects of contemporary platform architectures. The basic structure of his diagnosis – the phantom, the matrix, the mass hermit – recurs in radicalized form in the digital age.

Television, as Anders wrote, delivered the world into the home. Social media delivers the world into the self. The personalization of algorithmic feeds produces for each user an individual phantom world tailored to their interests, preferences, and behaviors. Eli Pariser (2011) has described this phenomenon as the *filter bubble*: algorithms construct for each user their own version of reality without the user noticing. Cass Sunstein (2002, p. 122) warns of group polarization:

[W]idespread error and social fragmentation are likely to result when like-minded people insulated from others move in extreme directions simply because of limited argument pools and parochial influences.

The *matrix function* intensifies in the algorithmic age. Perception is no longer pre-structured merely by fixed broadcast formats but by algorithmically personalized selection. These operate not transparently but covertly. Shoshana Zuboff (2018) has analyzed how the major technology corporations not only collect data but predict and influence behavior. The matrix is thus no longer merely a format but a mechanism of behavior modification.

The figure of the mass hermit also changes. Anders described a simultaneity of receiving: everyone sees the same thing. In the age of algorithmic personalization, the opposite holds: everyone sees different things – but in the same structure. The feed is the unifying element, not its content. We are mass hermits of the second order: isolated from each other, yet homogenized in the form of our isolation.

4. The Algorithmic Obsolescence of Enlightenment

4.1 Structural Failure: A Discrepancy Analysis

Using Günther Anders' concepts, the failure of enlightenment-based media education can be understood as a structural phenomenon. This is not a practical problem that could be solved through better strategies or more resources, but a fundamental discrepancy between the premises of enlightenment and the conditions of algorithmic public spheres. Structural here means: conditioned by the architecture of platforms, not by individual deficits.

Enlightenment-based media education rests on a series of presuppositions: it presupposes a subject that is rationally addressable; a public sphere in which deliberative exchange is possible; a connection between information and belief formation; and a basic correctability of errors through facts. These presuppositions are systematically undermined in the age of algorithmic public spheres – not abolished, but systematically impeded.

Where enlightenment presupposes rational addressability, algorithmic systems operate with affective optimization. The algorithm does not ask whether content is true or argumentatively convincing, but whether it generates engagement. This systematically favors content that provokes strong emotional reactions – and strong emotional reactions are more frequently triggered by negative affects than positive ones. The architecture of the attention economy rewards outrage, not insight.

Where enlightenment presupposes a deliberative public sphere, algorithmic systems produce fragmented information environments. The personalization of news feeds means that different users are presented with different versions of reality. The common space in which arguments can be exchanged and tested no longer exists in the same form. In its place come personalized information environments that reinforce existing beliefs rather than challenge them.

Taina Bucher (2018) has theorized this dynamic as “algorithmic governmentality”: platforms govern not through explicit prohibitions but through the subtle structuring of possibility spaces. The “if ... then” of algorithmic logic – if you click this, we show you that – is a form of behavior control that is effective precisely because it appears as personalization and service. For media education this means: critique must be directed not only at visible content but at the invisible conditionings that precede visibility.

Empirical research, however, paints a more differentiated picture than the popular talk of echo chambers and filter bubbles suggests. The following finding is cited as a corrective against theoretical overgeneralization – a function that is itself methodologically significant, as the dialectical-abductive approach adopted here requires that theoretical claims remain responsive to empirical resistance. Kitchens, Johnson, and Gray (2020) show in their *MIS Quarterly* study that echo chambers and filter bubbles do exist but have less determining effect than often assumed. Fragmentation is real but not total. Crucially, however, even partial

fragmentation undermines the preconditions of a deliberative public sphere.

4.2 The Promethean Gap in Media Education

In Anders' terminology, the discrepancy between pedagogical aspiration and technical conditions can be understood as a Promethean gap within media education itself. The media literacy that Dieter Baacke established as a guiding concept in 1996 presupposes that people can acquire the ability to understand, use, criticize, and shape media. But the algorithmic systems of the present fundamentally exceed these abilities.

The first dimension of the Promethean gap concerns understanding. Algorithmic systems are largely opaque in their functioning – not only for laypeople but often for the programmers themselves. Machine learning systems learn patterns from data that elude transparent reconstruction. The black box of the algorithm is not a deficit that could be remedied through more transparency but an inherent part of the technology. Media literacy as understanding encounters principled limits here.

The second dimension concerns feeling. The effects of algorithmic selection elude affective comprehension. We cannot feel how the algorithm influences us because this influence consists precisely in steering our feelings. The feeling of freedom and self-determination that accompanies the use of social media is compatible with – and perhaps even a product of – algorithmic influence. The

affective dimension of media literacy thus itself becomes an object of manipulation.

The third dimension concerns taking responsibility. The moral consequences of our media behavior elude individual attribution. Every click, every like, every share feeds algorithmic systems with data used to optimize selection processes. But the concatenation of individual behavior and systemic effects is so complex that attribution of responsibility becomes difficult. The individual is co-responsible for the effects of the platform economy, but this co-responsibility is diffuse, intangible, not practically actionable.

Karen Barad's (2007) concept of *response-ability* offers resources for addressing this challenge. Response-ability emerges through intra-actions within material-discursive assemblages rather than pre-existing in individual agents. In educational contexts, pedagogical responsibility emerges through relationships between humans, technologies, and educational materials rather than being possessed by human educators (Filk, 2025a). When AI systems make biased assessments disadvantaging certain learners, responsibility becomes distributed – involving algorithm designers, deploying educators, purchasing institutions, and training data. Traditional accountability frameworks struggle because they assume clear causal chains and individual agents (Filk, 2025a).

The subjectivating dimension of algorithmic governmentality manifests itself in a *data-shaped doubling* of the subject: continuously collected behavioral data transforms into a digital double that becomes the actual object of pedagogical intervention (Mau,

2017). *Individual* subjectivity – the subject fragments into individual, quantifiable parameters and recombines according to their data-technical usability. In educational contexts, this algorithmic subjectivation materializes in learning analytics, adaptive learning systems, and “Personalized Learning,” which simultaneously constitute learners as optimizable competence carriers and as permanent data sources (Filk, 2025b).

4.3 The Matrix of the Platform: Form-Imprinting Before Content Reception

Anders’ concept of the matrix allows us to understand an often-overlooked aspect of platformization: form-imprinting before any content reception. Media-pedagogical debate traditionally focuses on content – fake news, disinformation, propaganda. But the platform already works before any concrete content: through its form.

The feed is the matrix of social media. It structures experience before any individual post: the endless scrollability, the fragmentation into individual contributions, the logic of the like, the metric evaluation of popularity. These formal properties are not neutral – they shape what can appear as content at all and how this content is received.

The feed form favors certain kinds of content: short over long, emotional over analytical, visual over textual, connectable over conclusive. Langdon Winner (1980) articulated this insight in his classic essay *Do Artifacts Have Politics?*: technical artifacts are not

neutral but embody political decisions. The feed is in this sense a political artifact – its formal properties are the result of design decisions that in turn follow economic and ideological interests. Media-pedagogical critique must address these built-in politics of technology.

Anyone who wants to communicate in this form must adapt to it. Even enlightenment content must, if it is to be disseminated on social media, assume the form of the feed – and thereby loses essential properties of what enlightenment is about: thoroughness, differentiation, complexity.

The thesis is therefore: right-wing populism succeeds not despite but because of platform logic. Its communication forms – emotional intensification, binary friend-enemy distinction, affective mobilization – are isomorphic with the form of the feed. Enlightenment communication, by contrast, is structurally incompatible: it is concerned with what the feed systematically filters out.

Educational AI systems demonstrate, moreover, a *performative agency*: when AI classifies learners as “at-risk”, it does not describe pre-existing conditions but helps create that reality through the interventions thereby triggered. This performative dimension aligns with Barad’s understanding of measurement and observation as active participants in constructing phenomena. In educational contexts, AI systems actively shape what counts as learning and who counts as successful learners – they do not simply assess learning (Filk, 2025a). The matrix function is thus to be un-

derstood onto-epistemologically: the feed structure shapes not only what we perceive but who we become as perceiving subjects. The preceding analysis has shown that the failure of enlightenment-based media education is not contingent but structurally conditioned by the architecture of algorithmic public spheres. This finding, however, raises a further question: If enlightenment is structurally limited, what follows for the form of ideology critique that traditionally belongs to the enlightenment? The answer developed in the following section is that ideology critique must become reflexive. It must be directed not only against the ideologies it criticizes but also against its own presuppositions – including the enlightenment premises of media education itself.

5. Ideology Critique of Enlightenment

5.1 The Ideological Presuppositions of Media Education

If enlightenment is structurally limited, then the ideology critique that traditionally belongs to enlightenment must become reflexive. It must be directed not only against populist ideologies but also against the ideological presuppositions of enlightenment itself – including media education.

Enlightenment-based media education operates with a specific concept of the subject: the autonomous, reflexive, educationally formable individual. This subject is not simply empirically found but normatively presupposed. It assumes that people can become critical media users if they acquire the corresponding com-

petencies. This presupposition is not false, but neither is it self-evidently true. It is a normative postulate whose validity depends on certain social conditions.

A conceptual clarification of the understanding of ideology employed here is necessary. In distinction from both a neutral-descriptive understanding of ideology (ideology as any belief system) and a pejorative concept of ideology (ideology as false consciousness), ideology is understood here – following John B. Thompson (1990) and Rahel Jaeggi (2009) – as an ensemble of meanings that contributes to the maintenance of asymmetrical power relations. Thompson explicitly defines ideology as “meaning in the service of power” (1990, p. 7), highlighting how symbolic forms and discourses help sustain domination (Filk, 2025b). This understanding exhibits three core characteristics: the naturalization of contingent social relationships, which are presented as unchangeable or without alternatives; the unmasking of the universalization of particular interests, which are presented as the common good; and the exposure of the concealment of contradictions and conflicts through integrative narratives and metaphors.

These conditions are no longer straightforwardly given in algorithmic capitalism. The subject that media education addresses is simultaneously the product of data profiles and behavioral predictions. The autonomy it presupposes is undermined by systems optimized for influencing behavior. The reflexive capacity it promotes can itself become input for personalized influence. Under these conditions, the enlightenment subject is less empirical real-

ity than counterfactual ideal – an ideal that must be defended precisely for this reason.

5.2 Dialectic of Enlightenment in the Age of Algorithms

In their *Dialectic of Enlightenment*, Max Horkheimer and Theodor W. Adorno (1947) developed the thesis that enlightenment reverts to mythology when it does not reflect itself. Instrumental reason, deployed for the domination of nature, turns against humans themselves and issues in new forms of domination. This dialectic repeats itself in specific ways in the age of algorithms.

Herbert Marcuse's thesis of technological rationality as ideology in *One-Dimensional Man* (1964) shows how technology naturalizes political domination. In this sense, digital platforms are products of technical reason. They promise efficiency, personalization, optimal matching of supply and demand. These promises are not simply false – algorithms can indeed distinguish relevant from irrelevant information, can learn preferences, can reduce complexity. But in this technical optimization there is simultaneously a moment of disempowerment. The decision about what is relevant is delegated to systems whose criteria we do not know and whose goals are not ours.

Günther Anders formulated this dialectic in his own way: technical reason undermines practical reason. The more perfectly systems function, the more the human capacities they replace atrophy. Algorithmic selection of information does not make one's own judgment superfluous, but it reduces the occasions to practice it. Per-

sonalized recommendation does not make one's own exploration impossible, but it pre-structures it. The technical aids that were supposed to make us mature can in fact make us more immature if we unreflectively submit to their logic.

This surveillance-extraction nexus reveals that algorithmic actors operate through what Deleuze (1992) describes as *control societies*. Unlike disciplinary institutions that operate through confinement, algorithmic educational systems exercise control through continuous modulation and adjustment. Learners undergo permanent algorithmic observation that shapes their educational possibilities in real time – rather than discrete assessment points. This fundamentally transforms educational power relations: control operates through algorithmic processes of data extraction and analysis, not through human disciplinary gazes (Filk, 2025a).

5.3 Structure and Agency: A Clarification

At this point, a clarification is necessary concerning the relationship between structural determination and room for action. The thesis of structural failure could be misunderstood as claiming that pedagogical action is pointless. That is not the intended meaning.

The question of room for action can be differentiated if one distinguishes between different levels:

<i>Level</i>	<i>Actors</i>	<i>Kompetenz / Reach of Intervention</i>	<i>Structural Limit</i>
<i>Micro (Classroom)</i>	Teachers, Learners	High: Create spaces for reflection, practice counter-practices	Transfer problem: Practices are suspended outside
<i>Meso (Institution)</i>	Schools, Universities, Providers	Medium: Design curricula, choose technical infrastructure	Resource dependency, institutional inertia
<i>Macro (Politics/ Economy)</i>	Legislators, Platforms	Low: Contribute expertise, inform public debate	Decisions lie outside pedagogical reach

Table 1: Levels of pedagogical intervention and structural limits in algorithmic public spheres (CC-BY-SA)

Structural failure primarily concerns the macro level: media education cannot change the architecture of platforms. At the micro level, by contrast, considerable room for action exists – though under the proviso that its effects are limited by macro-structural conditions. This differentiation avoids both defeatism (“everything is determined”) and pedagogical voluntarism (“education can solve everything”). Yet the relationship between levels is not merely one of limitation. Drawing on Antonio Gramsci’s (1971) concept of the *war of position (Stellungskrieg)*, we can understand micro-practices as contributing to a gradual transformation of hegemonic common sense. Gramsci distinguished between the *war of maneuver* – the frontal assault on power structures – and

the war of position – the slow, molecular work of building counter-hegemonic cultures within civil society. Media-pedagogical practice belongs to the latter: it cannot directly alter platform architecture, but it can cultivate dispositions, habits, and critical capacities that make certain algorithmic solicitations less compelling. When educators systematically practice slowness against the imperative of speed, depth against the reward of surface engagement, and collective deliberation against personalized isolation, they do not merely “suspend” platform logic within protected spaces. They participate in what Raymond Williams (1977) called the formation of *emergent cultures* – alternative *structures of feeling* that exist alongside and potentially against dominant formations. The accumulation of such practices across educational institutions creates cultural resources that can, under favorable conditions, make political regulation of platforms thinkable and achievable. Micro-practices do not cause macro-change through direct causation, but they prepare the cultural soil in which political alternatives can take root.

Structural means: the limits are set by the architecture of platforms, not by individual deficits. These limits cannot be overcome by pedagogical intervention alone – they require political shaping of technical infrastructure. But within these limits, considerable room for action remains. The question is how this room can be used and what forms of pedagogical action are still meaningful under given conditions.

The metaphor of structural limits helps correct unrealistic expectations without falling into defeatism. Media education cannot solve all problems created by algorithmic public spheres. But it can create spaces in which the logic of platforms is temporarily suspended. It can practice behaviors that counteract algorithmic logic. It can create awareness of the conditions under which we communicate. And it can contribute to political debate about platform regulation.

5.4 Reflexive Ideology Critique: A Three-Step Process

From these considerations emerges the necessity of a reflexive ideology critique that operates in three directions:

First, ideology critique must continue to criticize populist ideologies. The content disseminated by right-wing populist movements – the conspiracy theories, the resentments, the enemy images – remains worthy of critique. This dimension of ideology critique corresponds to the classical media-pedagogical mandate. But it must not remain the only one.

Second, ideology critique must criticize platform ideology. The attention economy is itself an ideological formation. It naturalizes certain assumptions – that engagement is good, that personalization serves the user, that growth is inevitable – that on closer inspection correspond to particular interests. Platforms present themselves as neutral infrastructures while in fact performing powerful structuring services. Platforms are, as José van Dijck et al. (2018) emphasize, not merely technical infrastructures but in-

stitutions that structure and transform public values – often in directions that contradict the declared intentions of their users.

Third – and here lies the specific point of reflexive ideology critique – enlightenment must criticize its own presuppositions. The assumptions on which media-pedagogical intervention rests are themselves ideologically impregnated. They presuppose a subject that is historically contingent; they assume conditions that no longer straightforwardly hold; they operate with concepts whose reach has become questionable. This self-critique is not to be confused with self-abandonment – it is rather the condition for enlightenment still being possible under changed conditions.

This self-critique must, however, be pushed further than the neo-marxist and poststructuralist traditions on which the present argument primarily draws. Franz Martin Wimmer's (2004) concept of the *Polylog* – the polyphonic dialogue between culturally diverse philosophical traditions as the condition of a non-hegemonic universalism – reveals a limitation that reflexive ideology critique must acknowledge: the critical resources mobilized here (Anders, Horkheimer and Adorno, Jaeggi, Klafki) belong to a specifically Western, predominantly German-language tradition of thought. The four core premises identified as constitutive of "enlightenment-based media education" – rational addressability, deliberative public sphere, the information-belief nexus, factual correctness – are themselves culturally situated; other traditions of knowledge, education, and communal practice may configure the relationship between media, knowledge, and agency in funda-

mentally different ways. Wimmer's polylogical approach insists that a genuinely self-reflexive critique cannot merely question the internal premises of its own tradition but must also recognize the cultural particularity of its critical vocabulary itself. The present article cannot undertake this polylogical extension – its scope is confined to the internal contradictions of the Western media-pedagogical project. But it can register this limitation as a *systematic desideratum* of its own reflexivity. The existing references to decolonial epistemology (Benjamin, 2019; Haraway, 1988; Filk, 2025b) point in this direction but do not yet constitute the intercultural dialogue that Wimmer envisions. A truly polylogical media-pedagogical critique remains a task for future research.

This tripartite orientation can be further specified through a three-dimensional analytical framework: (1) the discursive level of hegemonic narratives and legitimation strategies in digitalization discourse; (2) the structural level of institutional arrangements and economic power relations; and (3) the subjectivation level of subject models and self-governance forms embedded in learning technologies (Filk, 2025b). This framework enables addressing the systemic interactions between discourses, institutions, and subjectivities while simultaneously identifying progressive potentials for democratizing digital technologies.

The threefold ideology critique developed in the preceding section – critique of populist ideologies, of platform ideology, and of enlightenment presuppositions – remains abstract without specification of its practical consequences. The following section there-

fore asks: What follows from the diagnosis of structural limits for media-pedagogical practice? The answer cannot be a simple program but must take the form of orientations that acknowledge the limits of pedagogical intervention while nonetheless identifying meaningful spaces for action.

6. Consequences: Elements of a Post-Enlightenment Media Education

A terminological clarification is in order. The prefix “post-” in “post-enlightenment media education” does not designate the abandonment or rejection of the Enlightenment project. Rather, it signals – analogously to “postmodernity” in Lyotard’s (1979) sense or “posthumanism” in Braidotti’s (2013) – a reflexive transformation: an Enlightenment that has made its own presuppositions the object of critical inquiry. Post-enlightenment media education is, in this sense, *enlightenment that has enlightened itself about its own conditions of possibility*. It retains the normative commitments of the Enlightenment tradition – emancipation, critical judgment, democratic participation – while acknowledging that the forms in which these commitments have been institutionalized in media-pedagogical practice are no longer adequate to the algorithmic conditions under which they must now be realized. The practical orientations developed below should therefore be read not as a farewell to *Aufklärung* but as an attempt to rethink its institutional and pedagogical forms under transformed conditions.

6.1 Connections to German-Language Scholarly Discourse

The considerations developed here do not stand in isolation but connect to a lively debate in German-language media education. Horst Niesyto (2017, 2020) has laid crucial groundwork in his writings on media critique and the relationship between media education and digital capitalism. He emphasizes that media critique must extend beyond aesthetic-cultural dimensions to encompass social, political, and economic dimensions and to interrogate structural interconnections (Niesyto, 2020).

Niesyto warns against reducing media education to a training and repair shop of digital capitalism and calls for strengthening a socially and media-critical perspective. The initiative “Bildung und digitaler Kapitalismus” [Education and Digital Capitalism] (2023) puts it pointedly: what is ultimately at stake is whether learners become adapted consumers of IT capitalism or critical citizens capable of navigating an already digitalized society.

Bernd Schorb (2017) has coined a guiding concept through his definition of media literacy that goes beyond functional skills. For Schorb, media literacy denotes the capacity – grounded in structured, synoptic knowledge and ethically informed evaluation – to appropriate media, to engage with them critically, enjoyably, and reflexively, and to shape them according to one’s own substantive and aesthetic ideas, in social responsibility as well as in creative and collective action. Crucially, Schorb also insists that such a normatively rich competence necessarily resists measurement, since only hard facts lend themselves to quantification.

Christian Swertz (2017, 2025) has developed in Vienna a media-pedagogical ideology critique that connects to enlightenment traditions while reflecting their limits. His central argument holds that media, as a necessary condition of understanding, are simultaneously a necessary condition for education – yet this very condition can itself become problematic when medial forms structurally constrain the possibilities of education (Swertz, 2017; 2025).

For the post-enlightenment media education developed here, Wolfgang Klafki's educational-theoretical triad is of particular significance. He identifies the following as core goals of education (Klafki, 2007): capacity for self-determination, capacity for co-determination, and capacity for solidarity. These goals must be rethought under the conditions of algorithmic public spheres. Capacity for self-determination then means not only competence for autonomous media use but also awareness of the structural limits of this autonomy in the context of algorithmic influence. Capacity for co-determination encompasses not only participation in medially mediated discourses but also engagement for the democratic shaping of technical infrastructure itself – the platforms, algorithms, and data economies that structure our communication. Capacity for solidarity, in turn, requires, under conditions of fragmented public spheres, the conscious cultivation of common spaces of experience beyond personalized filter bubbles. The radicalization pathways that digital extremism uses aim precisely at the erosion of this capacity for solidarity through the cultivation of en-

emy images and affective mobilization against dissenters. A post-enlightenment media education must therefore not abandon Klafki's goals but reformulate and defend them under changed technical conditions.

6.2 Farewells: What No Longer Works

From the preceding analysis, negative consequences first emerge – farewells to assumptions and strategies that are no longer unconditionally tenable.

First, the fact-check paradigm as panacea must be abandoned. Fact-checking remains important, but it does not reliably reach those who need it most. Empirical research shows that fact-checks work – but with considerable limitations. Bulger and Davison (2018) summarize that comprehensive evaluation data on media education remain scarce, and that some programs show little to no effect for certain materials or can even foster harmful overconfidence. Their conclusion: media literacy cannot be treated as a panacea.

Particularly instructive – and cited here as a counter-intuitive finding that serves as abductive stimulus for the argument – is the finding of Hofmann (2023): studies indicate that the small group of intensive fake news disseminators actually possesses high media literacy. They tend to consume an above-average amount of news from diverse sources; they have a differentiated understanding of different sources and their qualities. Their distrust or aversion to established media is not based on oversight or igno-

rance – it is part of a deeply anchored worldview. This finding directly challenges the deficit hypothesis and confirms that the problem lies not in a lack of competence but in the structural conditions under which competence is exercised. The hard core of fake news disseminators will therefore hardly be converted by a broadly conceived initiative to promote media literacy.

Second, the deficit hypothesis must be differentiated. The assumption that adherents of populist movements are simply uninformed and could be reached through better information is empirically untenable (Kahan, 2013). The turn to populism is often not a consequence of ignorance but an active positioning against a knowledge culture perceived as elitist. This does not mean that information is pointless – but it must be addressed differently.

Third, the transparency illusion must be abandoned. The idea that algorithmic influence can be neutralized through education about its functioning misjudges the complexity of the systems and the limits of human understanding. We cannot fully understand how algorithms influence us, and even if we could, this knowledge would not automatically make us immune.

6.3 Redeterminations: Alternative Orientations

In place of the abandoned assumptions, new orientations must emerge. These should be read less as elaborated alternatives than as directional indicators for a media education that reflects the limits of enlightenment without renouncing the enlightenment.

The opposition of facts against feelings must give way to a recognition of affects as political reality. Affects are not disturbances to be overcome through rationality but constitutive elements of political opinion formation. A post-enlightenment media education must develop strategies for working with affects rather than against them.

This reorientation can be connected to recent affect theory. Sara Ahmed (2004) has shown how emotions function not only as individual-psychological states but as circulating social forces that orient bodies and collectives. The algorithmic attention economy can be understood as an affect machine that systematically amplifies certain emotional circulation patterns. Brian Massumi (2015) distinguishes between affect as pre-conscious intensity and emotion as culturally coded form of expression. This differentiation is productive for media education, because it allows us to distinguish between the immediate affective effect of platform architectures and the reflexive processing of these effects. Affect work then does not mean the control of feelings through reason but the cultivation of a more differentiated affective repertoire.

In place of an enlightenment about content, we should posit a critique of medial forms. The decisive insight of Anders – that media matrix us – means that the form of communication is more political than its content. The feed structure, the logic of the like, the metric of popularity: these formal properties shape thinking before any concrete thought.

The focus on individual competence must give way to infrastructural intervention. The problem of the algorithmic public sphere is not an individual one that could be solved by individual education alone. It is a structural problem requiring structural solutions: regulation of platforms, design of algorithms, political control of digital infrastructure. Media education must engage in these debates.

Donna Haraway's (2016) concept of *sympoiesis* – of “making-with” – offers theoretical resources for this reorientation. Unlike *autopoiesis* (self-making), *sympoiesis* emphasizes collaborative becoming: learning always occurs through relationships with others – both human and non-human. In media education, learners enter sympoietic relationships with digital tools and co-create knowledge and capabilities through their entanglements (Filk, 2025a). The question is then not how individuals can be educated against algorithmic logic, but how productive human-machine assemblages can be designed that promote democratic educational goals.

Rational persuasion alone is insufficient; it must be complemented by habitus formation and practice. Media education cannot simply convey correct insights and hope that these lead to correct action. It must practice behaviors that counteract algorithmic logic: slowness instead of speed, depth instead of breadth, relationship instead of networking. Gert Biesta (2014) has argued for a pedagogy that acknowledges the *beautiful risk* of education: that educational processes are not fully plannable and that pre-

cisely in this unavailability lies their emancipatory potential. For the post-enlightenment media education developed here this means: it cannot guarantee that its interventions will work. But it can open spaces in which something other than what algorithmic logic pre-structures becomes possible.

Prevention work must begin early – before radicalization pathways are entered. This requires what might be called *pre-emptive media education*: developing critical capacities and affective resilience before exposure to extremist content rather than only responding to it afterward. Early intervention means cultivating in young people the ability to recognize manipulative communication strategies, to critically reflect on the emotional impact of content, and to see through gradual radicalization at an early stage. This preventive orientation does not replace but complements the reactive dimension of media education. It requires coordination across educational institutions, families, youth work, and platform governance – a comprehensive societal task that media pedagogy alone cannot accomplish but to which it can make essential contributions.

6.4 Five Theses for a Reflexive Media Education

The following theses summarize the preceding argument and should be read as integrated perspectives, not as an additive list:

Thesis 1 – Form Critique Before Content Critique: Platform architecture is more political than its contents. A critical media education must place the formal properties of digital media – feed logic,

metrics, personalization – at the center. The question of what content we are exposed to is less important than the question of what form structures our exposure.

Thesis 2 – Affect Work Instead of Fact Transmission: Emotions cannot be corrected through information, but they can be differentiated. A post-enlightenment media education must take the affective dimension seriously – not to manipulate feelings but to cultivate a richer palette of affects that counters the binary logic of outrage and confirmation.

Thesis 3 – Infrastructure Politics as Pedagogy: Media education must not limit itself to educating individuals. It must engage in political debates about platform regulation. The question of how algorithms should be designed is a pedagogical question – for algorithms are learning environments that reward certain behaviors and punish others.

Thesis 4 – Modesty of Enlightenment: Media education must acknowledge the limits of its reach. Not all people are reachable through pedagogical intervention at all times. This insight is not defeatism but the precondition for realistic expectations and effective strategies.

Thesis 5 – Reflexive Ideology Critique: Media education must permanently question its own enlightenment premises. This does not mean renouncing enlightenment but pursuing enlightenment about the limits of enlightenment. An ideology critique that exempts itself falls short of its own aspirations.

6.5 Didactic Specifications: Three Examples

The preceding theses require specification to become connectable to media-pedagogical practice. In the following, three exemplary implementations are sketched that illustrate the transition from theory to practice.

6.5.1 Example 1: Form-Critical Exercise – “The Algorithm as Editor”

Learners document their social media feeds over one week through daily screenshots. In the evaluation, not the contents are analyzed but the form: Which formats dominate (video, image, text)? What length do successful posts have? Which affective registers are activated? The reflection question is: “What kinds of statements cannot be made at all in this form?”

This exercise makes the matrix function tangible without moralizing. The focus on form instead of content reveals that it is not the evil algorithm showing evil content, but that the structure itself systematically favors certain kinds of communication and filters out others. Learners begin to understand that their attention is not neutrally directed but pre-formed by formal properties of the platform.

6.5.2 Example 2: Affect Work – “Boredom as Competence”

Following Anders’ concept of the discrepancy between producing and feeling, a conscious decoupling from digital stimulation is practiced. Learners spend a set period of time (about 30 minutes) without digital devices in a low-stimulus setting and record their affective reactions. The subsequent discussion addresses: What

feelings arise? Why is boredom unpleasant? What might boredom tolerance have to do with critical media literacy?

The goal is not digital detox as an end in itself but reflection on affective dependence on permanent stimulation. This practice reveals that platforms work not only informatively but affectively – and that one cannot escape this affective power through enlightenment alone, but through habitus change. Learners learn to regard their own affects as objects of reflection.

6.5.3 Example 3: Infrastructure Politics – “Platform Simulation Game”

In a simulation game, learners take on different roles: platform operators, regulatory authority, advertisers, user groups with different interests. Decisions about algorithm design, moderation policy, and business models are negotiated. The simulation makes tangible that platform architecture is the result of decisions – and thus can be politically shaped.

The reflection asks: Which interests prevail? Whose voice is missing at the table? What would be different if profit maximization were not the primary goal? This practice reveals that algorithms are not natural phenomena but products of decisions that humans have made – and that could therefore have been made differently. This opens the horizon for a political understanding of technology and strengthens agency regarding infrastructural change.

These examples should not be read as recipes but as illustrations of a principle: reflexive media education operates not primarily at the level of content but of forms, affects, and structures.

7. Conclusion: Enlightenment About the Limits of Enlightenment

7.1 Summary of the Argument

The question at the beginning of this investigation was: Why does enlightenment-based media education fail against right-wing populist mobilization? Engaging with Günther Anders' media philosophy leads to the initially paradoxical finding that precisely the enlightenment premises – the presupposition of rational addressability, the hope for argumentative persuasion – become obstacles under the conditions of algorithmic public spheres. The failure is not contingent but structurally conditioned – at least when these premises remain unreflected.

This is not a rejection of enlightenment but a plea for its radicalization. Enlightenment worthy of the name must have itself as its object. It must reflect on the conditions of its own possibility – and recognize that these conditions are historically variable. The algorithmic public spheres of the present fundamentally call these conditions into question.

Anders' concept of the Promethean gap allows this situation to be understood without falling into defeatism. The gap is not necessary – it is the result of historical developments that could also

have proceeded differently and could proceed differently. But bridging the gap requires more than pedagogical intervention. It requires political shaping of technical infrastructure, cultural practice of alternative behaviors, and theoretical reflection on one's own presuppositions.

Media education faces the task of reflecting on its own obsolescence. Its concepts – media literacy, critical media education, autonomous media use – come from a time when the technical conditions of the public sphere were different. Digitalization and algorithmic transformation of the public sphere do not completely call these concepts into question, but they require their critical revision.

7.2 Reflection on the Status of the Argument: The Performative Paradox

This text criticizes the ineffectiveness of enlightenment argumentation – and is itself a piece of enlightenment argumentation. This paradox cannot be fully resolved, but it can be reflected upon.

The performative tension between content and form of the argument is not a mistake but is intrinsic to the subject matter. Critique of enlightenment can only be formulated in an enlightenment mode. The alternative would be silence – or propaganda. What remains is the possibility of making the paradox explicit and thereby elevating it to part of the reflection.

The performative paradox is not a deficit of the argument presented here but a constitutive feature of critical theory since Kant.

Already in the *Critique of Pure Reason* (Kant, 1781/1787), reason operates as judge over itself – a circle that is not avoided but made productive. Horkheimer and Adorno radicalized this problem in the *Dialectic of Enlightenment* without resolving it:

Enlightenment, understood in the widest sense as the advance of thought, has always aimed at liberating human beings from fear and installing them as masters. Yet the wholly enlightened earth is radiant with triumphant calamity (Horkheimer & Adorno, 1947/2002, p. 1).

The position represented here understands itself in this tradition of an enlightenment about enlightenment. It does not claim to have found an Archimedean point outside the criticized conditions. Rather, it claims to make visible the immanent contradictions of enlightenment practice under changed technical conditions – in the knowledge that this making-visible is itself subject to the conditions it criticizes. The difference between unreflected and reflected enlightenment lies not in overcoming the paradox but in acknowledging it.

Günther Anders himself solved this problem practically without resolving it theoretically: through political engagement that did not deny the structural limits of argument but also did not let them lead to paralysis of action. His anti-nuclear activities, his correspondence with the Hiroshima pilot Claude Eatherly, his public interventions show a practice that knows it cannot close the Promethean gap – and nevertheless acts. For media education

this means: knowledge of structural limits does not exempt from action but qualifies it.

This text addresses a particular audience: readers who are prepared to engage in theoretical reflection. It does not reach those who reject such reflection. This is not a refutation of the argument but its confirmation. The limits of enlightenment show themselves also in that insight into these limits is itself of limited communicability.

7.3 Outlook: Post-Enlightenment Media Education in the Age of Algorithms

What Günther Anders accomplished for the atomic bomb – making the unimaginable an object of thought – a reflexive media education must accomplish for the algorithmic public sphere. The effects of platformization largely elude our imagination, our feeling, our taking responsibility. But precisely for this reason it is necessary to make them objects of conscious reflection. The alternative – the unreflected continuation of enlightenment routines under changed conditions – leads nowhere.

Media education must understand itself as part of a larger political and cultural project: the democratic shaping of the technical infrastructure of our public sphere. This requires:

1. *Theoretical reflection* on the limits of the previous enlightenment paradigm and the development of new concepts that take into account the specificity of algorithmic public spheres.
2. *Practical experiments* with forms of teaching and learning that counteract algorithmic logic – for instance through practicing slowness, depth, and affective awareness.
3. *Political interventions* in debates about platform regulation, algorithm transparency, and alternative technical infrastructures.
4. *Institutional changes* that understand media education not as a repair shop of digital capitalism but as a critical practice of infrastructure critique.
5. *Coalitions* with other movements – digital justice, artistic practice, activist networks – that work on similar questions.

These practical orientations do not emerge in an intellectual vacuum. They are connected to a growing international discourse on the reflexive transformation of the Enlightenment project under conditions of globalization, digitalization, and ecological crisis. McIntyre-Mills (2006) has developed a systemic perspective on participatory governance that links critical thinking to non-Western knowledge traditions and ecological interdependence – a framework directly relevant to the demand for *infrastructure politics* articulated above. Boucher and Lloyd (2018) have shown that the historical Enlightenment was itself far more internally plural than the standard narrative of “Enlightenment = rationalism” suggests: there were multiple, competing, and sometimes contradictory Enlightenments, including counter-Enlightenment currents within the Enlightenment itself. This finding strengthens the argument of the present article: what is diagnosed as obsolescent is not the Enlightenment but a specific, historically contingent con-

figuration of its premises in media-pedagogical practice. Gmainer-Pranzl and Hofner (2024) pose the question whether polylog itself can function as a form of Enlightenment, developing intercultural-philosophical impulses that connect directly to the polylogical desideratum identified in Section 5.4 above. These contributions indicate that the reflexive turn proposed here – from content critique to form critique, from deficit orientation to structural analysis – is part of a broader intellectual movement toward what might be called a *second-order Enlightenment*: an Enlightenment that takes its own conditions, limitations, and cultural situatedness as objects of critical inquiry. The systematic development of this connection – integrating the media-pedagogical critique developed here with these international discourses on reflexive Enlightenment – remains a task for further research.

What remains in the end is not resignation but a more modest, but perhaps more effective form of enlightenment: an enlightenment that knows its own limits, that works with affects rather than against them, that relies on practices rather than insights alone, and that understands itself as part of a larger political project – the democratic shaping of the technical infrastructure of our public sphere. This is less than the classical promise of enlightenment. But it is perhaps all that can still be seriously maintained under given conditions. And it may be precisely what enlightenment becomes when it finally turns its critical gaze upon itself.

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