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Finding a Connection Between Digital Communication, Echo Chambers and Polarization: A More Critical Reappraisal of the Evidence and Trends

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Abstract

In recent years, many empirical studies have debunked the notion that digital platforms and social media contribute significantly to public political polarization via the creation of online echo chambers. This notion had dismissed more complex explorations of what was happening and had depoliticized the debate.

This article challenges the new consensus and argues for a more nuanced interpretation of the assumptions, evidence and conclusions reached. A more critical political economy-style interpretation is proposed which rests on the view that alternative, less direct facilitating mechanisms link social media and polarization. First, polarizing echo chambers have proven to be rather more prominent amongst groups of political elites (partisans, politicians, journalists, scientists). Such elites, as 'primary definers', have a large top-down influence on public debate as well as on the party and news organisations that they lead. Second, the hybrid media system has not only enabled more extreme, partisan parties and news sites to appear, its political economy has also contributed to the shifting stances of mainstream, centre-ground parties and journalism. This trend, primarily towards more radical-right partisan positions, incorporates libertarian and market fundamentalist ideas, which themselves support powerful corporate and political elite interests. As such, digital communications and social media have encouraged public polarization and a rightward shift of the ideological spectrum, but not directly. Through such polarization, elite figures, media and political organizations can guide citizens, set agendas and frame public discourse.

For some two decades a range of scholars and public figures have suggested that digital communication has been a key contributing factor to increasing political polarization. The assumption has been that a mix of system algorithms and online self-selection has resulted in the emergence of electronic filter bubbles and echo chambers. Such spaces accordingly create communication that reinforces particular views and excludes counter-perspectives. Large numbers of ordinary citizens spend more of their time online, so they are likely to gravitate towards partial

information cocoons and consequently adopt more polarized views. This has obvious negative consequences for idealist notions of a digitally enhanced public sphere.

However, most recent empirical research and debate across media and communication studies has settled on a quite different consensus that downplays the links between platforms, social media and echo chambers. Extensive network studies have come down strongly against popular notions of powerful online echo chambers as drivers of political polarization or public sphere fragmentation. Thus, the growing consensus of the early 2020s has been that these tendencies have been greatly exaggerated. Polarization, for example, is likely to be caused by political, economic and other factors in society. Hopes for technology's 'equalizing' rather than 'normalizing' properties are thereby retained.

In this article I challenge this new consensus as well as its uncritical position. If the pro-bubble camp greatly overstated their case, the anti-bubble response has gone too far the other way in rejecting the links. Instead, there are nuanced and multi-stage influences that need teasing out. Such influences are of interest to critical scholars as they reveal an important set of political economy-type mechanisms in action. These emphasise elite-driven, top-down forms of definitional power and identify ideologies and political positions that benefit corporate and neoliberal interests. This is not to say that current rises in polarization are primarily driven by platforms and social media alone. Rather, it is to restate the importance of their role in facilitating growing polarization, alongside socioeconomic factors and political power structures.

The discussion is laid out in four parts. The first presents the swings towards and against the original thesis. The second critically questions some of the conceptions and assumptions that underpin the new consensus. More nuanced elite-centred, top-down and neoliberal market mechanisms for connecting social media, echo chambers and polarization are then explored. These mechanisms are tied to specific political economy concerns. The third section establishes that the anti-bubble thesis downplays its own findings in regard to the small percentages of those who do inhabit polarized political echo chambers, namely, committed partisans, politicians, journalists, academics, scientific groups and extremists. Although comparatively limited in number, such groups have a very significant 'primary definer', 'top-down' influence on the positions taken by political and media organisations and thus the wider populace that follows them.

The fourth section suggests that the new consensus also downplays the crucial finding that bubbles, where they do exist, are primarily a right-wing phenomenon benefitting far-right parties, activists and media organisations. They not only commonly develop across such groupings, but market mechanisms also encourage a centre-ground shift in their direction. The political economy of digital platforms and social media in the hybrid media system has pushed traditionally centrist political parties and legacy media outlets towards more partisan positions, more often on the right of the political spectrum. This has enabled more extreme, libertarian and market-driven factions, groups, parties and news sites to emerge. More centrist entities shift towards them to compete for voters and news audience attention.

Therefore, digital communication systems have helped facilitate the rise of political polarization that is weighted towards more right-wing market and libertarian positions and public discourse. This happens not by influencing ordinary citizens directly, but instead by polarizing elite figures, political and media organisations and news outputs, which then guide publics.

Echo chambers and filter bubbles… the rise and fall of a hypothesis

Most people with an interest in media, communication and politics are acquainted now with some notion of filter bubbles, echo chambers and their link to political polarization. Whether through passive filtering or self-selection, individuals gravitate towards media sources made up of like-minded thinkers and opinions and avoid those with counter views. The result is a growing information and attitudinal divide between groups and heightened affective and political polarization.

The potential for media to be a causal factor in partisan reinforcement has been studied for many decades (Klapper, 1960; Jamieson and Capella, 2008; Iyengar, 2019). The debate was vigorously renewed once again with the digital revolution and the growth of social media platforms. Cass Sunstein (2001) argued that individuals would choose to use their architecture to narrow rather than diversify their information inputs. He has since further developed the notion of people using the technology to create self-selecting 'echo chambers' (Sunstein, 2018). Eli Pariser (2011) offered a parallel thesis focusing on the creation of 'filter bubbles'. The driving force here was less self-selection and more to do with the algorithms of search engines and social media hyper-personalizing individual experiences.

The hypothesis gained more traction through the 2010s as political and affective forms of polarization appeared to intensify, most obviously in survey data on multiple issues in the US. There is now a rabid dislike and distrust between those in opposing 'strong' Democrat and Republican camps, and very strong conflicting opinions on climate change, abortion, the right to bear arms, equality issues, immigration, trust in media organisations, and so on. Thus, in the 2020 US election, 89% of Trump supporters and 90% of Biden supporters believed that a victory for their rival would "lead to lasting harm in the US". Eighty-five percent of voters on both sides said that they "disagreed not only over plans and policies, but also basic facts" (Pew, 2020). As the Pew Research Centre also notes (2020), the degree of difference between the two sides "has more than doubled" since the mid-1990s and the US Congress is more "ideologically divided than at any time in the past 50 years" (see also Iyengar, 2019; Graham and Svolik, 2020).

Beyond the US, more extreme populist parties began taking the place of more centrist ones across the globe and political antagonism between opposing sides grew (Judis, 2016, Norris and Inglehart, 2019). The socio-political divisiveness that accompanied Brexit, the rise of Trump, Modi, Bolsonaro, Le Pen, Netanyahu and many others, showed the direction of travel. More recently, global conspiracy theories, anti-vax rhetoric and anti-immigrant fearmongering have offered further 'common sense' examples of the phenomenon in action. The seemingly common denominator has been the rise of digital platforms and communication, and more specifically search engines and social media. These have enabled extreme political organisations and ideas to thrive. Politicians, journalists and public intellectuals now frequently tie such developments together in their commentaries.

For many media and communication scholars the links between digital media, online 'information cocoons' and polarization became almost a given. A flurry of published social network studies used computational analysis to produce multi-coloured visualisations of polarized political information networks, demonstrating this. High-profile critiques of social media made the echo chamber connection (e.g., Benkler et al., 2018; Vaidhyanathan, 2018). As Iyengar (2019: 131) commented, "It is not a coincidence that the revolution in information technology and the increased availability of news sources has been accompanied by increasing political polarization".

Naturally, the topic drew heightened attention across the field and cast off a plethora of empirical studies to test and explore the phenomenon. However, few media political economists have been

amongst these. Many (e.g., Herman and Chomsky in Mullen, 2009; Curran et al., 2016; Birkinbine et al., 2017; Fuchs, 2017; Hindman, 2018; Pickard, 2019) have briefly noted the bubble/chamber phenomenon, sometimes in relation to the rise of right-wing media content. But they have rarely chosen to investigate the trend per se nor incorporated it into their larger critiques. Instead, the greater interest has been to counter over-optimistic thinking around new ICTs and associated claims for the equalization of power relations and the rejuvenation of news and communication in the public sphere. Such optimistic hyperbole was technologically determinist and self-serving. Instead, critical scholars documented the multiple ways top-down power structures and inequalities were being recreated in the online world, through digital monopolies, digital divides, surveillance, disinformation campaigns and new forms of platform capitalism. Existing socioeconomic forces and powerful elites were exploiting the latest forms of media and communication, as they had done with earlier technologies.

That left the field open for less critical empiricists and a new generation of scholars using computer-aided methods to produce large-scale quantitative datasets to investigate the phenomenon. These made use of traditional and experimental surveys, online user tracking software and data supplied by individual social media platforms (see summary of research by Terren and Borge, 2021; Arguedas et al., 2022). Contrary to public expectations, a large number of these research projects have turned up relatively empty handed. Rather like early post-war studies looking at powerful media effects, scholars have come back saying the larger hypothesis lacks substantive evidence. In the main, the large majority of individuals do not inhabit said filter bubbles or echo chambers. Although such tendencies are observable, the larger thesis has been greatly exaggerated (Barbera et al., 2015; Dubois and Blank, 2018) and has become another instance of a 'moral panic' sparked by new forms of communication. Indeed, the refutations of the strong form of this hypothesis have become unequivocal for several scholars (Fletcher and Nielson, 2018; Bruns, 2019a, 2019b; Fletcher et al., 2020; Arguedas et al., 2022). Related studies have offered growing empirical support for the emerging new consensus position too (notably, Cardenal et al., 2019; Dahlgren et al., 2019; Vaccari and Valerani, 2021). Each either concludes that the case has been greatly overstated and that more nuanced assessments are needed if not outright rejection.

The starting point of the new position is to determine what exactly 'filter bubbles' and 'echo chambers' are. As noted, neither Sunstein nor Pariser offered a clear, empirically testable definition of their zeitgeist phrases. There is also some confusion about the distinctions between these two terms, often used interchangeably by scholars. The one adopted here is that of Arguedas et al. (2022). They suggest that echo chambers are more the consequence of actor self-selection of online sources and networks, while a filter bubble "is an echo chamber primarily produced by ranking algorithms engaged in passive personalisation without any active choice on our part". Regardless of the distinctions, the strong pro-bubbles and chambers case determined that citizens increasingly found themselves in a "bounded, exclusive media space" which included like-minded people and views and excluded contrary individuals and opinions. Such "hermetically sealed" information spaces then created strong, distinct political and social positions, hence propelling polarization (11).

It is this 'strong' definition of filter bubbles and echo chambers, as rigidly 'bounded', 'exclusive' and 'sealed' that has been subject to testing. Most such studies involve large representative samples of a population. They also generate and analyse very large datasets of network connections, content and online viewing habits, made possible by computational methods.

The results, based on such definitions and big data trawls, are increasingly clear. When it comes to algorithmic-directed filter bubbles the evidence is fairly unequivocal. Multiple studies that track the online behaviour of ordinary citizens continue to show that search engines and social media

algorithms do not simply guide people passively into like-minded spaces. Instead, individuals are shown a slightly more politically diverse array of sources than they would otherwise encounter (Dubois and Blank, 2018; Bruns, 2019a; Dahlgren, 2021; Guess, 2021; Wojcieszak et al., 2021). In effect, despite the wider public concerns around manipulative social media algorithms, studies demonstrate, if anything, a statistically small counter tendency.

The dismissal of the self-selecting echo chamber notion is not so clear cut but still offers similar evidence and conclusions. First, the large majority of people spend relatively little time even looking at news and politics when online—somewhere between 3% and 6% of their time (Cardenal et al., 2019; Fletcher et al., 2020; Vaccari and Valerani, 2021). That in itself suggests a fairly limited exposure time to any kind of sealed communication cocoon. Second, most individuals choose to have a fairly 'diverse media diet' (Flaxman et al., 2016; Dahlgren et al., 2019; Dahlgren, 2021; Masip et al., 2020; Vaccari and Valerani, 2021). They either go to several news sources across the left-right political spectrum or mainly visit large, recognised legacy media sites. These, like the BBC (UK), ARD (Germany) and CBS (US) are noted for their production of more centrist, balanced content as well as for drawing ideologically diverse audiences (Nelson and Webster, 2017).

However, the critique of echo chambers retains certain flaws and gaps that researchers acknowledge but bracket out with conceptual justifications. Thus, many studies acknowledge 'basic homophilous tendencies' amongst the general public, but that is held to be fairly insignificant if they spend small amounts of time in partisan spaces or do not avoid alternative ones. As Barbera et al. (2015) argue: "homophilic tendencies in online interaction do not imply that information about current events is necessarily constrained by the walls of an echo chamber". For this reason, research based only on data provided by single social media platforms is often excluded, because this does not account for peoples varied online browsing outside of these.

Second, they also note that specific groups do in fact inhabit echo chambers rather more of the time. But such groups account for between 2% and 5% of the population in Europe and no more than 10% in the US, where the documented levels are highest (Arguedas et al., 2022). Even then, such actors still look at mainstream legacy media sources and conflicting political sites (Cardenal et al., 2019). Third, the US case, where more studies have taken place than anywhere else, is characterised as an 'outlier', not typical of the global population. American citizens have already been subjected to strong polarizing tendencies that predate social media.

With such exceptions removed from the discussion, critics of the echo chamber and filter bubble theses feel confident of their case. Thus, Barbera et al. (2015) argue that "some previous studies may have overestimated the degree of mass political polarization" (1539). As Arguedas et al. (2022) conclude, research in aggregate finds that: "echo chambers are much less widespread than is commonly assumed, finds no support for the filter bubble hypothesis and offers a very mixed picture on polarization and the role of news and media use in contributing to polarization" (5). For Bruns (2019b) "The problem, in short, is polarization not fragmentation, and such polarization is not the result of online and social media platforms" (105).

Thus, a new consensus has emerged. Social media and platforms have a negligible input into heightened levels of contemporary polarization, at least not through their creation of filter bubbles and echo chambers. Instead, disrupted socioeconomic circumstances and political shifts are seen to be more likely causes. As in the 1930s or 1970s, prolonged periods of economic slump have led to more divided societies and extreme forms of politics. To blame social media and platforms is simplistic technological determinism and another instance of new forms of media causing a moral

panic. If the notion of bubbles and chambers might have been seen as significant to critical communication scholars, they are not now.

Neither strong nor weak: seeking a more nuanced interpretation of the data

While the evidence and conclusions about algorithmic-directed filter bubbles now seem clear cut, I believe this is not the case when it comes to self-selecting echo chambers, nor to the way this pattern and other digital developments may be contributing to greater polarization and power relations in society. It is not that I wish to restate the original, strong hypothesis about hermetically sealed digital echo chambers directly creating mass polarized societies. But neither do I want to accept the headline rejection of the phenomenon alongside any possible links between social media, polarization and inequality. Such a reaction shuts down more nuanced discussion and exploration. It also, as the next sections argue, ignores the evidence of how such chambers and platforms, where they do exist in more intense forms, might be contributing to communication environments that reproduce elite top-down, libertarian and extreme free-market forms of definitional power and public discourse.

One important step in rejuvenating and reconceptualising the problem lies in confronting the earlier definitions of filter bubbles and echo chambers. Both the instigators and later critics of the original hypothesis assumed these should be rigidly defined as 'hermetically sealed spaces'. Such designations envisage that participants must effectively operate in entirely isolated environments, like the inhabitants of Plato's allegorical cave or a cut-off island civilisation. Because empirical research reveals that this does not happen, not even for the most partisan, self-selecting and exclusive communities, then the concept of bubbles, chambers and resulting polarization are too often dismissed. Finding any evidence of movement outside such spaces automatically constitutes their non-existence, consequently ending the debate rather than spurring more nuanced explorations of what is happening.

However, this position is an overly purist one. It is rather like saying contemporary democracy does not exist because it has numerous flaws and is representative not direct democracy. But we can still talk about types and strengths of democracy beyond any ideal conception of it. As such, filter bubbles and echo chambers have degrees of intensity and partisan influence rather than either full or no influence.

Degrees matter because reinforcement effects, in various forms, have been documented for many decades within diverse political and media environments. Paul Lazarsfeld and colleagues' study of Erie County voters in the 1940s, where "few citizens consumed political coverage with an open mind" (Lazarsfeld et al., 1944), did not depend on 100% selective media exposure to fortify their views. Klapper (1960), Schramm et al. (1961) and others who developed an account of 'reinforcement effects' always assumed individuals were subject to alternative information sources, both media and social. The oft-referenced example of the televised Nixon-Kennedy debates in 1960, where Republicans and Democrats both came away thinking their candidate had prevailed, was consumed via mainstream network TV channels (CBS, ABC, NBC). The same can be said of uses and gratifications research (Rosengren, 1973; Blumler and Katz, 1974), Gerbner's cultivation analysis (Gerbner et al., 1986) or similar forms of confirmation bias or cognitive bias (Kahneman et al., 1982).

Simply put, the tendency for individuals to pick and choose information inputs in a selective way, to avoid dissonance and to reinforce pre-existing ideas, does not require people to be chained within

mythical caves or their modern digital equivalents. *Selective perceptions* and *selective retentions* are just as important as *selective exposures*.

By the same token, one cannot simply exclude the many studies that rely exclusively on data from a single social media platform. Many of the strongest accounts of the echo chamber tendencies are focused on single platforms such as Twitter/X or more extreme, far-right social networks (see survey in Terren and Borge, 2021). It is the architecture of such platforms that enables such insular bubbles to form. It is where information and exchange networks have been documented to be the most dense, partisan and exclusive in membership composition.

Second, the bracketing out of certain counter findings amongst some anti-chamber scholars, in order to strengthen their case, is problematic. Instead of asking why exceptions exist or exploring their significance, evidence that doesn't fit is all too easily dismissed, again hindering investigations of alternative mechanisms and links. So, for example, despite many claims that the US is 'an outlier' in such polarization trends, other studies suggest that similar, stark divisions are growing in a number of other nations too. Britain has suffered with comparable levels of opposition and antagonism, above all around Brexit (Gavin, 2018; Hobolt et al., 2021). So too, there are some stark divisions being recorded across Europe and Latin America (Norris and Inglehart, 2019; de Vries and Hobolt, 2020; Moraes and Bejar, 2022). The depths of the divisions and disagreements between supporters and opponents in 2023, in Brazil, France, Poland, Taiwan and Israel for example, look as entrenched as those in the US. We should also not forget that the roll out of online platforms and social media got a good head start in the US.

Similarly, we might ask more questions about that small percentage of individuals (anywhere from two to ten percent of a population) who do spend rather more time in such chambers? Might they be significant in some way? Perhaps we might also look at why polarization itself appears to be rising across news media, political parties and other institutions that are central to the public sphere (Benkler et al., 2018; Bennett and Livingstone, 2020). Might social media and platforms play a part in the shifting of these intermediary organisations and the polarization of wider public discourse, as opposed to individuals being directly shuffled towards partisan positions while online?

What I would suggest is that, perhaps, as with earlier traditions of media effects research, we might look again at the methods and assumptions that underlined that tradition; something made clear in Terren and Borge's (2021) review of research on the topic of chambers and polarization. By exploring the very nuances and exceptions to the strong anti-chambers position, we might find more significant connections. Thus, it might be speculated that the links may be less direct than we imagine or operate via multiple rather than two steps and in less overt ways. Two mechanisms that chime with political economy perspectives are laid out in the next two sections.

Small numbers do matter… a lot: a top-down view of echo chambers, definitional power and polarization

Most empirical studies that reject the echo chambers hypothesis still acknowledge the existence of a small percentage of users who come closer to inhabiting such polarized digital enclosures. But because such participants make up a small minority, their significance is downplayed. This becomes an important omission when we look closer at just who those groups are—partisan extremists and politically engaged elites. This latter group includes committed political party partisans, politicians, journalists, academics, and scientific groups involved in political debates such as climate change (see below).

Such groups are important because they hold positions of power and have a great deal of top-down definitional influence on the shape of political discourse. If these groups do spend extended time in such spaces, where partisan and polarized views are regularly reinforced, then their amplification of such views to larger groups of supporters is likely to be fairly influential. In effect, digital echo chambers facilitate polarization, not through shepherding the mass of ordinary citizens into them, but instead by reinforcing the stronger, top-down political views of elite figures who then prompt and frame issues for ordinary citizens. The polarized views of primary definers then have greater agenda-setting and framing power in the wider public sphere.

We have known since the early studies of web-based applications, that those centrally involved in politics and their connected partisans had a propensity to develop intense, interconnected online networks with allies. Digital communication, in effect, enabled elites to intensify their exchanges and reinforce 'group think' or strong beliefs within 'epistemic communities'. Thus, Adamic and Glance (2005) noted how early political blogging communities had far more links to like-minded blogs and legacy news sources than they did to opposing blogs and sources. Iyengar and Hahn (2009) found that strong Democrats and Republicans had a strong partisan affinity for choosing concurring news sources online (CNN/NPR or Fox), something that increased with greater levels of partisanship. Davis (2009) observed how those in the UK Parliament used email and online tools to intensify their exchanges with their own colleagues, close supporters and journalist collaborators. More recently, Stier et al. (2018) and Rusche (2022) documented comparable close connections and world views developing across networks of candidates and their attached online followers in German elections (see also Barbera et al., 2019).

Very similar patterns have been recorded in relation to journalists and news production. Multiple studies have noted how reporters have adopted social media, particularly Twitter/X, for professional purposes in numbers far higher than the general populace (Garcia-Perdomo, 2018; van Nordheim et al., 2018; Domingo, 2020; McGregor and Moyneux, 2020). As McGregor (2019) observed: "many journalists noted that they mostly followed other journalists and political players in Washington DC" (1080). This adoption has often led to a variety of exclusive interlinkages, as journalists look to their trusted network of peers, as a source for new stories, news agendas, to gauge public opinion, to promote their own pieces and for personal validation. In so doing, as Usher and Ng (2020) have documented, US political journalists have created their own insular 'microbubble' networks and accompanying 'epistemic communities'.

It is thus no surprise that scholars doing focused research on echo chambers then find that it is such groups that go closest to fulfilling the hypothesis first proposed by Sunstein (2001) and others (see Bruns, 2019; Cardenal et al., 2019; Fletcher et al., 2020; Vaccari and Valerani, 2021; Arguedas et al., 2022). A few studies dwell more specifically on this very phenomenon, offering extensive documentation of political elite partisan networks generating both ideological and affective forms of polarization. These have been observed across Europe, the US and South America (Rogowski and Sutherland, 2016; Barbera et al., 2019; Iyengar et al., 2019; Heiss and Matthes, 2020; Freiling et al., 2021; Hasell, 2021; Moraes and Bejar 2022; Rusche, 2022; Zhang et al., 2023). In effect, online networks have replaced the role of social, educational and interlocking board networks (Mills, 1956), when it comes to generating coherence around shared ideas and world views amongst power elites. As Rusche (2022) concludes, in his study of German MP twitter accounts: "politicians are reactive to their followers, and if these tend to be very partisan, they may propagate and support more extreme views and policies" (21).

Such trends have also been recorded in studies of online scientific communities (Williams et al., 2015; Green et al., 2020; Hart et al., 2020; Merkley et al., 2020). Here groups with 'activist' and 'sceptic' views on climate change and vaccines cohere around particular positions where more vocal figures with strong opinions dominate exchanges. Hence, Williams et al. conclude (2015): "We found a high degree of polarization in attitudes, consistent with self-selection bias; those users who were most active in online discussions of climate change tended to have strong attitudes" (135).

In sum, powerful and influential elite groups in politics, journalism, academia and science are frequently observed engaging in self-selecting echo chamber-like online environments. These spaces remain fairly exclusive and generate strong partisan opinions, even amongst those who also venture into more mixed or opposing networks. Political views are then likely to be reinforced with a greater degree of frequency and intensity than would have been possible when such elites had a more limited choice of centrist, legacy media outlets. That such powerful elites are developing more entrenched, polarized views is indicated in several of the above studies.

This is very significant because such figures have a very large influence on the agendas and framing of wider public discourse in media, both off and online. As Hall et al. (1978) and Bennett (1990) argued, in similar ways, it is political elites who act as the 'primary definers' of legacy news content, thus enabling them to set political and news agendas and story frames, as well as 'priming' particular issues. As studies of news sources repeatedly find, across multiple periods, countries and news topics, it is such elite sources which also dominate stories. They are the most reported on, the most likely to be quoted and their institutional offices are the biggest suppliers of 'information subsidies' to news media outlets (Davis, 2002; Darras, 2005; Stromback and Nord, 2006; Reich, 2006; Lewis et al., 2008; Tiffen et al., 2014).

Although digital journalism and politics are becoming rather more diverse, with many new challengers, similar patterns are reproduced online (Anstead and Chadwick, 2017). The large majority of news and political information outputs in alternative sites rely on legacy news core content material even if offering alternative interpretations (Hindman, 2018). In all recent Reuters Digital News Reports (e.g., 2021, 2022), large legacy online news outlets and their lead journalists are the ones people most follow and (usually) most trust, in the UK, US and many other countries surveyed (e.g., Brazil, Finland, France, Germany). Such outlets and reporters also have very large social media followings. Similarly, many top political figures also have huge social media follower numbers to go with their legacy media profiles (Bode and Dalrymple, 2016; van Aelst et al., 2017), as do many mid-ranking political figures and journalists. Each of them as well as highly active small groups of partisan influencers, with more modest followings, can have a large amplifying effect (Rusche, 2022; Zhang et al., 2023).

There is also evidence that both strong partisan supporters and lighter, more casual news and politics watchers are influenced by political cues from such primary-definer politicians. Brulle et al. (2012) demonstrate that US public opinion on global warming has been increasingly influenced by the lines taken by prominent Democrat and Republican politicians. As the two sides have publicly moved further apart on the issue, so partisan views have followed to become more polarized (see also Merkley and Stecula, 2018). Druckman et al. (2013) found that in politically polarized environments, all partisans followed party lines and increased confidence in their opinions. McCarthy (2023) came to a very similar conclusion: "the combination of information about partisan interest and elite cues does have a significant effect" (189; see also Moraes and Bejar, 2022).

Thus, Pew found that 27% of Republicans relied heavily on Donald Trump for their news, with almost two thirds of these supporters believing that the election was 'stolen' from him (Pew, 2021).

Freiling et al. (2021) found something similar in relation to Republicans trusting Trump's pronouncements on Covid over others. Gramancho et al. (2021) observed the same pattern in Brazil with Bolsonaro supporters using the then President's statements on the Coronavirus for guidance. Moraes and Bejar (2022), surveying a range of studies, similarly conclude: "parties, as opposed to public opinion, are responsible for driving ideological polarization…the positions taken by party elites influence voters' preferences and ultimately behaviour" (2).

Established media and parties are driven to greater partisanship by the political economy of social media platforms

Several of the anti-echo chamber accounts cited above assume a base starting point that locates mainstream legacy media and traditional political parties in a large centre-ground space. Because so many individuals return to these, they reason citizens have to be consuming a diverse and balanced mix of inputs. By such thinking, radical, polarized parties and partisan news sites are presumed to be evenly distributed on the political peripheries of this mainstream. With such an initial picture of the political and media landscape, the anti-echo chamber consensus is built on a number of assumptions: extreme, polarized politics is still relatively limited and something evenly distributed across both left and right; legacy media still adheres to some Anglo-American professional model of balance and objectivity in its reporting; supporters of traditional parties have centrist political dispositions; and consumers of mainstream legacy media outlets gain a balanced news diet.

The problem is that this picture of the political and media landscape of many once stable democracies is now open to question. The high point of centre-ground politics and professional, balanced news media was likely to have been in the 1990s and 2000s. The period from the mid-2000s until now, coinciding with the widespread adoption of social media, has offered a different direction of travel (see Brunkert et al., 2019; IDEA, 2021; EIU, 2022; Freedom House, 2022).

And herein I offer a second line of argument. The political economy of platform capitalism and social media has contributed to the trend whereby much mainstream politics and legacy media are shifting away from the centre. This shift is most often to the hard libertarian and market fundamentalist right of the political spectrum, which aligns more with the interests of corporate, political and finance capital elites. Multiple studies, where they do observe polarization taking place, find that is far stronger amongst conservatives than those on the liberal-left (e.g., Barbera et al., 2015; Broockman et al., 2021; Hershey 2021; Rooduijn et al., 2023). In turn, this tendency has pushed politically interested citizens towards taking up more polarized positions, often resulting in their engagement with far-right organisations and ideas at the expense of centre or radical left ones. Apart from the arguments detailed in the previous section, this is because the intense market-driven changes facilitated by platforms and social media have also edged such institutions towards more extreme, mainly right-wing positions. Thus, once again, digital communication and social media echo chambers contribute to wider right-wing skewed political polarization, but in a more indirect way.

Starting with party politics, all recent evidence suggests that many nations have witnessed a decline of the kinds of centre-left and centre-right parties that had dominated their polities and legacy media coverage for half a century or more (Brunkert et al., 2019; EIU, 2022; IDEA, 2021; Freedom House, 2022). Depending on the democracy audit chosen, the tipping points happened somewhere between 2005 and 2015. Instead, they have come to be challenged by parties (primarily from the radical right) taking more extreme positions and prioritising social over legacy media formats (Abou-Chaidi and Krause, 2018; Norris and Inglehart, 2019; Benedetto et al., 2020; de Vries and Hobolt,

2020; Rooduijn et al., 2023). By 2016, the year of Brexit and Trump's electoral victory, far-right populist parties formed parts of ruling coalitions in 11 Western democracies (Inglehart and Norris, 2016). In 2023, a third of Europeans voted for radical populist parties (two thirds of which were far right), now twice the level recorded in the mid-2000s (Rooduijn et al., 2023). They are now part of ruling coalitions in countries as diverse as Sweden, Italy and Israel. France's Front National, Austria's FPO and Germany's far-right AfD are now sizeable opposition parties in those countries. Thus, such parties, which make extensive use of exclusive, echo chamber-like social media networks, are no longer peripheral, but are now very much part of the political mainstream.

Where established parties have retained a strong presence, particularly in majoritarian two-party systems, the evidence is that many of those parties themselves have moved away from the centre, most often towards the right to avoid losing traditional voter support (Inglehart and Norris, 2016; Abou-Chadi and Krause, 2020; de Vries and Hobolt, 2020; Brookman et al., 2021; Hershey, 2021). Abou-Chaidi and Krause's (2018) study of 23 EU countries found that the rise of radical right parties had pushed centre-right ones further to the right. Observers of US electoral party politics (Broockman et al., 2021; Hershey 2021) have also documented the growing strength of the more radical wings within the Republicans and Democrats, with the trend especially pronounced across the Republican Party. Broockman et al.'s survey of 1,118 US county and national level party leaders found that Republican national leaders were five times more likely than other leaders to choose an extreme candidate over a centrist one. Local Republican leaders were ten times more likely to do so. To all intents and purposes, the radical right-wing of the Republican Party is now in control. Something similar has been quite evident for some time within the Conservative Party in Britain (Rooduijn et al., 2023). Thus, both Republicans and Conservatives have now adopted quite extreme positions—on the economy, immigration, the environment and equality issues—that they wouldn't have contemplated a decade ago.

News media outlets, too, have been variously reconfigured by the introduction of digital platforms and social media. As with parties, they have enabled more partisan, mainly right-wing news and political information sites to flourish, while also destabilising and reshaping legacy media operations in multiple ways. This includes pushing them to produce more partisan and emotional content. The era of professional, balanced, objective journalism, like that of centre-ground politics, is now under threat.

For decades, mainstream legacy news media had been suffering a slow decline in profitability. But, from the turn of the century, that turned into a dramatic freefall in most Western nations, particularly for the once dominant print sector (Anderson et al., 2015; Deuze and Witschge, 2018; Hanitzsch et al., 2019; Wahl-Jorgenson and Hanitzsch, 2020; Reuters, 2022). Most obviously, the digital revolution has devastated the business model that supported legacy news production. Thus, US newsprint journalism, the largest employment sector for reporters, has lost roughly 80% of its advertising income and some 60% of its staff since 2006 (Pew, 2022). Less visible but no less significant, has been the ending of legacy news media's dominant gatekeeper role. Thus, news dissemination, discovery and consumption has increasingly shifted towards a range of alternatives: online browser feeds, search engines, social media, digital native news operations, click bait sites, partisan propagandists and others. A 36-nation Reuters survey (2017) revealed that 54% of people prefer to get news via social media algorithms, compared to 44% who actively seek out established online news sites. As such, legacy news media may still be the dominant creators of news content, but they are no longer predominant when it comes to framing news stories, validating political actors or enforcing professional, objective and balanced practices.

None of the alternative news sources, legitimate or otherwise, adhere to the standards that legacy operations once did, and have significantly higher levels of partisan content (Waisbord, 2018; Domingo, 2020; Wahl-Jorgensen and Hanitzsch, 2020). Poorly resourced digital native news operations have a far greater reliance on outside 'information subsidies', primarily from well-funded corporate sources. Multiple other political actors offer pseudo news outputs that are simply partisan opinions, misinformation or outright political propaganda, again more frequently generated from far-right sources (Benkler et al., 2018; Bennett and Livingstone, 2020; Freelon and Wells, 2020). Thus, a growing proportion of 'news' and political information that is disseminated and consumed by citizens, now emanates from partisan sources and a majority of these represent far right libertarian and extreme neoliberal, pro-market business and wealthy interests (see also Pickard, 2019).

Just as the rise of more politically radical parties has pushed established ones away from the centre, so a similar process is taking place with legacy media. Traditional news operations now attempt to compete with alternatives by reducing costs and trying to retain lost consumers by producing similar forms of partisan and emotional content. Like the alternatives, they are more reliant on 'information subsidies' derived from a mix of public relations material and native advertising, both of which mainly come from the corporate sector (Benkler et al., 2018; Elvestad and Phillips, 2018; Freelon and Wells, 2020).

Like the alternatives, they are also increasingly influenced by the online world. In the second Worlds of Journalism survey (2012-16), the strongest and most widespread transformational influence on reporting recorded was that of social media (see Hanitzsch et al., 2019). Stories are increasingly selected to capture online traffic in response to online audience metric data in an effort to maintain audiences in the 'attention economy' of hybrid media (Braun, 2015; Graves, 2016; Elvestad and Phillips, 2018). This includes using extreme and misleading headlines and imagery and running stories full of emotional and partisan subject matter, because such content gains more traffic and is spread more across social media (Wahl-Jorgensen, 2019; Maier and Nai, 2020; Freiling et al., 2021; Hasell, 2021). So too, liberal legacy news reporters feel a need to report the extreme views of radical-right populist leaders or be bypassed by digital media rivals (Carlson et al., 2021; Panievsky, 2021).

Accordingly, many centrist legacy news media operations, which perhaps were never entirely balanced and objective, have become more overtly partisan in nature. Thus, in the UK, Loughborough University's (2016) news content analysis of the EU referendum in 2016 found that 82% of coverage expressing a view, supported leaving. In the 2020 US election, 95% of CBS's broadcast coverage of Trump was negative while 89% of Biden's was positive. Ninety-four percent of Fox News's coverage of Biden's policies was negative (Paterson, 2020). Unsurprisingly, Republican and Democrat voters now view many respected legacy news outlets as being partisan to a higher degree than previously. Sixty-five percent of Republicans trust Fox News while 67% distrust CNN; 67% of Democrats trust CNN while 77% of them distrust Fox (Pew, 2020).

I would stress that platform communication and social media facilitate rather than drive polarization and the rise of predominantly right-wing parties and partisan news outlets. This enables the formation of partisan echo chambers within party political and media elite networks, while destabilising the rigid hierarchical and information gatekeeping structures of centrist parties and legacy media themselves. Social media and alternative news sites have enabled such activity to flourish. Once peripheral and derided far-right figures like Donald Trump, Jair Bolsonaro and Geert Wilders were catapulted to prominence, social and alternative media helped them to directly address party partisan supporters and others (without engaging in the kinds of member interactions and exchanges

associated with more liberal and left entities). Thus, we have the rapid emergence of powerful, anti-democratic party factions, the success of radical libertarian and market fundamentalist parties and the rise of more far-right alternative 'news' media outlets.

Conclusions

In some ways, the shifting debate over the links between digital media and polarization, resembles various waves of earlier effects research. An initial public assumption of strong direct media effects was not borne out in numerous one-dimensional empirical studies. Decades later, effects research was rejuvenated by looking for, and finding, a series of more nuanced and indirect effects facilitated by media. Similarly, robust empirical studies have disproven assumptions about digital media directly creating strong filter bubbles and echo chambers which directly drive polarization across the wider public. However, as suggested here, perhaps we need to reconsider the nuances and counter-findings of the wider literature, and to reconsider earlier assumptions.

The central hypothesis suggested here from a wider survey of research across media, sociology and politics, is that digital communication platforms, search engines and social media do have a link with growing polarization in societies, just not a direct one. Algorithms and social media are not shepherding large online publics directly into filter bubbles or echo chambers. Instead, the means of influence follow alternative routes, and the facilitating mechanisms operate more indirectly.

The mechanisms and outcomes noted here align more with critical political economy perspectives and research agendas. This is so because social media influence, like that of legacy media, is not simply neutral nor do these media provide an impartial reflection of the world, felt evenly across the political left-right spectrum. It is argued here first that social media assists elite-centred ideas and world views. These views cohere strongly because online media enable politicians and partisans, journalists, scientists and other elite groups to spend a large amount of their time in online echo chambers. Although not 'hermetically sealed' spaces, regular engagements with these environments mean that certain polarized positions are reinforced across those elite online networks. Such elites then have a significant top-down influence over wider public discourse and the positions taken by political institutions and media organisations.

Second, as digital developments have shattered the ability of legacy media and established, centrist parties to gatekeep, more polarized, predominantly radical-right groups and parties and news sites have grown substantially. In turn, more mainstream, centrist parties and media have become more partisan to remain competitive. Thus, publics have been guided to more polarized, partisan positions when following key figures, news sites and institutions that have themselves become supportive of libertarian and market fundamentalist ideas that privilege corporate and wealthy class interests.

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