Imagining the (Distant) Future of Work

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Abstract:	Across two datasets—a corpus of 485 print media articles and a multi-actor survey of Tech/Innovation experts, Authors/Journalists, Economy/Labor Market experts, Policy Makers/Public Administrators, and Engaged Citizens (N=570)—we build the case that the future of work is a fiction, not a fact; or better yet, a series of competing fictions prescribing what the future will or should look like. Using an abductive and curiosity-driven mixed-method analysis process we demonstrate that different narratives about the future of work stand in direct relation to specific actors in the public debate, both through framing tactics used by narrators in the media, and through political and dispositional processes of narrative subscription. From these findings, we infer that research on the future of work is in need of a paradigm shift: from 'predictions' to 'imaginaries'. This, we argue, will help counter deterministic and depoliticized understandings of the future of work. We propose an integration of theory around framing contests, field frames, narrative subscription, and corresponsive mechanisms to offer a plausible account of our empirical discoveries and develop an agenda for further research. As the practical implications of our research show, the future of work does not need to be something that happens 'to us'—instead, the future can be what we 'make it'.

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IMAGINING THE (DISTANT) FUTURE OF WORK

ABSTRACT

Across two datasets—a corpus of 485 print media articles and a multi-actor survey of Tech/Innovation experts, Authors/Journalists, Economy/Labor Market experts, Policy Makers/Public Administrators, and Engaged Citizens (*N*=570)—we build the case that the future of work is a fiction, not a fact; or better yet, a series of competing fictions prescribing what the future will or should look like. Using an abductive and curiosity-driven mixed-method analysis process we demonstrate that different narratives about the future of work stand in direct relation to specific actors in the public debate, both through framing tactics used by narrators in the media, and through political and dispositional processes of narrative subscription. From these findings, we infer that research on the future of work is in need of a paradigm shift: from 'predictions' to 'imaginaries'. This, we argue, will help counter deterministic and depoliticized understandings of the future of work. We propose an integration of theory around framing contests, field frames, narrative subscription, and corresponsive mechanisms to offer a plausible account of our empirical discoveries and develop an agenda for further research. As the practical implications of our research show, the future of work does not need to be something that happens 'to us'—instead, the future can be what we 'make it'.

Keywords. Future of work, Narratives, Counternarratives, Imaginaries, Framing contests, Corresponsive mechanisms, AI, Artificial intelligence, Automation, Robots, Technology

INTRODUCTION

The research reported in this paper started out as a series of anecdotal observations that culminated into curiosity-driven data collection. Around 2018, we started to read a lot of books on the Fourth Industrial Revolution and disruptive innovation (e.g., Bregman, 2017; Harari, 2017; Hinssen, 2017; Janssens, 2018; Kurzweil, 2005), which spurred three (existential) questions about the research we had been doing: First, if this is all true, will our field not very soon become very outdated in terms of how we understand and study the world of work? Second, how can we as social scientists (and not AI or robotics specialists) understand and contribute something of value to this topic area? And third, how can we as researchers empirically study the future (rather than being 'futurism gurus' who only write think-pieces); what data would we use for that? In this period, we started having conversations with people from different walks of life about the books and news articles we had been reading about the

future. Something struck us: people reacted very differently (even emotionally) to different scenarios of the future of work depending on what type of person they were. Our rational, economist Dean was quick to dismiss stories about disruptive innovation as 'science fiction'; our sweet, people-loving colleague expressed a fear that we would lose our humanity through novel technologies; our working-class Dad wished he could build a time machine and transport himself back to the society he knew when he was younger; and our misanthropic, environmentalist friend told us the world could blow up for all she cared, as humanity is asking for it.

Within our own author team, we also held different perspectives on the future of work, which we could trace back to our different educational backgrounds—psychology, history, and business economics. A crucial insight that arose from our team conversations was that historically, work has always been a highly politicized phenomenon, especially at points in history when radical transformations were taking place, such as during the Industrial Revolution (Lucassen, 2021). Contemporary debates around the future of work, however, strike us as both technologically deterministic and depoliticized. Deterministic in the sense that there seems to be a belief that it is the technological capabilities and innovations themselves that determine the nature of social, economic, and political institutions shaping work; depoliticized in that the human-societal root causes and processes of change are largely invisibilized in the public debate (Kelly, 2022). Where conflict and struggle *are* acknowledged, the framing seems to be one of mankind standing united against an externalized and socially disembodied enemy (Kenis & Mathijs, 2014), like hyperintelligent AI or robots coming to steal our jobs (Fleming, 2019). It is clear, however, that technology does not invent or implement itself, nor does it fire people—people do (Dinerstein & Pitts, 2021; Howcroft & Taylor, 2022).

Interestingly, under the guise of expertise and backed by 'objective' arguments, numbers, and figures, current debates seem to be going in circles as competing schools of experts are all adamant that their predictions about the future of work are more right (Cave & Dihal, 2019). Not only are these competing predictions confusing to the public—and thus likely to hurt issue engagement (Miller, Krosnick, & Fabrigar, 2017)—this 'prediction paradigm' also renders invisible the fact that the future is construed over time, as we go along, within a social and political space (Gümüsay & Reinecke, 2022). An additional challenge is posed by what Harari (2015) calls second-order chaos, referring to the crucial difference between future events of which the outcome is not influenced by predictions—like the weather—and future events that are influenced by the predictions *themselves*—like elections, or the stock market. This implies that to predict the future is to (attempt to) influence its outcomes, casting an entirely different, political light on the discursive struggles around the future of work taking place between different groups of actors in the public debate (Urry, 2016). Such politicized explanations for why very different predictions about the future of work exist in the public domain have to date been largely absent from the literature (Kelly, 2022).

In the present paper, we thus set out to examine the following research question: How and why are competing narratives of the future of work construed, and subscribed to, by different actors in the public debate? Following an abductive and interpretive process, we uncover seven different narratives about the future of work in the public debate: Dataism, Exterminism, Re/Upskilling, Augmentation, the Singularity, Job Destruction, and Work Deintensification. Using two distinct sets of data—a selected corpus of print media articles and a multi-actor survey—we show that each of these narratives stands in direct relation to specific actors in the public debate, both through framing tactics used by narrators in the print media data (Kaplan,

2008), and through political and dispositional processes of narrative subscription (i.e., the belief of actors in narratives; Miller, 2019) in the survey data.

THEORETICAL BACKGROUND

What will the future of work look like? All throughout history, people have been imagining, and telling stories about the future—driven, it seems, in equal parts by hope and fear (Schoemaker, 2020). The word 'robot', for instance, was used for the very first time in 1920, in Karl Čapek's play Rossum's Universal Robots. In it, robots end up revolting against their human overlords, killing them, as they gain intelligence and become aware of their status as cheap labor (Czarniawska & Joerges, 2019). Before that, in the late 19th century, Karl Marx already warned his readers about the rise of technology in the workplace, which he saw as a tool of capitalism that would reduce the worker to an extension or component of the machine. Other great thinkers were more optimistic. John Maynard Keynes, for instance, predicted in the 1930s that by century's end, countries like the UK and the US would introduce a 15-hour work week thanks to advances in technology (which, clearly, did not happen; cf. Graeber, 2013). Currently, the Fourth Industrial Revolution—characterized by a fusion of technologies blurring the lines between the physical, the digital, and the biological—is said to bring about changes in the world of work so disruptive in scope and so exponential in pace, that they have no historical precedent (Schwab, 2018).

That said, not everyone agrees on the nature and implications of the changes on the horizon. Generally speaking, three groups can be identified: optimists, pessimists, and sceptics (Kelly, 2022; Muzio, Doh, Sarala, & Prescott, 2020). While optimists tend to focus on the potential of new technologies to augment human labor (Raisch & Krakowski, 2020), pessimists focus on the threat of automation and the massive job loss that would come with it (Frey & Osborne, 2013). Sceptics, finally, believe that claims about the velocity and scope of projected

transformations in the world of work are vastly exaggerated, and that the future will look more or less like the present, with a few tweaks here and there (Schlogl, Weiss, & Prainsack, 2021).

So who is right: the optimists, the pessimists, or the sceptics? We argue that this is actually the wrong question to ask. According to a new generation of economists, what these different groups in the public debate are doing is not so much making objective predictions about what the future *will* look like, but rather, pushing their preferred narratives—or in the case of the pessimists, cautionary tales—about what they think the future *should* look like (Beckert & Bronk, 2019). Conceptually, the 'future of work' can thus be understood as a set of competing narratives, representing different views held by different actors (Cave & Dihal, 2019; Roux-Rosier, Azambuja, & Islam, 2018). Narratives typically take the form of compelling stories, that help people make sense of complexity by creating some sort of order in the ambiguous information available around a specific issue (Buchanan & Dawson, 2007). Beckert and Bronk (2019), in their essay advocating for a narrative turn in economics, write that competing narratives of the future should be understood as instruments of political or market power, since they— when internalized by sufficient numbers—influence outcomes.

We propose that news media analysis, although not a traditional method in management research, is particularly well-suited for studying current-day public debates around the future of work (Patton & Johns, 2007). Theoretically, media texts can be understood as sensegiving devices, which are defined as "discursive devices that influence the sensemaking and meaning construction of others, by providing important cues for sensemaking and a focal point for interaction about these cues" (Maitlis & Christianson, 2014, p. 67). Research has consistently demonstrated the central role of the mass media in shaping the knowledge, beliefs, values, and social identities of the public (Fairclough, 1995). We might also add that, methodologically, the

analysis of publicly available discourses and narratives is one of the only conceivable methods for studying the future empirically—as the future has not happened yet, we cannot rely on the data sources we would typically use to study phenomena relevant to the management field (Augustine, Soderstrom, Milner, & Weber, 2019; Gümüsay & Reinecke, 2022).

Although the future of work is by all indicators a 'booming' topic, to date, empirical research—especially research based on primary data—has been quite rare. The reason for this, we believe, is obvious; it is hard to imagine how to collect empirical data on the future, as it is not yet observable in reality today (Augustine et al., 2019). As a result, most existing studies on the future of work can be classified as belonging to one of two types: a first type of study, that looks at the implementation and usage of novel technologies in the present-day workplace; and a second type of study, that attempts to predict the future of work based on macroeconomic labor market indicators.

We argue that although both types of studies are certainly helpful in charting the future of work both as a concept and a research area, they offer an incomplete understanding. One might actually argue that the first type of study—that looks, for instance, at telework, e-HRM, new organizational forms, gig work, and job redesign (see the review by Santana & Cobo, 2020)—is not about 'the future' at all, but about innovations in the present workplace. It is often unclear whether these sorts of studies are labelled as 'future of work' because of the hot-topic nature of the subject, or whether the intention of these studies is to describe patterns of technology usage that are currently new, but expected to become commonplace in the future.

The prototypical example of the second type of study—and the one that has certainly received most attention both in academia and in the media—is Frey and Osborne's (2013) simulation study of the percentage of jobs threatened by automation in a range of occupations. In

contrast to the first type of study, these studies are clearly focused on the future (Frey & Osborne's timeframe was 10 to 20 years). They have also been instrumental in opening up the scholarly and public debate about the future of work, and increasing issue engagement (Miller et al., 2017). However, although Frey and Osborne (2013) acknowledge and describe historical acts and processes of human resistance against automation (e.g., the 'Luddite' riots during the British Industrial Revolution in the early 19th century) in their literature review, their empirical analysis of the future of work is mostly driven by projections of what will be technologically possible in the future—and thus deterministic (Kelly, 2022). We argue that what is missing in their analysis is the political nature of the act of predicting the future, and the values and ideologies underlying the discursive struggles taking place in the public domain (Jones, Shanahan, & McBeth, 2014).

We argue that such discursive struggles are best studied through media analysis, as the popular press mirrors and shapes public opinion. First of all, the news media 'mirrors' the social norms and values that exist around a given topic at a given point in history. It thus represents a central forum for public debate about ideological issues, giving "voice to multiple and often conflicting legitimacy judgments of various prominent social actors" (Luyckx & Janssens, 2020, p. 116). Second, it has the power to 'shape' public opinion and organizational practice, by staging particular actors as narrators (e.g., tech billionaires; politicians; best-selling authors), and selecting and editing their judgments and messages (Luyckx & Janssens, 2020). Patton and Johns (2007) make the argument that business leaders read major newspapers, trade press periodicals, and bestsellers much more regularly than they do academic journals. Consequently, organizational policies are often influenced by what members of management have recently read in the popular press.

Narratives about the future of work found in the media are thus not just 'stories' or 'theories' of the future (Cave & Dihal, 2019). The more prominent a given narrative is in the public debate, the more likely it will be to affect society (Levy & Spicer, 2013). Narratives about the future—often in the form of predictions— can thus be argued as already being in the process of 'becoming real' through their pre-representations in the public domain (Beckert & Bronk, 2019). Consequently, say critical management scholars, the future cannot so much be accurately predicted, than that these predictions are 'willed into being' through the dominant narratives of powerful actors (Levy & Spicer, 2013; Roux-Rosier et al., 2018). Thus, rather than one prediction being objectively more 'right' than another, what the future of work will look like, according to this view, will depend on which narratives gain dominance over time, and the collective actions taken based on those dominant narratives (Beckert & Bronk, 2019).

METHODS

Both the data collection and the data analysis for this project were distinctly mixed-method, abductive, and curiosity-driven. In a first, qualitative study we performed a content analysis of all print media articles that appeared in the Belgian press related to the topic of the future of work between 2015 and 2021 ($K = 485$) (more details on the print media analysis are reported in the Appendix, see Step 1 and Table A1). Referring back to our research question, in analyzing our qualitative data we focused specifically on how competing narratives of the future of work are *construed by* different actors in the public debate. Our content analysis uncovered seven different narratives about the future of work (see Tables 1 and 2), and identified five major actors in the public debate around the future of work—i.e., Tech/Innovation experts, Authors/Journalists, Economy/Labor Market experts, Policy Makers/Public Administrators, and Engaged Citizens (see Table A2 in the Appendix).

In a second, quantitative study we developed a survey around these future of work narratives, which was administered to respondents from these five major actor groups ($N = 570$), using a targeted sampling strategy (more details on the survey and the sample are reported in the Appendix, see Step 2 and Tables A3, A4, and A5). Referring back to our research question, in analyzing our quantitative data we focused specifically on how competing narratives of the future of work that exist in the public debate are *subscribed to* by different actors (i.e., believed in; Miller, 2019).

By identifying data patterns across both datasets using a convergent parallel mixed-method design (Creswell & Pablo-Clark, 2011), while simultaneously looking for explanations in the literature, we were ultimately able to formulate a tentative answer to our guiding research question as to not only *how*, but also *why*, competing narratives of the future of work are construed and subscribed to by different actors in the public debate. Methodological details on our data collection and analysis process are reported in the Appendix, along with additional descriptive background analyses and context information.

FINDINGS

In what follows, we describe the findings that emerged from the mixed-method analysis of our two datasets. We organize our findings in three sections. First, we describe what narratives about the future of work were found in our print media analysis, how they were framed, and by whom—i.e., what groups of actors were typically featured as narrators. Second, we discuss how specific narratives about the future of work, in the public debate, were construed as counternarratives to each other, and the resultant tensions between different narrators. Third, we dig deeper into the topic of narrative subscription by developing a data-driven explanation for why the different actor groups in our data held different beliefs about the future of work.

In our Findings, we thus make the distinction between 'actors-as-narrators' (in the print media data) and 'actors-as-subscribers' (in the multi-actor survey data)—in both cases referring to the same five groups of actors that inductively emerged from our print media analysis (see Tables A2 and A3 in the Appendix) .

Future of Work Narratives and Narrators

Through content analysis of our print media data (Patton & Johns, 2007; see Appendix, Step 1), we identified seven main narratives about the future of work in the public debate, listed here in order of their descending prevalence in the data: Dataism, Exterminism, Re/Upskilling, Augmentation, the Singularity, Job Destruction, and Work Deintensification. Definitions—developed through iterative engagement with the data and the literature—along with examples of underlying phenomena for each narrative can be found in Table 1. Illustrative excerpts for each narrative are found in Table 2. It is important to note that almost all articles featured multiple narratives simultaneously. We revisit this point later in our analysis of narratives and counternarratives.

Insert Table 1 about here

Each article was coded for date, title, publication, future of work phenomenon or phenomena discussed in the article, projected timeframe (near future, distant future, or already happening in the present), framing of a phenomenon (positive, negative, or mixed), outlook (positive, negative, or mixed), and narrators featured (see Table 2; more details in the Appendix, Step 1).

Timeframe. Timeframe was coded as whether a given narrative was construed as near-future or distant-future (e.g., "in a few years" versus "a century from now"); when specific indications of years (e.g., "in 10 years") or dates (e.g., "by 2050") were given, we also coded

those. We found that an overall majority of articles (266/485) construed 'the future of work' as a distant-future (55% of articles) as opposed to a near-future phenomenon (210/485 articles, or 43%). Only a handful of articles discussed future of work narratives that were described as already taking place in the present (9/485, or 2%).

Table 2 offers a more detailed overview of projected timeframes at the level of the individual narratives. We see, indeed, that five of the seven narratives were predominantly construed as distant-future (i.e., Work Deintensification, the Singularity, Exterminism, Job Destruction, and Re/Upskilling). Only two narratives (i.e., Dataism and Augmentation) were predominantly construed as near-future. In articles that included mention of a specific year in which a given narrative was predicted to occur (k = 93, 19%), the distant future was projected as taking place on average 40.51 years (SD = 118.48) from 'now' (taking into account the publication date of the article), while the near future was positioned as 7.58 years removed (SD = 16.84). Across the whole corpus, the average article positioned the future of work 33.78 years into the future (SD = 106.64). All in all, these findings indicate that there was in fact no lack of attention to distant-future trends *in the media*, something we had initially expected based on the literature on temporal construal level (D'Argembeau & Van der Linden, 2004) and the media's typical reliance on 'here and now' frames (Schoemaker, 2020). This is an interesting observation as near-future bias does in fact seem to exist *in the academic* literature, which has been found to focus its future of work research mostly on trends in the present-day workplace (Santana & Cobo, 2020).

Framing and outlook. Framing was coded in the data in two ways: first, whether a narrative was construed as overall 'good' (i.e., societally desirable) versus 'bad' (i.e., societally undesirable), and second, whether a narrative was construed as having a positive versus a

negative outlook (i.e., the likelihood of a societally desirable versus undesirable outcome). Crossing (positive or negative) framing with (positive or negative) outlook, we found that Dataism and Exterminism—the two narratives with both a negative framing and a negative outlook, meaning that they are considered 'bad and likely'—were the two most prevalent narratives in our article set (see Table 2). Specifically, Dataism was typically construed as likely to occur in the near future, while Exterminism was construed as likely to occur in the distant future. The overall view across all narratives was more nuanced; the other two negatively framed narratives—i.e., the Singularity and Job Destruction—were construed as 'bad but unlikely', while of the three positively framed narratives, two were construed as having a positive outlook (i.e., 'good and likely')—i.e., Augmentation in the near future, and Re/Upskilling in the distant future—and only one (i.e., Work Deintensification) as 'good but unlikely'. Thus, although we found some indications of negativity bias in the media, this did not emerge as a clear pattern, since there was an overall higher prevalence of narratives with a positive outlook in our data (Patton & Johns, 2007).

Insert Table 2 about here

Narrators. Finally, we coded which actors were featured in the articles as narrators (Pentland, 1999). Narrators were typically represented in one of three ways: either they were talked *to*, for instance as interviewees; or their narratives were talked *about*, for instance when they had written a book; or they did the talk*ing*, for instance when they wrote an op-ed (Buchanan & Dawson, 2007). Five groups of actors emerged from the data inductively—i.e., Tech/Innovation experts, Authors/Journalists, Economy/Labor Market experts, Policy Makers/Public Administrators, and 'Other'. (In the 'Other' category, the most common actors were lawyers and regulators specialized in AI, trade union representatives, factory workers, and

social movement actors). In almost all cases, their profession or expertise was explicitly named in the article (e.g., "economist David Autor"; "computer scientist Pattie Maes"), but where it was not, we performed additional Google searches.

Overall, Tech/Innovation experts (in 185/485 articles, or 38%), Authors/Journalists (in 130/485 articles, or 27%), and Economy/Labor Market experts (in 98/485 articles, or 20%) were the main narrators in the majority of articles in our corpus, meaning that they were most often featured and thus, had the most opportunity to push their preferred narratives about the future of work in the public debate (Jones & Crow, 2017). In line with their respective expertise, Tech/Innovation experts dominated the debate around Dataism, Augmentation, and the Singularity; Authors/Journalists dominated the debate around Exterminism; and Economy/Labor Market experts dominated the debate around Re/Upskilling, Job Destruction, and Work Deintensification (see Table 2). Policy Makers/Public Administrators (in 41/485 articles, or 9%), and 'Others' (in 31/485 articles, or 6%) were featured much less often. More details on the narrators identified in our print media corpus can be found in the Appendix (Table A2).

Future of Work Narratives and Counternarratives

Throughout our content analysis of the different future of work narratives found in the print media, we observed that almost all articles contained multiple narratives simultaneously, and that specific narratives were often featured as running counter to each other (Bamberg & Wipff, 2020). Based on this observation, we decided to add another layer to our content analysis (Patton & Johns, 2007) and specifically look at how, in the print media data, specific narratives of the future of work that exist in the public debate are construed as counternarratives to other narratives, by the different actors.

The literature on counternarratives positions them as running counter to 'master' narratives, meaning that specific narratives at some point are chosen or enforced as being legitimate, official, or correct, which may or may not be contested and opposed by counternarratives (Czarniawska, 2016). However, in our print media data, *different* master narratives seemed to exist, pushed by different actors. What became clear in our analysis was that the different narrators explicitly positioned themselves against one another (calling out other actors as being wrong, sometimes by actor category, sometimes by name), and their preferred narratives against others, for instance by referring to studies that (in their view) debunked studies cited by ideological opponents (Bamberg & Wipff, 2020).

Interestingly, in the process of identifying the exact points of contention between the different narratives and narrators, we concluded that if we were to identify a central master narrative in the public debate around the future of work, it would have to be the Job Destruction narrative—although it was not among the most prevalent overall in the print media data (Table 2), nor strongly subscribed to in the survey data (Tables 3 and 4). That is, in analyzing the narratives and counternarratives of the different groups of actors, we experimented with different points at which their narratives 'branched off' and diverged from one another, and found that the best point of departure was whether or not a narrator believed in Job Destruction.

Contention around the Job Destruction narrative. In almost all cases where narrators discussed the Job Destruction narrative, the seminal study by Frey and Osborne (2013) was invoked either as simple fact or as point of contention, while typically also being reduced to a single headline, i.e. "47 percent of jobs are at high risk of automation in the next 10 to 20 years". Overall, Economy/Labor Market experts and Tech/Innovation experts did not believe in Job Destruction (positioning Re/Upskilling and Augmentation as counternarratives to Job

Destruction, respectively), while Authors/Journalists did (positioning Job Destruction as a harbinger of Exterminism).

Consider the following set of excerpts, in which the first represents a quote from an Economy/Labor Market expert (i.e., Fons Leroy, managing director of the public employment service of Flanders, VDAB), the second from a Tech/Innovation expert (i.e., Luc Steels, director of the Artificial Intelligence Lab at the university of Brussels), and the third from an Author/Journalist (i.e., Philipp Blom, historian, journalist, and author of the book 'The vertigo years'):

> **[Economy/Labor Market expert]** "Those—mostly American—studies you are referring to have since been debunked. They made a crucial mistake: they confused 'tasks' with 'jobs'. Yes, in every job there will be tasks that will be taken over by robots, but that doesn't mean the whole job will disappear. In the worst cases that will be true, of course—purely industrial line work can be completely taken over by machines—but for other jobs that will be only partly the case. … Employers are still thinking in boxes. They publish job ads saying 'we are looking for someone with a degree in x, y years of relevant experience and competencies a, b, and c'. … We are living in exciting but fast-changing times. Degrees are worthless in this new reality. What people need are what I call 21st-century skills. They need to be agile, resilient, autonomous, and be able to find their own way in an ever-evolving labor market."
>
> *('Robots will not replace us, they will make our work meaningful again', Humo, Oct 9th, 2018)*

> **[Tech/Innovation expert]** "The fear that AI will make jobs redundant is extremely overblown. … Most people, including CEOs and public administrators simply do not understand what AI is at all. … Jobs will either become better, easier, and more optimal thanks to AI, or they will evolve into new kinds of jobs. AI cannot replace human intelligence. Real intelligence requires creative thinking and looking beyond patterns. I can't see that happening anytime soon. In the best-case scenario, AI will be able to learn from human behavior how to best solve problems. But man will, for a long time to come, still be the main source of knowledge. The future lies in the collaboration between man and machine … Possibilities in traffic control, healthcare, education, public safety, and poverty reduction are endless. … We need a sort of ecosystem that allows researchers, companies, funders, and governments to come together to weave AI into our society as optimally as possible."
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> *('AI is not a major threat, but also not a magic wand', De Morgen, Apr. 16th, 2018)*

> **[Author/Journalist]** "This time it really is different. Those who can't see that, are enormously wrong. The West is a society on the verge of collapse. … The machines are coming, and they will win. Those who think they cannot be replaced by a machine are wrong, and that goes for all occupations. …What alternative is there to a basic income in a society with 40 or 50 percent unemployment? We have to question the growth model itself, because it has become toxic. … All of my pessimistic claims about climate change, the millions of refugees that will result from it, and the harmful effects of digitization and robotization are made based on the best research I know and many conversations with scientists from a variety of disciplines. … We are now at the point where we as a society can make mistakes that we can make only once."
>
> *('People ask me: Your book is interesting, but things aren't that bad, are they? But they áre that bad', Humo, Jul. 31st, 2018)*

Contention around the Work Deintensification narrative. Another major point of contention between the different actors in our print media data was the Work Deintensification

narrative. Although this was, in relative terms, the least prevalent narrative in our corpus, the debate around this narrative—especially the idea of a universal basic income (UBI)—tended to get the most heated. For instance, several Economy/Labor Market experts called UBI and the idea of degrowth 'nonsense', and actors who claimed they were viable alternatives to the current capitalist order 'naive'. Proponents of Work Deintensification were mostly found among Tech/Innovation experts—as introducing a UBI would, at least partially, solve society's moral concerns around automation and augmentation—as well as among Authors/Journalists, who saw the UBI as the only solution to mass-scale Job Destruction.

Consider the following two excerpts. The first one explicitly contrasts the (pro-UBI) position of prominent Silicon Valley Tech/Innovation experts with the (anti-UBI) position of Economy/Labor Market experts (the quote is by Marc De Vos, director of Belgian conservative think tank Itinerary), while the second represents a quote from an Author/Journalist (i.e., David Graeber, professor of anthropology and author of the best-selling book 'Bullshit jobs'):

> **[Economy/Labor Market expert]** "If robots start taking over our jobs *en masse*, we will have to find another way to provide an income to the growing army of unemployed. One way that is gaining traction: a universal basic income. Silicon Valley tech gurus like Tesla CEO Elon Musk and Facebook founder Mark Zuckerberg are a fan of the idea of 'free money for everyone'. A basic income, in their view, can prevent automation from pushing an ever-larger group of unemployed into poverty. A recent study by economic think tank Itinera, however, razes the 'free-money utopia' to the ground. 'A basic income means we collectively become poorer and wealth creation declines. Instead, we need to do all we can to activate people in the labor market, through education and targeted investments'. … 'It may sound nice as a purely philosophical exercise, but when tested against reality, it turns out the basic income doesn't work on any level. It may sound appealing to give everyone free money, but to quote former British Prime Minister Margaret Thatcher, eventually you run out of other people's money'."
>
> *('The basic income discounted: The math does not add up', De Tijd, Jun. 17th, 2017)*

> **[Author/Journalist]** "Almost all economists tell us: 'people *love* working, even if the work is pointless'. Because we are apparently rational beings that pursue maximal profit for minimal effort. … Economics, as a science, is ill-equipped to deal with climate change, pollution, or overproduction. We need to rethink the entire system. The old narrative is all about maximal growth and profit, but now it should be about how to keep things running without destroying our planet. … Keynes was right, we should have had a fifteen-hour work week by now. However, the jobs that were automated have been replaced by bullshit jobs. Most people *have* been doing only 15 hours of meaningful work a week for years. The rest of their time is spent on completely useless activities. … The fifteen-hour work week is not a fetish, you know. We can also continue to work forty hours a week and take four months off. … I am in favor of the basic income. Since the Second World War, we somehow have started to believe that workers with too much spare time will start drinking or get depressed. I think it is very condescending to assume that working people are unable to meaningfully spend their time on other activities."
>
> *('The private sector has even more bureaucracy than the civil service', Knack, Aug. 1st, 2018)*

Contention around the Exterminism narrative. In addition to the discursive struggles between actors in the public debate about Job Destruction and Work Deintensification, what was interesting is the way in which historical time was invoked by the different actors to make their point. Rather than using overtly emotional tactics in their construal of future of work narratives (and in their delegitimation of the counternarratives construed by other actors; Deetz, 2007), in almost all articles narrators claimed to rely on facts, and facts only, in making predictions about the future of work (i.e., scientific research, numbers and figures, and historical trends). Very often, history—especially the Industrial Revolution—was invoked as an empirical source of evidence from which future trends could be inferred. This was particularly noticeable in articles featuring the Exterminism narrative, with contention centering around the question as to whether the world is getting better (the narrative preferred by Tech/Innovation experts and Economy/Labor Market experts) or worse (the narrative preferred by Authors/Journalists).

Interestingly, however, the same historical trends were framed in a different way by narrators from different actor groups. Both Economy/Labor Market experts and Tech/Innovation experts had a positive reading of history—the former emphasizing the importance of economic growth (as part of their Re/Upskilling master narrative), the latter that of technological progress (as part of their Augmentation master narrative). Authors/Journalists, however, focused more on the negative side-effects of historical trends, and on the plight of low-skilled workers and people from poorer areas of the world—with their master narrative, Exterminism, positioned as the unavoidable outcome, if mankind continues along this path.

Consider the following set of excerpts, in which the first represents a quote from an Economy/Labor Market expert (i.e., Peter De Keyzer, chief economist of strategic communication agency Growth Inc.), the second from a Tech/Innovation expert (i.e., Françoise

Chombar, founder of Belgian microchip producer Melexis), and the third from an Author/Journalist (i.e., Ryan Avent, senior editor at The Economist and author of the book 'The wealth of humans'):

> [**Economy/Labor Market expert**] "Our capitalist system needs an overhaul. Only then can we build a sustainable society. That, in brief, is what the Post-Growth movement stands for. Today, the European Parliament is hosting a debate on 'the end of growth'. We asked our panel of leading economists for their views. … 'Absolutely not. Growth is a fairly recent phenomenon that only started with the Industrial Revolution. Up until about 1800 there was no economic growth, or any other growth for that matter. … Since the Industrial Revolution, per capita income has increased more than tenfold and global life expectancy has doubled. You have economic growth to thank for that. Who says no to growth, says no to our human nature to seek solutions to problems. … Imposing basic incomes ánd maximum incomes ánd redistributing the time people spend, looks an awful lot like the communist experiments from the Soviet days. That didn't exactly end well'."
>
> *('Putting an end to growth? Nonsense', De Morgen, Sep. 18th, 2018)*

> **[Tech/Innovation expert]** "I am sick and tired of this idea that the best is behind us, that it's all downhill from here. … Even though we are the most successful generation in history, our society is overcome by homesickness to a time that was objectively less prosperous and peaceful. … Our aspirations are what have brought us here; on the edge of an era in which energy can be cheap, abundant, and clean. In which illnesses like cancer and dementia can be conquered by developments in bio- and nanotechnology. In which we can feed 10 billion people, in which we can make the water in the oceans drinkable, in which education can be a basic right for the entire world population. … A few decades ago such a society would have been described as a utopia. Tomorrow it will become reality."
>
> *('We need to heal ourselves from defeatism', De Tijd, Jul. 26th, 2016)*

> **[Author/Journalist]** "In Britain's first century of industrialization, wages did not increase. For a long time, the new technologies did not benefit the workers. They lived in terrible conditions and died of diseases like cholera. The cry for revolution could ultimately only be silenced through the creation of new political systems, centered around social institutions, workers' parties, and voting rights. It was the only way to ensure that the profits from the increased productivity were distributed fairly. That was a long and painful process, which we will have to go through again soon."
>
> *('Even if we do everything right, there will still be a lot of losers', De Standaard, Jul. 22th, 2017)*

Contention around the role of Policy Makers/Public Administrators. The final point of contention uncovered in our content analysis of narratives and counternarratives was about the role of Policy Makers/Public Administrators in the future of work. Although not directly related to a single (counter)narrative, this was the major point of contention between Tech/Innovation experts and Economy/Labor Market experts, who were otherwise quite aligned. By and large, Tech/Innovation experts portrayed Policy Makers/Public Administrators (as part of the Augmentation narrative) as out of touch with new technologies, and as slowing down progress and innovation with their focus on centralized regulation. Economy/Labor Market experts and

Authors/Journalists, on the other hand, portrayed Policy Makers/Public Administrators as lacking long-term vision due to their myopic focus on election cycles, and urged them to regulate new technologies and labor market trends more strictly (as part of the Job Destruction narrative).

Consider the following two excerpts, in which the first represents a quote from a Tech/Innovation expert (i.e., Sebastian Thrun, founder of the Google X research lab), and the second from an Economy/Labor Market expert (i.e., Mariana Mazzucato, professor of Economics of Innovation & Public Value at University College London):

> **[Tech/Innovation expert]** "In Silicon Valley, a new elite is emerging that does not only want to control what we consume, but also how we should live. It wants to change the world, and will not accept any rules in doing so. Politicians are struggling with this evolution. … The headquarters of this new world government is not on Wall Street, but in Silicon Valley… They loathe politics, and consider regulation both an obstruction and an anachronism. If societal values like privacy get in the way of progress, they say, maybe we should create new values. 'Rules are made to cement existing structures. We try to work around them. The state, the government is ultimately just another system that can be reinvented. Everything is global, but all laws are local. That doesn't make sense anymore. At some point, you have to sit down and have a serious discussion about more efficient and democratic forms of government'. … Some time ago, he [Sebastian Thrun] was received as a guest by German president Joachim Gauck. After dinner, Gauck pulled him aside with the words: 'Mister Thrun, you scare me'."
>
> *('The new overlords: The era of globalization ánd digitalization', Knack, Apr. 22nd , 2015)*

> **[Economy/labor market]** "Yes, you can realize flashy innovations without the intervention of the state, but not meaningful innovations that address major social problems. We need the government. But don't get me wrong, I'm not saying the government should do everything. It is the task of the government to clearly map out the route and deploy all possible resources to achieve the goal. … We have two fundamental problems right now. The first is the lack of goals. That's what you get when politicians have no vision and are really only concerned with the next elections. The second problem is that politicians, even if they're interested in something like a Green New Deal, aren't mission-oriented in their thinking. Then there is no catalyst for innovations. The public-private partnership today is often parasitic. A lot of money flows to the private sector, but the profits are rarely returned. The question is: how do you socialize not only the risk, but also the benefit? On the risk side, you have to ensure that the innovations are effectively aimed at major societal challenges. As for the benefits, we need to make sure we manage innovation in such a way that it benefits people."
>
> *('Innovation economist knows how we can reform capitalism', De Morgen, Dec. 31st, 2021)*

Turning to the topic of narrative subscription (Miller, 2019)—which we analyzed using a mixed-method analysis of our survey data and our print media data—we found that the same patterns of narratives and counternarratives emerged in the correlation table (Table 3). Moreover, (non-)subscription of different actors to the different narratives was highly similar to the patterns found on the narrator side (Table 4), as we discuss in the final findings section below.

(Non-)Subscription of Actors to Future of Work Narratives

In this final section of the Findings we set out to achieve two goals. First, to examine the extent to which people from different groups of actors believe in (subscribe to) different future of work narratives. And second, to come up with explanations as to *why* differences in narrative subscription are found between actors. To be clear, while in the previous section we focused on actors-as-narrators—and the related sub-question of how competing narratives of the future of work are *construed by* different actors in the public debate—in this final section we will focus on actors-as-subscribers, and the related sub-question of how competing narratives of the future of work that exist in the public debate are *subscribed to* by different actors.

We first looked at the relationship between how narratives were framed in the media and how they were responded to in the survey data in the overall sample (see Appendix, Step 2)[1]. We found that the four most prevalent narratives in the print media were also most strongly subscribed to by the actors in our survey, although in the survey the 'good and likely' narratives (i.e., Re/Upskilling and Augmentation) ranked higher than the 'bad and likely' narratives (i.e., Exterminism and Dataism), while in the media data it was the other way around (see Tables 2 and 3). The three narratives that were construed in the print media as unlikely to happen (in terms of coded outlook) were also rated lowest in the survey. Interestingly, this applied both to the negatively framed narratives (i.e., Job Destruction and the Singularity), and to the positively framed narrative of Work Deintensification. We thus tentatively conclude that the framing of narratives by narrators in the public debate is logically related to narrative subscription by respondents from the same actor groups, although subscription skews a bit more optimistically.

Insert Table 3 about here

[1] From the 'Other' category that emerged from our print media analysis (and that contained a variety of actors including lawyers and regulators specialized in AI, trade union representatives, factory workers, and social movement actors), we decided to focus on what we called 'Engaged Citizens' as a final subsample for the survey study (more details in Appendix, Step 2).

Differences in narrative subscription between actor groups. To analyze differences in subscription of the different actors to the different future of work narratives, we started by running a series of ANOVAs to examine differences between the actor groups in terms of how they rated each narrative. Overall, the ranking of the narratives *within* each actor group corresponded to that of the total sample (Table 3)—that is, Re/Upskilling and Augmentation (the two 'good and likely' narratives) were rated highest by all groups, followed by Exterminism and Dataism (the 'bad and likely' narratives), and these four were also the most prevalent narratives featured in the print media data. Looking at the relative differences *between* actors in subscription to the narratives, however, some interesting patterns were found (Table 4).

In fact, actors only agreed on two narratives—i.e., Dataism (which was rated as likely to occur in the distant future) and the Singularity (which was rated as unlikely to ever occur). Not only did we find that some actors believed significantly more in certain narratives than other actors did; we also found that (non-)subscription to specific narratives correlated with specific individual differences, that systematically differed between actors. In other words, the different groups of actors could be characterized by specific individual difference profiles, that in turn were logically related to specific narratives.

Throughout the process of analyzing our quantitative survey data, we noticed that these individual difference profiles were also mirrored in the print media data. For example, narrators characterized themselves as optimists or pessimists or made statements indicative of a certain locus of control. In other words, the individual difference profiles identified on the subscriber side in the survey data were supported by self-referential statements made on the narrator side in the print media data. Consequently, alongside our quantitative findings presented below, we incorporated a selection of excerpts that demonstrate how individual differences between the

actor groups were reflected in the news articles. We also encourage readers to revisit the quotes from the different actors in the previous sections and in Table 2 in the main body of the article to verify the individual difference profiles identified below—as we see it, the pattern is quite consistent throughout.

We are, of course, not saying that all economists or all technologists are the same. Rather, what our analyses showed was that each group of actors had an archetypical profile—as we explain in the Discussion, likely caused by corresponsive mechanisms in their life course personality development (Woods, Edmonds, Hampson, & Lievens, 2020)—that explained why they believed in certain narratives, and not others. Since belonging to a specific group of actors seemed to be the dominant predictor of (non-)subscription to a given narrative—that could in turn be explained by individual differences—in this section we organize our findings per actor group[2].

Insert Table 4 about here

Individual difference profile of Tech/Innovation experts. The Tech/Innovation experts exhibited a particularly strong archetypical profile, that was also clearly linked to their preferred narratives. They scored highest of all actors in the sample on trait optimism ($F(4, 565)=3.96$, $p = .00$), technology readiness ($F(4, 565)=16.56$, $p = .00$), and openness to experience ($F(4, 565)=7.30$, $p = .00$), and lowest of all actors on resistance to change ($F(4, 565)=5.44$, $p = .00$) (Table 4). These individual differences were, in turn, significantly correlated (Table 3) with the

[2] Surprisingly, Policy Makers/Public Administrators were noticeably 'absent' in both datasets. In the print media articles, they fulfilled the narrative role of antagonist (Pentland, 1999) to practically every other actor. They were hardly ever interviewed or used as informants; rather, they were spoken about and against. As illustrated earlier in the section on counternarratives, Tech/Innovation experts portrayed them as a nuisance to technological progress while Economy/Labor Market experts and Authors/Journalists urged them to develop a much-needed vision of the future, beyond the current election cycle. In the survey data, as well, Policy Makers/Public Administrators had a much less pronounced profile than the other groups. The Engaged Citizens were also rarely featured. As this was the most heterogeneous group of actors in our data, perhaps this should come as no surprise.

two narratives that Tech/Innovation experts subscribed to significantly more than the other actors—i.e., Augmentation ($F(4, 565)=8.36$, $p = .00$) and Work Deintensification ($F(4, 565)=2.66$, $p = .03$) (Table 4). In the print media data, a typical talking point of Tech/Innovation experts was their mission to build a better world, driven by big dreams and visionary ideas. They often lamented that other actors (especially policy makers and politicians) lacked imagination and courage, and optimism was often explicitly mentioned as a personal trait. Consider the following two excerpts, both citing Pieter Abbeel (director of the Berkeley Robot Learning Lab):

> **[Tech/Innovation expert]** "Typical of Silicon Valley is a boundless belief in technology making the world a better place, almost as a moral duty. I am very optimistic about technology **[optimism]**. Ultimately, people still have to make decisions about how to use the technology in the right way. It shouldn't be possible for people with bad intentions to misuse the technology. … Artificial intelligence should be an extension of individual free will, in the spirit of freedom, and distributed as fairly and widely as possible. … That fear and concern lives mostly among people who are not closely involved with robots. … My ultimate dream is that we'll see, in our lifetimes, robots functioning among us and helping us **[technology readiness]**."
>
> *('Technology should make the world a better place', De Tijd, Dec. 15th, 2015)*

> "My motivation and passion are intrinsic, I want to understand how literally everything works. How do you build a bridge? How does an insect work? A computer? A car? Pure curiosity. All of that is super intriguing to me. And the culmination of that is: how does intelligence work **[openness to experience]**? … As for the apocalyptic tone: it's OK to be a little sceptic and concerned. But that shouldn't stop us for pursuing benign innovations. If people get too concerned, it may start limiting us **[low resistance to change]**. And there is so much good we can do. It would be sad if the doom and gloom of the Terminator led us to live with car accidents for years to come because we're afraid intelligent self-driving cars will take over the world."
>
> *('The man who makes robots think', De Tijd, May 6th, 2017)*

Individual difference profile of Authors/Journalists. The Authors/Journalists were the pessimists in our data. Their survey data showed a future-negative time orientation ($F(4, 565)=2.71$, $p = .03$) and a powerful other locus of control ($F(4, 565)=2.50$, $p = .04$), meaning that they believe important decisions in the world are taken by an elite behind closed doors. They also scored highest of all actors on misanthropy ($F(4, 565)=2.51$, $p = .04$) (Table 4). These individual differences were, in turn, significantly correlated (Table 3) with the dystopian narratives of Job Destruction ($F(4, 565)=4.22$, $p = .00$) and Exterminism ($F(4, 565)=2.98$, $p = .02$), which Authors/Journalists rated significantly higher than other actors (Table 4). In the print media data, Authors/Journalists juxtaposed their fear of system collapse with pleas for system

change, highlighting anti-capitalist ideas challenging the hegemony of the global elite. From their position in society, they saw it their mission to warn others (especially policy makers) about the huge challenges on the horizon, while bearing little hope of being able to spur them into action before it is too late. Consider the following excerpt, citing Yuval Noah Harari (historian and author of best-selling books such as 'Sapiens' and 'Homo Deus'):

> **[Author/Journalist]** "If you're already concerned about the state of the world, don't read Yuval Noah Harari's new book. In 'Lessons for the 21st century', the Israeli intellectual declares liberal ideology dead and buried. … according to Harari, three catastrophes hang over us: ecological destruction, technological disruption and the biological enhancement of the human race **[future-negative time orientation]**. On the condition, of course, that we can first stop global warming. But even if we succeed, the merging of computer science and biotechnology, according to Harari, will render most of us economically irrelevant and politically powerless as a biologically engineered superclass emerges, the 'homo deus' **[powerful others locus of control]**. … Harari continues to attack his familiar specters: nationalism, populism and religion. For example, he enthusiastically joins the debate around fake news. He does so from the perspective he already described in 'Sapiens', namely that society is held together by fictitious creations such as money, nation and religion. 'If a thousand people accept a made-up story as the truth for a month, we call it fake news. If millions of people believe it for a thousand years, we call it religion' **[misanthropy]**."
>
> *('Provocations of an intellectual rockstar', De Tijd, August 18th, 2018)*

Individual difference profile of Economy/Labor Market experts. The Economy/Labor Market experts displayed a distinct future-positive time orientation ($F(4, 565)=4.47$, $p = .00$) and the highest internal locus of control ($F(4, 565)=3.55$, $p = .01$) of all actors in the sample. They also had a significantly higher education level (i.e., a Master, MBA, or PhD degree) than the other groups ($F(4, 565)=27.64$, $p = .00$), and faced the lowest automation risk based on their job characteristics ($F(4, 565)=7.34$, $p = .00$) (Table 4). These individual differences were, in turn, significantly correlated (Table 3) with the Re/Upskilling narrative, which the Economy/Labor Market experts rated highest of all actors ($F(4, 565)=12.08$, $p = .00$) (Table 4). In the print media articles featuring Economy/Labor Market experts as narrators, they emphasized the age-old economic law that increases in productivity (for instance, as a result of partial automation) lead to economic growth and thus increases in employment. They were adamant that humans will always find ways to create new work. They also emphasized the important role of work in people's lives, citing studies that found a relationship between unemployment and clinical

depression. While they often held similar views to those of the Tech/Innovation experts—except about Work Deintensification—their views were more informed by economic ratio. For instance, they emphasized that full employment is important to keep social security and pensions affordable. Consider the following excerpt, citing Anna Salomons (professor of Economics at Utrecht University):

> **[Economy/Labor Market expert]** "This doom scenario, the 'robocalypse' in which intelligent machines make humans redundant, is facing more and more opposition from science. … Since the onset of the Industrial Revolution, the trend has been that as productivity increases, employment follows. New goods and services emerge, in turn creating new demand. There is no reason to assume that this trend will stall in the future **[future-positive time orientation]**. … Robots taking over all our work? Forget it. Then you underestimate the power of humans to adapt. People are creative. They adapt and they can learn. They will always come up with new work **[internal locus of control]**. … From an economic perspective, disruptive innovation caused by new technology is a good thing, in that rapid change creates more productivity growth and thus more wealth. It would be great if machine learning becomes the new breakthrough technology that boosts the entire economy, like the invention of electricity or the internal combustion engine before it. But what is good for the whole, is not necessarily good for the individual. A trucker had better hope that the adjustments are gradual, so that he doesn't find himself without a job overnight. The costs of adaptation will not be equally distributed among everyone **[job automation risk]**. … The risk of automation is not so much that there will be no jobs left, but that inequality and polarization in the labor market will increase further. These are good times to be highly educated. Highly educated people benefit the most from automation, see their wages rise the most, and are also better able to adapt to the innovation **[educational level]**."
>
> *('Robotization divides society', De Tijd, May 12th, 2018)*

To conclude, we summarize the key discoveries from our two datasets—linking each discovery to a specific sub-question derived from our overall research question, and to a specific theoretical mechanism—in Table 5.

Insert Table 5 about here

DISCUSSION

We started this research project from the observation that the future of work has historically been a highly political topic, while current understanding is characterized by both determinism and depoliticization (Howcroft & Taylor, 2022; Gümüsay & Reinecke, 2022); and from our belief that the 'prediction paradigm' offers only a very limited understanding of the future of work (Schoemaker, 2010). Through an abductive and curiosity-driven, mixed-method

analysis process, we set out to examine how—and more importantly, why—competing narratives of the future of work are construed and subscribed to by different actors in the public debate.

We found that members from different groups of societal actors—Tech/Innovation experts, Authors/Journalists, Economy/Labor Market experts, Policy Makers/Public administrators, and Engaged Citizens—differ both in terms of the narratives they push in the public debate (as narrators), and in the extent to which they are (non-)believers of certain future of work narratives (as subscribers). These differences appear to be motivated not only by the expertise and vested interests of each group, but also by these actor groups having distinct individual difference profiles. We were intrigued to find quite consistent patterns across our two datasets, which were very different in nature: a set of 485 print media articles on the future of work; and a survey of 570 respondents representing the different future of work actors.

Proposing a Paradigm Shift—from 'Predictions' to 'Imaginaries'

Across the key discoveries in this paper, we have built the case that the future of work is a fiction, not a fact; or better yet, a series of competing fictions depicting what the future will or should look like. Consequently, we propose that what research on the future of work needs, as a rapidly emerging field, is a paradigm shift—from 'predictions' to 'imaginaries'. Imaginaries are defined as shared socio-semiotic systems that articulate and structure a field around a set of shared understandings that provide a sense of coherence and link actors into a network around the issue. They both describe how current institutions and economic activities are organized and structured, and prescribe how they *ought* to be organized and structured in the future (Levy & Spicer, 2013). Within the context of the present study, the seven narratives identified in the public debate around the future of work can be seen as narrative 'building blocks' that can be configured by societal actors in different ways to form an internally consistent imaginary (Augustine et al., 2019; Cave & Dihal, 2019). Based on our analysis of counternarratives and

points of contention between actors, and their distinct individual difference profiles, we can distinguish three major future of work imaginaries in the public debate (Figure 1).

The first imaginary uncovered in our data was that construed by, and subscribed to by Tech/Innovation experts, which we labeled *Effective Accelerationism (Technocracy)*. Effective accelerationism refers to the idea that technological progress cannot—and should not—be stopped, and should instead be harnessed and accelerated in order to force societal change such as technocratic modes of governance, for the benefit of mankind and to reduce existential risk (Bareis & Katzenbach, 2022). As can be seen in Figure 1, the master narrative behind this imaginary is Augmentation, which is construed as a counternarrative to Job Destruction and Exterminism, but is seen as requiring Work Deintensification. That is, as Tech/Innovation experts see technological progress as inherently positive, they imagine a future of work in which humans will have to work less but are simultaneously exponentially more productive through the use of AI and 'cobots' (i.e., collaborative robots). Potential loss of income that would result from automation would, in their imaginary, need to be compensated for through the provision of a basic income, an idea many in Silicon Valley are proponents of.

The second imaginary uncovered in our data was that construed by, and subscribed to by Authors/Journalists, which we labeled *Degrowth (System Change)*. Degrowth refers to the idea that system change is needed to tackle the pitfalls of capitalism, such as increasing levels of work intensification and burnout, the exploitation of workers, rampant consumerism, and a focus on economic growth at the expense of the environment (Carruthers, 2023; Le Fevre et al., 2015). The master narrative behind this imaginary is Exterminism, with Job Destruction construed as a key driver, the solution of which requiring Work Deintensification. That is, as Authors/Journalists see the world as going down a dangerous path, they propose an alternative

future for mankind in which we lower our demands for consumption and productivity (effectively causing economic growth to stabilize or decline)—thus decreasing the need for human labor while safeguarding an, at the very least, acceptable standard of living for all people—and with a renewed focus on craftwork, the arts, and the commons. Like the Tech/Innovation experts, the Authors/Journalists see a universal basic income (UBI) as the best solution to the threat of mass-scale automation. The relationship between both actor groups, however, is antagonistic, as Tech/Innovation experts tend to despise pessimists and any ideas that would slow down progress, whereas Authors/Journalists see Silicon Valley as a playground for sociopaths without a social conscience, so detached from reality that they believe even wicked problems like climate change can be fixed overnight by technology (cf. 'Technofix'; Augustine et al., 2019).

The third imaginary uncovered in our data was that construed by, and subscribed to by Economy/Labor Market experts, which we labeled *Capitalist Realism (TINA)*. TINA refers to a well-known speech held by Conservative British prime minister Margaret Thatcher in the '80s, in which she said "there is no alternative" to capitalism. Capitalist realism, then, refers to the idea that capitalism is the only viable political and economic system, and that it is impossible to even imagine a coherent alternative to it (Fisher, 2009). Of all actors, Economy/Labor Market experts advocate most for 'business as usual', with most of them strongly opposing the idea of system change (i.e., anti-capitalist, post-workist, and degrowth movements). Their rock-solid belief in capitalism and economic growth causes Economy/Labor Market experts to discard Work Deintensification as a ridiculous and childish idea—or likening it to communism in the former Soviet Union—while they counter the Job Destruction narrative with their master

narrative of Re/Upskilling, in their view a more realistic outcome of automation based on similar trends in history.

Insert Figure 1 about here

A paradigm shift towards imaginaries, we believe, would open up entirely new avenues for research on the future of work both in theoretical and methodological terms. As we have discussed earlier, existing research on the future of work tends to focus on trends in the present-day workplace as researchers struggle with the challenge of how to collect empirical data on phenomena that do not yet exist, and events that have not yet happened (Santana & Cobo, 2020). Adopting an imaginaries paradigm, using interpretivist research methods, is one promising way forward for those who want to focus on research questions beyond the prediction of automation rates of different occupations (see Table 6).

Theoretical Implications

The discoveries from our two studies prompt several further questions: Why is it, that people belonging to the same group of actors not only hold similar, collective views about the future of work, but *also* exhibit high levels of similarity to each other (and dissimilarity to other groups) in their individual differences? Is this the result of people with similar individual difference profiles sorting into the same professions, as reflected in our sampling? Alternatively, do individuals belonging to the same actor group tend to become more similar over time? And if so, what are the implications of these mechanisms? How will they impact the future of work both in research and practice—what are the implications for policy makers, business leaders, experts, and workers?

In what follows, we use *framing contests* to explain how different actors construe different narratives about the future of work; *field frames* to explain why different actors

construe different narratives about the future of work; *narrative subscription* to explain how different actors subscribe to different narratives about the future of work; and *corresponsive mechanisms* to explain why different actors subscribe to different narratives about the future of work (Table 6).

Framing contests. It is clear from the three imaginaries uncovered in our data that different societal actors tend to construe very different narratives about what the future will (or should) look like. Moreover, as most of their viewpoints are fundamentally incompatible, it is also hard to imagine them reaching agreement at some point in time (Deetz, 2007). Instead, what our findings show is that the public debate around the future of work is an arena for values, politics, and ideology, in which competing imaginaries battle for enactment (Levy & Spicer, 2013). This theoretical angle opens up entirely new avenues for further research, as we discuss further down.

A highly relevant theoretical framework for understanding this type of macro mechanism is that of framing contests (Kaplan, 2008). This framework is particularly helpful in that it offers a theoretical bridge between individual and collective sensemaking (Maitlis & Christianson, 2014). Framing contests are defined as activities in which societal actors engage in an attempt to mobilize others around a specific point of view (Kaplan, 2008). The theory suggests that actors with conflicting interests create, reproduce, and challenge certain frames in a strategic attempt to gain control of the public debate (Cornelissen & Werner, 2014). Typically, this is done by selecting specific aspects of a perceived reality and making them more salient in a way that promotes a particular problem definition, causal interpretation, moral evaluation, and treatment recommendation (Entman, 1993).

It is important not to underestimate the implications of framing—a future that cannot be imagined, cannot be acted towards (Schlogl et al., 2021). Deetz (2007) called this 'discursive closure'; the subtle and uncontested shutdown of certain conversations in the public domain (through tactics like neutralization, subjectification, and denial) driven by hidden hegemonic forces. Especially the lack of subscription to the Work Deintensification narrative can plausibly be attributed to a successful delegitimization (Luyckx & Janssens, 2020), mostly by Economy/Labor Market experts in the public debate, of the idea of universal basic income (UBI) and the possibility of a 'post-work' society. Please note that it is *not* necessarily the case that actors have an explicit agenda in delegitimizing certain future of work narratives. Rather, we argue, they have been occupationally and dispositionally socialized into a specific worldview, as we explain in the section on narrative subscription and corresponsive mechanisms.

Field frames. A likely explanation for *why* different actors construe different future of work narratives is the existence of field frames. Field frames are political constructions that provide order and meaning to fields of activity by creating a status ordering that deem some practices—and the narratives associated with them—as more appropriate than others (Lounsbury et al., 2003). In other words, they represent taken-for-granted cognitive frames that structure expectations and scripts within a specific field, occupied by a specific group of societal actors (Jones et al., 2014). To this end actors tend to use rhetorical devices like metaphors, stereotypes, or slogans. Consequently, actors from the same group tend to develop a shared vocabulary—and more importantly, a sense of social identity—that motivates their collective actions. We found multiple examples of this in our data, such as the phrase that "this time is different"—referring to the idea that historical fears around mass-scale automation will come true this time—typically used by Authors/Journalists and explicitly opposed by Economy/Labor Market experts.

Thus, field frames provide a macro-structural underpinning for actors' motivations, cognitions, and discourses at the micro level (Cornelissen & Werner, 2014). This also explains why actors have different ideas as to what type of sources or arguments are considered credible, or why they interpret the same studies, numbers and figures, and historical trends in a fundamentally different way than other groups—that is nonetheless consistent within their group. The fact that each actor group is convinced to be more 'right' based on what their field does and does not consider valid 'evidence', our findings suggest is a possible driver of depoliticization in the public debate about the future of work, since all groups claim their views—but not those of other fields—are neutral and based on objective evidence (Kelly, 2022).

Narrative subscription. Narrative subscription is a concept from critical policy studies that refers to the agreement of a person with a narrative; the extent to which he or she is convinced by that narrative (Miller, 2019). Research has shown that narrative subscription is not only achieved through logic and evidence, but that motivated reasoning (Slothuus & De Vreese, 2010) and biased assimilation (Jones & Crow, 2017) play a key role. That is, people process information selectively such as to defend and maintain their values, identities, and attitudes. For instance, they may agree or disagree with science communication about climate change depending on whether being a believer or non-believer is more aligned with their vested interests (Hart & Nisbet, 2012).

A first way in which selective information search manifests itself is in the type of newspaper or periodical people prefer to read—i.e., those that have an editorial stance in line with their own profile (see Appendix, Step 1)—which further contributes to polarization of the public debate (Hart & Nisbet, 2012; Patton & Johns, 2007). A second way is through intersubjective processes related to social identities and group memberships. That is, people do

not make sense of competing narratives in the public domain in isolation; rather, meaning is negotiated, contested, and co-constructed between individual actors, through their interactions with each other, for instance through education or occupational membership (e.g., actors from a specific group interacting at sectorial workshops and conferences; policy reports published towards a specific actor audience; disciplinary paradigms; Maitlis & Christianson, 2014). This explains our finding that actors tend to subscribe more to narratives pushed by members of their own actor group (Cornelissen & Werner, 2014). As an aside, although it is often assumed that highly educated people are less biased because of their broader knowledge base, research on biased assimilation has in fact shown that higher levels of education and expertise often lead to *more* bias, as a result of field-level socialization creating 'tunnel vision' (Jones & Crow, 2017). All of this implies that the future of work is not only characterized by competing imaginaries or narratives, but also by competing 'tribes' inhabiting these possible futures. (In addition to these 'tribal' effects, we also found more universal narrative subscription effects cutting across actor groups, relating to optimism bias, accessibility bias, and framing bias; see Appendix Step 3).

Corresponsive mechanisms. Finally, we propose that the 'why' behind actors being (non-)believers of specific future of work narratives—and especially our finding that distinct individual difference profiles align with subscription to specific narratives—can be explained by corresponsive mechanisms in life course personality development. This theoretical concept has its origins in personality and vocational psychology, and refers to the reciprocal influences of work on personality through the mechanisms of selectivity and corresponsive reactivity (Schneider, Smith, & Goldstein, 2000). That is, people have been found to systematically select into fields that are consistent with their individual differences (i.e., selectivity), which are consequently further developed, reinforced, and strengthened by their experiences in that field

(i.e., reactivity). The term 'corresponsive' refers to the observation that the individual differences that are most reactive to field socialization correspond to the ones that led the person to select the field in the first place (Woods et al., 2020). In other words, occupational choice is at least in part driven by a person's individual difference profile, with positive reinforcement cycles—e.g., educational and career success—deepening and reinforcing these traits across different life stages and transitional events, like high school graduation and labor market entry. Over time, this leads to homogeneity within that field, both at the level of occupations and organizations (Roberts, 2006). This theory, thus, offers a plausible account for the similarities and differences we found within and between the groups of actors in our data. It also explains why it is so difficult for actors to engage in perspective taking (i.e., the ability to understand an issue from another group's perspective; Galinsky & Moskowitz, 2000). Not only do different actors hold different views about the future of work; the individual differences they have that are logically associated with these views have specifically caused them to select into tech, economics, journalism, or policy making, where over the years they have been reinforced more and more. The difficulty of understanding the perspective of a group of people who is different to you in every way—not only today but as a result of their cumulative life experiences since childhood—is another possible explanation for our initial observation that all actors in the public debate around the future of work believe to be 'right' (Kelly, 2022).

Avenues for Further Research on the Future of Work

Based on all of the above, and through the acknowledgement of the limitations of the present study, we can now formulate a research agenda for further research on the future of work adopting an imaginaries paradigm (see Table 6). The present study was conducted in a specific country (Belgium), at a specific point in time (2015-2021), and among those actors that were determined—within this geographical and temporal context—to be most prominent in the public

debate around the future of work. As we demonstrate in the Appendix (Table A2), however, many of the narrators identified in the print media data were international (most notably from the US and Europe), such that we cannot conclude that our findings would only hold in the tiny country of Belgium. That said, it is clear that the narratives and imaginaries represented in our data were distinctly Western. Future research could look at imaginaries from non-Western countries, or run comparative studies of imaginaries found in different cultural settings facing different demographic, political, and economic realities, and that may hold different societal attitudes toward technology (Bareis & Katzenbach, 2022).

As for the temporal context, it is clear that the future of work is by all accounts a moving target. At the time of writing this paper, stories were in the news every day about OpenAI's ChatGPT-4 and competing LLMs (i.e., large language models) like Sydney (by Bing), Bard (by Google), and Ernie (by the Chinese Baidu)—fanning fears of unaligned AGI (i.e., artificial general intelligence) and existential risk (Cave & Dihal, 2019). One possible implication of this is that the Singularity narrative, that was not believed in by any of the actors in our data, will gain prominence in coming years—or at the very least, that if we were to run our survey again today, subscription to this narrative would now be significantly higher.

Incidentally, this may also explain why the Job Destruction narrative was pivotal, but not very prevalent in our print media data. As the seminal Frey and Osborne study appeared in 2013 and our analysis only covered articles from 2015 onwards, perhaps this narrative had already passed its prime at this point, and became a point of contention in the public debate (and of course, at this point, the study itself is already 10 years old). An interesting avenue for further research would be to run longitudinal follow-up studies on prominent future of work narratives, tracing how narrative subscription evolves over time, and adding new narratives as they emerge

in the public domain. At the very least, the present study offers an interesting snapshot—a time-stamped document containing different narratives of the future of work as they existed in the year 2023, for future historians to look back at, and conduct retrospective scenario reviews (Schoemaker, 2020). A more fundamental concern that arose during the process of doing this research is whether the academic literature will be able to keep up with the rapid evolutions in the wider future of work space. While it typically takes years to publish an academic study, technologies such as AI and robotics are evolving at a very different speed, that is believed (at least by Technology/Innovation experts) to increase exponentially in coming years. These past few months, we have found ourselves using Twitter as a source of information as least as much as the academic literature. Along with other trends and issues in academic publishing—i.e., open science, preregistration, paywalls, increasing difficulties in finding reviewers—it is conceivable that future of work researchers will start (pre-)publishing their work through different, faster dissemination channels, like open-access whitepapers or preprint servers like arXiv and Sci-Hub.

Future research could also look at sources of narrative data beyond the print media, for example policy documents, government reports, or press releases; interviews or focus groups with people from different actor groups—or recorded debates or conversations between them—on the radio, on TV, or as part of a research study; or works of fiction, such as science-fiction films or books (Czarniawska & Joerges, 2019). It is very well possible that different types of actors and narratives would emerge from looking at different sources, which is all the more relevant as we could not distill any relevant insights about Policy Makers/Public Administrators and Engaged Citizens from our data. We should add that not only top-down sensegiving by powerful societal actors—as suggested by Kaplan (2008)—is an interesting topic for further research; of equal interest are bottom-up acts and processes of conflict and resistance against

dominant imaginaries of the future of work (Cameron & Rahman, 2022; Kellogg, Valentine & Christin, 2020; Mumby, Thomas, Martí, & Seidl, 2017). Recent experiments in the field of political psychology have even found no effect of so-called 'agenda-setting' (i.e., the deliberate framing of an issue by powerful actors through the media) on citizens' issue engagement—which was in fact mostly determined by the interests of their in-group—while a causal effect *was* found of public opinion polls on the attention devoted to issues by legislators (Miller et al., 2017). Such findings drive home Kaplan's (2008) view that frames are continually transformed through series of interactions.

We also propose that the shift from a prediction to an imaginaries paradigm should be accompanied by a shift in epistemology. Studies on the future of work situated within the prediction paradigm tend to be highly positivistic in nature. When adopting an imaginaries paradigm, in contrast, an interpretivist stance makes more sense. Different strands of interpretivism open up different avenues for further research; hermeneutics, for instance, would lead researchers to the study of cultural artefacts such as texts, symbols, stories, and images. Phenomenology focuses our attention on people's lived experiences, recollections, and interpretations. Symbolic interactionism offers fertile grounds for studying meaning that emerges out of interactions between people. Researchers who wish to adopt an activist stance and affect change will likely adopt a radical humanist or critical epistemology (Burrell & Morgan, 2017). Methods could consist of media analysis, historical analysis, strategic scenario planning, ethnographies (for instance of robotics development labs), or even the rendering of imaginaries of the future of work in virtual reality (VR) experiments, allowing actors to 'pre-experience' different futures first-hand (Galloway & Caudwell, 2018).

These proposed epistemologies and methods guide us away from a deterministic, and toward a repoliticized view of the future (Kenis & Mathijs, 2014; Kelly, 2020), in which the future of work is understood to be shaped through a dialectic process between members from different actor groups, each representing different perspectives and vested interests (Howcroft & Taylor, 2022). Together, these ideas for further research point to the crucial difference between seeing the future as something that can be 'objectively predicted' versus something that must be 'subjectively imagined' (Tapinos & Pyper, 2018). This approach, we hope, will significantly open up the debate about the human side of the future of work.

Insert Table 6 about here

Practical Implications

The present study may puzzle practitioners: it proposes studying stories rather than predictions, and the distant future rather than the near future. In both cases, it would seem the latter alternative is more actionable than the former (Weitzman, 1998). We would rebut that the Fourth Industrial Revolution can be expected to play out over a long period of time, one that will not *feel* clearly delineated while we are going through it. According to Carlota Pérez' important book (2002) on the matter, cycles of technological revolution typically last 50 to 60 years. So although in the short term, the future of work can indeed be approached as a series of predictions about gradual changes (preferably competing ones, however, organized along a decision-tree type structure), in the long term it must be understood as a very different phenomenon, characterized by radical and disruptive changes, and likely requiring a full societal transformation (Augustine et al., 2019; Levy & Spicer, 2013; Roux-Rosier et al., 2018).

One advantage of switching gears and focusing on the distant future is that it has the side-effect of creating discursive opening (Reinig & Borda, 2023). People may not believe that a universal basic income is realistic in the next 10 years, but what about 100 years from now? We

argue that a distant-future frame shifts the focus away from the eternal 'yes but' debates around realism and affordability, towards a more democratic societal debate envisioning the society we want in the future. Paradoxically, focusing on realism at all times can create inertia and inaction (Schoemaker, 2020). We recommend getting input from as wide an array of actors as possible—perhaps even organize referenda or create participative citizen forums (Schoemaker, 2020).

To business leaders, we recommend hiring strategic scenario planners (Kahane, 2012) such that they can prepare for all possible futures simultaneously, regardless of whether they personally believe a given 'imaginary' to be realistic or not. Predictions of the future can and should be updated in real time as reality changes around them, as explained by Webb (2019) in Harvard Business Review, outlining the difference between tactics, strategy, vision, and system change—often poorly understood. In doing so, we recommend against an overreliance on the views and data provided by only a few experts or even types of experts. The advantage to this is that whenever the prediction model of one particular expert (or group of experts) goes off the rails, alternative models for understanding this new data will be immediately available.

As for experts (such as the actor groups in our data), our findings imply that working in transdisciplinary teams may be the best way forward, not only because our analysis shows that the future of work covers many different (highly contextualized) phenomena, but also because this would reduce the risk of cognitive blind spots (Jones & Crow, 2017; Schoemaker, 2020). As our findings show, the facts and figures invoked by experts in the public debate are often less objective as they appear to be (Beckert & Bronk, 2019). We would thus encourage more reflexivity among experts, based on our insights around field frames (Lounsbury et al., 2003) and corresponsive mechanisms (Woods et al., 2020). This call for reflexivity comes with a disclaimer, however—studies have found that when research areas are (re)politicized,

polarization among the general public can increase, as competing views expressed by experts undermine their faith in science (Hart & Nisbet, 2012; Kenis & Mathijs, 2014).

To workers, we would like to say that whenever they read or hear something about the future of work from now on, they should not just look at what is predicted and by when, but also who is saying it and why (Levy & Spicer, 2013; Roux-Rosier et al., 2018). What is their disciplinary background? What narratives are they pushing or contesting? What are their vested interests? Who is funding their research or paying their salaries? What society do they want and how does it benefit them (Urry, 2016)? One need only look at the daily Twitter updates by prominent technologists, economists, and subject-matter authors to see that the patterns identified in the present paper fit in many cases. We would also encourage workers to look into creating or joining social movements organized around shared imaginaries of the future (Gümüsay & Reinecke, 2022), and the vested interests of their in-groups (Miller et al., 2017).

CONCLUSION

When asked to summarize the findings of this big and complex research project in a single sentence, we have typically quipped that "we can't predict the future of work, but we can predict your prediction". (Another phrase that comes to mind is that "we see things not as they are, but as *we* are"). The point we have sought to drive home with this project is that the future of work is an issue of high societal importance, that is currently being dominated by a largely deterministic discourse. The phenomenon of exponentially increasing technological capability, however, is only one aspect shaping the future of work. In addition to that, the future of work will also be the result of a political and democratic process shaped by framing contests driven by the competing interests of different actors in society—some of which holding more power than others to dominate the debate. A lack of issue engagement especially among non-experts, due to the distant-future nature of the topic area, creates the risk that the future of work is something

that will happen 'to us'—as an avalanche of novel and disruptive technologies (accompanied by a host of ethical concerns that are better anticipated than remedied) that we as citizens, experts, and policy makers will be forced to undergo without adequate mental or practical preparation. The imaginaries paradigm proposed here, in contrast, proposes that the future will be what we 'make it'. As the future of work has not happened yet, *now* is the time to systematically map the viewpoints and interests of different actors in society, and create a joint awareness, democratic debate, and long-term vision of where we want to go.

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TABLE 1. Common Narratives about the Future of Work in the Public Debate (Study 1).

	Definitions (from literature)	Examples of underlying phenomena (from data)
Narrative 1: Dataism	The wide-scale acceptance of the authority of algorithms and Big Data, effectively transforming all political and social structures into data-processing systems based on real-time tracking and predictive analysis (Van Dijck, 2014)	The emergence of a fully data-driven society, the demise of privacy, growing dependence on technology, the rise of a powerful elite of technocrats
Narrative 2: Exterminism	The rich hoarding all the resources while the earth burns, in the process eliminating all people who produce little or no economic value (Frase, 2016)	Climate change and ecological disasters, an increased risk of war, growing economic inequality
Narrative 3: Re/Upskilling	The need for continuous retraining in response to the obsolescence of existing skills (reskilling), and/or the necessity to learn entirely new skills (upskilling) in adaptation to changing demands (Schlagle, Weiss, & Prainsack, 2021)	Workers needing to keep up with new technologies, partial automation (of tasks), the emergence of new types of jobs and industries, humans learning to collaborate with robots
Narrative 4: Augmentation	Computers (algorithms) and humans working together, by design, to enhance one another, such that the intelligence of the resulting system improves (Jain, Padmanabhan, Pavlou, & Raghu, 2021)	Algorithms making human work faster and easier, increased productivity, technology enhancing rather than replacing human labor
Narrative 5: Singularity	Artificial intelligence (AI) transcending human intelligence, as a result of exponential growth in the technology leading up to a 'point of no return' (Kurzweil, 2005)	Intelligent machines surpassing human capacities in every way, full automation (of jobs), humanity entering a new historical era
Narrative 6: Job Destruction	The mass unemployment of workers in many industries as a result of automation and structural shifts in the labor market (Frey & Osborne, 2017)	The disappearance of jobs and industries (that are not compensated for by new job creation), mass unemployment
Narrative 7: Work Deintensification	The opposite of the historical phenomenon of work intensification (Le Fevre, Boxall, & Macky, 2015)—that is, a *decrease* in the need for human labor and long work hours, calling into question the role of work in the human life and work as a primary source of income (Bregman, 2017).	More leisure, time for side gigs and craftwork, and the introduction of a universal basic income (UBI)

TABLE 2. Identification and Initial Coding of Future of Work Narratives Featured in the Print Media (Study 1).

	Study 1: Qualitative data (print media articles)				
Future of work narratives	Frequency within article set	Coding categories[1]		Frequency within coding category	Example of coded excerpt
Narrative 1: Dataism	**276 (57%)**				***('People have no idea of the extent of it', De Tijd, Sept. 14th, 2019)***
		Timeframe	Present	8 (3%)	I'm glad that the Cambridge Analytica affair received a lot of publicity. The constant media attention helps. We've been talking a lot more about privacy for several years now, and that's good. The more it is in the news, the more people will think about it and can influence **tomorrow's** policy. … We have to set standards as a society so that, **these next few years**, our personal data stops being used in inappropriate ways. Only if we can ensure that our data are handled according to ethical guidelines, will the data revolution be a good thing.
			Near future	**155 (56%)**	
			Distant future	113 (41%)	
		Framing	Positive	58 (21%)	New practices are constantly popping up. … There are plenty of examples of how this technology could lead to **even more serious personal infractions.** Take health apps that women use to track their menstrual cycles. The intimate data that women share in the app could be used to predict when they will get pregnant, in order to then show them ads for baby stuff. The data could even end up with employers, who could use it to predict if and when current or prospective employees may take maternity leave. They could then decide not to hire someone, or fire them before they announce their pregnancy, to save money.
			Negative	**196 (71%)**	
			Mixed	22 (8%)	
		Outlook	Positive	126 (46%)	This is a failure of the market. There is asymmetry of information. Consumers do not have all the information they need to make informed decisions. And that is by design: the companies that do this have an incentive not to give consumers that information. … Look at the settlements that Facebook and YouTube recently reached in the US. They both had to pay fines that were lower than the profits they made from their violations (Facebook had to pay $5 billion and YouTube $170 million, ed.). If you only have to pay a fraction of what you stole as a fine, that is not punishment. **That is a reason to carry on.** If I rob a bank and I only have to return half of the loot, I have found a very profitable model. Then I'm going to rob another one.
			Negative	**131 (47%)**	
			Mixed	19 (7%)	
		Narrator	**Tech**	**117 (42%)**	Ask your lawyer. That is the answer Serge Egelman [**Research Director at UC Berkeley's International Computer Science Institute**] received from a Google daughter company that helps app makers trace bugs. Egelman had inquired about their privacy policy and what happens to user data. 'I wanted to know if they complied to the law, but got the friendly suggestion to go ask my own lawyer. That was…weird. Let's just say that response did not instill much trust'.
			Author	80 (29%)	
			Econ	43 (16%)	
			Policy	19 (7%)	
			Other	17 (6%)	
Narrative 2: Exterminism	**235 (49%)**				***('Optimism is something for the elite', De Morgen, Aug. 16th, 2019)***
		Timeframe	Present	4 (2%)	'**By 2050** there are predicted to be hundreds of millions of refugees. We are entering a dystopian future. ... We in the West are trapped by presentism. Our generations are bombarded with information every second of the day, so that we are only concerned with
			Near future	76 (32%)	

			Distant future	**155 (66%)**	
		Framing	Positive	5 (2%)	‘You can't escape it anymore … Capitalism is advancing **in its worst forms**’. Welcome to Horvat's **dark world**, where it is five to twelve. Capitalism has extended its **poisonous** tentacles into all levels of the world and is holding humanity captive. Unwittingly, we are heading for major climatic and humanitarian **disasters**. It is time for a revolution.... ‘Only when we face up to **the magnitude of the problems that await us**, will it dawn on us what drastic changes are needed’.
			Negative	**228 (97%)**	
			Mixed	2 (1%)	
		Outlook	Positive	77 (33%)	Horvat distances himself from all the misery that communist systems have produced. Nevertheless, he refuses to throw in the ideological towel. Precisely because it is very clear to him which system represents the true evil: capitalism. ... He muses about revolutions, though he harbors **little hope** that they will actually take place. ... ‘Optimism is something for the elite’.
			Negative	**139 (59%)**	
			Mixed	19 (8%)	
		Narrator	Tech	68 (29%)	Philosophizing about the dystopian world that awaits us, is what Croatian prophet of doom Srecko Horvat loves most: ‘It makes you combative’. So he argues in **his latest book** ‘Poetry from the Future - Why a Global Liberation Movement is Our Civilization's Last Chance’.
			Author	**85 (36%)**	
			Econ	43 (18%)	
			Policy	28 (12%)	
			Other	11 (5%)	
Narrative 3: Re/Upskilling	**220 (45%)**				***(‘The Brits invented the tank, but the Germans won battles with it’, De Standaard, Sept. 29th, 2018)***
		Timeframe	Present	2 (1%)	No, Arnold Schwarzenegger’s Terminator will not steal your job tomorrow **nor decades from now**. … It isn’t the robots or supercomputers themselves that will change the way we live **in the future**. … For new technology to create a breakthrough we humans needed to adapt and reorganize around it.
			Near future	99 (45%)	
			Distant future	**119 (54%)**	
		Framing	**Positive**	**178 (81%)**	Improvements in productivity **make our lives better**, maybe not spiritually, but definitely materially. In general technological progress has given us freedom and made our lives more comfortable.
			Negative	29 (13%)	
			Mixed	13 (6%)	
		Outlook	**Positive**	**134 (61%)**	‘Look, I can’t predict the future, but I can look to the past. It’s easy to forget how many everyday things, like the light bulb, have improved our lives. It’s tempting to fall into despair and try and stop **progress**, but then we’re not paying enough attention to what we have achieved already.’
			Negative	64 (29%)	
			Mixed	22 (10%)	
		Narrator	Tech	77 (35%)	‘The classical example is the electrical engine, that started to replace the steam engine at a certain point in time. Those giant steam engines powered factories centrally, and operations in the factories were organized around them. Simply replacing these unwieldly machines with an electrical version would hardly change that’, says **economist** Tim Harford. ‘It wasn’t until they started to adopt smaller electrical engines—which
			Author	43 (20%)	
			Econ	**78 (36%)**	
			Policy	10 (4%)	

			Other	12 (5%)	
Narrative 4: Augmentation	**175 (36%)**				***('You think, the computer does: New technology controls computers with your brain', Het Laatste Nieuws, Feb. 29th, 2020)***
		Timeframe	Present	3 (2%)	The technological foundations are laid and today there are dozens of companies working on a brain-computer interface that—or so they hope—could be mainstream **in a few years already**.
			Near future	**91 (52%)**	
			Distant future	81 (46%)	
		Framing	**Positive**	**171 (98%)**	As he [Mark Zuckerberg] recently said in an interview: 'The way in which our phones and computer systems operate today, organized around apps and tasks, is fundamentally not how our brains work and how we approach the world'. In other words, if in the future we can control computers with our minds, **we won't need** keyboards, mice, or touchscreens **anymore**. Even the whole visual computer interface will become redundant.
			Negative	2 (1%)	
			Mixed	2 (1%)	
		Outlook	**Positive**	**121 (69%)**	Recently, new companies are emerging that claim to have made a **major breakthrough** in transferring electrical brainwaves into computer data, using a device that reads the waves correctly and is not too difficult to carry.
			Negative	38 (22%)	
			Mixed	16 (9%)	
		Narrator	**Tech**	**85 (49%)**	Mark Zuckerberg, **founder and CEO of Facebook**, is very excited about the future prospects offered by the technology. … **Tesla founder** Elon Musk, as well, is interested in computers that can read brainwaves, although he wants to take it a bit further; his company Neuralink is working on chips that can be implanted in our brains.
			Author	31 (18%)	
			Econ	39 (22%)	
			Policy	9 (5%)	
			Other	11 (6%)	
Narrative 5: Singularity	**171 (35%)**				***('We must dare make the choice for ethical technology', De Standaard, Apr. 27th, 2020)***
		Timeframe	Present	2 (1%)	The AI science fiction tells us to be afraid of is general AI, intelligence that looks like human intelligence and is superior. Even if it were possible, that is something for the **distant future**.
			Near future	46 (27%)	
			Distant future	**123 (72%)**	
		Framing	Positive	61 (36%)	One of the most **urgent problems** is: who is responsible when automation **goes wrong**? … And to what extent do we want technology to **make decisions for us**? Humans have to have ultimate accountability … I feel strongly that Europe **should not join** the AI accelerationism race. Europe should say: these are the values we stand for, and set an example for the rest of the world.
			Negative	**101 (59%)**	
			Mixed	9 (5%)	
		Outlook	**Positive**	**101 (59%)**	Instead of waiting for a new technology to emerge and problems to arise, we are now making it so that the technology is developed in an ethical way from the onset. … A lot of countries outside of Europe **are looking to the GDPR as an example** of how to regulate technology without destroying the economy. I think we can do something similar for AI.
			Negative	56 (33%)	
			Mixed	14 (8%)	
		Narrator	**Tech**	**82 (48%)**	'AI is sneaking into our lives. We can't stop that, but we can guide it in the right direction', says Mark Coeckelbergh, member of the **High-Level Expert Group on Artificial Intelligence** which advises the European Commission, the Foundation for
			Author	41 (24%)	

			Econ	32 (19%)	
			Policy	6 (3%)	
			Other	10 (6%)	
Narrative 6: Job Destruction	**107 (22%)**				***('Robots, jobs, and leisure', De Morgen, Oct. 9th, 2018)***
		Timeframe	Present	1 (1%)	Some will say: this time it's different. That was also what was said about the previous technological revolutions. Each time, it turned out to be the wrong prediction. I firmly believe that the current IT-revolution will indeed make many jobs disappear, but that the development of new activities, goods, and services will create a lot of new jobs; jobs that **don't even exist yet** today.
			Near future	40 (37%)	
			Distant future	**66 (62%)**	
		Framing	Positive	1 (1%)	People are **very worried**. Will there be enough jobs left when the IT revolution is making so much human labor redundant? … The old world, that is disappearing, is what we know; the new world is in the future and is largely unknown, creating a lot of **uncertainty**.
			Negative	**103 (96%)**	
			Mixed	3 (3%)	
		Outlook	**Positive**	**61 (57%)**	I am actually **very optimistic** about the capacity of the market to create new jobs. … Historically, Job Destruction was more than compensated for by **a phenomenal rise in employment** in industry, with the result that the total amount of jobs did not decrease, but **increase**.
			Negative	31 (29%)	
			Mixed	15 (14%)	
		Narrator	Tech	28 (26%)	'Every time I give a speech somewhere about current economic issues I get questions about the future of employment in a world where robots and artificial intelligence threaten to take over all human labor', says Paul De Grauwe, professor at the London School of **Economics**.
			Author	20 (19%)	
			Econ	**51 (48%)**	
			Policy	5 (5%)	
			Other	3 (2%)	
Narrative 7: Work Deintensification	**61 (13%)**				***('Working isn't working', De Standaard, Feb. 17th, 2018)***
		Timeframe	Present	0 (0%)	Post-workists are convinced that **in a few centuries**, mankind will look back on our work ethic as an aberration in history. … They are convinced that working from 9 to 5 is barbaric and that one day, we will look back on our current workday like we now look at 19th-century child labor.
			Near future	13 (21%)	
			Distant future	**48 (79%)**	
		Framing	**Positive**	**55 (90%)**	A basic income for everyone (paid for by taxes) is a *conditio sine qua non* for [the post-workists'] theory. In their ideal future, we live in a peer-to-peer economy: an open and participative commons-based economy. They expect AI and robots to take over traditional jobs, so that people can devote themselves to a new artisanal economy centered on **self-expression and creativity**. We'll have **all the time** in the world to indulge in art, dance, literature, pottery, or creating objects with 3D printers. The drastic reduction in work hours will create time for political and social **engagement**, and to **strengthen** our relationships.
			Negative	2 (4%)	
			Mixed	4 (6%)	
		Outlook	Positive	20 (33%)	We have always worked and we will always work. The idea that work will disappear, is as old as work itself. … In the 1960s it was also proclaimed that we were evolving to a leisure society, **they were wrong then, too**. … Sixty years ago, they said work was a problem, until mass-scale unemployment came, and they realized 'no work' was even more of a problem. … A society with few or no jobs would be a dystopia.
			Negative	**30 (49%)**	
			Mixed	11 (18%)	

Narrator	Tech	13 (21%)	'Up until now, we've always converted time gained into even more work and more consumption', says Ive Marx, professor of **social-economic sciences** at University of Antwerp. 'I don't see that changing any time soon, human needs are insatiable. And so there will always be more and more work.'
	Author	20 (33%)	
	Econ	**25 (41%)**	
	Policy	2 (3%)	
	Other	1 (2%)	

Notes. *K*=485 print media articles; [1] Timeframe = whether a given narrative was construed as near-future or distant-future, Framing = whether a narrative was construed as 'good' (i.e., societally desirable) versus 'bad' (i.e., societally undesirable), Outlook = whether a narrative was construed as having a positive versus a negative outlook (i.e., the likelihood of a societally desirable versus undesirable outcome), Narrator = actors that were talked *to*, for instance as interviewees; or their narratives were talked *about*, for instance when they had written a book; or they did the talk*ing*, for instance when they wrote an op-ed; Tech = Tech/Innovation experts, Author = Authors/Journalists, Econ = Economy/Labor Market experts, Policy = Policy Makers/Public Administrators. In the 'Other' category, the most common actors were lawyers and regulators specialized in AI, trade union representatives, factory workers, and social movement actors.

TABLE 3. Descriptives and Correlations (Study 2).

		M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Narrative subscription[1]:																		
1	Dataism	2.98 (.98)	(.71)																
2	Exterminism	3.63 (.99)	.39**	(.77)															
3	Re/Upskilling	4.16 (.45)	.17**	.04	(.60)														
4	Augmentation	4.04 (.71)	-.00	-.09*	.45**	(.69)													
5	Singularity	1.99 (.64)	.43**	.16**	.30**	.08	(.80)												
6	Job Destruction	2.77 (.98)	.29**	.30**	-.03	-.21**	.30**	(.70)											
7	Work Deintensification	2.64 (.95)	.04	-.13**	.20**	.27**	.23**	0.05	(.72)										
	Individual differences:																		
	Perceived temporal distance:																		
8	to the 'near' future (years)	9.20 (42.93)	.00	.03	-.10*	-.12**	-.05	-.01	.02	--									
9	to the 'distant' future (years)	78.08 (215.28)	-.05	-.01	-.18**	-.11**	-.06	.02	.01	.68**	--								
	Time orientation:																		
10	past-negative	3.34 (1.35)	.08	.15**	-.13**	-.11*	.04	.15**	-.06	.03	.03	(.83)							
11	past-positive	4.78 (1.14)	-.02	.01	.01	.12**	-.02	-.09*	.04	.00	-.02	-.11**	(.75)						
12	future-negative	2.95 (1.17)	.14**	.21**	-.14**	-.16**	.09*	.23**	-.11**	.06	.05	.48**	-.09*	(.77)					
13	future-positive	5.04 (1.06)	-.10*	-.11**	.14**	.13**	.01	-.06	.04	-.07	.00	-.21**	.11**	-.31**	(.70)				
14	Trait optimism	5.00 (1.01)	-.12**	-.19**	.16**	.21**	-.08*	-.22**	.14**	-.03	-.02	-.47**	.24**	-.52**	.21**	(.83)			
15	Misanthropy	3.04 (1.06)	.18**	.29**	-.13**	-.17**	.13**	.19**	-.14**	.01	-.04	.29**	-.25**	.35**	-.15**	-.39**	(.76)		
16	Openness to experience	5.30 (.77)	.09*	.08	.18**	.08	.07	0.01	.14**	-.06	-.07	-.15**	.12**	-.12**	.07	.25**	-.09*	(.81)	
17	Resistance to change	3.02 (.90)	-.01	.12**	-.32**	-.23**	-.11**	0.08	-.22**	.01	.02	.35**	-.08	.37**	-.16**	-.40**	.23**	-.44**	(.85)
18	Educational level	4.37 (1.22)	-.02	-.12**	.22**	.12**	-.11*	-.13**	-.03	-.08	-.11**	-.13**	-.06	-.16**	.15**	.13**	-.05	.13**	-.17**
19	Job automation risk	2.59 (.72)	.07	.13**	-.11*	-.17**	.08	.15**	-.10*	.02	.01	.24**	-.13**	.35**	-.32**	-.38**	.20**	-.28**	.28**
20	Technology readiness	4.27 (.92)	-.03	-.25**	.28**	.38**	.09*	-.25**	.21**	-.04	-.08	-.27**	-.02	-.31**	.11**	.32**	-.19**	.25**	-.40**
	Locus of control:																		
21	internal	5.08 (.86)	-.03	-.07	.13**	.18**	.01	-.17**	.11**	-.02	-.05	-.29**	.15**	-.37**	.23**	.44**	-.18**	.14**	-.20**
22	chance	3.62 (.93)	.10*	.14**	-.11**	-.19**	.08	.17**	-.08	.05	.06	.36**	-.13**	.50**	-.23**	-.39**	.24**	-.14**	.28**
23	powerful others	3.09 (1.33)	.20**	.20**	-.09*	-.17**	.11**	.25**	-.09*	.07	.04	.38**	-.15**	.43**	-.15**	-.46**	.32**	-.19**	.36**

Notes. $N = 570$; [1] Respondents rated each of the items on the following response scale: 1 = No, I can't see this happening; 2 = Maybe, in the very distant future; 3 = Yes, in the distant future; 4 = Yes, in the near future; 5 = Yes, and much faster than we believe now; Cronbach's alpha inter-item reliabilities reported on the diagonal where applicable; ** $p < .01$; * $p < .05$.

TABLE 3. Continued.

		18	19	20	21	22	23
	Narrative subscription[1]:						
1	Dataism						
2	Exterminism						
3	Re/Upskilling						
4	Augmentation						
5	Singularity						
6	Job Destruction						
7	Work Deintensification						
	Individual differences:						
	Perceived temporal distance:						
8	to the 'near' future (years)						
9	to the 'distant' future (years)						
	Time orientation:						
10	past-negative						
11	past-positive						
12	future-negative						
13	future-positive						
14	Trait optimism						
15	Misanthropy						
16	Openness to experience						
17	Resistance to change						
18	Educational level	--					
19	Job automation risk	-.20**	(.82)				
20	Technology readiness	.22**	-.24**	(.87)			
	Locus of control:						
21	internal	.04	-.33**	.27**	(.74)		
22	chance	-.10*	.23**	-.30**	-.44**	(.61)	
23	powerful others	-.14**	.28**	-.31**	-.41**	.49**	(.87)

TABLE 4. Means, Standard Deviations, and ANOVAs (Study 2).

	'Future of work' actors				
	Tech/innovation experts $_T$	Authors/ journalists $_A$	Economy/Labor Market experts $_E$	Policy Makers/Public Administrators $_P$	Engaged citizens $_C$
Narrative subscription[1]:					
1: Dataism	3.08 (1.08)	2.91 (1.00)	2.99 (.98)	3.03 (.94)	2.98 (.94)
2: Exterminism	3.37*(1.16)$_A$	3.77*(.95)$_T$	3.50 (.87)	3.55 (1.21)	3.71 (.96)
3: Re/Upskilling	4.36**(.37)$_{A,C}$	4.03**(.47)$_{T,E,P}$	4.22**(.39)$_A$	4.39**(.41)$_{A,C}$	4.08**(.46)$_{T,P}$
4: Augmentation	4.40**(.56)$_{A,C}$	3.87**(.73)$_{T,E}$	4.14**(.63)$_A$	4.04 (.68)	3.96**(.74)$_T$
5: Singularity	2.17 (.66)	1.98 (.68)	1.93 (.57)	1.84 (.61)	2.03 (.66)
6: Job Destruction	2.44**(.97)$_{A,C}$	2.96**(1.02)$_T$	2.69 (.94)	2.57 (1.03)	2.83*(.91)$_T$
7: Work Deintensification	2.93**(.94)$_E$	2.60 (.89)	2.50**(.87)$_T$	2.52 (.94)	2.68 (1.03)
Individual differences:					
Perceived temporal distance:					
to the 'near' future (years)	9.06 (25.89)	14.60 (81.83)	5.29 (6.23)	6.67 (7.54)	8.32 (10.57)
to the 'distant' future (years)	101.97 (268.09)	89.49 (270.68)	55.62 (93.48)	56.98 (79.64)	80.06 (224.14)
Time orientation:					
past-negative	3.29 (1.17)	3.57 (1.41)	3.23 (1.23)	2.99 (1.18)	3.34 (1.48)
past-positive	4.97 (1.05)	4.83 (1.18)	4.78 (1.12)	4.88 (1.07)	4.64 (1.17)
future-negative	2.79 (.93)	3.19*(1.26)$_E$	2.76*(1.15)$_A$	2.97 (1.24)	2.93 (1.15)
future-positive	5.05 (.95)	4.75**(1.24)$_{E,C}$	5.23**(.99)$_A$	4.95 (1.12)	5.14**(.92)$_A$
Trait optimism	5.23**(.81)$_A$	4.77**(1.06)$_{T,E}$	5.13**(.96)$_A$	5.20 (.95)	4.95 (1.05)
Misanthropy	2.99 (1.17)	3.27 (1.06)	2.92 (.98)	2.86 (.98)	2.99 (1.07)
Openness to experience	5.58**(.63)$_C$	5.41**(.72)$_C$	5.31 (.79)	5.34 (.70)	5.08**(.80)$_{T,A}$
Resistance to change	2.75**(.75)$_{A,C}$	3.11**(.85)$_T$	2.84**(.86)$_C$	2.94 (.85)	3.21**(.99)$_{T,E}$
Educational level	4.67**(1.20)$_{A,C}$	3.86**(1.25)$_{T,E,P}$	5.07**(.87)$_{A,C}$	4.93**(.78)$_{A,C}$	4.04**(1.19)$_{T,E,P}$
Job automation risk:	2.43**(.61)$_C$	2.64**(.73)$_E$	2.37**(.59)$_{P,A,C}$	2.73**(.61)$_E$	2.77**(.81)$_E$
Technology readiness	5.02**(.78)$_{E,P,A,C}$	4.04**(.94)$_T$	4.31**(.77)$_T$	4.29**(.83)$_T$	4.14**(.92)$_T$
Locus of control:					
internal	5.23 (.78)	4.99*(.86)$_E$	5.27*(.79)$_{P,A,C}$	4.91* (.81)$_E$	4.98*(.93)$_E$
chance	3.39*(.90)$_A$	3.77*(.95)$_T$	3.51 (.81)	3.71 (.96)	3.64 (.96)
powerful others	2.92 (1.27)	3.21*(1.39)$_E$	2.83*(1.19)$_{A,C}$	3.08 (1.33)	3.25*(1.38)$_E$

Notes. $N = 570$; [1] Respondents rated each of the items on the following response scale: 1 = No, I can't see this happening; 2 = Maybe, in the very distant future; 3 = Yes, in the distant future; 4 = Yes, in the near future; The subscripts indicate which groups of actors differed significantly from each other for each variable, based on a series of ANOVAs with Bonferroni post-hoc tests; ** $p < .01$; * $p < .05$

TABLE 5. Overview of Key Discoveries.

Research sub-question	Actor role: Narrator	Actor role: Subscriber
	How are competing narratives of the future of work construed by different actors in the public debate?	***How are competing narratives of the future of work that exist in the public debate subscribed to by different actors?***
How?	Key discoveries: 1. The public debate around the future of work is an arena for discursive struggles between different groups of actors, each pushing different narratives about the future that align with their vested interests, and each trying to 'win' the debate by getting the public to subscribe to their master narrative. 2. Discursive closure tactics are used by all actors in the public debate around the future of work, to undermine and delegitimize narratives that run counter to their master narrative. Delegitimation of a narrative typically leads to lower narrative subscription, reducing the chance of that narrative coming true. **Theoretical mechanism: Framing contests (Macro)**	Key discoveries: 1. The narrative subscription of actors to a specific narrative of the future of work in the public debate is the result of selective information processing, motivated by whether or not that narrative fits their vested interests. 2. In addition to universal biases like optimism bias, accessibility bias, and framing bias, narrative subscription goes hand in hand with group membership, such that members of a given actor group subscribe more to narratives pushed by actors of that same actor group. This is because members from the same actor group tend to interact more often, thus reinforcing field frames. **Theoretical mechanism: Narrative subscription (Micro)**
	Why are competing narratives of the future of work construed by different actors in the public debate?	***Why are competing narratives of the future of work that exist in the public debate subscribed to by different actors?***
Why?	Key discoveries: 1. Members of a specific actor group hold taken-for-granted cognitive frames typical of their field of expertise (of which they are often unaware), that translate into a shared vocabulary, and determine how they construe narratives of the future of work. 2. All actor groups in the public debate about the future of work believe their master narratives are based on neutral facts and objective numbers, figures, and trends—and believe that those of the other groups are not. This is because actors from different fields hold different understandings of how to interpret data and what constitutes 'evidence'. **Theoretical mechanism: Field frames (Macro)**	Key discoveries: 1. Actors select into fields of expertise based on pre-existing individual differences that are typical of that field, and are subsequently continually reinforced through field socialization. Over time, fields become more homogenous in terms of the type of people that work in them. 2. Individual differences stand in logical relation to membership of a specific actor group, which in turn influences subscription to different narratives about the future of work. People from one actor group often find it hard to understand the perspective of another actor group, as a result of their lifelong socialization into distinct fields. **Theoretical mechanism: Corresponsive mechanisms (Micro)**

FIGURE 1. Competing Imaginaries of the Future of Work in the Public Debate.

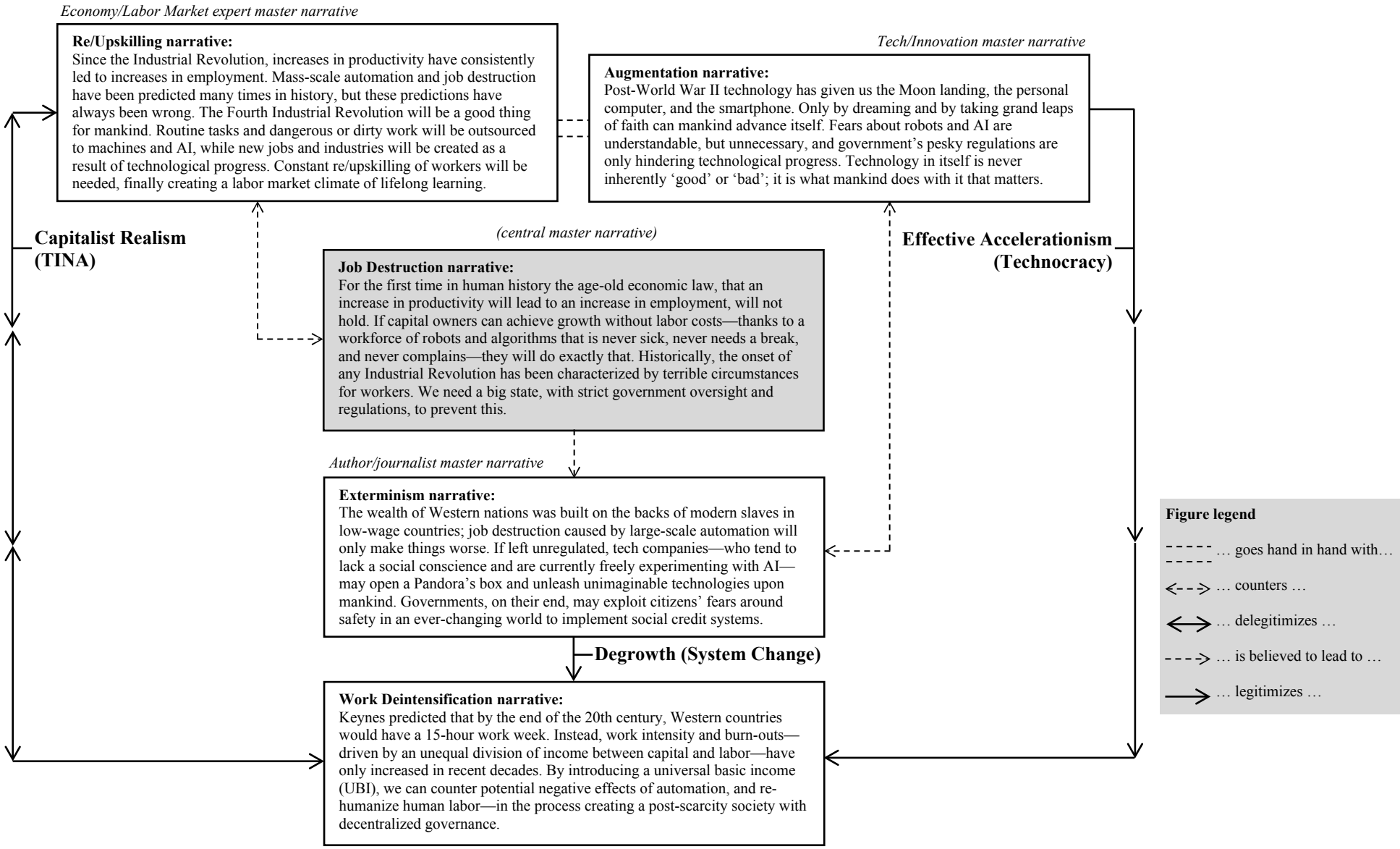

TABLE 6. Avenues for Further Research on the Future of Work Adopting an Imaginaries Paradigm.

	Theoretical mechanisms			
	Framing contests	**Field frames**	**Narrative subscription**	**Corresponsive mechanisms**
Possible research questions	How can we determine what future of work narratives are dominant in the public debate? (How would we measure or quantify 'dominance'?)	How are field-specific rhetorical devices—such as metaphors, stereotypes, slogans, and vocabularies—used by actors to construe future of work narratives?	How does subscription to specific future of work narratives fluctuate over time, as narratives 'rise and fall', and new narratives emerge?	How does subscription to specific future of work narratives evolve across an individual's life course and/or career?
	How do dominant future of work narratives become 'real' (i.e., translate into collective action) over time?	How is the construal of, and subscription to future of work narratives influenced by field-related social identity markers?	How does subscription to specific future of work narratives differ along geographical and cultural faultlines?	What are the events or processes that are most likely to strengthen the individual differences associated with specific future of work narratives?
	How do counternarratives about the future of work emerge in the public debate, and how might they 'crowd out' or alter master narratives over time?	How are future of work master narratives construed and subscribed to by actors belonging to certain fields expressed and reified through institutionalized practices?	How is narrative subscription influenced by cognitive versus emotional responses to framings in future of work narratives?	What identity cues are most relevant to predict an individual's (non-) subscription to a specific future of work narrative (e.g., personality, socio-demographics, political values)?
	How do societal actors mobilize others around a specific future of work narrative?	How are future of work narratives embodied in the inventions and prototypes of technology creators from different fields (e.g., engineers, software developers, designers, artists)?	How might policy makers create increased narrative subscription to future of work narratives they deem important, but for which issue engagement is low among citizens?	To what extent can corresponsive mechanisms explain polarization of the future of work debate over time?
	What are possible acts of resistance—by workers or other actors—against (the reification of) future of work narratives that go against their interests?	What are the drivers of determinism and depoliticization in the future of work debate? And what could be the drivers of repoliticization?	Can narrative subscription be increased by asking people from different actor groups to construe their own future of work narratives?	Can perspective taking between future of work actors with different individual difference profiles be increased through transdisciplinary collaboration?
Possible data/ methods	Text mining of large-scale media data News sentiment analysis Historical document analysis Science fiction books or films	Policy documents and press releases Professional associations websites Text mining of Twitter posts Video analysis of keynotes Discourse analysis of debates Interviews (radio, TV, in-person) Ethnography	Multi-wave surveys Country-comparative studies Vignette (scenario) experiments Virtual reality (VR) experiments Essay-writing contests	Longitudinal surveys (Event-based) diary studies Repertory grid technique Field experiments Focus groups
Relevant literature streams	Counterfactual history (Schoemaker, 2010) Counternarratives (Bamberg & Wipff, 2020) Discursive closure (Deetz, 2007) Discursive opening (Reinig & Borda, 2023)	Narrative policy framework (Jones et al., 2014) Epistemic authority (Aytac & Rossi, 2022) Framing analysis (Cornelissen & Werner, 2014) Paradigmatic thinking (Béland & Cox, 2013)	Biased assimilation (Jones & Crow, 2017) Distant-future inaction (Marshall, 2015) Emotions in science communication (Chapman et al., 2017) Motivated reasoning (Slothuus & De Vreese, 2010)	Attraction-Selection-Attrition (Schneider et al., 2000) Identity cues (Hart & Nisbet, 2012) Perspective taking (Galinsky & Moskowitz, 2000) Polarization (Baldwin & Lammers, 2016)

Resistance (Mumby et al., 2017) Social movements (Lounsbury et al., 2003)	Speculative design (Galloway & Caudwell, 2018) Strategic scenario planning (Kahane, 2012)	Policy issue salience (Miller et al., 2017) Temporal construal level (D'Argembeau & Van der Linden, 2004)

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