Cover Letter

Manuscript no. 4686 - A bird's eye view: Supranational EU actors on Twitter.

General comments for editors/reviewers:

We really appreciate the time and effort that the reviewers and the editors have put into improving our work. The comments and suggestions we received have motivated a number of clarifications and also reorganization of the data and their presentation.

Fighting a strict word limit means that we could not pick up each and every debate to the fullest extent, but we have done our best to represent the insightful comments and suggestions in our streamlined manuscript.
Independent of the final decision, this review process has thereby already significantly improved the paper from our point of view. We are sincerely grateful for this, hope that you would also find this version satisfactory, and look forward to your opinion.

Before responding to the individual comments and suggestion below, let us briefly sum up the major overarching changes in the revised manuscript:

First, we revised our introduction section in line with suggestions from reviewer 1 and 2. It now hopefully clarifies that we take strategic/responsive supranational communication as a starting point but also that our main interest is in whether social media communication is better geared to engage the average citizen when compared to obstacles supranational actors face on other channels.

Second, as also recommended by reviewers 1 and 2, we are now also very explicit on the criteria we apply to this end and organize the justification and presentation of the relevant indicators around this (all technical information not serving this aim has been moved to the appendix).
An entirely new section 2 specifies that we are primarily interested in the comprehensibility and the publicity of supranational messages. We consider these two as necessary conditions for the effectiveness of supranational self-legitimation in front of average citizens (for now independent of the content of the message). We discuss how social media may facility these two features when compared communication obstacles supranational actors have traditionally faced.
We then also organize the justification of our indicators and the presentation of the main results around these two key concepts in sections 4 (comprehensibility) and 5 (publicity).

Third, as demanded by both reviewers and the editors, we have clarified our intuition for also including personal actors throughout the manuscript and weeded out a related data coverage error in our original manuscript (which does affect the main descriptive conclusions.

Fourth, on demand from the editors, we have elaborated on the pragmatic challenges of studying citizen engagement with European politics on social media, as we have experienced them with the data at hand.

Lastly, we note that the reviewers show high interest in individual patterns we find, often suggesting to dig deeper and develop specific hypotheses and research designs. While we are very sympathetic to this (and are also happy about the specific ideas), we still think that there is value in providing a by-and-large descriptive paper on supranational behavior on Twitter. Simply because we have been missing such a paper ourselves, we expect this bird's eye view to be helpful for other researchers when devising on more specific studies. Thus, we think, such an overview fits the special issue at hand.

Response point-by-point

Reviewer 1	**Responses**
Comment/Suggestion 1	
The authors endeavor to describe why the EU should communicate via social media, but this is a moot point: we already know, among others by virtue of the authors being able to perform their study, that the EU institutions have embraced social media comms full heartedly. Instead of demonstrating that "social media platforms should be promising communication channels for supranational actors" (p2), the authors could make the case about why knowing something about the way in which EU institutions perform their online communication on Twitter is important and relevant. Which are some of the debates about institutional communication that are relevant here? Which are the criteria for good public communication? To which standards should the EU citizens uphold their supranational institutions?	We have revised the introduction and added a new theoretical section to justify why we think that it matters to map *how* supranational EU executives communicate on social media. Therein we specify that we consider comprehensibility and publicity as the key criteria – or at least necessary conditions – for effective self-legitimation for a wider citizenry (independent from what effective substantial standards are). Only if citizens are able to understand supranational communication and engage at least on-platform with these messages, broader engagement in the wider public debate can be expected. More generally, we also believe that there is added descriptive value in the data we provide. Scholars and institutions themselves have indeed repeatedly claimed that social media is full heartedly embraced. But frankly speaking we have been unable to find actual behavioral data showing this for a broad population of institutions, a reasonable time span, and the quality of messages.
Comment/Suggestion 2	
While indeed, the EU faces some particular challenges, such as those enumerated on page 1, the introduction should not focus on these alone. The first page of the article should, in my opinion, present the research question driving the paper and argue for its relevance and, not in the least, its goodness of fit with the theme of the special issue, namely citizen engagement. The paper in its current form does not present in a clear-cut way a motivation for its relevance to the special issue. I find the introduction to be optimally suitable to make the case for why this study addresses the concerns of the special issue and connect to the literature on social media, citizen engagement and institutional communication.	Heeding to the reviewer's recommendation and following up on the response above, we have revised introduction to present the gap we want to address and our two research questions in a clearer way, especially in the first four paragraphs, and iterated our motivations of asking the question based on the theme of the special issue.

Comment/Suggestion 3	
The section is transparent but there are still some issues that need to be more justified. - Why were both personal and institutional accounts included? The institutional accounts have a continuous presence since the establishment of an EU social media presence, whereas personal accounts of EU leaders may have come into existence much later or, if in existence for a while, have content that is not relevant to the European level but to the domestic politics where the account holder had a stake in prior to their becoming active in the EU institutions.	These are extremely good questions and we apparently have not been clear enough or provided insufficient information in the original manuscript. We justify the inclusion of personal accounts now explicitly in Section 3, page 3. Personalization, presidentialization, and more human messaging is frequently discussed in the context of politicization, providing reasons to look for possible differences (that we actually find).
- Why was the UK used as a benchmark? Is the UK government a well-established role model for institutional communication? Is the institutional architecture of the UK most similar to that of the EU? Why not benchmark against Germany, for example, or The Netherlands? The characteristics in question (volume over time, language clarity, media type) should be theoretically motivated. Why do the authors choose to examine these variables and not others? In the theory section (which the article does not contain), the authors could outline some of the features considered important for good institutional communication, and use this literature to argue for their variable choice. Why is volume of messages important for effective (and engaging – the focus of the SI) institutional communication? Why is language clarity important? Why is media type important?	We now briefly discuss the choice of the UK on page 4. Honestly, it is a pragmatic one – but given the high social media penetration in the UK it is justifiable. In terms of institutional architecture it is only important for us to include executive institutions. This was a clear weakness in our original manuscript. We have tackled this point along four steps: • Section 2 justifies the focus on comprehensibility and publicity as our overarching concepts • The presentation of the indicators is now organized by these two over arching concepts (Sections 4 and 5) • For each indicator in these sections we now briefly flag how it relates to either comprehensibility or publicity before detailing the operationalization and presenting the results • The summary of results in the conclusions also follows these ordering principles A note on volume: this indicator does not directly speak to either concept. But we think it is important to show the massive increase in supranational social media communication and the fact that it equals or exceeds the volume other executive actors supply. To the best of our knowledge, this information is not available elsewhere, but we have moved it into the data

	discussion and are explicit on the fact that it does not directly address communication quality (p. 5)
Comment/Suggestion 4	
Alternatively, the authors could look at some of the existing literature about EU comms and structure their presentation of the variables as answers to expectations/hypotheses. For example, the authors may want to argue that EU comms reorient themselves from traditional to social media, then compare the volumes of the two types over time to demonstrate this point.	We thank the reviewer for this suggestion. We refer to the existing comms literature when discussing traditional obstacles in the new section 2 (pp. 2-3) and mention that the increase of social media communication coincided with the decline in press release output (p. 5) But to the best of our knowledge, most of the extant literature on the EU communication focuses information sharing practices and dynamics between the EU communication officials and journalists. Our research is motivated by the question whether social media enables direct communication to the citizenry. We are of the opinion that these works do not provide enough guidance to derive comparative hypotheses for two reasons. First of all, these works focus on internal workings of the public communication mechanisms at the EU. Therefore, they offer knowledge of institutional factors such as allocation of resources and day-to-day practices. Secondly, and more importantly, these works often tackle the EU communication via traditional communication channels such as print media. As social media platforms have substantial structural differences, we believe prior work on motivations and practices vis-à-vis traditional media channels provides limited comparative guidance.
Comment/Suggestion 5	
The concept of publicity is not defined anywhere in the paper. The authors write “We approximate the publicity of the messages via user engagement with the messages” (p. 8). If the two concepts are interchangeable, why not use engagement, which is the theme of the SI? And if they are different, why not explain where the two concepts are similar and where they are not?	Thanks, we hopefully improved this: The newly added theory section elaborates on the concepts and how they relate to each other, publicity is now defined on page 2.
Comment/Suggestion 6	

When presenting the results of the statistical analyses, it would be helpful to connect them with some hypotheses regarding their relevance for engagement. On page 10, the authors highlight some variables ,"embedded pictures and frequent use of meta-linguistic communication", as most significant for engagement. These should have been grounded in some theoretical literature to justify their inclusion in the model.	We flag the multivariate perspective on engagement ratios explicitly as explorative (p. 10). The main reason is that we cannot re-model the unknown endogeneity in the Twitter algorithm where one additional engagement probably increases the number of users that see the tweet in the first place. Moreover, we cannot control topic variation here which we also flag as an area for future research in the conclusion (p. 11). Theoretically, we now argue also explicitly in section 2 that comprehensibility is a necessary, but not necessarily sufficient condition for engagement. With all caution that we make explicit, we still want to keep these pointers in the manuscript in order to motivate future research on this front.
Comment/Suggestion 7	
When calculating the number of followers of accounts over time, the inclusion of personal accounts becomes problematic, since some of the ones with a larger followership (Vestager, Borell, etc) belong to established national politicians. How do the authors distinguish between communication regarding the EU and that regarding domestic politics from those accounts that have a history of both?	Here the reviewer indeed points to a flaw in our original data. We went back to our sample of personal EU accounts and manually coded the point in time at which the respective person assumed her/his first executive EU office and left censored the messages from this account on this date (all actors were still in EU office when the data was collected). This reduces our sample of EU messages somewhat, but the comparative benchmarks do not change substantially. Of course, we cannot excluded that an actor carries forward followers from her/his 'national past'. But these are still then citizens receiving messages from a now supranational actor and should thus be part of our sample.
Comment/Suggestion 8	
The authors also highlight the difference between institutional and personal accounts in driving engagement. Is the reason to include both account types to test hypotheses related to personalization? If so, formulate this as a hypothesis backed up by literature and organize the text accordingly	We indeed had initial theoretical hunches on the relevance of persons in communicating supranational politics and now briefly make them explicit on page 3. However, we do not understand this paper as a hypothesis-testing study that focusses on one factor and all possible alternative explanations. We do want to achieve nothing more but also nothing less than describing the patterns of supranational behavior on Twitter in order to

	provide guidance for where further theoretical and empirical investment may pay off. Personalization is one of these avenues also explicitly flagged in the conclusion (p. 11)
Reviewer 2	
Comment/Suggestion 1	
The paper starts out with two related challenges for supranational EU actors: politicization and blame shifting. While I find this starting point convincing, the framing might benefit from more nuance and a theoretical spin. The manuscript might engage with the literature on politicization as well as blame attribution to the EU and supranational EU actors within it (e.g., Vasilopoulou et al. in JCMS; Rittberger et al. 2017 in JCMS; Schlipphak & Treib 2017 in JEPP; Traber et al. 2019 in EJPR; Sommer 2019 in JCMS; Heinkelmann-Wild et al. 2020 in PaG). Instead of discussing the obstacles to supranational EU actors' communication, it could confront a theoretical debate within this literature. Some scholars consider supranational EU actors as less willing and able public communicators as compared to member state governments. These contributions usually emphasize the communicative disadvantages of supranational EU actors as well as their technocratic nature (e.g., Gerhards et al. 2009 in PVS; Schlipphak & Treib 2017 in JEPP). On the contrary, several recent contributions emphasize supranational actors' willingness and ability to engage in public communication and actively respond to politicization and blame attributions (e.g., Ecker-Ehrhardt 2018; Heinkelmann-Wild & Zangl 2020 in Governance; Rauh et al. 2020 in EJPR; Heinkelmann-Wild & Zangl 2021 in PVS; see also JEPP Special Issue 'EU Actors Under Pressure' edited by Bressanelli et al. 2020). Yet, these analyses cover so far only news media and public speeches and often focus on specific cases. The manuscript could build on and add to this strand of literature by assessing, first, whether supranational EU actors take advantage of the opportunities posed by social media and, second, how (good) they are employing them. The answer to this question	We would like to thank the reviewer for this insightful comment and the extensive literature list. It has helped to clarify the introduction but also the new section 2. We do indeed take strategic/responsive communication of supranational actors as our starting point and now also refer to the relevant literatures in sections 1 and 2. But the revised manuscript hopefully makes clear that we are here at least not interested in the specific message content of supranational communication but in its comprehensibility and publicity features which we consider necessary conditions especially when trying to reach citizens via social media.

should then be spelled out concisely in the introduction.	
Comment/Suggestion 2	
Embedding the results within existing scholarship and focusing on the most important ones would generally increase accessibility and clarity of the manuscript's message. Some technical discussions, such as the pre-processing of tweets, could be moved to the appendix	In line with the suggestion, we now have streamlined and compartmentalized our discussion of pre-processing and other technical details of the analysis. However, to the best of our knowledge, most of the extant literature on the public communication of the EU are not related to the supranational executive's communication in social media platforms. While some of the previous works such as Altides (2009) may offer guidance on the state-of-affairs on social media, they are more related to the internal dynamics of the communicators and their process of creating the communication rather than their communication.
Comment/Suggestion 3	
(1) The analysis comprises both personal accounts' and 'institutional accounts'. I missed a theoretical justification for this choice. Why are personal accounts included but differentiated from institutional accounts? After all, if there is no such difference, why not aggregate them? A short discussion about who exactly is assumed to communicate over these accounts and whether there are different communicative logics involved would help the reader to understand the choice. If there is no important difference, the clarify of the findings might be easily improved by moving the disaggregated analysis to the appendix and discussing only the aggregated values in the manuscript. If there is an important difference between them, addressing it would underline the relevance of the findings. Moreover, I also have some empirically reservations: The authors seem to have used the institutional and personal accounts existing in May 2021 as a starting point for their analysis (p. 3). If this is correct, then there seems to be a problem especially with regards to personal accounts. While the vast majority of EU institutions likely existed in 2009, presumably not all persons in office today worked for the EU for the full period. This implies that the share of personal accounts likely increased over time. The	We thank the reviewer for pointing out these potential problems with the personal EU accounts. We now provide our intuition for also including – verified - personal accounts on page 3 and highlight personalized communication as one plausible avenue for further research on social media messaging on page 11. Furthermore, the mistake to include persons prior to taking up EU office is all ours. Based on manual coding, we have now left censored our messages from individual actors on the date they officially assumed an executive EU office (based on manual coding; none of them left prior to May 2021). All analyses in the revised paper rest on this slightly reduced message sample but our benchmarks change only in the margins and didn't flip any of our descriptive conclusions. Please also see our response to related comments from reviewer 1.

manuscript differentiates between institutional and personal accounts and finds major differences between them, including the average number of tweets per day. If over time the share of personal accounts increased, this likely negatively affected the average number of tweets by supranational EU actors. In addition, when personal accounts were not created after assuming office in the respective institution but already existing before, the analysis would falsely count at this point in time unrelated persons as supranational EU actors.	
Comment/Suggestion 4	
Regarding the selected samples, I think that, first, the manuscript would benefit from a more explicit discussion what the benchmarks represent in theoretical terms and what we learn from comparing them. Relatedly, with regards to the IO sample, I would suggest listing the selected IOs and justify why exactly they were selected. Why look at IOs that cover a similar number of issues and not issue specific IOs or IOs with fewer delegated authority? Why are IOs' tweets aggregated and not treated as separately. Finally, I would ask the authors to clarify whether the other three samples also span the full period from 2009-2021.	We now justify the benchmarks in much more detail in the revised data section (esp. p. 4). Our theoretical motivation for the benchmarks is just to approximate typical communication patterns on levels of governance that are closer or further away from citizens – on this question the 'unidentified' EU object is usually seen to take a middle-ground. For this aggregate benchmarking variation within the IO – or regional organization sample, to be precise now – is not of interest to us and would overload the paper strongly. Note two things, however. First, all our mean comparisons in principle give bootstrapped 95% confidence intervals which are often to small to show, however. Second, a list of all accounts for each executive sample is provided in the appendix. Regarding time span, as specified, all datasets cover the full population of messages from the account creation date onwards. Should some of the accounts have existed before the first EU account, respective messages are included as well. Yet, for benchmarking this does not make much of a difference as we normalize all analyzed averages on a common denominator (day for the volume, individual tweet for all other indicators).
Comment/Suggestion 5	
There are several analytical choices that are not – or merely implicitly – backed by theoretical considerations. Engaging more explicitly with	The investigation period is really simply determined by the presence of supranational actors on Twitter –we collected the full

the relevant literatures and theory might – in my view – help the manuscript to get a conceptual grip on its important empirical findings and thereby demonstrate their relevance. For instance, I was wondering why the analysis covers the period from 2009 to May 3, 2021. Moreover, I wondered why the manuscript focuses on volume, clarity, and media usage of as well as user engagement with supranational EU actors' tweets. While some of these dimensions seem to be linked with the "two cardinal duties" of communication transparency and publicity (p. 2), the manuscript could be more explicit in explaining its focus on theoretical grounds	population of messages from each account backwards until we reached the account creation date (which happens to be May 2008 for the European Training foundation while the main bigger institutions joined mostly in 2009 and 2010). We hope to be clearer on that now (p. 3) We particularly thank the reviewer for guiding our manuscript towards more conceptual clarity – apparently we have failed to show how our indicators hang together before. We hope to have solved this by including the new section 2 which identifies comprehensibility and publicity as our guiding concepts. We organized all empirical results now around these concepts (Sections 4 and 5) and briefly discuss how each indicator relates to the respective overarching concept. All empirical information not fitting this structure has been moved to the appendix.
Comment/Suggestion 6	
With regards to the chosen measures, I also have some questions and suggestions: The manuscript relies on an impressive array of indicators for clarity (the Flesch reading ease score, a familiarity score, as well as verb-to-noun-ratio), multimedia engagement (pictures, videos, emojis/symbols, and external links – by the way: do emojis and links really count as media?), and user engagement (likes, retweets, quotes, and replies). While the amount of collected information is impressive, the number of indicators renders a clear interpretation difficult. To arrive at a clearer and stronger message, the manuscript could either focus on the most important indicator(s) for each concept or construct an index.	We hope that the conceptual organization and indicator selection specified in the preceding answer now also address this valid point of the reviewer. We have also carefully thought about index construction but could not come with clear guidance on the weights we could or should apply to the individual indicators pointing to either comprehensibility or publicity. Also within-sample standardization would imply implicit weighting where, say, one picture could offset a 10 point drop in reading ease (mock figures …). We see now way to justify this and thus think its more honest to show the indicators separately, focusing on their relative differences to the benchmark data.
Comment/Suggestion 7	
I was not convinced by the value of the variation within the sample of supranational EU actors as well as the multivariate analysis about the impact of their tweets (p. 10). Regarding the latter, the manuscript could either put more emphasis on the analysis and address the	We now address the reviewer's comment in the introduction section more in detail. As our aim is to both to document the state-of-affairs of the communication and understand to what extend the state of communication influence citizen engagement, we believe that refocusing

question when supranational EU actors communicate successfully on twitter – or restrict itself to assuming that specific features are particularly successful on twitter and show how often supranational EU actors use them as compared to other types of actors.	our study to only one of them would reduce the contribution of the paper. We believe this is the case for two reasons. In the extant literature, we are not aware of any studies that extensively documents how the EU executives communicate on social media. By providing this, our aim is to build foundation for future scholarly work. Our second motivation relates to the theme of the special issue and broader “communication deficit” literature. We would like to contribute to the communication deficit literature by showing how state of the communication attracts attention from citizens, not the least since this is the theme of the special issue. If the reviewer here refers to the brief multivariate analysis summarized now in section 5 (p. 10), we indeed do understand the concern but are torn. On the one hand, we cannot and do not want to provide a conclusive hypothesis testing approach here (see also our response to reviewer 1 above). On the other hand, we also do not want to hide the correlations that we actually see in our data, exactly because it is our ambition to motivate further research on these question through our contribution to the special issue. Thus, we think, it is fair to show this information but to also flag it explicitly as explorative
Comment/Suggestion 8	
The manuscript could profit from situating its findings in the literature.	Thanks, we hope to have addressed this point by the revisions in sections 1, 2 and 6. We aim to address both the literatures on strategic EU communication and on supranational communication deficits showing the respective scholars that Twitter data offers interesting variation for their more specific research questions.
Comment/Suggestion 9	
What additional information might be of interest to get a better impression of supranational EU actors’ twitter communication (e.g., sentiment or topic)? What might explain similarities and differences across national executives, IO actors, and supranational EU actors? What might explain	We are grateful for the reviewer’s suggestion to explore further research areas – this is exactly what we had hoped to stimulate. We specify the most fruitful research avenues suggested by the presented data in para 3 on page 11.

similarities and differences across different supranational EU actors or over time? What are the consequences of supranational EU actors' communication on twitter? Relatedly, the discussion of the results' normative implications might be more pronounced: Is it overall good or bad news that supranational EU actors embrace twitter?	Especially the variation over topics the reviewer mentions I one of those areas. But again, we think of this paper as a benchmarking exercise that can help other researchers to understand the basic parameters of supranational behavior on Twitter when deciding on more targeted research designs. This is simply driven by the fact that we have been missing such a paper ourselves. We are also hesitant to give one simple normative judgement of the patterns that we show. Against the criteria of comprehensibility and publicity and relative to the benchmarks, the findings are mixed. We view technocratic language and skewed engagement rates across actors and messages indeed as undesirable in a politicized context. But we also note that supranational actors try to exploit multimedia communication and achieve engagement rates that are similar or even better than that of national executives. We hope to adequately represent this in paragraphs 2 and 3 of the conclusion (pp. 10-1)