

**From Micro-level to Macro-level Legitimacy:  
Exploring how Judgments in Social Media Create Thematic Breadth at Meso-level**

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Citation: Illia, L., Etter, M., Meggiorin, K. and Colleoni, E. (2022), "From Micro-Level to Macro-Level Legitimacy: Exploring How Judgments in Social Media Create Thematic Breadth at Meso-Level", Gegenhuber, T., Logue, D., Hinings, C.R.(B). and Barrett, M. (Ed.) *Digital Transformation and Institutional Theory (Research in the Sociology of Organizations, Vol. 83)*, Emerald Publishing Limited, Bingley, pp. 111-131. <https://doi.org/10.1108/S0733-558X20220000083005>

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### **ABSTRACT**

Organizational legitimacy is a central concept in institutional theory and in the more recent stream of communicative institutionalism. Within this scholarship, there exists an elaborated understanding of how macro-level actors, such as news media, influence individual judgments at the micro level through a top-down communication process. However, little is known about the upward process by which individual propriety judgments influence validity judgments of news media at the macro-level. In this chapter, we propose that this upward process of the legitimacy loop is facilitated by the degree to which expressed propriety judgments by individuals create *thematic broadness*, which bridges stand-alone conversations. Through a study investigating a post-scandal phase in the financial sector, we show how propriety judgments in social media become pre-validated at the meso-level prior to their validation by news media at the macro-level. The presented theoretical framework and empirical insights based on time-series regression analysis provide new knowledge about the multi-level process of organizational legitimacy formation in a digital age and extend our understanding of how a consensus is revealed at the meso-level.

*Keywords:* Organizational legitimacy, propriety judgments, social media, collective validity judgments, news media, post-scandal phase

### INTRODUCTION

For several decades, Abercrombie & Fitch had been considered a legitimate clothing brand that exclusively targeted slim, beautiful, and cool adolescents. While many observers might have considered the brand's marketing practices problematic (e.g., sexist, discriminatory, anti-social, etc.), the overall impression prevailed that it was a popular and accepted brand. However, this general impression suddenly changed in 2013, when various conversations about the problematic practices of the brand started to emerge across social media channels. As criticism by dispersed communities was increasingly bridged and interlinked, a network of conversations was created, showing that the many incidents of criticism emerging over weeks and months were not stand-alone but part of a broader conversation in social media. With news media eventually picking up conversations and confirming the broadly felt negative sentiment, the downward spiral of public disapproval was cemented and resulted in a substantive decrease in sales and the closing of stores (Robson, Campbell, & Cohen, 2013).

Questions of how organizations are established, become accepted, undergo processes of change, and decline are at the core of institutional theory (Deephouse & Suchman, 2008; Greenwood, Oliver, Lawrence, & Meyer, 2017; Meyer & Rowan, 1977). The concept of organizational legitimacy—which has therein occupied a central role (Deephouse, Bundy, Tost, & Suchman, 2017)—is generally defined as the degree to which an organization is judged by society to be “desirable, proper, and appropriate” (Suchman, 1995, p. 574). Scholars have argued that organizational legitimacy is formed through a “multi-level process” (Suddaby, Bitektine, & Haack, 2017, p. 462), whereby collective validity judgments<sup>2</sup>, i.e., institutionalized collective-level perceptions of what is appropriate, are made public at the

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<sup>2</sup> In the rest of the manuscript, we will refer to collective validity judgements expressed by macro actors simply as “validity judgements”.

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

macro-level and influence personally held propriety judgments<sup>3</sup> at the micro-level and, thus, individuals' beliefs about the appropriateness of an organization (Bitektine & Haack, 2015).

Institutional theory has placed strong emphasis on macro-level actors that build, maintain, and threaten organizational legitimacy (e.g., Rao, 1994; Suddaby & Greenwood, 2005), such as news media (Deephouse & Carter, 2005) and regulators (Baum & Oliver, 1991). Scholars have argued that through their reach, macro-level actors act as “judgment validation institutions” (Bitektine & Haack, 2015, p. 51) creating the *appearance* of a “consensus within a collectivity that the entity is appropriate for its social context” (Tost, 2011, p. 689). Less attention has been devoted to the role played by individuals in the legitimacy “loop” (Bitektine & Haack, 2015, p. 51). Only recently have organization scholars proposed that individuals expressing their propriety judgments in an observable conversation might challenge and even change the validity judgments of macro-level actors, when an *actual* consensus reveals at meso-level (Haack, Schilke, & Zucker, 2020). However, the sheer disclosure of propriety judgments that contradict validity judgments does not automatically lead to change (Haack et al., 2020). To date, the question of how individuals with low reach and only contributing to stand-alone conversations can constitute a larger conversation and, thus, influence traditional news media remains unanswered. We therefore ask: *How are shared propriety judgments at the meso-level revealed in a way that influences the validity judgment of actors at the macro-level?*

In this chapter, we address this question, arguing that the profound digital transformation of the media landscape over the last decade (Etter et al., 2019) has provided the

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<sup>3</sup> Propriety judgements belong to the cognitive sphere of an individual. When the individual communicates or acts it validates its propriety judgements socially. These validity judgements expressed at individual level differ from the validity judgments expressed by macro actors at the collective level, as the former do not have the important function to validate collectively legitimacy.

configuration through which individual propriety judgments are publicly expressed and might move from the micro-level to the macro-level. We argue that social media have allowed propriety judgments to be revealed at the meso-level as multiple stand-alone conversations and related judgments become inter-connected (Albu & Etter, 2015; Etter et al., 2019; Illia et al., 2021). In other words, social media users engage in co-creation (Bauer & Gegenhuber, 2015), thereby establishing arenas of meaning-making that create the basis for (de-)legitimation of firms (Lounsbury & Glynn, 2019; Seidel et al., 2020). We argue that once these arenas are inter-connected at the meso-level by a judgment that has *thematic broadness*, namely, a judgment that has a bridging position within stand-alone networked conversations, the interactions that are part of minority fractions (Clemente & Roulet 2015; Haack et al., 2020) seemingly reveal as being nevertheless interconnected at the meso-level and, hence, potentially relevant to broad audience, thereby influencing news media. Importantly, judgments with high level of thematic broadness are not necessarily those that have the highest volume of conversations, neither those that create aggregation, but are rather those that interconnect stand-alone conversations. We argue that through thematic broadness, judgments become pre-validated before they are eventually picked up by news media. This happens because news media aim to cover stories that seem of interest to a broad audience.

We test this hypothesis with a time-series regression analysis (Anderson, 1994) of 553,320 tweets and 492 news articles about a focal bank over a period of one year. We focus on data related to the post-scandal phase, when thematic broadness may be most relevant for news media, given that, once the scandal pick is over, journalists look for stories that attract a wide audience (Coombs, 2015; Henderson, 2009). We measure thematic broadness through a semantic network analysis (De Nooy, Mrvar, & Batagelj, 2005; Evans & Aceves, 2016; Illia, Bantimadouris, & Meggiorin, 2016; Illia et al., 2021) and use machine-learning-based text

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

analysis (Etter, Colleoni, Illia, Meggiorin, & D' Eugenio, 2018; Liu, 2012) to measure legitimacy judgments in both social media and traditional news media. The presented findings extend our understanding of the construction and modification of organizational legitimacy in a multi-level process as suggested by institutional theory (Bitektine & Haack, 2015; Haack et al., 2020; Suddaby et al., 2017). We thereby provide novel empirical insights and theoretical arguments for how the legitimacy judgment become inter-connected at the meso-level (Cornelissen, Durand, Fiss, Lammers, & Vaara, 2015; Jepperson, 1991).

Overall, we contribute to the research stream on communicative institutionalism by enriching the understanding of “a meso-level of analysis, involving interactions between individual actors” (Cornelissen et al., 2015, p. 19). We focus on the communicative processes through which propriety judgments expressed in online stand-alone networked communities of conversations are bridged. Furthermore, we provide methodological contributions that can crucially inform work on institutional theory in the digital age (e.g., Hinings, Gegenhuber, & Greenwood, 2018; Hinings & Meyer, 2018).

### **THEORETICAL FRAMEWORK**

Communicative institutionalism builds on the argument that actors create institutional change through communicative acts (Cornelissen et al., 2015). Among these actors, traditional news media significantly shape the formation and modification of organizational legitimacy (Deephouse, 1996; Deephouse & Carter 2005; Vaara, Tienari, & Laurila, 2010). Through their structural position and reach, news media create large-scale attention for firms (Petkova, Rindova, & Gupta, 2013; Pollock, Rindova, & Maggitti, 2008) and provide validity judgments about organizations by either endorsing or questioning their actions (Deephouse & Carter, 2005). Indeed, endorsement in mass media has been shown to support the legitimation of firms

(Deephouse & Carter, 2005; Vaara et al., 2010) and consequently lead to beneficial outcomes such as higher founding rates (Hybels, Ryan, & Barley, 1994), decrease in stock market risks, and supportive investor behavior (Bansal & Clelland, 2004). Conversely, the disapproval of organizations in mass media can negatively impact their operations (Dyck, Volchkova, & Zingales, 2008; Zavyalova, Pfarrer, Reger, & Shapiro, 2012; Vergne, 2012) and even lead to the decline of whole industries (Maguire & Hardy, 2009).

With this strong focus on traditional news media, scholars have also explored firms' attempts to influence news media reporting (e.g., Petkova et al., 2013) and how news media are influenced by other media outlets (Rao, Greve, & Davis, 2001). The literature suggests that news media pick up stories and report on firms when their sources make those firms of high relevance for news media audiences (Rao et al., 2001; Pollock & Rindova, 2003). Firms, on the other hand, often seek to influence news media reporting through concerted efforts such as press releases, press conferences, and other measures that indicate to journalists that a firm engages in actions that might be of interest to news media audiences (Petkova et al., 2013; Rindova, Pollock, & Hayward, 2006).

With the digital transformation of the media landscape (Etter et al., 2019), an additional important source has emerged that influences news media reporting about organizations — the public itself. Indeed, whilst not denying the strong effects of news media on individuals, scholars have observed that the public can influence news media coverage through social media (Etter & Vestergaard, 2015). In this chapter, we argue that this upward loop happens as certain judgments connect otherwise stand-alone conversations.

Indeed, social media have become a vehicle, where propriety judgments become increasingly expressed by diverse actors (Etter et al., 2018, 2019; Wang, Reger, & Pfarrer, 2021). More importantly, through the expression of individual judgments, other individuals

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

may be encouraged to similarly express theirs, accumulating to generate substantive contestation of organizations (Albu & Etter, 2016; Illia et al., 2021). This becomes particularly important when individuals harbor beliefs that their personal judgment deviates from an assumed majority opinion, which inhibits them from expressing their propriety judgments (Bitektine & Haack, 2015; Clemente & Roulet, 2015). As individuals see others express similar judgments, they may become encouraged to do so too (Haack et al., 2020). However, their expressed judgments give birth to plural and unaggregated conversations (Schultz, Castelló, & Morsing, 2013). Recent research has shown that judgments posted by individuals on social media can nevertheless become central in bridging conversations, as they give the impression that these are part of a larger conversation, thereby potentially impacting business outcomes (Illia, et al., 2021). As we will argue next, it is the bridging of such propriety judgments at the meso-level which eventually enables propriety judgments to influence validity judgments expressed by news media.

### **HYPOTHESIS DEVELOPMENT**

The wide adoption of social media technologies has led to masses of individuals loosely aggregating around issues of concern and discussing the appropriateness of organizations and their actions (Etter et al., 2018; Schultz, 2013; Toubiana & Zietsma, 2017; Wang et al., 2019; Whelan, Moon, & Grant, 2013). However, the reach and influence of ordinary social media users is generally limited compared with that of traditional news media (Deephouse & Carter, 2005). Similarly, individuals on social media lack the resources of firms that influence news media reporting through dedicated public relations departments and other managed processes (Petkova et al., 2013; Zavyalova et al., 2012). The question, therefore, is how individuals with low reach, low authority, and only contributing to stand-alone conversations can constitute a



## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

larger conversation and, thus, influence traditional news media. Based on the observation that news media pick up content that is appealing to broad audiences (Coombs, 2015; Henderson, 2009), we argue that an answer to this question requires us to understand how stand-alone communities and local conversations are bridged. We propose that when content (e.g., expressed judgments) provides thematic broadness — defined as a bridging position within stand-alone networked conversations — it allows traditional news media to identify how stand-alone and seemingly unrelated conversations are nevertheless interconnected and, hence, potentially relevant to broad audiences. Previous studies show that news media are, indeed, influenced in their coverage, when they receive information from sources that have broad appeal (Petkova et al., 2013; Pollock et al., 2008; Rindova et al., 2006). Journalists consider the broad appeal of their sources as crucial because audiences are likely to accept and be interested in information that is confirmed by many sources (Petkova et al., 2013; Pollock et al., 2008; Rindova et al. 2006; Westphal & Deephouse, 2011). Moreover, news media care about the broad appeal of a story, especially in a post-scandal phase, because once the peak of a scandal is over, news media are in search of the story that is of interest for a large audience (Coombs, 2015; Henderson, 2009).

We propose that actors without prominent position and status can influence news media collectively through a process whereby content about organizations and their actions becomes part of social media conversations (Colleoni, Rozza, & Arvidsson, 2014; Dellarocas, 2003). Importantly, we argue that social media conversations, which are afforded by the technological features of social media (Etter & Albu, 2020), become influential when it allows otherwise stand-alone conversations and communities to be bridged and, thus, stand-alone conversations to become part of a broader discourse in social media (Albu & Etter, 2016; Colleoni, 2013; Illia et al., 2021). We suggest that this occurs because an individual has expressed a judgment

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

that, rather than having an aggregative function (Colleoni, Illia and Zyglidopoulos, 2021), has a bridging function. For example, as individuals in a community of discussion “A” judge the actions of a firm by means of conversations that diverge to one of the individuals conversing in a community “B,” their judgments may appear rather unrelated because there are no propriety judgments that bridge these two. However, as certain judgments bridge these separate stand-alone conversations and communities, the conversations within community “A” and “B” are seemingly connected. This happens regardless of whether such propriety judgment is highly shared because its primary function is to bridge them, not to converge them. Hence, when a judgment becomes central for bridging an increasing number of stand-alone conversations (e.g., A, B, C, D, etc.) the discourse around this judgment broadens (Illia et al., 2021) and, as we argue, it is more likely to move to the macro-level.

Considering the initial example of Abercrombie & Fitch, many individuals expressed their own experiences, opinions, and negative judgments about the brand’s discriminatory policies and practices in dispersed, parallel-evolving online conversations. The company was accused of promoting an “all American” culture at schools (#teenage), where only white and good-looking kids would be considered cool enough to be relevant customers. Other conversations evolved around other topics such as the anti-social orientation of the company (#Fitchthehomeless); in particular, #fitchthehomeless turned into a tweetstorm against Abercrombie & Fitch. Nevertheless, a few weeks after, another conversation emerged related to #Fitchplease (which referred to a conversation about restriction of clothing sizes). When this last discussion bridged other salient conversations, such as #teenage (i.e., conversations about discrimination against young kids at school), #Fitchthehomeless, and a new conversation about #dosomething (i.e., conversations about bullies), news media started covering the negative story about the company and its policies and actions (Robson et al., 2013). Hence, news media

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

were looking for a story that was of interest to broad audiences. Importantly, evidence suggests that although #Fitchplease was not the most used hashtag in terms of volume, as it appeared after the high volume of tweets around it #Fitchthehomeless; however, it was bridging communities and conversations that were otherwise stand-alone, indicating that despite being peripheral and apparently unrelated to each other, discussions are interrelated.

As the example of Abercrombie & Fitch indicates, the bridging of stand-alone conversations through a judgment with thematic broadness finally enabled propriety judgments within stand-alone conversations to reveal as inter-connected. We argue that, theoretically, the expressed propriety judgments that creates thematic broadness is more likely to influence news media in a post-scandal phase. In other words, we expect those judgments with high thematic broadness on social media impact validity judgments of news media.

*Hypothesis 1: In a post-scandal phase, high thematic broadness of individual propriety judgments expressed on social media increases their influence on validity judgments expressed by traditional news media.*

## **METHODS**

We analyzed legitimacy judgments expressed in social media (propriety beliefs expressed by individuals) and news media (validity judgments) about Banca Monte dei Paschi di Siena (MPS). The bank is suitable for analysis of changes in legitimacy judgments across levels because it was hit by a social media storm due to accusations of wrongdoings related to financial speculation and false accounting. This scandal, which was extensively covered by the news media, occurred a few years after the emergence of the social movement Occupy, which has already fomented in the online community a growing disapproval against banks in general. Accordingly, we consider MPS a case that allows the elucidation of reactions by online

communities that express negative judgments about banks. In order to study how news media are influenced by thematic broadness of judgments in social media, we focus our analysis on online conversations on Twitter and news media articles during the year after the scandal took place. We chose this post-scandal phase following what theory indicates, that is, a broad audience is particularly relevant for news media in a post-scandal phase (Coombs, 2015; Henderson, 2009).

### **Database**

The dataset we used for this paper is part of a larger project that analyzes opinions expressed on Twitter about a number of Italian banks for five years (i.e., 2011-2015). For the purpose of this paper, we selected Twitter data for the bank Monte Paschi di Siena (MPS), during the year 2014. The MPS scandal erupted in January 2013, and we were interested in studying the thematic broadness of conversations after the initial tweetstorm calmed down, that is, one year after the scandal erupted and big volume of tweets has already decreased. We collected news media data from January 2014 to December 2014 from Factiva database by using the keyword “Monte Paschi di Siena” in three national newspapers with the highest circulation and reach (Deephouse & Carter, 2005). In total, we collected 492 news articles about MPS for the time period under investigation. In regard to social media, Twitter data about the MPS were extracted from our dataset for the period from January 2014 to December 2014. Data collected using the Twitter API (Application Programming Interface) were based on the following keywords: MPS, Monte Paschi, MP Siena, Paschi Siena. The total number of tweets was 553,320.

### **Measures**

***Legitimacy judgment in social media.*** To measure legitimacy expressed in propriety judgments by individuals in social media, we applied sentiment analysis for each tweet appearing in the dataset based on a machine-learning approach (Etter et al., 2018; Manning, Raghavan, & Schütze, 2008; Pang & Lee, 2008). We coded a subset of tweets (i.e., negative sentiment (-1), neutral sentiment (0), and positive sentiment (+1)) and trained a classification model (Hastie & Tibshirani, 1998) to measure sentiment of the entire dataset. The quality of the feature extraction and classification model was good: f-measure 0.75 and accuracy 0.8. The average sentiment value per week was then calculated by accounting for the number of tweets published during a specific week and their corresponding valence, obtaining a weekly measure of sentiment ranging from -1 to +1. The distribution was then normalized to mean 0 and standard deviation 1 using the z-score in order to compare it to the other measures in the model.

***News media legitimacy.*** In order to measure legitimacy expressed in validity judgments by news media, we trained our Naïve Bayes Classifier (Chen, Huang, Tian, & Qu, 2009), which estimates a model of classification for all our news articles. We first built a bag-of-words, i.e., we calculated the probability (based on a chi-square distribution) that each of the coded words in news media article falls into one of the following three coding areas suggested by previous studies on media legitimacy (Deephouse & Carter 2005; Etter et al., 2018): negative judgment (-1), positive judgment (+1), and neutral judgment (0). The quality of feature extraction (Hastie, Tibshirani, & Friedman, 2009) was good: 0.836. The average level of judgment value per week was then calculated by accounting for the number of articles published and their corresponding classification (+1, 0, -1), obtaining a weekly measure of legitimacy judgments in news media ranging from -1 to +1. As for other variables, the distribution was then normalized to mean 0 and standard deviation 1 using the z-score to compare it to the other measures in the model.

*Thematic broadness.* In line with the definition of thematic broadness as a bridging position of content (i.e., judgments) between networked conversations, we operationalized the concept as the in-between centrality (White & Borgatti, 1994) of a hashtag. We measured thematic broadness by conducting a semantic network analysis (Evans & Aceves, 2016). Following the procedure suggested by Illia et al. (2021), we built a semantic network analysis by first creating a two-mode network and then a one-mode network (De Nooy et al., 2005; Illia et al., 2016), where the nodes of the network are the hashtags contained in tweets. For illustrative purposes, Figure 2 shows the difference between two-mode and one-mode networks. This example was built based on a very small sample of tweets, where all links represent only one tweet (that has a weight of 1). In the two-mode network, tweets connect to hashtags that they use, whereas in the one-mode network, we transform tweets into links, where hashtags are used in one or more tweets that are connected.

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Insert Figure 2 here

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By building a semantic network analysis that was based on a two-mode and then a one-mode network, we created a semantic network between hashtags within tweets, when two or more actors are involved in publishing these tweets. This helped to measure the topological distance between hashtags, given that they are part of an online conversation. Then, in order to identify which hashtag was most bridging (Gerlitz & Rieder, 2013) in each weekly network, we calculated the betweenness centrality measure (White & Borgatti, 1994) of the hashtag. This measure is defined as the proportion of shortest paths between any couple of nodes (i.e., hashtags) in a network (i.e., geodesics) that includes the node analyzed (De Nooy et al., 2005).

Hence, the hashtag that bridges two or more separated clusters of tweets is the most central because it allows Twitter conversations to be tied together, despite remaining peripheral to one another. It is important to underline that this measure does not grasp the volume that this hashtag has in a network, neither convergence between communities. It only measures its in-between centrality. To obtain a weekly measure of thematic broadness, we averaged the broadness values of all hashtags shared during each week and obtained a weekly measure of thematic broadness ranging from 0 to +1. The distribution was then normalized to mean 0 and standard deviation 1 using the z-score in order to compare it with the other measures in the model.

***Control variable - User's reach.*** We included one control variable in our study that may be relevant to prove that the reach of a user alone does not reflect the influence of individuals expressing their judgments. We therefore included the number of followers of the users expressing propriety judgments as a measure of reach. For each week, we calculated the total number of followers that were exposed to published tweets. Because the distribution of followers on social media is very skewed, i.e., few individuals have a high number of followers, while most individuals have a very low number of followers, we used the logarithm of the number of followers to obtain a better shaped variable for the linear model.

Table 1, which reports the instantaneous correlation among the variables in our model, shows that there was no correlation between present values of news media legitimacy and the present value of sentiment on social media with thematic broadness. There was a significant negative relationship between the number of followers and the thematic broadness, which indicates that the more individuals have a high number of followers, the less the thematic broadness of the conversation.

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Insert Table 1 about here  
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### **Data analysis**

In order to test our hypothesis about thematic broadness as a predictor of news media legitimacy, we ran a time-series vector autoregressive model (VAR) (Anderson, 1994). The VAR is well suited to dealing with problems of endogeneity in the model, when the variables are strongly correlated and causality goes in both directions. This has the advantage of allowing us to freely explore the relationship between variables.

In order to test the impact of thematic broadness and sentiment on news media legitimacy, we created a new variable resulting from the combination of the two independent variables (thematic broadness and sentiment). This was necessary because high levels of thematic broadness can lead to either a decrease in news media legitimacy (in case of a bridging role of thematic broadness on negative sentiment online) or an increase (in case of a bridging role of thematic broadness on positive sentiment online). Multiplying the sentiment by the thematic broadness means applying a weight to the sentiment, the latter being positive or negative. From a statistical viewpoint, this allows us to test whether there is a positive monotonic relationship between sentiment and news media legitimacy, given the thematic broadness. Hence, the final model is as follows: news media legitimacy as the dependent variable, sentiment\*thematic broadness as the independent variable, and user's reach as the control variable.



## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

We commenced VAR analysis by executing preliminary tests on the data. First, we ran the Dickey-Fuller/GLS (Generalized least square) to test for stationarity of our variables: news media legitimacy, sentiment, thematic broadness, and user's reach. If significant, the test would indicate possible bias in the estimations of the successive VAR analysis due to local trends in the data. The variables were all found to be stationary.

Second, to select the appropriate lag length for the VAR model, we inspected the Akaike information criterion (AIC), which is the most widely used information criterion in the empirical literature on model selection (Hastie et al., 2009). The AIC selects two lags as the optimal lag number for the model.

Given that the stationarity assumption is satisfied, we estimated the following model: VAR model with two lags with news media legitimacy as the dependent variable, sentiment\*thematic broadness as the independent variable, and user's reach as the control variable. In order to assess the impact that sentiment and thematic broadness together have on the news media legitimacy, the impulse response function simulations were carried out. The impulse response function (IRF) provides two key implications about the model: first, it allows easy assessment of what could happen to  $y$  if  $x$  changes by  $z$  percent; second, it allows estimation of how long the effect would last.

## RESULTS

In order to assess the temporal relationship between news media legitimacy and thematic broadness during a post-scandal phase, a VAR model with two lags was carried out. The model in Table 2 shows that increases in past values of sentiment and thematic broadness together at  $t-1$ , as well as an increase in past values of user's reach at  $t-2$ , significantly ( $p < 0.05$ ) impact the current value of the news media legitimacy.

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Insert Table 2 about here  
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Based on the findings highlighted, we can assert that our hypothesis is confirmed: We find that the higher the thematic broadness of individuals' legitimacy judgment is, the more they influence legitimacy judgments of news media. In particular, our model suggests that the effect of both thematic broadness and sentiment together is significant in driving news media legitimacy on lag 2. Indeed, the model shows that when there is high thematic broadness and negative sentiment, news media legitimacy is influenced negatively, whereas when there is high thematic broadness and positive sentiment, news media legitimacy is influenced positively. However, this influence, from a time perspective, takes place after the influence exerted by a user with reach has taken place. In fact, present values of news media legitimacy are influenced by conversations driven by user's reach that take place in the prior 2 weeks, while the thematic broadness becomes significant only in the last week. This suggests two things: first, although individuals on social media are able to influence the news media legitimacy, independently of their reach, users that have reach influence news media before those that do not have reach. Second, despite individuals with reach exerting an impact on news media first and faster, any individual is able to exert influence on news media once thematic broadness is reached.

In order to quantify the impact of a change in sentiment and thematic broadness on the news media legitimacy, we investigated the impulse response function (IRF), which simulates how a change in one variable affects the change in the other. Specifically, we modeled the impact that a +1 standard deviation increase in news media legitimacy (left) and sentiment and thematic broadness together (right) would have on news media legitimacy, respectively. IRF

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

indicates that the increase in sentiment and thematic broadness together have a positive impact on news media legitimacy and that this impact lasts for about 6 weeks. This means that sentiment expressed by a bridging tweet influences news media legitimacy for a period that lasts 6 weeks. In the final step, we used the impulse response function (IRF) to properly quantify the impact of increases in news media legitimacy and the sentiment and thematic broadness on news media legitimacy, respectively. We found that a +1 standard deviation increase in sentiment and thematic broadness together increases news media legitimacy by +3.3%.

### DISCUSSION

This chapter started with an interest in the impact of digital media on the multilevel process of legitimacy formation (e.g., Bitektine & Haack, 2015; Haack et al., 2020; Suddaby et al., 2017). We elaborated how the digital transformation of the media landscape has increased the complexity of this process (Etter et al., 2019), thereby challenging the prevalent focus of institutional theory on macro-level actors for the creation, maintenance, and decline of organizational legitimacy. We argued that the empowerment of individuals through digital communication technologies (Etter et al., 2018), namely social media, has created a new dynamic through which legitimacy judgments can move from the micro-level to the macro-level when expressed propriety judgments are bridged at the meso-level. The propriety judgments are thereby pre-validated and eventually find resonance with macro-level actors, i.e., the news media. We tested this hypothesis by using semantic network analysis and machine learning applied to Twitter data and news media with VAR models. Our results confirm that propriety judgments expressed on social media in a post scandal phase achieve thematic broadness at the meso-level; they subsequently move to the macro-level and are thus picked up by news media.

### **THEORETICAL CONTRIBUTIONS**

Our study contributes to early scholarship that looks at how digital tools — such as social media and digital platforms more generally — have empowered new actors (e.g., Bauer & Gegenhuber, 2015; Hannigan et al., 2019; Logue & Grimes, forthcoming; Powell, Oberg, Korff, Oelberger, & Kloos, 2016; Toubiana & Zietsma, 2017). Previous work has investigated how such empowered actors use social media technologies and — in the wider sense, platform technologies — in the early stages of institutionalization processes (e.g., Powell et al., 2016) and how actors introduce new ideas by circumventing traditional media (Gegenhuber & Dobusch, 2017) pre-validating these ideas or organizations (Seidel et al., 2020). By developing a theoretical framework that acknowledges how individual actors influence validity judgments through news media, we contribute to the understanding of how “newcomers ... upset institutional arrangements within organizational fields” (Powell et al., 2016, p. 7). Indeed, literature on organizational legitimacy has argued that “legitimacy can be granted by a variety of sources” (Deephouse et al., 2017, p. 28), whereby the wide adoption of social media technologies has led to a dramatic increase of sources through which various evaluators can express their opinions and judgments (Etter et al., 2018). For example, Twitter currently has 330 million active users that send 500 million tweets daily. Importantly, individual actors do not need to be part of a formalized or organized stakeholder group (Schultz et al., 2013; Whelan et al., 2013), but they become impactful with a process of co-creation through which arenas of meaning-making are established. Extant research suggests that different audiences become connected and define the resources that become the basis for (de-)legitimation of firms (Lounsbury & Glynn, 2019; Seidel et al., 2020). Our study suggests that once these arenas are bridged by individuals’ judgments that create thematic broadness, the expressed (de-)legitimation is pre-validated at meso-level, and influences news media.

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

From this perspective, our study has shown how these empowered individuals in social media become part of the “institutional infrastructure” that interprets, conveys, and monitors compliance with the socio-cultural rules of the game (Hinings et al., 2018). We contribute to institutional theory by elaborating how individuals can influence these processes of interpretation and monitoring of compliance in a post-scandal phase, through judgments that bridge stand-alone conversations. This process stands in contrast to macro-level actors who produce and disseminate legitimacy judgments in much more orchestrated ways (e.g., Deephouse & Carter, 2005). Furthermore, our study shows that in a post scandal phase, it is not only powerful actors (i.e., those who have a high number of followers) who may create change on social media; it is also not crucial that an infinite number of actors (i.e., in terms of volume of tweets) participate — rather, our study shows that what matters is that stand-alone expressed conversations and related judgments are bridged and generate a broader discourse in social media that influences the validity judgments of news media. Thereby, bottom-up change is more likely to occur.

Finally, our study contributes to our understanding of the meso-level of the legitimacy loop, which has recently been coined as “the missing link in legitimacy theory” (Haack et al., 2020, p. 7). We answer calls for further exploration of how legitimacy is formed through “interactions between individual actors” (Cornelissen et al., 2015, p. 19; Schultz et al., 2013). For institutional change, it is important to assess how the legitimacy of dominant structures, beliefs, and practices are questioned, not only from macro-level actors, but also by individual actors. Yet, when judgments by actors on the macro-level suggest a consensus about the acceptance of organizations, change is harder to achieve bottom-up (Haack et al., 2020; Bitektine & Haack, 2015). However, with the rise of social media and the opportunity for individuals to raise their voices, such bottom-up change has been increasingly observed

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

(Toubiana & Zietsma, 2017). Extant research suggests that when individuals make their propriety judgment known, other individuals dare to speak up (Clemente & Roulet, 2015). It is however not clear how, once they have spoken up, how macro-level actors can be influenced. Our study suggests that for macro-level actors to be influenced in a post scandal phase, their judgments have to seem somehow bridged, even if they remain stand-alone. Hence, our findings and theoretical arguments allow us to understand how minor conversations about organizations and respective propriety judgments give the impression that they are part of a broad discourse in social media, despite them being in reality peripheral to one another – and thereby influence an assumed consensus at the macro-level (Haack et al., 2020).

### **METHODOLOGICAL IMPLICATIONS**

Research on organizational legitimacy has often studied news media legitimacy (Bansal & Clelland, 2004; Lamin & Zaheer, 2013; Pollock & Rindova, 2003) not only because news media are influential and important macro-level actors, but also because media reports are “readily available in electronic form” (Deephouse et al., 2017, p. 37). Over recent years, texts on social media have become similarly available for researchers and can typically be collected through various data collection tools with use of an API and web-crawlers (for a detailed review on data collection, see Etter et al., 2018). Such methods allow individual judgments to be accessed in the form they are expressed (Etter et al., 2018).

The use of these data, exemplified in our study, can contribute to the management literature on the micro-foundations of institutions (Jepperson, 1991; Powell & Colyvas, 2008). Analyses of social media data enables scholars to study the characteristics of communicative exchanges that are based on micro-level judgments, and subsequently understand how micro-level evaluations emerge. Such an approach can help scholars to analyze institutional

phenomena across multiple levels and stands in contrast to studies that have typically examined organizational legitimacy through the analysis of either small sets of traditional macro-level actors such as news media (e.g., Bansal & Clelland 2004; Deephouse & Carter, 2005) or big datasets sourced from micro-level actors (e.g., Etter et al., 2018). While the former type of analysis can illuminate how legitimacy is validated at the macro-level and the latter helps examination of judgments of individuals at the micro-level, none of them reveals why and how some individual judgments may move between levels, while others do not. The methodological focus on the meso-level, as applied in this study, allows us to understand which judgments are impactful for institutional processes.

Overall, our study can provide guidance for scholars interested in analyzing the multilevel process of legitimacy formation based on the opportunity afforded by social media: access to millions of judgments by individuals who spontaneously emerge and express their opinions. The methods used for this study can further help to understand how to model these. The combination of digital methods — i.e., semantic network analysis (Evans & Aceves, 2016; De Nooy et al., 2005; Illia et al., 2016; Illia et al., 2021) and machine-learning text analysis (Cambria et al., 2013; Etter et al., 2018; Liu, 2012) — with a time-series regression model (Raithel & Schwaiger, 2015; Shan, Fu, & Zheng, 2017) allows researchers to analyze the meso-characteristics of micro-level exchanges, such as judgment expressions, and identify which are validated at macro-level. While the procedures and analytical steps presented in this study aim to identify the thematic broadness of judgments at the meso-level, researchers may adapt these procedures to identify other qualities of interactions, exchanges, and expressions at the micro-level that are crucial for other organizational phenomena (Suddaby & Greenwood 2005; Suddaby et al., 2017).

### **LIMITATIONS**

Our analysis is based on a single case study. To transfer these findings to other domains, a replication of the study is necessary. The thematic broadness received through the aggregation of micro-level legitimacy judgments at the meso-level may differ in intensity between diverse types of firms, industries, and contexts. Thus, it would be worth exploring whether thematic broadness may also be important for the transfer of legitimacy judgments from micro- to macro-level in other situations. Furthermore, our study successfully explains organizational legitimacy expressed by the news media, although arguments presented may not apply to explaining the influence of other important macro-level actors such as regulators or governments. Our choice to focus on news media was motivated by the fact that the latter has been affected by the emergence of social media (Etter et al., 2019). Nevertheless, it would be interesting to study if such an upward loop of legitimacy is similarly in place for other macro-level actors. Finally, we did not consider the role that algorithms play in connecting communities and making judgments known (Etter & Albu, 2020), processes that we consider crucial to address in future research.

### **Future research avenues on legitimacy and social media**

By building on previous work on social evaluations and social media (Etter et al., 2018; Etter et al., 2019; Illia et al., 2021), we elaborate on the thematic broadness of conversations in social media as an important factor that explains the influence of social media on news media. However, we have not looked at other factors, such as volume and convergence of tweets as an indicator for visibility and attention, that may have an influence on the transition of judgments from the micro-level to the macro-level, especially during a crisis. Exploring such factors would require understanding how conversational volume is achieved in social media,



## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

while creating aggregation and convergence. Previous work indicates that volume, per se, is not a sine qua non condition that assures that what is expressed in social media becomes impactful (Barnett, Henriques, & Husted, 2020). Hence, conducting a study in this direction would allow us to go one step further and analyze how heterogeneous propriety judgments converge, rather than looking at the thematic broadness of conversations and judgments.

Furthermore, future research interested in continuing analyzing thematic broadness may look into profiling users, who are central to creating this thematic broadness. Such research would contribute to our understanding of audiences that are crucial for broadening networked conversations. In particular, further research may look into characteristics of such influential audiences, their motives, how their judgments may change over time, and how they influence one another. Finally, further research may focus on the visual and textual characteristics of tweets with high thematic broadness to explore underlying linguistic-semiotic processes.

## CONCLUSION

Our manuscript has responded to scholars who have expressed “hope... that future research will produce a better understanding of how the emergence of social media and the big data generated therein reflect and influence organizational legitimacy” (Deephouse et al., p. 2017), as well as to those scholars interested in further understanding how legitimacy is formed through networked communications (Cornelissen et al., 2015; Schultz et al., 2013). With this chapter, we have furthered this relatively novel stream of research and provided theoretical and methodological contributions on which further scholars may build.

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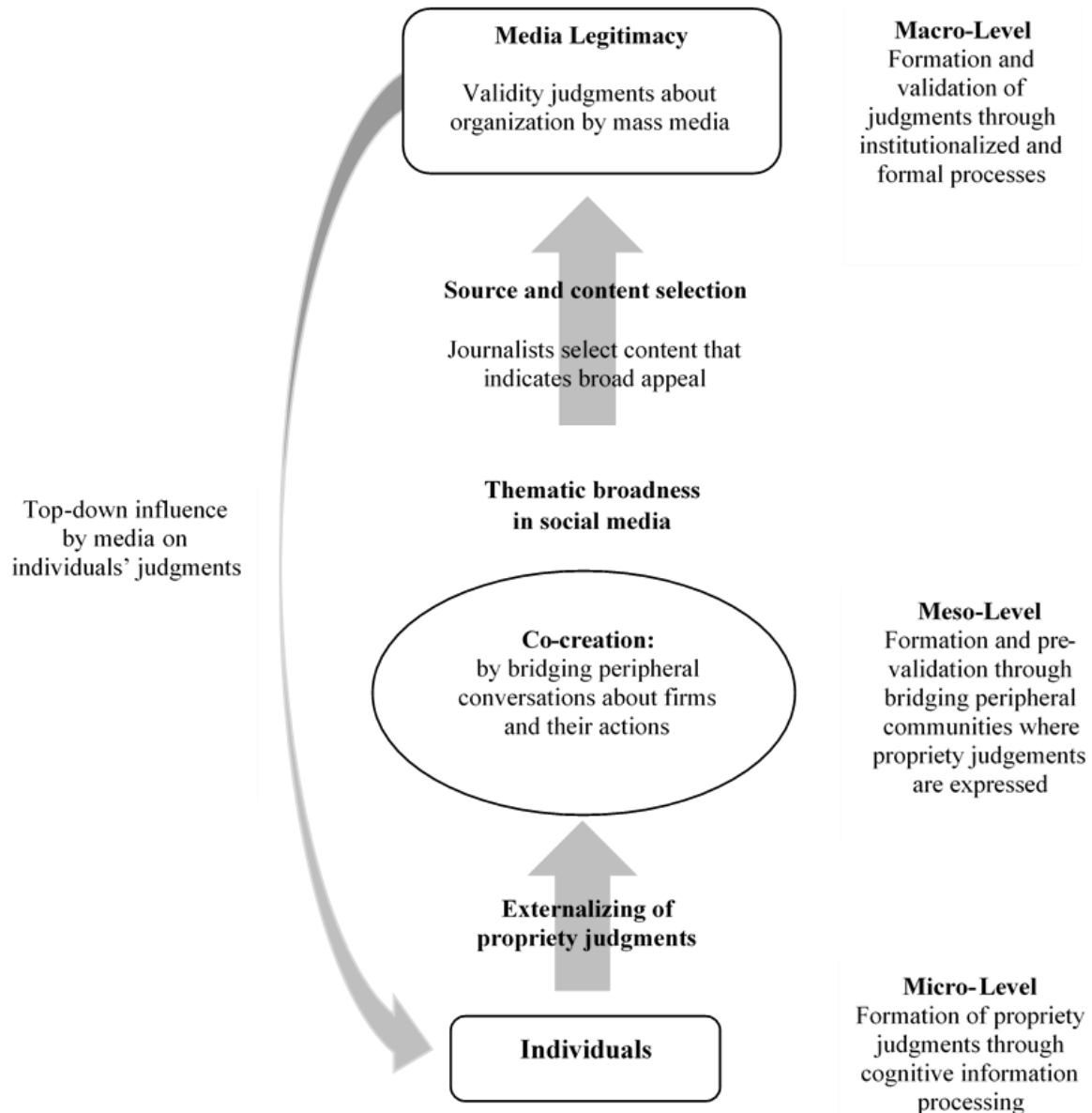
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**Figure 1: How micro-level judgments move to macro-level in social media through the meso-level**



**Table 1: Correlation Matrix**

|  | <b>News media legitimacy</b> | <b>Thematic broadness</b> | <b>Sentiment in social media</b> | <b>Number of followers in social media</b> |
|--|------------------------------|---------------------------|----------------------------------|--|
| <b>News media Legitimacy</b>               | 1                            |                           |                                  |  |
| <b>Thematic Broadness</b>                  | -0.09                        | 1                         |                                  |  |
| <b>Sentiment in social media</b>           | 0.07                         | -0.03                     | 1                                |  |
| <b>Number of followers in social media</b> | -0.06                        | -0.24**                   | -0.13                            | 1  |

## FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

**Table 2: Main results of time series autoregressive model (VAR) with 2 lags**

|  | Estimate | Std. Error | T-value | Pr(> t )  |
|--|----------|------------|---------|-----------|
| News media legitimacy L1               | -0.21721 | 0.14317    | -1.517  | 0.13653   |
| <b>Sentiment*Thematic Broadness L1</b> | 0.33395  | 0.15653    | 2.133   | 0.03863*  |
| Log(Followers) L1                      | 0.0668   | 0.1525     | 0.438   | 0.66354   |
| News media legitimacy L2               | -0.19448 | 0.1409     | -1.38   | 0.17464   |
| <b>Sentiment*Thematic Broadness L2</b> | -0.07511 | 0.15503    | -0.485  | 0.63049   |
| <b>Log(Followers) L2</b>               | -0.32763 | 0.15788    | -2.075  | 0.04398*  |
| <b>const</b>                           | 0.45468  | 0.15782    | 2.881   | 0.00616** |

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9859 on 43 degrees of freedom

Multiple R-Squared: 0.2131, Adjusted R-squared: 0.1033

F-statistic: 1.941 on 6 and 43 DF, p-value: 0.09585

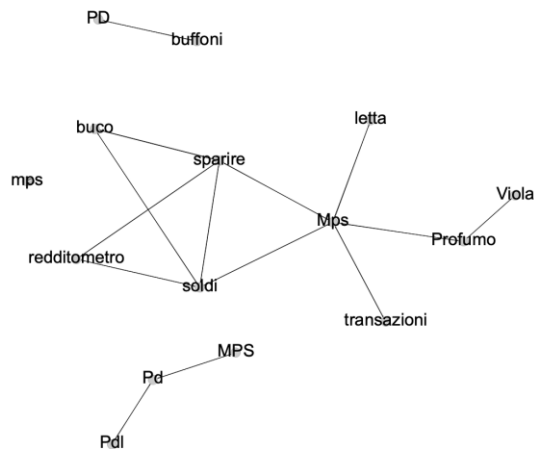
# FROM MICRO-LEVEL TO MACRO-LEVEL LEGITIMACY

## Figure 2: Example of two-mode vs. one-mode networks

### Two-mode network



### One-mode network



Note: Figure is in Italian, as the data is in Italian.