

# SOCIAL NETWORKS IN THE COSPONSORSHIP LEGISLATIVE BEHAVIOR: THEORETICAL EXPLORATIONS

GABRIELA-NOUELLA GHINEA

*Legislation adoption is a complex process which brings together assorted actors, each with its own array of attributes, strategies and motives. Legislators rely on the web created for a diverse array of functions, from information diffusion to coalition building. Given its heterogeneous nature, legislative cosponsorship networks have gradually become a focus point in the study of collaborative activity in political settings. The article looks into the history of how social network analysis has been adopted in the study of cosponsorship patterns, at the most used methodologies, explanatory variables and applications within this subfield. It looks at the multiple studies that are dealing with the variables facilitating voluntary cooperation, how they may vary in performance given different national contexts, and how personal interests and institutional constraints (or incentives) intertwine. The last chapter deals with research developed using lessons learned from studying legislative networks.*

**Keywords:** social network analysis; cosponsorship networks; legislative networks; centrality measures; explanatory variables; data gathering.

## WHY SOCIAL NETWORK ANALYSIS IN THE STUDY OF COSPONSORSHIP BEHAVIOR?

“Personal contacts between human beings lie at the very heart of all problems of government and society. Nowhere is this personal factor more evident or more important than in the political activity which determines the content and administration of laws” (Rouff 1938, 129).

The field of political science did not particularly rush to adopt social network analysis (SNA) as a research tool. SNA has seldom appeared in political and sociological journals since the early mentions of sociograms (Moreno 1934), until somewhat recently, when “there has been a veritable explosion of interest in the discipline” (Kirkland and Gross 2014, 97). Considering the prevalence of relational

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**Address of the corresponding author:** Gabriela-Nouella Ghinea, Doctoral School of Sociology, Faculty of Sociology and Social Work, University of Bucharest, 9 Schitu Măgureanu Street, District 1, 010181, Bucharest, Romania, e-mail: ghinea.nouella@gmail.com.

concepts such as collaboration, alliance-formation, influence and power within the fields of political science and sociology, and the fact that SNA is centered on the connections individuals form, it has been argued that a small part of topics can be nowadays studied independently from one another (McClurg and Young 2011). The present paper focuses on the literature developed through the application of SNA in the subfield of legislative behavior, more precisely on the operationalization of legislative cosponsorship data as a relational structure. In the literature discussed, the term cosponsorship is defined in contrast to legislative sponsorship; a “cosponsor” is a representative who adds his or her name as a supporter to a particular bill.

Legislation adoption is a complex process that brings together assorted actors, each with its own array of strategies and motives. Carrizosa (2020) reiterates in his paper Kessler and Krehbiel’s (1996) argument that cosponsorship behavior should be studied rather as a process, and less as an outcome, “where legislators see their available options, gain information about projects, promote their own projects, and anticipate the success or failure of a bill on the floor before deciding whether to sign onto a bill” (p. 10). Being collaborative in nature, cosponsorship behavior is a natural subject for network research. In this paper a network is defined by a set of nodes, often referred to as actors and the ties or relationships between them. In this particular subfield, the nodes are going to be represented by legislators; the ties within the structure represent the acts of proposing and offering support to a piece of legislation. A line/ tie can be drawn from a legislator cosponsoring a proposal to the sponsor of that particular bill. It is important to note that in cases such as U.S. we are going to represent the relation between the lawmakers as being asymmetric or directed. The direction of the relationship goes from the cosponsor to the proponent of the bill. In other situations, such as the Romanian one, there is no differentiation between a sponsor and a cosponsor, both being represented under the name of “initiator”. Such a structure is constructed with symmetric or undirected links.

At the heart of the network approach lies the argument that the position a particular node/ actor holds within a structure of interrelated social interactions may bring about opportunities or constrain its behavior. This perspective is rather different when compared to the classic approach; by a classic approach I point to the studies that use cosponsorship as a statistic of legislative activity, and not as a network building block. For example, Campbell (1982) addresses the reasons for different degrees of legislative activity in the U.S. Senate and House of Representatives. The article uses the general level of legislative proactivity as a dependent variable and finds that it is influenced by ideology, seniority (junior liberals being the ones to participate as a cosponsor most often), marginality and general level of activity (number of bills proposed). As stated, instead of focusing on individual attributes that may influence an actor’s outcome, the network approach centers around the relationships the actor forms, and on the patterns of its interactions within the structure (Brass *et al.* 2004, 795).

With these details in mind, the paper seeks to provide answers to questions such as how was social network analysis adopted in the study of legislative networks? What are some of the variables that emerged as significant contributors to collaborative patterns in supporting certain legislation? The differences in the collaboration patterns stem from state contexts, or rather does the same variable act similarly, regardless of the national context in which it is observed? The studies included explore both the so-called antecedents of these legislative networks, namely, the triggers of a particular network configuration, but also the consequences, or rather the effects produced by the shape of the social network discussed (Hâncean 2013, 7).

#### **A SHORT WALK THROUGH THE DEVELOPMENT OF A SOCIAL NETWORK THEORY OF LEGISLATION COSPONSORING**

The adoption of network methodology in the field of legislative behavior is, understandably, closely related to the field gaining popularity within the greater umbrella of social sciences. Its assimilation can be divided into three subsequent waves. The first one took shape at the beginning of the 1930's, and its main merit was to establish the link between relational notions and socio-political investigation. The main name subscribing to this period, within the macro context, is that of Jacob Moreno and the research he conducted at the *New York Training School for Girls* in Hudson – one of the main steps in developing sociograms and sociometry, which later evolved into the field of social network theory and analysis. The institution in discussion played the role of a reformatory school for teenage girls convicted of various forms of juvenile delinquency. In the autumn of 1932, the number of runaways grew substantially – the rate was thirty times higher than what was considered normal at the time. Moreno together with his colleague, Helen Jennings, graphically represented the feelings expressed by the girls toward one another through a series of sociograms. The method used was driven by the idea that the runaway phenomenon was influenced less by individual factors characterizing the girls, such as personality or motivation, and more by their embeddedness/ location within the network, that would determine if and when they would run away (Borgatti *et al.* 2009, 893).

Building on these emergent ideas, Routh (1938) theorized about the importance of interpersonal relationships in the legislative forum. The author coined the concept of “the legislator’s problem” describing the way in which the official must play in two arenas, in order to maintain and eventually consolidate his position. Firstly, he must maintain the electorate happy, and secondly, he should hastily learn to create and conserve personal links that would facilitate negotiation with his peers – that is if he wants to make sure that some of the legislation that he proposes is going to be taken into consideration:

“It was with the hope of casting a little more light on this vague problem of the influence of factors of interpersonal relationship on the legislative process that an attempt was made to develop and apply a simple methodology for the recording of certain data during the ongoing legislative situation” (Rouff 1938, 131).

The approach involved having investigators present in the legislative chamber, in order to record and classify personal contacts between legislators (within specified periods). The participating personnel needed to be able to recognize all the legislators, and to be familiar with the arrangement of their desks. The final database contained coded information regarding the persons involved in the interaction, and the location it took place in.

It is necessary to mention that there were some previous attempts to discuss the role relationships between lawmakers played in their voting behavior, but the literature lacked at the time the necessary network vocabulary. One such example is Rice's (1927) study which defined connections between legislators as the frequency of accord on roll call votes; today, the study of roll call votes is thought to better emphasize the lawmakers' ideology, rather than describing the social connection between them (Poole and Rosenthal 1991).

The second wave, pertaining to the 1940's through the '70's, was encouraged by developments on several fronts. At this point, social network analysis began to formalize as a field in itself through the use of graph theory, which brought notions such as groups and social circles from the abstract realm into the concrete (Luce and Perry 1949). An important event for this period was the formation of the Group Networks Laboratory within the Massachusetts Institute of Technology; the research conducted there consisted of laboratory experimentation, and as an incipient study, the researchers began to investigate the effects of various network communication structures on a group's problem-solving ability.

As for the subject at hand, one of the influential studies within the second wave was that of Samuel Patterson (1959), who focused on the interpersonal relations between the representatives of the Wisconsin Assembly (self-identified friendship relationship); the author discovered that some of the most important variables which determined the formation of friendship cliques were: seniority, leadership functions, sitting layouts (seat-mates), and even geography – friendships formed between members residing close to one another, and that would most of the times ride together from home to work. The “geographical element” (proximity in living arrangements) is studied in great detail by Young (1966) in his book about the governmental community in Washington, in the Jeffersonian Era. Using roll call data, the analysis managed to bring evidence to support the idea that “the members who lived together, took their meals together, and spent most of their leisure hours together also voted together with a very high degree of regularity” (p. 102). Bogue and Marlaire's (1975) added to the literature corpus by retesting Young's conclusions, using data gathered at the first Congress of the second Monroe administration. The authors debated the so-called “boardinghouse effect”,

namely, a significant positive effect between lawmakers who cohabitated temporarily, and the tendency to offer support for particular pieces of legislation, as not being a consequence, but rather a preselection effect. The living arrangements were made based on affinity, and this might also serve as cause for similarity in voting choices (and not a direct influence of the location *per se*).

Constructing on Routh and Patterson's findings (the author also credits the study conducted by Wahlke *et. al* (1962) – a systematic exploration of the “rules of the game”, informal norms and sanctions, in conducting legislative business.), Monsma (1966) made the distinction between types of connections the legislators may form. While primary relations are affective, close and spontaneous (informal) to a certain degree, the secondary ones are rather task-orientated, and most of the times imposed by the formal structure of the organization. The author found that this division is a strong predictor of the resulting structure of a legislature. For example, secondary relationships, which tend to cross party lines more often than primary ones (more concentrated within the same party), have a stronger tendency to be reciprocated, and also are significantly more clustered (p. 363). The importance of informal group formation within legislative structures was previously studied by Fiellin (1962), who used interview data together with participant-observation, in order to map out the communication networks developed between lawmakers, formations that served a functional purpose and facilitated the exchange/diffusion of information, advice and cues concerning voting preference. One of the conclusions put forward by the author was that “it would be nearly impossible for the members of the Congress to perform their legislative functions in the absence of such communication channels” (p. 81), as the formal floor debates only manage to partly facilitate negotiations needed to reach consensus.

Even earlier, similar findings were promoted by Matthew (1959) in his study of the Senate of the United States. The author gave a name to the unwritten rules that govern the lawmakers' behavior (informal group rules), the “folkways”. These guidelines regulate the manner in which a senator should behave, and nonconformity is followed by condemnation from his peers. The evidence collected by the author suggested that there has been little change to these folk-rules since the late 18<sup>th</sup> century, mainly due to the small number of representatives in the chamber and steady turnover, which is facilitating the inheritance of mostly unaltered rules from one generation to the other. Yet, the author also mentions that some factors, such as increased competition in a two-party system, the rise of mass-media communications role within politics, and larger constituencies, may give birth to new informal rules (p. 1088–1089).

The studies developed within these first two waves are unified by a few common characteristics. Firstly, they share a common context: they are based on rational choice theory; the main explanations of connection formation lay in the self-serving rationales that may govern a legislator's decision. A summarizing discussion on this trait was later developed by Richard Fenno (1973), who puts forward three main reasons that may govern a legislators' decision to form

connections to their peers: firstly, and most importantly, they need to make sure they will be reelected; secondly, they seek prestige and power among their peers, and thirdly, there may also have the desire of implementing what the author calls “good policy”. The so-called “pure position-taking” model (Bratton and Rouse 2011) implies that the legislators are only interested in electoral success disregarding their vision of a good public policy. On the other hand, the “policy-seeking model” depicts the legislators as having the greater good at the center of their decisions. Much later, in the third development wave, the purely network argument was brought to the table, namely, the social construction itself, in this case, the legislature may dictate some behavior patterns (Kirkland 2010, 2).

Secondly, at the time, most network studies relied on classic data gathering methods, such as questionnaires, interviews, or participant observation (Rouff 1938; Patterson 1959; Matthew 1959; Fiellin 1962; Monsma 1966; Bogue and Marlaire 1975). This type of data is immensely useful in studying legislative behavior in social network terms, but it also suffers from (at least) three setbacks. The first one resides in the data collection process which limits the acquisition of information to a very small sample of people, thus, the conclusions and findings may have a generalizability issue. The second setback is the subjective nature of data collected through questionnaires and interviews (maybe less through participative observation). The respondents may have different views about what classifies as a social connection and offer divergent accounts. The third setback is apparent in terms of cost – efficiency terms. Much energy is to be invested in redoing such studies in order to assess the phenomenon from a dynamic stance. The more recent efforts in data collection, given the developments in technology, were focused on obtaining and analyzing larger amounts of objective data.

This brings us to the third development wave in the field of legislative behavior through the lens of SNA; it is characterized by the improvement of theoretical and statistical models of social networks, given the amount of data that is presently easily available. The first studies conducted relied on officials willingness to participate in surveys, but because of the inherent limitations of this particular methodology, the scholars could not test a general theory concerning the effect of particular relationship types on cosponsorship patterns (as previously argued). The representatives of the third wave made use of conclusions put forward by the pioneers in the field and tested variables that emerged as significant predictors in previous studies against large sets of data. The new context also facilitated the expansion of measures in describing the structure of the network.

A good example is Fowler (2006) who used a network approach, in order to put together the cosponsorship network comprising all 280 000 legislation pieces proposed between 1973 and 2004 in the US Senate and House. The author used several variables to describe the structure: the number of representatives that cosponsored each bill, network measures such as degree centrality (statistic used as a proxy for assessing the “prestige” of an actor; count the number of direct links a node has with the other nodes in the network.), betweenness centrality (Freeman

1977), closeness (and eigenvector centrality (Bonacich 1972), and a new measure that he developed named “connectedness”, a statistic that can be used in order to give a measure of legislative influence. Traditional centrality measures are used in order to assess the relative importance of an individual within a social structure (Freeman, Borgatti and White 1991). In our particular case, degree centrality serves as a measure of support each legislator receives from his peers (number of unique cosponsors). Burkett (1997), in her attempt to broaden the knowledge of the legislative process, used this measure to test the relationship between seniority and the amount of support received in the U.S. Senate but did not find a significant effect. Closeness centrality goes beyond the direct link between sponsors and cosponsors, by measuring the average distance between any pair of actors embedded in the structure. By looking at betweenness centrality we can identify the legislators that act as a bridge of support between different parts of the structure: they receive support from some of their peers, and offer it to a few others (Wasserman and Faust 1994). The statistic counts the number of shortest paths between the pairs of legislators and sums how many of these paths go through each actor. In simple terms, betweenness centrality is, in this instance, a measure of support diversity; the legislators that score well on this statistic receive support from clusters of peers otherwise very loosely connected (or even unconnected). Eigenvector centrality simultaneously estimates the degree centrality of a particular sponsor and the centralities of his cosponsors; the actors scoring best on this statistic are those that are supported by peers that receive considerable support from their peers. The last statistics used by Fowler (2006), “connectedness” emphasized that the strongest ties have been found between ranking members (“institutional ties”), lawmakers from the same state or nearby districts, namely “regional ties” (same geographical linkages that previous interview based research managed to find), legislators that closely work on a specific issue, or issue based links, and also those who are considered to be friends – “personal ties”.

Within the same newly developed framework, some studies have gone beyond the legislator as an observation unit, and put the dyad (pairs of lawmakers) as a focal point in the analysis. Gross and Shalizi (2009) look both at dyads and beyond the now “traditional variables” (such as geography or ideology) when it comes to the relationships between legislators, and enrich their analysis with such items as: shared religion, shared profession and common state demographics.

Tam Cho and Fowler (2010) focused on describing the manner in which the underlying social network of the U.S. Congress mimics the particularities of a “small world”, and how this affects legislation patterns. The “small world” phenomenon represents an array of different types of structures that share two properties: firstly, most nodes can be reached by all the other nodes in a modest number of steps, and secondly, the structures present a high degree of clustering. A small-world structure must have the mean shortest length of the paths significantly lower than that of a random graph, and the same goes for the average level of clustering described (Watts and Strogatz 1988). The scholars identified a link

between the properties of the congressional cosponsorship structure and the quantity of important bills that the chamber manages to pass.

Another novel variable used in examining cosponsorship patterns is gender. Swers (2005) used Poisson regression models in order to test if there are gender differences in co-signing on bills that pertain to five areas such as: women's and general health issues, education, family issues and welfare. The data supported the hypothesis in the first four arenas, with Liberal Democrats being the group in which these discrepancies appeared to be most acute (p. 427).

Some of the later studies of cosponsorship include variables such as modularity. Modularity is defined by Mark Newman (2006) as "the number of edges falling within groups minus the expected number in an equivalent network with edges placed at random" (p. 8578), in simple terms it is a measure of how the network is divided into modules (groups or cliques). Zhang *et al.* (2008) postulated that modularity is especially efficient in analyzing partisan polarization in the absence of information such as ideology or political views of the representatives. Analyzing U.S. Congress data between 1979 and 2004 (time series), the scholars demonstrated a strong increase in partisan polarization before the 104<sup>th</sup> Congress, which may be a good variable when looking to forecast political realignments (p. 1711). Much like Zhang *et al.* (2008), Waugh *et al.* (2009) defined polarization less ideologically (party affiliation) and more behaviorally – the authors looked at modularity at an individual level, namely at variables such as *divisiveness* – the degree to which a lawmaker can contribute to the network-level modularity and *solidarity* – a measure of how the representatives are in line with their pertaining community. The two measures promoted by the article were further used to analyze the relationship between outcome variables, such as reelection rates and the behavior of the legislators.

The last decade or so has brought a shift in research approach regarding the cosponsorship behavior field, with the focus moving from the variables that serve as pattern predictors more towards context-specific factors. For example, little research has been yet done on the issue of legislative cosponsorship behavior within particular policy domains. One of the few such studies was developed on data pertaining to the eighteenth Korean assembly (2008–2010), the policy domain being that of insurance (the issue was represented in the study through five legislative acts, namely: Employment Insurance Act, National Pension Act, Industrial Accident Compensation Insurance Act, Act on Long-Term Care Insurance for the Elderly and the National Health Insurance Act.). The authors used the most common centrality measures – degree, betweenness, closeness and eigenvector centrality – in order to pinpoint the most influential actors involved in developing welfare policy and looked at the attributes displayed by their network. The main effects found were: a "ruling party effect", the largest percentage of assemblymen involved in welfare policymaking were representatives of the party holding the majority; a "seniority effect" – first time elected representatives scored lower on the centrality index when compared to representatives elected multiple



times; a weak committee effect, meaning that the Welfare and Environment and Labor Committees were not the ones taking the lead on the issue, as it would have been expected (Min and Kim 2014).

Another innovative study was that of Chiru and Neamțu (2012), who were the first to investigate cosponsorship in legislative initiatives in the Romanian context, by looking at the changes occurring after a fundamental electoral revisal – the replacement of closed list proportional representation/ PR system, with the single member district/ SMD based system. The authors used measures from social network analysis in order to look at the mesh between personal preferences and official rules in cosponsorship decision-making. Thus, they combined measures from SNA with multivariate statistics (such as policy savviness – meaning membership within a committee, ideology, parliamentary experience, gender and others). The literature at the core of the study is rooted more in political science rather than sociology – such as much of the literature we have discussed thus far, as it goes into more formal elements, such as how variation in electoral rules may influence the behavioral patterns of legislators (Carey 2007; Depauw and Martin 2008).

#### **LOOKING AT VARIABLES IN CONTEXT-SPECIFIC RESEARCH: EUROPEAN AND LATIN-AMERICAN CASE STUDIES**

As it can be readily seen from the research presented thus far, many of the developed models of cosponsorship are based on data pertaining to either of the Congressional U.S. houses. The last two decades have diversified, somewhat, the geographical contexts in which the phenomenon was researched. Most studies on the subject at hand developed in European contexts prefer to use a classical statistical approach (examples of such papers are: Rivera and Cantú, 2018 – analysis that includes Norway, Portugal, Spain, Finland and Luxembourg; Tavits, 2010 – uses data collected from the Estonian legislative structures), but there are a few that embrace the network alternative. Briatte (2016) has analyzed collaborative legislative behavior in 20 European parliaments (plus Israel), and a total of 150 legislatures (the interval between two nationwide legislative ballots). Constructing on the work of Waugh *et al.* (2009) and Kirkland and Gross (2012), the author uses modularity as a base of comparison between the national legislative structures. One of the conclusions on which further studies may build upon is that the methods and techniques developed in the U.S. legislative context are applicable in the context of several European legislatures. Using data collected from the Swiss Parliament (from 2003 up to 2015), Sciarini (2019) investigates “the influence of MPs’ cosponsorship activities on their agenda-setting success. It analyses the strategic choices open to MPs who engage in cosponsorship, the resulting centralities in the cosponsorship network, and the effects on the success of parliamentary proposals” (p. 1).

Better represented in the context-specific research is Latin-America. Most of the studies developed here are comparative in nature. Alemán and Calvo (2013) tested the explanatory power of variables such as party affiliation, territory and jurisdiction in the context of Argentina and Chile. The national contexts were quite different; while Argentina was ruled at the time by a federal constitution, with an unstable party system and volatile committee structure, Chile was at the opposite spectrum, with strong parties and coalitions, and a well-put-together committee system. The scholars found that while in Argentina territoriality is the strongest variable in explaining policy behavior (collaboration focused rather on the local), in Chile, the cosponsorship patterns are better justified by an ideological (party unity) approach.

Crisp *et al.* (2004) brought two sorts of innovations with their approach of the field. Firstly, they made a cross-national analysis of six presidential democracies (countries included: Argentina, Chile, Colombia, Costa-Rica, Honduras and Venezuela, in different time intervals) in Latin America, and secondly, they used variables such as electoral laws, career ambition, and party nomination strategies (what the authors call altogether “electoral incentives”) to test how such factors influence the substance of the legislation initiated. The study demonstrated that, in this particular case, regardless of the national context, the political parties, through their nomination policies exerted a strong influence on the legislators’ priorities.

Micozzi (2013) makes use of data collected from the Argentinian Congress (about 50 000 bills proposed between 1983 and 2007) in order to bring support to the hypothesis that cosponsorship patterns echo provincial or municipal fluctuation in politics. The concept used by the author to explain these multi-level interactions (city vs. province vs. national level) is ambition or career perspective as a pertinent variable in predicting legislative collaboration. He hypothesized that “legislators with gubernatorial expectations tend to cosponsor more with other prospective governors” and those with “mayoral expectations tend to cosponsor more with other prospective mayors” and found support for both instances.

Alemán (2015) looked at the connections formed through cosponsoring bills by the Colombian lawmakers within both parliamentary chambers. The timeframe chosen by the author, 2002–2006, represented the first term of President Alvaro Uribe, a period characterized by ideological instability within parties. Also, in the investigated time interval, a considerable portion of Colombian legislators was involved in a large-scale political scandal – the representatives in case were linked to outlawed paramilitary organizations. Together with other (classical) variables Alemán included in his model the involvement of the legislators with the Parapolitica group (lawmakers that were found to have links to the United Self-Defense Forces of Colombia/ AUC, a paramilitary group accused of killing many Colombian citizens). The results indicated that cohesiveness did vary across the same ideological groups (on the left-right axis, with the Liberals being rather all over the spectrum), while variables such as being from a certain region, being in the same

chamber or sharing a committee promoted cooperation on developing bills. Albeit to a moderate degree, the analysis shows that legislators sharing links to the Parapolitica scandal are also more inclined to co-propose legislative changes.

### **LEGISLATIVE COLLABORATION IN THE ERA OF MASS AND SOCIAL MEDIA**

The methodology developed through the study of cosponsorship of legislation has served as the basis for promoting other sorts of legislative collaboration studies. Desmarais *et al.* (2015) discuss about the influence of organizing joint press events between Senators, as a good measure when forecasting roll-call voting behavior – in the largest part because of the pricey nature of the events and their strictly intentional nature. The authors postulate that the measure developed in their study may be a better indicator of real-world collaboration than cosponsorship of legislative initiatives given, for example, the noise created in the data by the large number of supporters on major bills. The study brought evidence showing the structure created through press events is quite different from the one of cosponsorship of legislation, that the event ties formed are correlated with the two most common institutional variables (sharing a party and sharing a committee), and that participating in joint press events is a significant predictor for roll-call voting.

Beyond mass-media, the development of social media may challenge traditional collaboration in parliaments. Esteve Del Valle and Borge Bravo (2017) studied the following–follower relationship between the Catalan MP's, as found on Twitter, in the attempt to identify the most influential actors and if the structure emerging from the online networks respects “classic” patterns of collaborations (the authors claim that about 85% of the representatives own a Twitter account). Shortly put, the scholars discovered that the Twitter network maintained the leadership effect, such as a legislative cosponsorship network does, but it identifies some more subtle influencers, mostly newcomers within the network, that play an important role as bridges (brokers) between different parties and ideologies. The research solidifies previous findings that identified the number of followers on this micro-blogging platform to be associated with traditional political leadership roles (Diani 2003).

### **FINAL REMARKS**

Firstly, we were interested in understanding how SNA was adopted as a method of studying legislative behavior, and more precisely in the research of bill cosponsorship. Our almost historical approach of the issue brings about the answer: slowly but surely. Today SNA is a well-integrated asset in the socio-political researcher tool. Secondly, regarding the impressive array of variables tested as antecedents of cosponsorship networks, several conclusions can be drawn. While

some of the results may vary across national contexts, as the studies conducted in the Latin-American states concluded (Alemán and Calvo 2013; Crisp *et al.* 2004), other are consistent in multiple respects. Geographical aspects seem to always have an impact on collaborative behavior, even more often than ideological factors (which can probably be regarded as more unstable and fluid than other variables). The research seems to be in favor of the homophily argument (birds of a feather – flock together – effect), namely similarity between legislators favors collaborative behavior in terms of seniority, leadership, and even the sharing of a minority status, such as being a woman in a legislator role, would increase the probability that a legislator would support a peer's bill.

SNA made it possible to model not only the individual attributes of an actor as independent variables, but to enrich the analysis with relational information. Given the nature of legislative behavior, this is a better integrated perspective, but its benefits were certainly not maximized. As previously stated, there is little research done when it comes to legislative cosponsorship data on particular policy domains. With certainty, the method could bring light to how legislators decide on which particular bill to get involved, given the interesting results of Min, K. C., and Kim, Y. M. (2014) study that when it came to welfare legislation the Welfare and Environment and Labor Committees were not the ones taking the lead on the issue as it would have been expected. Moreover, it would be strongly informative to expand the analysis beyond the outcome, and focus on the clusters formed during the legislative negotiations, and add another layer to the model addressing legislative behavior.

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*Procesul de adoptare a unei legi este unul complex, care reunește o serie de actori, fiecare cu propria sa gamă de atribute, strategii și motive. Legiuitorii se bazează pe rețeaua din care fac parte pentru o gamă variată de funcții, de la difuzarea informațiilor până la construirea de coaliții. Rețelele de cosponsorizare legislativă au devenit treptat un punct focal în studiul activității de colaborare în medii politice. Acest articol aduce în prim-plan istoria modului în care analiza rețelelor sociale a fost adoptată în studiul modelelor de cosponsorizare discută cele mai utilizate metodologii, variabile explicative și aplicații din acest subdomeniu. Sunt analizate multiplele studii care se ocupă de variabilele ce facilitează cooperarea voluntară, modul în care acestea pot varia în performanță în funcție de diferite contexte naționale, dar și de modul în care interesele personale și constrângerile instituționale (sau stimulentele) acționează asupra rețelelor de cosponsorizare legislativă. Ultimul capitol tratează cercetările dezvoltate folosind lecțiile învățate din studierea rețelelor legislative.*

**Cuvinte-cheie:** analiza rețelelor sociale; rețele de cosponsorizare; rețele legislative; măsuri de centralitate; variabile explicative; colectare de date.

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