User Engagement with MPs Posts: Examining the characteristics of popular posts by parliamentarians

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Abstract

MPs' social media channels have become key means for contact with the public. We used automated tools to extract all of the posts published on all Israeli MPs pages through an entire session of the parliament, and then sampled and manually coded the most popular posts. This enabled us to study the characteristics of the posts that stand out in terms of user engagement in the context of representative-citizen interaction on social media. The results portray a complex picture, according to which both the gender of MPs, as well as the format, content and tone of the posts simultaneously affect their acceptance.

Keywords

social media, e-parliament, engagement, content analysis, political communication

1. Introduction

Social media has become a central tool in many aspects of our lives, and in particular in the discourse between the public, its representatives, journalists and other players.

Social media has led to an expectation, not only of an increase in the volume of communication between the public and MPs, but also of a different kind of politics: a shift from politics that focuses on "talking heads" seen from the television screen, where the public has minimal abilities to convey messages to politicians and promote various goals – to more participatory and dialogic politics [1]. This type of politics is characterized by fast and direct channels of communication, through which the public can illustrate to politicians what issues should be on the agenda, and what their position is on these issues. The ongoing communication between politicians and the public is supposed to bring the needs of the public closer to the conduct of politicians [2, 3, 4].

Studies from the past decade have examined what actually characterizes the communication between the public and politicians on social media. Studies have found that reality is far from the ideal picture painted earlier. In the relationship between politicians and the public, it can be said that social media has actually provided a more significant amplifier for politicians to resonate and echo their agendas to the public, than for the public to resonate its agendas to politicians [5, 6]. Moreover, politicians have resources and abilities to recruit professionals to activate shiny and effective social media pages that reach far and wide. They provide them with (very) loudspeakers that can replace their need to communicate with journalists and even with constituents [7, 8, 9].

However, not every agenda and every piece of information that the politicians are interested in promoting through social media is received in the same way. Some items are better received than others. Studies have shown that variables such as the author's gender, the visual format of the post, the content and tone of the posts have a significant impact on their acceptance (see below).

The present study is unique in that it examines the patterns of MP communication with the public in a broad perspective (study based on an entire session of Parliament), by use of automated tools. The findings show a complex picture according to which many types of variables affect the reception of MP messages. In the following paragraphs we review a number of categories of variables that research has shown that may affect the acceptance of posts by MPs: the gender of the post's author, the visual format of the post, the content of the post and its tone. For ease of reading, at the end of each section we include the corresponding hypotheses.

2. Category 1: Author of the posts (Gender)

The first category concerns the post's author, and specifically his or her gender. The study shows that content uploaded by women is oftentimes better received than content uploaded by men on the Internet and social media [10] (see also [11]).

Will MPs social media present a different picture? On the one hand, it can be argued that the social media of parliament members employs assistants and professionals and not the parliament members themselves upload the post, which can neutralize gender effects. On the other hand, it can be argued that even if someone operates the parliament members' pages for them, in the end they should align with the branding and image that the parliament member wants to create for himself or herself. Following this, we ask whether there were any differences in public involvement with posts by male and female MPs and hypothesize that:

H1: Posts by Female MPs receive more engagement than posts by Male MPs.

3. Category 2: Format of the posts (Images)

The literature demonstrates that visual information is processed in the brain in a "faster" path than textual information [12, 13, 14]. It is better retained [15]; and it assists to a more significant attitude-change than change facilitated by textual information alone [16]. Visual information emotionally affects recipients more than textual information [17]; and it contributes to a more significant focus on content and motivates action significantly more than textual information [18].

For all these reasons, it is likely to assume that posts containing images produce more engagement than posts that do not contain images. Hence, we hypothesize that:

H2: Posts containing images receive more engagement than posts without images.

4. Category 3: Content of the posts

4.1. Reports of Parliamentary and Field Activities (H3.1, H3.2)

As the Facebook page belongs to a public figure, followers of the MP may expect significant parliamentary content to be uploaded [19]. Therefore, we examine if posts focusing on parliamentary activity get more engagement than posts that do not focus on parliamentary activity. In addition, we examine the engagement with content "from the field"- for example, visits around the country, speeches in events that take place outside the parliament building, etc.

Still, we expect that followers may find such content is "dry" and react less to posts containing reports of parliamentary or field activity than to posts that do not contain such content (for results in this vein see [20]). Hence, we hypothesize that:

H3.1: Posts containing references to parliamentary activity receive less engagement than posts without references to parliamentary activity.

H3.2: Posts containing references to field activity receive less engagement than posts without references to field activity.

4.2. Personal Stories (H3.3)

An important question that arises in many studies is whether there is a difference in the acceptance of posts that contain personal stories, and posts that do not contain personal stories. Many posts by MPs present aspects of their personal lives, identities, hobbies, and everyday moments [21].

On the one hand, this phenomenon is in tension with the expectation that MPs social media pages will focus on a dialogue of political issues and not just a platform that will raise the level of politician's popularity. But on the other hand, it may be that if parliament members upload content that is not only "dry" but also produces more feature and enthusiasm, then consequently even when they upload more "dry" posts, they will be exposed to more people and get more responses. Studies also demonstrate that MP's personal content receives more engagement [22]. Hence, we hypothesize that:

H3.3: Posts containing personal stories receive more engagement than posts without personal stories.

4.3. Statement of Opinion (H3.4)

Another sub-category that can affect the acceptance of posts is stating an opinion. According to a study of US congressmen, stating an opinion constituted 41% of their total Facebook posts' activity - the most prominent category in their everyday Facebook activity [19].

Content that not only reports what is happening, but also takes a stand, may be perceived as stronger and elicit greater identification. This is probably why many MPs write their opinions and share it with the public. [for findings in this vein see [22]]. Hence, we hypothesize that:

H3.4: Posts containing expression of opinion receive more engagement than posts without expression of opinion.

5. Category 4: Tone of the posts

5.1. Formal Tone (H4.1)

Interactions in social media tend to be informal, in various contexts from e.g. marketing communication [23] to education [24]. Although prior research has not examined the relationship between use of informal language and engagement in the context of citizen-politician interaction on social media, some research has found that in the context of government organizations [25], and police social media use [26], informal posts elicited greater user engagement. Hence, we hypothesize that:

H4.1: Posts with formal tone receive less engagement than posts without formal tone.

5.2. Negative Tone (H4.2)

Media studies indicate a public preference for negative news content [27]. The psychological base of this phenomenon is the human negativity bias, whose roots are evolutionary [28]. The public preference of negative news stories, which is often subconscious, is increased when people display higher political interest [29]. Hence, we predict that:

H4.2: Posts with negative tone receive more engagement than posts without negative tone.

5.3. Positive Tone (RQ1)

Although prior research has been quite consistent regarding the existence of a negativity bias, findings regarding positive tone were less uniform, and some literature suggests that positive news articles are more likely to go viral than news articles without a positive tone [30], in a way- contrary to the negativity bias. Therefore, the following research question remains a question without a hypothesized direction:

RQ1: How do posts with positive tone differ from posts without positive tone in terms of engagement?

5.4. Emotional Tone (H4.3)

Significant literature demonstrates that, in various contexts, emotional content stimulates the nervous system, triggers excitement, and mobilizes the readers to action. This is true both in non-political contexts [31, 32, 33], as well as in political contexts, similar to the environment of the current study [22, 34]. Hence, we hypothesize that:

H4.3: Posts with emotional tone receive more engagement than posts without emotional tone.

6. Research Environment

Israel constitutes an especially attractive case-study in this context, due to the high rate of Internet and social media usage, which are intensively penetrated into the daily lives of the Israeli society [35].

The Israeli political system has reacted to this penetration of social media at an extremely high rate, both on the municipal [36, 37] and national levels [38, 39, 40, 41], making Facebook a

central channel of communication. In 2010, the Knesset's Director General call to all MPs to use official Facebook pages of their own [42], initiated a meaningful change in their interaction with the Israeli public. Indeed, the number of MPs who use Facebook as a direct channel of communications to the public increased, and in 2014 108 out of 120 MPs were actively using Facebook [43, 44]. However, "despite the notion that social media will enable a closer bond between politicians and citizens... it seems that Israeli parliamentarians still use social media the old-fashioned way, mainly as a one-sided hierarchical platform" [43].

7. Research Innovation

This study was conducted using automated tools, through which we sampled all the Facebook posts published by MPs for an entire term.

Studies typically analyse the social media activity during a campaign, in which the volume of communication between the public and politicians is dramatically higher than at regular times, and its character is arguably different as well (i.e. drawing conclusions, making new promises). By contrast, the present study deals with "ordinary politics", the focus of which is not on promises for the future, nor on the summary of what has been done in the past, but on conduct in the present. Thus, our research provides a broad picture of the MPs relationship with the public not just before the election, but rather between elections.

8. Method

The study analyzed the Facebook pages of members of the Knesset (the Israeli Parliament) during its 19th term (beginning February 5th, 2013, until December 9th, 2014, after the parliament's dispersion by the PM). First, a list of all 120 MPs was composed based on data from the parliament's official pages. The Facebook pages of each MP were located using three search methods: every MPs official personal page in the parliament's website was scanned in search for a link to the MPs formal Facebook page. Then, a Google search was performed. Lastly, the researchers searched within Facebook, using its internal search function, entering the name of each MP in Hebrew, Arabic and English, Israel's three official languages. The search yielded a total of 106 MP's formal Facebook pages, all included in this study.

The content of all 106 pages were scraped using Netvizz, a Facebook application developed by Digital Methods Initiative labs. We used the application to extract and archive all of the posts published by either the official account or other users during the entire 21-month period of the 19th Knesset. The general dataset included 441,974 posts. Netvizz automatically attaches the following information to every post: Publication date, Post origin (page or a user- anonymized), post format (image, video, link, survey, or text), posts text and various engagement measures, i.e. number of Likes, Comments, and Shares. During the period examined, Facebook had not yet introduced Reactions, therefore the above engagement measures are the only ones relevant for the posts extracted for the study. Some complimentary information was added to each post in the dataset, such as post length (number of words) and MP's gender.

To analyse the posts, we used a combination of automatic and manual content analyses. The automatic analysis is based on information retrieved by Netvizz, while the manual coding

was conducted by a sample of each MP's bi-monthly most popular post. In order to create the sample, we divided the entire period of analysis (19th Knesset service) into periods of two months each. Then, for each of the periods, and for each MP, we sampled the leading post in number of Likes. The sampling method described above enabled the equal representation of each MP, throughout the entire period examined. The most-liked-posts sample consisted of 944 posts.

Manual coding was conducted by five coders who were trained by the researchers. Repeated training sessions were conducted for categories that achieved less than 90% reliability, until inter-rater agreement of 90% was achieved in all categories. Coders coded the content and tone of posts according to the following categories: Categories related to content:

- Report of parliamentary activity (e.g. report of participation of a committee, submitting a bill, giving a speech at the parliament, etc. (corresponds to H3.1).
- Report of Field Activity, like giving speeches in events that take place outside the parliament building (corresponds to H3.2).
- Personal Story (e.g. "Joyful times: A new granddaughter was born to our family") (corresponds to H3.3).
- Opinion statement (of the MP, or party) on a matter of public interest (e.g. "I object to…"; "The party supports this legislation"; "We have to defeat terror"). (corresponds to H3.4).

Categories related to tone:

- In/formality: texts were coded as informal if they included a direct reference to users (by names, nicknames or personal pronouns), slang or colloquial language, or abbreviations (examples of informality include: "Hi", use of informal politicians' nicknames such as "Bibi" for PM Netanyahu. Texts containing sarcasm were also coded as informal). (corresponds to H4.1).
- Negative tone (e.g. "Terrorists belong behind bars and not on the Knesset stage"). (corresponds to H4.2).
- Positive tone (e.g. "We have finally and successfully passed the legislation"). (corresponds to RQ1).
- Emotionality. Posts were coded "emotional" if the text included words that describe emotions ('I am happy'; 'we were upset due to…') or an emotional reaction ("horrified", "excited", "annoyed"), use of exclamation marks or emoticons (corresponds to H4.3).

Posts could be both positive and negative, or neither. A post could also be non-emotional yet positive or negative. Posts could be emotional and yet formal, and vice versa.

9. Findings

The sample of the most liked posts includes 994 posts. The average number of likes per post is 3,433.77 (SD = 9,656.29, range: 1-125,694). The average number of comments per post is 282.32 (SD = 781.41, range: 0-8,103), and of shares is 275.26 (SD = 931.3, range: 0-11,159). Table 1 summarizes the proportion of each content and tone category in the sample dataset, and significant differences in engagement with respect to each category.

The distribution of engagement measures in the sample is highly skewed: regarding the number of likes: Skewness = 6.05, Kurtosis = 49.77. Regarding comments: Skewness = 5.99, Kurtosis = 43.96 and regarding shares: Skewness = 7.23, Kurtosis = 64.06. Therefore, the differences in engagement measures were assessed using Mann-Whitney tests.

Table 1
Proportion of the study variables in the dataset, and significant differences in engagement with respect to each category.

Corresponding H	Category	Proportion in the dataset	Significant differences in engagement with posts
1	MP's gender (Female)	27%	More Likes, More Comments, More Shares
2	Images	70%	More Likes
3.1	Report of Parliamentary Activity	24%	Less Likes
3.2	Report of Field Activity	18%	Less Likes, Less comments and Less Shares
3.3	Personal Story	17%	More Likes, More Comments
3.4	Opinion Statement	32%	More Comments, More Shares
4.1	Formal Tone	78%	Less Likes, Less Comments
RQ1	Positive Tone	60%	Less Likes, Less Comments, Less Shares
4.2	Negative Tone	48%	More Likes, More Comments, More Shares
4.3	Emotional Tone	46%	N.S

9.1. Findings regarding Author of the posts (Gender)(H1)

73% of the posts in the sample were authored by male MPs, and 27% by Female MPs (corresponding to the gender distribution of the MPs). Posts authored by female MPs were significantly more liked (U = 76117, p<.01), more commented on (U = 76658, p<.01) and shared more (U = 75546, p<.01) than posts authored by male MPs, supporting H1.

9.2. Findings regarding Format of the posts (Images)(H2)

The sample is dominated by posts containing an image (70% of the posts in the sample). To address H2, a dummy variable was created to distinguish between posts containing an image and other posts (like status updates, links, or videos, which constitute negligible percentage of the data, about 5%). We found that posts containing an image receive more likes than posts which do not contain an image (U = 82078, p<.01), confirming H2.

9.3. Findings regarding Content of the posts (H3.1-3.4)

9.3.1. Reports of Parliamentary Activity (H3.1) and Field Activity (H3.2)

24% of the posts in the sample include a report of the MP's parliamentary activity (such as participating in a committee, submitting a bill, etc). A smaller percentage of posts, 18%, include a report of the MP's field activities (such as giving a speech outside the parliament, visits to places across the country, etc.).

Posts reporting parliamentary activity were significantly less liked than posts that do not report such activities (U=63880.5, p<.001).

Reports of field activity received significantly less likes (U = 45512, p<.001), less comments (U = 44889, p<.001) and less shares (U = 48990.5, p<.001) than posts not reporting on MPs field activities. These findings confirm H3.1 and H3.2.

9.3.2. Personal Stories (H3.3)

17.2% of the posts in the sample include a personal story by the MP (family or personal celebrations or crises, for purpose of illustration). Despite their relatively lower proportion in the sample, these posts are significantly more favoured by users. They are more liked (U = 50630, p<.05) and are more commented on (U = 51292, p<.05) than non-personal posts. These findings support H3.3.

9.3.3. Statement of Opinion (H3.4)

Almost a third of the posts in the sample (32%) feature the MP's or party's opinion on a public matter. Statements of opinion receive significantly more comments (U = 79045.5, p<.01) and shares (U = 65353, p<.001) compared to posts not featuring such statements. Opinions are also more liked, but not significantly (and because of that this variable is not included in the further analysis below). These findings partially confirm H3.4.

9.4. Findings regarding Tone of the posts (H4.1-4.3)

9.4.1. Formal Tone (H4.1)

78% of the posts in the sample use a formal language. Despite the prevalence of formality in MP's posts, users nevertheless prefer informality in their MP's communications. Informal posts received significantly more likes (U = 62650.5, p<.05) and more comments (U = 61870.5, p<.05) from users. These findings support H4.1.

9.4.2. Positive (RQ1) and Negative Tone (H4.2)

MP's posts are more positive than negative. Positive tone was found in 60% of posts in the sample, while negative tone accounted for 48% of the posts. Still, posts with a positive tone receive significantly less likes (U = 89298.5, p<.05), comments (U = 88203.5, p<.05) and shares (U = 75320.5, p<.001) than posts which do not use a positive tone. Posts with a negative tone receive more likes (U = 87962.5.5, p<.001), comments (U = 80408.5, p<.001) and shares (U =

63785.5, p<.001) than posts not using negative tone. These findings confirm H4.2 and respond to RQ1.

9.4.3. Emotional Tone (H4.3)

More than half of the posts (46%) use emotional tone. Despite the relative prevalence of emotionality in MP's posts, no significant differences were found in user's engagement with emotional posts compared to non-emotional posts. These findings do not support H4.3.

Figure 1 summarizes significant correlations between all of the study variables, including automatic data scraped from Facebook and manual coding categories included in this study.

	Likes#	Comments#	Shares#	MP gender	Post format	Contains image	Parliamentary activity	Field activity	Opinion stating	Personal story	Formality	Emotionality	Positive
Likes#	-												
Comments#	.80***	-											
Shares#	.70***	.60***	-										
MP gender	U=76117**	U=76658**	U=75546**	-									
Post format	H=27.18***	H=27.05***	H=17.54**	N.S	-								
Contains image	U=82078**	N.S	N.S	N.S	χ^2=944***	-							
Parliamentary activity	U=63880.5***	N.S	N.S	N.S	χ^2=27.79***	χ^2=11.16**	-						
Field activity	U=45512***	U=44889***	U=48990.5***	N.S	χ^2=20.92***	χ^2=11.76**	χ^2=11.42**	-					
Opinion stating	N.S	U=79045.5**	U=65353***	N.S	χ^2=15.33**	χ^2=14.20***	χ^2=24.31***	N.S	-				
Personal story	U=50630*	U=51292*	N.S	N.S	χ^2=11.32*	χ^2=10.64**	χ^2=15.15***	N.S	χ^2=19.16***	-			
Formality	U=62650.5*	U=61870.5*	N.S	N.S	N.S	N.S	χ^2=6.02*	χ^2=11.31**	χ^2=7.54*	χ^2=6.75**	-		
Emotionality	N.S	N.S	N.S	N.S	N.S	χ^2=5.49*	N.S	N.S	χ^2=10.30**	χ^2=24.91***	χ^2=41.29***	-	
Positive	U=89298.5*	U=88203*	U=75320***	N.S	χ^2=32.36***	χ^2=28.49***		χ^2=4.79*	χ^2=52.61***	χ^2=34.92***	N.S	χ^2=24.16***	-
Negative	U=87962.5***	U=80408.5***	U=63785.5***	N.S	χ^2=40.78***	χ^2=39.02***	χ^2=13.24***	N.S	χ^2=124.03***	N.S	N.S	χ^2=3.94*	χ^2=87.51**

Figure 1: Summary of study variables correlations. Significant predictors are marked in grey

9.5. Predictors of Post Popularity

Next, a regression analysis was conducted to test for variables predicting post popularity, as reflected in number of likes the post receives. Due to the skewness of these variables, the dependent variable used in the regression was log transformations of the number of likes instead of the original variable. Tests of normality indicated that the log transformation variable was relatively normalized. To test for predictors of post likes, variables entered to the model were the ones found to significantly correlate with number of likes: MP's gender, inclusion of image in the post, report of parliamentary activity, report of field activity, personal stories,

formality, positivity, and negativity. Opinion statements and emotional posts did not enter the model since they were not significantly correlated with number of likes.

The model explains 11% of the variance, R2 = 0.11, F(8,887) = 13.35, p < .001. The results of the regression analysis suggest that users significantly prefer posts authored by Female MPs, which contain an image. Report of MPs activities in and outside of the parliament are less favoured. Additionally, users engaged more with negative posts and the previous correlation between engagement and positivity of posts becomes non-significant when negativity enters the regression. Table 2 summarizes the results of the test.

Table 2
Predictors of Post Popularity.

Corresponding H	Variable in (Likes #)	B	S.E.	Beta
1	MP gender (0=female, 1=male)	-.34	.12	-.09**
2	Post contains image (0=no, 1=yes)	.65	.12	.18***
3.1	Parliamentary Activity (0=no, 1=yes)	-.51	.13	-.13***
3.2	Field Activity (0=no, 1=yes)	-.86	.14	-.20***
3.3	Personal Story (0=no, 1=yes)	.24	.15	.05(n.s)
4.1	Formality (0=no, 1=yes)	-.23	.13	-.06(n.s)
4.2	Positivity (0=no, 1=yes)	-.16	.12	-.04(n.s)
4.3	Negativity (0=no, 1=yes)	.51	.12	.15***

*p<.05 **p<.01 ***p<.001

10. Conclusion

The Internet and social media have become significant parts of our lives in general, and in particular, in the connection of the MP with the public with its representatives in particular. In the present study we have analysed the characteristics of this connection, using automatic tools to analyse posts uploaded throughout an entire term of the Israeli parliament, rather than during an election period alone.

The literature indicates that there are several variables that can affect the acceptance of the posts - including the author, the format, the content, and tone of the posts. On this basis, we examined all the posts made by Israeli parliament members in the 19th Knesset.

The findings indicate that a number of variables predict post popularity. Here are several key insights:

- The effect of gender: Although the posts are not written by the MPs themselves, it seems that the public still attributes meaning to the gender of the MP in whose name the post was written, and posts written by female MPs get more engagement than posts by male MPs.
- Format: Posts that contain images receive more engagement than those without images. This is probably for reasons similar to the reasons we have found in the literature about the absorption and motivational ability of visual content. As a result, people will respond

more to a post containing a picture than to a textual post without a picture, even when the text is similar.

- Content: The findings show that posts that deal with parliamentary or field activity receive less engagement than posts that do not include such content.
- Tone: As in the press, also on social media: negative content gets more engagement than content that is not negative. This may be because people are more likely to respond to negative information as it irritates them and motivates them to action significantly more than non-negative content.

Interestingly, emotional posts did not elicit greater engagement by users, contrary to previous literature that consistently showed that emotional content triggers excitement and mobilizes action [22, 31, 32, 33, 34]. Perhaps in the social network sphere, which is highly charged and emotional, users are not necessarily too impressed with emotionality by their constituents.

Today, politicians who want to survive must maintain continuous communication with citizens on social media, and if they want their content to reach and be received with an attentive ear - they must think about how to build it so it meets the preferences of its followers' media consumption. The results of this study reveal a complex picture, according to which there is not one influencing factor that can be pointed out, but several factors that affect the acceptance of MPs' posts. Further research will continue to examine in other social arenas such as Twitter and Instagram the acceptance of MPs' post and can analyse in greater depth with the help of interviews what content people find attractive on politicians' pages and why.

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