Research article

The users' point of view: towards a model of government information behavior on social media

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ABSTRACT

This study aims to examine the information behavior and acquisition of government information by Israeli citizens on social media. A mixed-methods research approach was used, with the study conducted in two main stages: an online survey, via a questionnaire distributed among Israeli citizens, and in-depth interviews. Both stages focus on citizens' patterns of use, experience, and acquisition of government information through various digital means. The findings indicate that users do not prefer social networks to actively retrieve government information. They also avoid making direct inquiries to government bodies on these platforms, either out of fear of an invasion of privacy, or due to a lack of trust in the government. However, social media channels provide fertile ground for accidental and unintentional exposure to government announcements and updates. The findings also show that users with higher digital literacy and high internal political efficacy are more likely to rely on digital media as a tool for data acquisition and exposure to new public information. Our work offers a new way to classify different types of exposure to government information, distinguishing between intentional and accidental exposure through various platforms.

1. Introduction

Recent years has seen a significant global increase in the use of various digital applications to access services and government information (Camilleri 2019; Gintova 2019; Wirtz et al., 2020). As a result of the outbreak of the COVID-19 pandemic, these services underwent accelerated digitization in many countries during 2020 (Gabryelczyk 2020). While earlier research mostly focused on the adoption and assimilation of government services from an organizational perspective (Abu-Shanab and Abu Baker 2011; Dwivedi et al., 2011; Guillamón et al., 2016), recent research has begun to concentrate on the access of government information and services by citizens as digital users (Camilleri 2019; Gil-Garcia and Flores-Zúñiga 2020; Wirtz et al., 2020). Key research concepts focus on the connection between usability or ease of use, the degree of satisfaction with government services, and the willingness to return to these services (Camilleri 2019; Chen and Aklikokou 2019; Gil-Garcia and Flores-Zúñiga 2020). This research focuses on the concept of *Digital Citizens*, presenting the perceptions and experiences of Israeli citizens who regularly use web technologies to search, access, or communicate with government ministries, offices, and sites. Our study employs mixed research tools (mixed methods), including an analysis of a dedicated

questionnaire examining the preferences and behavioral patterns of government digital usage, as well as in-depth interviews with users who exhibit similar characteristics.

2. Literature review

2.1. Use of social media to acquire government information

Many global government ministries and public organizations operate a digital presence on a variety of international social networks (Abur-umman and Szilágyi, 2020; Bonsón et al., 2015; DePaula et al., 2018; Faber et al., 2020; Gintova 2019). Through online social platforms such as *Facebook* or *Twitter*, they can connect with their citizens in the digital sphere, and thus provide additional information about various activities and policies (DePaula et al., 2018; Faber et al., 2020; Mabillard et al., 2021; Yavetz and Aharony 2020). The kind of information governments might share with their citizens via social media varies, and can include updates about policy changes, events, and guidelines, and more specific information at local or municipal levels (DePaula et al., 2018; Giacomini et al., 2021; Yavetz and Aharony, 2021). Social media platforms have proven to be particularly effective for governments to disseminate

information to citizens, as seen during the coronavirus pandemic (COVID-19) in early 2020 (Yang et al., 2020; Yavetz et al., 2022). For example, in China, regular updates on government activities encouraged and strengthened residents' involvement via online discourse (Chen et al., 2020). Promoting civic participation in government discourse through online means can amplify the degree of trust citizens place in their governments, by strengthening transparency and imparting more accessible information (Criado and Villodre 2021; Mahmood et al., 2019; Porumbescu 2016). Online communication between governments and citizens can be expressed and measured by engagement levels (e.g., likes, comments, reactions), and can be influenced by the type of media and messages (Lai et al., 2020; Metallo et al., 2020; Rocca et al., 2021). Aside from the types of messages, the quality of information, and the responsiveness of governments to their citizens also play an important role in engagement rates (Hung et al., 2019; Smith and Gallicano 2015). Citizens' perceptions of government responsiveness are generally defined by the attentiveness and empathy to public feelings and needs displayed by government representatives (Anderson 2010; Calhan et al., 2021). Similarly, a recent study among social media users following a digital representation of a government authority in the Indian state of Punjab, found a negative relationship between citizens' perceptions of responsiveness, and their participation or willingness to participate in online discourse with that authority (Arshad and Khurram 2020). The study claimed that the perception of responsiveness is a significant factor motivating participants to express their views and concerns on social networking sites (Arshad and Khurram 2020). Further studies have found that positive online service experience clearly affects the likelihood that digitally skilled users will recommend these channels to their fellow community members (Mensah 2019; Mensah et al., 2020). Overall, level of trust in the government is found to be a key influence predictor for approaching and seeking digital services, with some mitigating effects stemming from citizens' personal characteristics, such as educational level and literacy (Perez-Morote et al., 2020).

2.2. Personal characteristics of citizens on social media

The way citizens use social media to communicate or acquire government and public service information is influenced by various characteristics related to personal patterns of behavior in locating online information (Etter et al., 2018; Hossain et al., 2018). Information retrieval behavior is defined as an array of search and retrieval processes aimed at assembling and obtaining new information about a particular topic, with the terminal goal of reducing feelings of uncertainty surrounding it (Kuhlthau 1993). New information acquisition can begin with an active search or accidental exposure, especially in new media environments that offer abundant opportunities for accidental encounters (Erdelez and Makri 2020). Social media provides a fertile environment for acquiring information because of its copious and varied content (Dantonio et al., 2012; Ekundayo et al., 2019).

Among the various characteristics related to citizens' government information behavior are information literacy (Rajput and Kandhan Nair 2013) and technological literacy (Schwartz-Chassidim et al., 2020). Information literacy can be defined as a skill system enabling us to search for, evaluate, and use information effectively and adequately (Eisenberg 2010). Government information literacy is based on users' ability to take advantage of the tools available to them to directly acquire information about their civil rights and elected representatives without intermediaries (Adeyemo 2011; Lee et al., 2020; Rajput and Kandhan Nair, 2013). Among other things, providing better digital literacy skills should focus on the online environments in which users spend most of their time, such as social networking sites, where they must daily evaluate information from multiple sources, and in varying, often controversial contexts (Burclaff and Johnson 2016). For instance, a study conducted in the Netherlands found a significant relationship between citizens' level of digital literacy and their degree of satisfaction with the use of online government services (Ebbers et al., 2016). In addition, the digital divide,

resulting predominantly from a lack of digital literacy in certain groups of citizens, is one of the prominent factors preventing disadvantaged populations from using digital means to acquire government information (Lev-On et al., 2021).

Other characteristics that can help predict citizens' online information behavior are self-efficacy and/or political efficacy (Dong and Ji 2018; Halpern et al., 2017). Self-efficacy refers to an individual's perception of their ability to gain control over actions, tasks, and other life events (Bandura 1977, 1986, 1993). A study examining the perception of political efficacy among young people in Mexico found a positive relationship between the use of online sources and the overall influence of political and democratic involvement (Kavanaugh et al., 2016). Thus, integrative, action-driven knowledge that encourages dialogue and mutual transfer of information has been found to be an influential factor in strengthening users' sense of internal political efficacy or empowerment (Ahmad et al., 2019; Sharma et al., 2022). For example, in examining South Korean citizens' use of social media platforms, Park and Kaye (2018) confirmed a significant positive relationship between citizens' social media use and their degree of political efficacy.

3. Problem statement

The literature review indicates a widespread increase in the use of digital and social media among government agencies around the world, primarily to disseminate and transmit government information, communicate with citizens, and streamline public services (DePaula et al., 2018; Dong and Ji 2018; Knox 2016; Lai et al., 2020; Lee et al., 2020; Perez-Morote et al., 2020). However, despite significant progress in this body of research in recent years, there remains a need for integrated quantitative and qualitative descriptive analyses examining the personal aspects and patterns of citizens' use of social media to acquire government information. Previous studies have examined this issue through in-depth interviews with citizens (Kumar et al., 2017; Lev-On et al., 2021), online experiments (Lee et al., 2020), and online surveys among users (Mahmood et al. 2019; Wirtz et al., 2020; Zhang and Zhu 2020). This study stands out among others by employing combined quantitative and qualitative methods to measure how Israeli citizens perceive government information acquired through digital means, especially social networks.

Additionally, we identify a gap in the literature related to the important distinction between the types of exposure to information, such as traditional platforms of government websites, as opposed to digital representations of ministries on social networks. Although Lindgren et al. (2019) addressed this issue and created a typology of distinctions between the types of encounters with government information and services, they generally dealt with digitization processes in the public service arena, rather than across specific platforms. Our study seeks to examine the differences in exposure to government information via social networks and search engines such as *Facebook* and *Google,* versus traditional government websites.

4. Research hypotheses and questions

The research hypotheses and questions focus on citizens' personal characteristics as well as their experiences and digital behavioral patterns regarding the acquisition of government information, as detailed below.

H1. *We expect to find a positive link between digital literacy and the ability of users to acquire new information about government and public issues through social media channels.* This hypothesis is based on the claim that both information skills and digital literacy are necessary to acquire government information via the Internet (Lee et al., 2020; Rajput and Kandhan Nair, 2013).

H2. *We expect to find a negative relationship between age and exposure to government information on social media. Thus, the lower the age of the social media user, the more likely the user is to be exposed to online government*

information. This hypothesis assumes that people aged 18–35 are more likely to perceive social media as a legitimate source of information (Ekundayo et al., 2019); thus, there is a higher probability for this group to acquire new and relevant information on social media sites (Dong and Ji 2018).

H3. *We expect to find a positive relationship between the perception of political efficacy (internal and external) and the ability of users to acquire new government information on social networking sites.* This hypothesis is based on Park and Kaye's (2018) findings about the relationship between political efficacy and the retrieval of government information on social media.

H4. *We expect to find a positive relationship between Internet Political Efficacy (IPE) and exposure to government information.* This hypothesis is based on the model developed by Lee and Huang (2014) on the subject of online political efficacy among users. The hypothesis assumes a positive correlation between users' perception of political efficacy on social networks, and the probability of their exposure to government information.

5. Research questions

In addition to the hypotheses related to the quantitative section of this paper, questions arise regarding the perception of citizens' use of government information on the Internet in general, predominantly across social media platforms. In order to expand and describe the experiences and perceptions of Israeli social media users regarding the general consumption of government information, answers to the following questions are sought:

(RQ1): How is information behavior expressed among citizens using social media to search for and locate government information online, particularly on social networks?

(RQ2): In what digital environments do Israeli citizens encounter government information?

(RQ3): How do users perceive digital representations of government ministries on social media? Moreover, how do they evaluate these ministries' work and activities?

6. Methodology

6.1. Online survey

We created a quantitative survey based on an online questionnaire (see Appendix 1), including a digital literacy sub-questionnaire, and three subsequent sections:

A. Social media usage
B. Exposure and use of government information
C. Political efficacy (internal and external)

It also included several demographic questions (age, sex, level of education, and country of birth).

The components of the survey are as follows:

6.1.1. Information literacy in a digital environment

Respondents assessed their degree of digital literacy using a validated and reliable sub-questionnaire originally compiled by Riel (2012) ($\alpha = .89$). The questionnaire is based on a model of information literacy in technological environments with an emphasis on websites, and lists 10 items evaluating the ability to complete various digital operations. The reliability of the tool was tested using internal consistency, and found to be high ($\alpha = .84$).

6.1.2. Use of social media

A questionnaire based on a valid and reliable model ($\alpha = .83$) was created by Ellison et al. (2007) to examine the extent to which social networks were used. Its purpose was to measure the frequency of social

network and social media use. The reliability of the questionnaire was tested using internal consistency, and found to be high ($\alpha = .86$).

6.1.3. Political efficacy (internal and external)

This sub-questionnaire addresses the perception of citizens' political efficacy (internal and external). Craig and Maggiotto (1982) created a comparative model from which two main tools were derived: an internal political efficacy questionnaire that they found to be valid and reliable ($\alpha = .72$), and an external one ($\alpha = .82$). In the context of this study, two items examined the concept of Internet political efficacy compiled by Lee and Huang (2014). These items were applied to the section of the study dealing with social media, using statements that examined the perception of internal and external political efficacy.

6.1.4. Internal political efficacy

Participants were asked to rate statements indicating their degree of internal political efficacy. The reliability of the questionnaire was tested using its internal consistency ($\alpha = .75$). The average of the various items was calculated to create a unified variable.

6.1.5. External political efficacy

Participants were asked to rate statements indicating their external political efficacy. The reliability of the questionnaire was tested using internal consistency, and found to be high ($\alpha = .84$). The mean of the various items was calculated to create a unified variable.

6.1.6. Demographics

Participants were asked to supply various personal details, including gender, age, country of birth, and education.

6.2. The study process

Data were collected using an online questionnaire with Google Forms (Appendix 1, −Closed Questionnaire). All participants in the survey and interviews were asked to sign an informed consent form before participating in the study, and the purpose of the study and its research framework were disclosed. Prior to distributing the questionnaire, a pilot study was conducted with 23 participants, whose opinions were subsequently asked regarding the general questionnaire, response time, and options. The questionnaire was then distributed to respondents via online social networks and email. The opening questions filtered the respondents based on the following criteria: Israeli citizens aged 18 years and over, and registered on at least one social network. The remaining respondents were prompted to fill out another online questionnaire that included a variety of closed-ended, multiple-choice, and Likert-scale questions. Data analysis was performed using SPSS version 25 (IBM Corp.).

6.3. The sample

The sample for this study was obtained using the *Simple Random Sample* method. In total, 202 respondents answered the questionnaire. The average age of the respondents was 38 years ($SD = 10.94$), with the youngest being 19, and the oldest 71 years. Of the respondents, 64.7% ($N = 131$) were women, and 35.3% were men ($N = 71$). A total of 89% of the respondents were born in Israel ($N = 180$), and 83.6% were college graduates ($N = 170$). The social network preferred by most participants was *Facebook*, with 78.7% of the respondents ($N = 159$) citing it as the network where they spent most of their time and online activity. *Facebook* was trailed (by a considerable margin) by *YouTube* (8.9%), *Twitter* (5.9%), *LinkedIn* (2%), and *Instagram* (2%).

6.4. The qualitative research process

An in-depth description of users' experiences and personal, social, and behavioral motives was deemed necessary to fully describe

individual perceptions about searches for, use of, and exposure to government information in Israel. After the survey dissemination, in-depth interviews were conducted with 15 questionnaire respondents. Recruiting these interview participants began with the addition of a designated question in the questionnaire, asking those who completed the entirety of the survey for their consent to be contacted for a follow-up interview.

The rationale behind turning to the qualitative research approach at this stage stemmed from the need to take an in-depth look at the phenomenon being studied, and to place the research within a unique framework addressing the social variables of the participants and their experiences. This was done to raise targeted themes (Holliday 2016). Qualitative research is best expressed in the language of the participants when conducted in their natural environment (Shkedi 2014), so emphasis was placed on semi-structured in-depth interviews allowing interviewees plenty of latitude in describing their digital experiences.

We used the "methodological pattern focused on the subjects" for analyzing the data, which is not based on structured criteria or a fixed perspective in order to examine the phenomenon being studied through the eyes and experiences of the interviewees (Shkedi 2014). Adhering to the rules and working assumptions of this pattern, we did not take a pre-arranged theoretical approach to analyze the research, but rather took a preliminary direction toward the issue to be examined (Shkedi 2014).

6.5. Qualitative research tools

As noted above, to best answer the study questions, a qualitative research method was used, consisting of semi-structured, in-depth interviews with 15 Israeli citizens who regularly use at least one online social network. In-depth interviews enables gathering information about the experiences and significance attributed by interviewees to a particular phenomenon (Shkedi, 2014). The interview protocol structure (Appendix 2) was based on a general framework of questions that arose during the initial phase of the study. The interview questions were presented as open-ended to allow interviewees to voice their own descriptions and interpretations of the phenomena we sought to examine (Shkedi 2014). The interviewees were asked to describe how they perceived government information, their data needs related to this field, the processes of searching for and locating government information, and their understanding of the presence and activities of government ministries operating on social media (Dwivedi 2009).

6.6. The qualitative research process

The interviews were conducted between July 2018 and March 2019. Each interview lasted about 1–2 h, and was recorded with consent. All the interviews were conducted in a relaxed and neutral setting. After being transcribed, the interviews were coded and mapped to identify salient themes regarding the patterns of conduct and perceptions of the interviewees.

6.7. The qualitative research population

The interviewees were all Israeli citizens above the age of 18 residing in Israel at the time of the interview, and for at least five years prior. All interviewees indicated, at the recruitment stage and in the online questionnaire, that they were active users on at least one social network, on a regular and daily basis. The majority of the interviewees (11/15) stated that the social media site where they spent most of their time was *Facebook*. Two interviewees stated that the social network on which they were most active was the professional network *LinkedIn*, and the remaining two interviewees claimed that they did not prefer any one social network over others, and tended to incorporate various social media platforms into their digital activities. Similar to the online questionnaire respondents' average age of 38 years, the average age of the interviewees was 39 years ($SD = 13.95$); the age of the youngest interviewee was 24 years, while the oldest interviewee was 71. Four interviewees stated that they were civil servants employed within the framework of a public organization or government ministry, while another interviewee stated that he was a pensioner of a government ministry. To maintain the interviewees' privacy, their names were omitted from the findings, and referenced only by the letter "U" to indicate they belonged to the group of users. A serial number was also assigned to each interviewee to ensure anonymity.

6.8. Qualitative data analysis

The transcripts of the interviews were entered into dedicated qualitative analysis software called ATLAS.ti, version 8.4. Using this software, we were able to keep an accurate record of all the transcripts' data, conduct in-depth research of keywords, create a preliminary category tree, cross-reference between different texts, and create new subcategories (Friese 2019). Preparing the ATLAS.ti software prior to information analysis, and breaking it down into meaningful content units is a crucial step in qualitative research. Moreover, this step largely dictates how insights are generated and interpreted into data units emerging from the interview transcripts (Adu 2019). Thus, it was possible to preserve and catalog significant quotes and references of the interviewees, and make use of various visual representations to identify common expressions and recurring themes (Adu 2019).

Relying on a methodological pattern focusing on the subjects, researchers are of great importance in producing an assessment based on intuitive observation (Shkedi 2014). The authors analyzed the data based on this research technique, and distributed them into categorized themes. Computerized techniques and other auxiliary software aid in overcoming possible human biases while analyzing qualitative content, accomplished by maintaining the principles of the reliability and validity of the data. This requires adhering to clear rules of data protection for control or reflection, and in order to maintain visible, systematic, and documented processes of analysis (Shkedi 2014). In the first stage, transcripts were divided into meaningful units with no connections between them. *Analysis map* was employed in the second stage, creating a set of categories by finding meaningful connections between the units. The data reduction process was then used to refine, sort, and organize information, thus identifying and deriving a number of clear and unique insights (Miles and Huberman 1994; Miles et al., 2014). Based on these insights, the 37 initial themes were condensed into five subcategories.

Table 1 shows the set of categories created as a result of the mapping analysis process. Each subcategory includes topics examined within that subcategory.

7. Research findings

This section will present the research findings in four stages:

– Stage one presents descriptive statistics on patterns of social media use, focusing on government information.
– Stage two presents the research parameters and examines the relationships between the background and research variables.
– The research hypotheses are tested in Stage three, and Pearson correlations between the research variables are presented.
– Stage four presents the findings of the qualitative research based on the interviews.

7.1. Citizens' patterns of using government information on media

This section describes the nature of the respondents' activities on social media in general, their connection to government information, consumption of this type of information during the six months preceding the questionnaire, and their exposure to government information on websites and social media.

Table 1. Array of research categories.

Searching for and locating government information		
1	Patterns of government information searches	How do citizens search for and locate the government information they need? What are the search strategies and platforms they use to locate relevant information on the web?
2	Chance encounters and exposure to government information	On what sites and Internet platforms do citizens encounter government information in an accidental or unintentional manner? How do they describe the experience of these encounters?
Perception about government ministries' activity on social media		
1	Evaluating the presence and activity of the offices	How do the interviewees perceive the digital presence of government ministries in Israel and their activities on social networks?
2	Services and inquiries to government offices on social networks	To what extent is social media perceived as a channel for receiving services and responses from government ministries?
3	Trusting government ministry information encountered across social media	How much trust do citizens who use social media place in government ministries operating in this sphere?

Figure 1 depicts the distribution of respondents according to the number of times they were exposed to government information on websites versus social networks during the six months preceding the survey.

Figure 1 indicates that at the time of the survey, almost half of the respondents (46.3%) were exposed to government information 1–10 times over the previous six months, while a quarter of the respondents were exposed to such information 11–50 times. In contrast, 70.2% of the respondents were exposed at least once to government information on one of the social networks, meaning that nearly 30% of the respondents were not exposed to government information on social media. When asked whether they had searched for government information on social media over the past six months, 72.7% responded in the negative. Respondents were also asked whether they proactively applied for information from any government body through social networks, to which 85.1% replied in the negative.

To summarize, social media users in Israel are exposed to government information on the Internet in general, and on social networks in particular, both actively and passively, during random activity.

7.2. Research variables

Table 2 presents descriptive statistics of the study variables. The table shows that the averages of all the indices were above the middle of the theoretical score range, except for the average indices of exposure to government information (on the Internet and social networks), which were below the mid-range.

Preliminary tests were subsequently conducted to examine the potential relationships between the study participants' background and research variables. The relationship between age and the research variables was examined using Pearson's adapters. The tests found a negative correlation between age and digital literacy indices, exposure to government information on social networks, and self-perception of literacy (Table 3).

7.3. Examination of the research hypotheses

Table 4 presents Pearson correlations between the study variables. Consistent with the first study hypothesis, a significant positive relationship was found between the digital literacy index and the exposure index for government information on the Internet; the higher the digital literacy, the higher the exposure to government information on the

Table 2. Means, standard deviations and ranges of research variables.

|	N	M	SD	Actual range	Theoretical range
Digital literacy	202	4.01	0.83	1–5	1–5
Self-perception of literacy	201	8.69	1.31	3–10	1–10
Social media usage	197	7.97	1.84	1–10	1–10
Exposure to governmental information over the Internet	174	1.67	0.85	1–4	1–5
Exposure to governmental information over social media	141	1.72	0.85	1–4	1–5
Internal political efficacy	200	3.68	0.86	1–5	1–5
Internal political efficacy over the Internet	200	3.58	1.10	1–5	1–5
External political efficacy	200	3.27	0.82	1–5	1–5
External political efficacy over the Internet	201	3.35	1.12	1–5	1–5
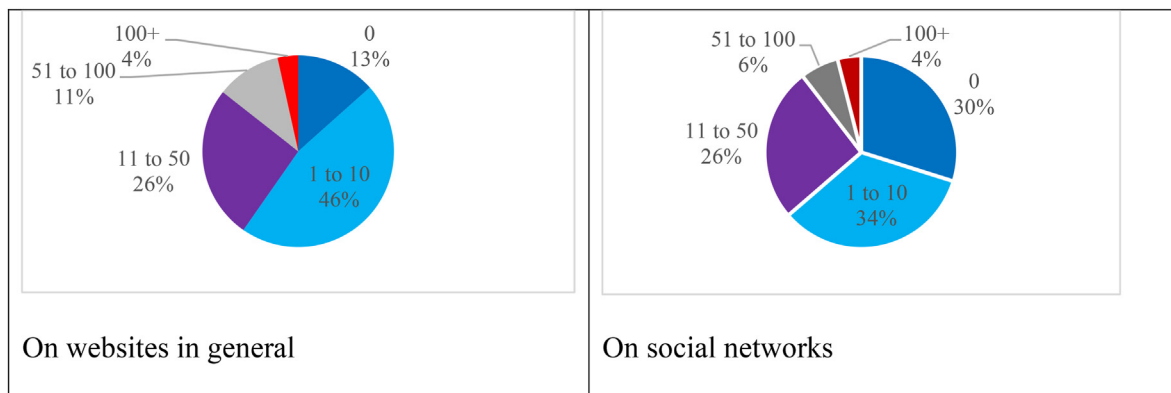
Figure 1. Distribution of respondents according to the number of times they have been exposed to government information on the Internet and social networks during the last six months (*N* = 202).

Table 3. Pearson correlations between age and research variables ($N = 202$).

Variables	Age
Digital literacy	−.20**
Self-perception of literacy	−.15*
Social media usage	−.14
Exposure to governmental information over the Internet	−.13
Exposure to governmental information over social media	−.19*
Internal political efficacy	.02
Internal political efficacy over the Internet	−.14
External political efficacy	−.06
External political efficacy over the Internet	.05

* $p < .05$.
** $p < .01$.

Internet. Contrary to expectations, no connection was found between the digital literacy index and the exposure index for government information on social networks. That is, it cannot be said that the higher the digital literacy, the higher the exposure to government information on social networks.

According to the second research hypothesis, the lower a user's age on social media, the more likely that they will be exposed to online government information. As shown in Table 3, a negative relationship was found between age and exposure to government information on social networks, meaning that as age increased, exposure decreased.

The third hypothesis was that there would be positive correlations between the indices of political efficacy (internal and external) and those of exposure to government information. As shown in Table 4, positive correlations were found between the internal political efficacy index and indices of exposure to government information, in accordance with the third hypothesis. However, contrary to expectations, no correlations were found between the external political efficacy and government information exposure indices.

Whereas the fourth hypothesis expected positive correlations between measures of political efficacy (internal and external) online (IPE) and measures of exposure to government information, no such correlations were found (Table 4).

7.4. Findings of the qualitative study

The following is an analysis of the findings based on the categories presented in Table 1.

7.4.1. Category 1: Patterns of government information searches

In the context of users' search processes for relevant information, interviewees described how they searched for and found the necessary information. Most interviewees (13) stated that they first turned to the

Table 5. Different exposures among platforms to government information.

Type of exposure	Platform	Type of information
Intentional	Search Engines (Mainly *Google*)	1. Services and personal assistance 2. Checking for rights and duties
Unintentional	Social Media (Mainly *Facebook*)	1. New information regarding policy and citizen-related activities 2. Information regarding the office itself

Google search engine, and then to various other internet sites. In the words of one 24-year-old interviewee, "*First, I go to Google, scrolling through everything that comes up. From there I usually go straight to government websites of the Ministry of Foreign Affairs, Social Security, the Ministry of the Interior, or the Ministry of Justice.*" (U6)

The issue of access to information and how it is presented on official government websites also stood out in a number of additional interviews, with seven interviewees describing their dissatisfaction with the experience of using such sites to obtain information. Two even claimed that because of their negative experience with these sites, they now choose to seek information pertaining to government institutions and organizational offices in a non-digital way, using traditional means such as physically visiting offices and calling them. This perspective was described in the words of the following 25-year-old interviewee:

> "*I really tried to search the Internet but didn't find what I needed. The information is divided into categories, you have to do this and then go there, and if you decide to do that, then go somewhere else. It's very complicated. That's why I don't like to get information through the Internet at all; I prefer to call and check it out.*" (U14)

Other interviewees explained their preference for using the *Google* search engine due to its accessibility, immediate response, and help in locating relevant information. While some mentioned alternative ways of acquiring information, such as through social networking sites, they argued that these tools were not adapted to searching for this type of information in a structured manner, as addressed by the following interviewee:

> "*I'm used to searching on Google and getting almost all the answers from there immediately, straight to the phone. I don't think the interface of other sites like Facebook is convenient for things like that; it's just not built for it. I always prefer to turn to Google first.*" (U7)

An analysis of these findings revealed that most interviewees chose to use *Google* to obtain the government information they needed, while only some of them used *Google* results to access government websites. Overall, participants described dissatisfaction with the use of government websites because of problems with information accessibility and, therefore, found themselves turning to various alternatives, including sites that were not owned or managed by the government.

Table 4. Pearson correlations between study variables ($N = 202$).

Variables	1	2	3	4	5	6	7	8
Digital literacy	—							
Self-perception of literacy	.68***	—						
Social media usage	.47***	.49***	—					
Exposure to governmental information over the Internet	.19*	.15*	.05	—				
Exposure to governmental information over social media	.13	.09	.14	.51***	—			
Internal political efficacy	.34***	.35***	.22**	.28***	.18*	—		
Internal political efficacy over the Internet	.22**	.15*	.18*	.12	.12	.23**	—	
External political efficacy	.04	−.06	−.05	−.14	.00	−.23**	−.10	—
External political efficacy over the Internet	.14*	.18*	.09	.12	.14	.27***	.39***	.40***

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

7.4.1.1. Sub-category: Chance encounters and exposure to government information. When interviewees were asked to describe instances of exposure to information from government organizations and ministries, most (11) referred to cases in which they were using social networks, particularly *Facebook*, and were exposed by chance to content originating directly from a government ministry. One interviewee described this phenomenon as follows:

> "I saw a campaign on Facebook by the Home Front Command and MDA [Magen David Adom]. I do not follow them, but a post popped up with all sorts of instructions on what to do in case of resuscitation or how to use a defibrillator in public places."

From an analysis of the interviewees' responses, they found it difficult to distinguish between "sponsored" advertisements paid for by government ministries, and free "organic" content.

Interviewee U12 described such a case in which he encountered information on *Facebook* in the form of a pre-paid advertisement, and proceeded to take action in response:

> "I remember a post I saw in the feed [the content stream that appears to a social network user]. It was before the election and talked about the voter registry and how you should check that you appear. I didn't look for this; I think it appeared to me as an advertisement and was a nice reminder of what I needed to do in order to receive the voter's polling station notice."

The importance of the content's relevance and suitability to target audiences was reflected in several additional examples in which the interviewees described how they took certain actions as a result of accidental exposure to information.

7.4.2. Category 2: Perception of government ministry activity on social media

7.4.2.1. Sub-category: Evaluating government presence and activity. All interviewees affirmed that they recognized the importance and benefits of using social media to disseminate government information. Most described a situation of unresponsiveness in government channels. In addition, they recognized the importance of making information accessible, adding options for citizens' receiving services, and transmitting information to them. The following quote from interviewee U3 reflects the growing need for information channels and government services for citizens:

> "I think it is possible to reach audiences in an orderly manner through government ministries for a lot of issues. Absolutely possible. After all, that's what social media is for and that's what the whole digital world is for, isn't it? Making information accessible, and easy to find. I live this in my personal situation, in terms of getting information about all sorts of medical processes I'm supposed to go through and be present at, and there's never enough information. Even within those bodies that are supposed to test me and examine me, when you go into these systems, it is difficult to find relevant information. It's all pretty general."

Similar grievances were voiced by interviewees who cited that there is an "obligation of presence" for government ministries to be active on social networks. Moreover, it is worth noting the criticism of some interviewees regarding the manner in which the offices operated and were presented:

> *"I don't think there's anything wrong with their being on Facebook, but I also don't think they should make a great effort to reach me as a citizen on social media. It shouldn't be something populist or anything like that; they're not a pop star who needs a lot of fans. In terms of accessibility, I hope that it could also be suitable for older people who know how to use Facebook, and it could be a good thing that all the information would be available there as well."* (Interviewee U15)

All the interviewees seemed to be in agreement regarding the positive presence and activity of government ministries and organizations on social media, believing that they have an obligation to operate there. Most of them feel that the ministries must operate in a particular and appropriate manner, using official language, while maintaining a high level of communication with and responsiveness towards citizens.

7.4.2.2. Sub-category: Services and inquiries to government offices via social networks. The level of responsiveness of government ministries was measured by the perception and evaluation of citizens' responses to the services they received from the ministries. Digital communication allows government ministries to strengthen the quality of their responses, through accessible and convenient communication with citizens (Tolbert and Mossberger 2006). Therefore, as presented in previous research and even more so in the findings of interviews with managers on behalf of government organizations, it is clear that ministries expect to utilize all digital channels available to them to strengthen their overall response provided to citizens. However, not all social media users in Israel perceive these networks as a means of engaging with government authorities.

Except for a single case described by one of the interviewees regarding his son's use of social media to communicate with security agencies, contacting government ministries via social media was not a preferred or even an acceptable method for the interviewees. Their concerns include a lack of trust in the ministries' ability to provide a quality solution digitally, concern for user privacy or personal information, and a general lack of trust in government ministries. The issue that was repeated most often by participants was their lack of confidence in the ministries' ability to provide suitable solutions via social media. This problem was described by interviewee U14, who made many inquiries to government ministries using alternate means, choosing not to contact them through social media:

> *"I do not contact government offices through Facebook. Who knows who it's [the message is] going to, or where it's going to, and they'll probably not deal with it at all in the end. They must get hundreds of such inquiries a day. Who will promise me that they'll pay attention to my application? At most they'll send me the office phone number and the contact hours. Just a wasted process for me."* (U14)

This lack of trust in the offices' ability to provide appropriate services on social media was also expressed in the words of users who made a one-time attempt to try this method, and then decided not to use it again (Interviewee U4):

> "I once needed some information or a form from the National Insurance Institute. They responded with an outdated Facebook message like 'send a fax', and then I understood that while the world was progressing, the authorities were stuck in place. From what I know about government bodies, I realize that these things take time until they're assimilated, but by then Facebook will already be retired and there'll be another network."

In general, the attitudes of the interviewees reflected a broad perception regarding the inability of government ministries to produce a sustainable channel for customer service and direct dialogue with social media users. Some of the interviewees, especially the younger ones, were very interested in turning to social media channels to contact government officials, but did not consider it possible. This perception is described in the words of interviewee U1:

> "In my opinion, if we can get customer service there, it will be the breakthrough of the century, but only if they manage to do it properly and efficiently. At the moment I don't think they try, nor do I think they're capable. I don't know, it's also very difficult to commit to such availability. They have to be very determined to respond to citizens within a reasonable time frame."

As stated, another reason for not referring to the social media channel is the issue of privacy. Some interviewees shared this perception, claiming that due to the openness of social platforms, they refrain from sharing personal information in general, and contacting government ministries in particular.

7.4.2.3. Sub-category: Trust in government ministries on social networks. As described in the previous section, users' concerns regarding privacy inhibit, and even prevent them from sharing personal details when contacting government ministries through social networks. Some interviewees indicated feelings of distrust towards both the government ministries, and the platform itself. An expression of these feelings can be found in the words of interviewee U3:

> "With Facebook there's always the fear that if you click on Like, or express an opinion about government pages, 'Big Brother is watching you' and this might come back to harm you."

Respondents' perceptions of government information disseminated on social networks are derived from the degree of trust they place in government ministries and their evaluation of the ministries' activity in the digital arena, as described by interviewee U15:

> "If the government wants to maintain credibility and persuade me to contact them on social media, then I would expect the page to be free of blocks or deletions. Take for example the page of the Ministry of Justice—the High Court has just repealed the third apartment tax law, so I would expect their dealing with this issue to be genuine. But I can hardly believe that will happen."

Even interviewees who held a higher degree of trust in government institutions in Israel believed that the use of a popular social platform for communication diminished the quality of information generated there. This is mainly a result of the social and personal environment that exists on sites such as *Facebook*. The following quote from interviewee U5 reflects this position:

> "I think that because of the image of Facebook, if you throw in credible information together with unreliable supposed facts, the credible information will be harmed. If I were on the side of the decision-makers, I would not try to communicate there with citizens. This is not the place for government posts, this site (Facebook) includes personal postings that anyone can write. It's not serious and it hurts the credibility of the information itself."

8. Discussion

This study aimed to examine the behavioral patterns of Israeli citizens seeking to access government information online, particularly across social media sites. The questions asked and hypotheses proposed dealt with user needs and their perception of government information, the use of social media to access government information, and an examination of the relationship between variables such as digital literacy and the use of social media in general. We also examined a number of other hypotheses concerning possible links between variables such as age, degree of citizens' political efficacy, and exposure to and consumption of government information on the web, particularly across social media platforms.

Our first hypothesis (H1) presumed the likelihood of an association between digital literacy and users' ability to acquire new information about government and public issues through social media channels. As expected, a significant positive relationship was found between the digital information literacy index and the government information exposure index online, indicating that the higher one's digital information literacy, the higher their exposure to government information on the Internet, similar to previous findings in the field (Lee et al., 2020; Rajput and Kandhan Nair, 2013).

Our second hypothesis (H2) proposed a negative correlation between age and exposure to government information on social media. Consistent with this, we found that exposure decreased with age. This hypothesis reinforces the conclusions of previous studies finding young people more likely than older users to perceive social media as a source of information, as well as an acceptable and legitimate channel for regular consumption and exchange of information (Dong and Ji 2018; Ekundayo et al., 2019).

Our third (H3) and fourth (H4) hypotheses assume a likely link between the perception of political efficacy (internal and external) and users' ability to consume new government information on social networks. These hypotheses additionally address the correlation between personal efficacy and online political efficacy. Both hypotheses were partially confirmed; while positive correlations were found between the measure of internal political efficacy and the exposure to government information, no correlations were found between the external political efficacy index and exposure to government information. This is similar to Lee and Huang's findings (2014). Therefore, it cannot be said that the higher the external political efficacy, the higher the exposure to government information on the Internet and social networks, or vice versa.

A possible explanation can be seen in the work of Pennington et al. (2015), who found no association between external political efficacy and exposure to or consumption of political information on social media. Due to the distinction between internal and external political efficacy, which stems from the difference between individuals' perception of themselves as opposed to their perception of government authorities' responsiveness, the use of and exposure to political or government information on social media is not significantly related to external political efficacy (Halpern et al., 2017).

As described in Section 3, a number of additional research questions were examined in this study.

The first research question (RQ1) examined how informational behavior patterns are expressed among citizens who use social media for everything related to searching for and locating government information on the Internet, in general, and on social networks, in particular. A clear picture emerges regarding users' preference for locating any such information on the Web via the *Google* search engine. Similar to the findings of previous studies (Henninger 2017), a significant proportion of users stated that this was their preferred medium to search for specific government information, rather than the internal search available within a government site. Again, based on the findings of previous studies, the tendency of younger users to rely on *Google* as a primary search engine is not surprising. In 2008, an in-depth survey conducted by the British Library found that young people with established digital skills preferred to use *Google* as their default platform for search and research, and that this trend was only likely to intensify (Rowlands et al., 2008). Moreover, our study shows that after completing their initial search, some interviewees chose to turn to non-governmental sites or to use a different external search engine for their queries rather than using the internal government search engines. This finding is consistent with the conclusions of Bridges et al. (2012), who described a sense of frustration among citizens using government sites to acquire government and civic information, a perception leading users to turn to external search engines as alternatives to official sites (Bridges et al., 2012).

The second research question (RQ2) addressed places and digital events in which Israeli citizens encountered government information. It was found that while the use of external search engines help users arrive at relevant government information, social networks enable users to be exposed to such information and to other areas that would benefit them, without their having to initiate such a search. Previous research in the field has concluded that random encounters on social networks with government ministry content have led to beneficial exposure to new information (Bertot et al., 2012; Linders 2012). However, the participants in our study did not distinguish between government content that came up in an "organically" non-funded manner, and sponsored and/or paid ads. This is similar to a study by Kim et al. (2018), who found that social media users were unable to distinguish between paid and unpaid content even when a distinction was added to the posted content.

The third research question (RQ3) sought to delve deeper into how users perceive the digital representation of government ministries on social media, and how they evaluate ministries' online activities. Similar to the determinations from our online survey, our research found that most participants chose not to turn to social channels for answers to inquiries or for public services. Most participants would prefer to use "traditional" communication channels such as phone calls or physical visits to the various office branches, rather than turning to digital channels like websites and social media. This finding is consistent with a previous study of Canadian citizens, who preferred traditional means of communication such as telephone or email, despite the availability of various digital channels, when looking for specific answers on various topics. However, digital means were found to be helpful for gathering general information on various government and administrative issues (Reddick and Anthopoulos 2014).

Among the reasons for refraining from contacting government agencies through social media for receiving services and responding to inquiries, study participants cited concerns regarding the invasion of privacy and general mistrust of social platforms as well as overall mistrust of government ministries. Previous studies have shown that the higher the level of citizens' trust in the government, the stronger their tendency to turn to social media channels for communication with government ministries (Porumbescu 2016, 2017). It should be noted that the concerns expressed by the participants at this stage regarding government contact via social media channels stemmed from trust issues related to government ministries, and distrust in the social platform on which this communication might take place. Moreover, previous studies have demonstrated that openness on the part of government ministries, and improvement in the scope and provision of government information can lead to increased public trust (Abu-Shanab 2019; Lovari et al., 2020; Tolbert and Mossberger 2006).

9. Conclusions

The following salient conclusions arise from our findings. First, users do not perceive social networking sites as a reliable means of searching for and actively finding government information online. Instead, they prefer to use *Google* as their predominant search engine. However, social media has emerged as a potential source for obtaining new and general government information concerning policies and events in an unintentional manner through sponsored ads and randomly displayed content. Table 5 describes the classification we propose for the division of platforms according to patterns of information behavior, based on conclusions from our qualitative and quantitative research.

In addition, this study was based on several personal traits, such as digital literacy, political efficacy, age, and use of social media; it examined their influence on the use, exposure to, and acquisition of general and/or new government information on social networks and websites. Our findings indicate that digital literacy and internal political efficacy are significantly correlated with exposure to and acquisition of government information online. Both the quantitative and qualitative research found that participants were not interested in proactively addressing government bodies through personal inquiries via social media due to concerns regarding privacy, as well as mistrust of the platform and of the government offices themselves.

10. Limitations of the research

This study has several limitations. First, the study does not examine the use and follow-up actions citizens may have taken as a result of exposure to government information by virtue of the limitations of the survey tools and interviews, which do not constitute longitudinal research over a period of time. In addition, as the interviewees in the qualitative part of the study had already been exposed to this field of research in the previous survey stage, it can be assumed that they were more familiar with the topic than other potential participants.

Additionally, owing to the relatively small sample size, conclusions cannot be generalized to the general Israeli population. To accomplish this, in-depth research is needed focusing on a large and diverse group of citizens in Israel, hailing from a variety of different communities and populations, both in terms of socio-demographic characteristics and varying digital literacy.

11. Future suggestions and recommendations

First, we found that decision makers need to improve the accessibility and usability of government websites to external search engines through search engine optimization. The findings revealed that a significant portion of the interviewees were not satisfied with existing relevant information retrieval capabilities; most of them reported serious difficulties in locating information on the sites themselves, or via search engines. In addition, our study paints a recurring picture of mistrust that deters users from turning to government ministries for services via social media. If decision-makers in various ministries are interested in maintaining these channels for responding to inquiries and services, they should promote them and make them more accessible to the public.

In addition, based on our findings, we recommend several future research directions. Further research is needed to include a comparative analysis among different populations with various levels of digital literacy. We suggest additional investigations to focus on populations with low digital literacy. It is also worth conducting a comparative study with other countries to shed light on and examine the existing differences in the behavioral patterns of Israeli and other citizens regarding government information.

12. Ethics statement

Ethical approval was not required for the study in accordance with institutional requirements. All research phases were reviewed and approved by the university graduate school committee. Consent from the survey participants was obtained, and the participants' identity remained anonymous. All interviewees were asked to sign consent forms prior to the interviews.

Declarations

Author contribution statement

Gal Yavetz, Ph.D; Noa Aharony, Prof.: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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Data will be made available on request.

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