Using Facebook to enhance citizen engagement with local government in community development: A case study on Al-Qalyubia governorate in Egypt

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ABSTRACT

The purpose of this article is to gain a deeper understanding of the using Facebook to enhance citizen engagement with local government in community development in Egypt and identify the type of information that local government publishes on its Facebook page. This paper presents a qualitative case study of the Facebook presence of the governorate and city of Al-Qalyubia, Egypt, one of the most prominent local governments on Facebook in the country. Facebook page data were collected in the period January to April 2018. A content analysis was performed on the data to explore categories and elicit meaning from the data collected. Out of the 129 analyzed posts, the paper identifies 11 content categories for local governorate posts. The frequency for content category reveals that the governorate is first of all using its Facebook page to promote different events, occasions, and issues inside the governorate.

Keywords: Facebook, content analysis, community development, citizen engagement, local e-government.

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Introduction

Information and communication technologies (ICTs) have become democratic and social media sites (SMSs) are rapidly becoming an indispensable tool due to the advances in communication devices and inexpensive and extensively circulation and high collaboration among participants in the communication process and the rise of user-generated content (UGC). Moreover, Web 2 applications and social media sites such as social networks (e.g., Facebook), microblogging (e.g., Twitter), video sharing sites (e.g., YouTube) and photo sharing sites (e.g., Flickr), allow people to connect with each another outside their traditional social reality without spatial and temporal restrictions and share information via computer-mediated communication.

In the world of online communication, there has been rapid adoption in social media within e-participation in developing countries due to relative interactive capabilities, collaborative ability, usability, inexpensive access, widespread accessibility and reduced government control(Dini and Sæbø 2016a). Although scholars suggest that a deep understanding of social media is based on extant technology, there is no standard definition among scholars of what social media is, both functionally and theoretically, within communication studies(Kumar et al. 2016b). Warren et al. (2014) argue that social media sites play a major part in defining citizen engagement and in mobilising people to implement social actions. However, social media and mobile media are means for the digital empowerment of the citizens and a dynamic alternative to traditional media. Most social media studies define social media as a group of Internet-based technologies that allow users to create, edit, publish and/or consumption of content(Kaplan and Haenlein 2010; Mossberger, Wu, and Crawford 2013). Other authors define social media as Internet tools used by citizens and centered around social interactions where the audience are active participants(Bertot et al. 2010; Kamel 2014; O'reilly 2007).

The main characteristics that define social media are participation, openness, conversation, collaboration, and mobilization(Eltantawy and Wiest 2011; D. Kim et al. 2014; Zheng and Zheng 2014). In this respect, social media allow citizens to present their opinions and ideas

without being subject to the controlling and/or corrupting influence of money and politics, as may be the case in traditional media(Benkler 2006).

In the current state, social media uses in developmental areas, including education in developing countries)Sobaih et al. 2016; Greenhow and Lewin 2016(, tourism (Zeng and Gerritsen 2014), economy (Kumar et al. 2016a), crisis and natural disasters in the world (Houston et al. 2015), and political participation during the Arab Spring and the Occupy Wall Street movement (Fuchs 2017). Moreover, Eltantawy and Wiest (2011), state that the power of social networks lies in the support they provide to civil society and the public sphere, which has enabled phenomena such as the mass protests that led to the overthrow of the Philippine government in 2001 and to the 2011 Egyptian revolution.

In our study, e-participation for citizens with local government on Facebook has represented the main core of the development process in community. Thus, the use of social media in the field of political, economic and social development has received the interest of researchers (Eagle, Macy, and Claxton 2010; Bellström et al. 2016; Neuman 2014; Neumayer and Raffl 2008; O'Reilly 2011). Moreover, there is strong evidence to propose that social media can improve the socioeconomic well-being of developing communities. Eagle et al. (2010) argue that the structure of social networks and diversity of individual relationships are strongly correlated with economic development of communities. Greater participation is important to increase the numbers of people who potentially can benefit from development (Oakley 1991). Thus, examining the role of Facebook used to enhance citizen engagement with local government in community development is important and it has become a key research issue in the analysis of big data on social media studies. In addition, a deep analysis of Facebook pages can also provide a deep understanding of Facebook's role in enhancing participation between local government and citizens in community development. Therefore, this research sheds light to what extent the use of Facebook by the local government and citizens enhances the development of the local community in a developing country as Egypt.

To fully grasp the potential of using social media, especially focusing on Facebook in local government, we need to study what governments are communicating through their page posts. This research gap allows us to formulate five research questions:

RQ1. What is the level of citizen engagement with E-government through Facebook in local development?

RQ2. Does Facebook interactivity positively influence citizen engagement with government in community development?

RQ3. What type of issues categories does a local government send through its Facebook page?

RQ4. What are the most frequent words in local government posts through its Facebook page?

RQ5. What type of content (Link- Photo- video) does a local government send through its Facebook page?

Evaluating Citizen Engagement in Community Development Through Social Media

Communication for development is a social process, designed to seek a common understanding among all the participants of the development process, creating a basis for concerted action (FAO 1984). Information and communication technologies (ICTs), including social media, is considered important in terms of achieving the millennium development goal, introduced by the United Nations (UN) to fight poverty, improve health care, provide better education, gender equality and global collaboration for development in developing countries (Dini and Sæbø 2016b).

Development denotes the growth of national income per capita. Thus, development should not only be assessed in economy. Research should be interested in changes in attitude of the cultural, political affair and the transformation of rural societies and the process of urbanization (Szirmai 2005). However, development is the consequence of the interplay between socio-technical components (Walsham and Sahay 1999), and technology needs to be designed to be able to operate in a variety social, political, economic, and cultural contexts.

Regarding the relationship between e-government and development, the e-government aims to improve service quality by focusing on improving public service delivery to citizens (S. Kim 2009). Therefore, local government uses web technologies to offer various forms of electronic participation applications. Thus, the web-based participation is an important tool for e-government to facilitate citizen participation (Elvira et al. 2014). Moreover, participation is generally considered a core in community development. In many parts of the world, interest in research and development into participatory development approaches is increasing. It is now accepted that citizen participation in local development is the key to the equality, inclusiveness and sustainability of development (Meldon, Kenny, and Walsh 2002).

Social Media and Local Goverment 2.0

The relationship between citizens and government is changing, citizens are demanding to interact with government with similar tools (Karakiza 2015). In this line, social media allows users to share information and participate together in achieving the desired goal. Moreover, it offers a big opportunity to reform the relationship between government and citizens, from one-way communication into two-way communication (Agostino 2013). However, there is no clear evidence that citizens are actually using social media for interactive participation in the activities of government agencies (Gil de Zúñiga, Jung, and Valenzuela 2012; Mergel 2013). Authors such as Mergel (2013b) and Hofmann et al. (2013) have argued that this shortcoming is largely because government agencies still use the instruments of social media as a means of one-way information supply, rather than enabling two-way communication to increase citizen participation.

According to Mergel (2013a), asking people to submit their thoughts on governorate issues or inviting them to contribute content to governmental social media is a very effective way to encourage only online participation and thus promote citizen engagement. However, the main motivation for governments to adopt social media is to restructure government service provided towards efficiency and excellency as social media offers three major opportunities: powering democratic participation and engagement, common cooperation

between government and citizens, and providing crowdsourcing solutions (Carlo Bertot, Jaeger, and Grimes 2012). Crowdsourcing is the main practice of obtaining needed services, ideas, or content by soliciting help and contributions from a large group of people and especially from the online community rather than from traditional employees (Holst et al. 2015). Here, the focus of actor in e-participation shifted from focusing on government as the main actor to a more citizen-centric view in the more recent years (Dini and Sæbø 2016b; Medaglia 2012).

Facebook as an Alternative Cannel FOR Local Government Participation With Citizens

Facebook has become the first social media site in the world, in terms of the number of users. However, Facebook involves its users through conversation and dialogue, providing a sensation of exclusivity (Hofmann et al. 2013). In recent years, the use of Facebook has increased by local governments in many countries. In the USA, 92.4% of local governments have a Facebook page. According to a study conducted by Mossberger et al. (2013) that studied the 75 largest cities in 2009 and 2011, concluding that in 2009, only 13% of local municipalities were active on Facebook. By 2011, the rate had skyrocketed to nearly 87%. Another study found that 67.5% of local governments relied on one at least a social media in the United States in 2011 (Norris and Reddick 2013). Also, Bonsón et al. (2015) show that all German local governments have a Facebook page. For Anglo-Saxon governments, the number was 90%, 85%, for Nordic governments, and 66% for Southern Europe governments.

In this context, governments seek to keep citizens engaged, promote transparency and advance public service, social media sites have been incorporated into the governmental workplace and have been seen as effective tools to promote public goals (Kaplan and Haenlein 2010; Kietzmann et al. 2011; Welch 2012). The increase in official Facebook pages might be explained by the fact that organizations, including local governments, want to invite citizens to take part in community development and reach consumers where they live online (Hanna, Rohm, and Crittenden 2011).

Moreover, internet users favor interactive and informative websites within which users can express their beliefs, ideas and attitudes on the events and service. Static websites are deficient in producing enough value for users to make them content and involved in community activities (Bettoni, Andenmatten, and Mathieu 2007). This is one of the major reasons that internet users prefer to obtain their information from social media such as Facebook or Twitter. Furthermore, Facebook pages are accessible through a myriad of platforms such as desktop computers, laptops, tablets, smartphones, as well as different software such as apps and browsers (Valaei and Baroto 2017). The results of a study by Haro-de-Rosario et al (2016) show that Facebook is preferred to Twitter as a medium for citizens to participate in local government issues. In addition, Facebook provides an inexpensive and attractive means of citizen outreach for local government services and provides a means to put this engagement into practice, through discussion and the coordination of social activities (Warren, Sulaiman, and Jaafar 2014). Therefore, the main factors that are related to citizen engagement are the level of transparency, mood, the level of activity in social media and the interactivity offered by the local government Facebook page (Haro-de-Rosario, Sáez-Martín, and del Carmen Caba-Pérez 2016).

These facts could be reasons why government organizations are developing their Facebook pages to provide up-to-date information about policies and government achievements .Moreover, government social media is becoming one of the major trends in e-government research worldwide) Criado, Sandoval-Almazan, and Gil-Garcia 2013(. For these reasons, numerous studies have examined the level of engagement with local government by means of social media (Agostino 2013; Bonsón, Royo, and Ratkai 2015; Stieglitz and Dang-Xuan 2013). Thus, more research is needed for a thorough understanding on how and why social media influences e-participation in developing countries (Alias 2013; Papaloi, Staiou, and Gouscos 2012; Sandoval-Almazan and Gil-Garcia 2013).

Facebook Usage in Egypt

Facebook.com is the most popular social networking sites worldwide. Indeed, Egyptian citizens seemed particularly responsive to efforts to reach out to them through Facebook, perhaps because it is one area of Egyptian life that offers relatively free speech. Therefore, Facebook became a popular amongst Egyptian young people and played a critical role on January 25 Revolution in Egypt. Even though originally Facebook was popular with young adults, currently over 50% of users are over the age of 35 (Stross 2010).

According to results of information and communication technology access and use by households and individuals survey for 2017/2018 conducted by the Egyptian ministry of communications and information Technology shows that 44.3% of Egyptian use internet (CIT 2018). In addition, 88% of Egyptian internet users log in to a social media account every day (Rainie and Poushter 2014). Regarding Facebook in the Arab Region, Facebook is by far the most popular social media platform in the region with around 156 million users by early 2017, up from 115 million a year earlier (Salem 2017). The same study shows that the changes in numbers of Facebook users in the Arab states (between 2014 and 2017), Egypt gained more than 14 million new users during this 30-month period. In addition, As of early 2017, around 23% of Facebook users in the Arab region were located in Egypt, a percentage that has decreased slightly from 25% over the past five years (Salem 2017). According to Facebook Quarter 3 report (2017) 37 million Egyptians access Facebook every month with over 22 million or 59% of monthly active people return every day (Facebook 2017). Furthermore, (Salem 2017) found that the users form 15-29 years constitute more than half of Facebook users in Egypt by 65.8%. In the same context, the Interaction types on Facebook are reactions by 80%, comments 18% & and shares 2% (Socialbakers July 2018).

In recent years, Approximately half of the world's population (4.15) billion having access to the Internet, there are vast opportunities for using social media to support citizen participation with local government in community development (Stats 2017). Social media has changed the way as many peoples get information about what is

going on in their communities and national and global current events. They provide new ways for citizens to share information and to interact with each other and with officials and government. Johannessen et al. (2012) state that governments are using digital media to communicate with not only the citizens but also with business and organizations (Johannessen, Flak, and Sæbø 2012).

Research Method

This study uses a case study approach (Yin 2009)– which is particularly suitable for understanding complex and contemporary social phenomena – to perform a content analysis of the Facebook usage of the Al-Qalyubia Governorate (https://www.facebook.com/qalyubiya.gov.org), Egypt, an interesting Governorate because of its highly developed and deliberate social media presence. Egypt has 30 Governorates (CAPMAS 2018), of which Cairo is the largest. In terms of population, Al-Qalyubia Governorate ranks as number 7 with a population of 5,857,716 (CAPMAS 2017). Al-Qalyubia launched its Facebook page on April 27, 2011 (Facebook 2018a), a page that currently has 188,065 followers (Facebook 2018b). and 4299 followers are talking About it.

Al-Qalyubia's Facebook page is an information-rich case in the sense that it manifests "the phenomenon of interest intensely", which, according to (Patton 1990), is one key to purposeful sampling. Our rationale for using Al-Qalyubia's Facebook page (https://www.facebook.com/qalyubiya.gov.org) as a single case (Yin 2009) is twofold: first, this study, along with the earlier study of (Magnusson, Bellström, and Thoren 2012), is a longitudinal study. Second, the selected case can be regarded as a, at least nationally, unique case, because of its longtime leading position in the number of fans.

Data Collection And Coding

While more or less manual rationales for data collection have been successfully used to gather content from Facebook (Williams and Gulati 2013), this study uses an automated approach. Such an automated approach needs to be carefully considered to avoid various analytical difficulties owing to the sheer size of data (Lewis, Zamith, and Hermida 2013), although it does allow for considerable ease at the

initial, explorative stages of the research process (Stieglitz and Dang-Xuan 2013). Given the exploratory, qualitative character of the study, following the recommendations of Lewis et al. (2013), a combinatory approach seemed appropriate where automated data collection is combined with manual coding. Specifically, Data was collected by means of the Netvizz service (Rieder 2013). In brief, Netvizz allows archiving a Facebook page activity delimited either on a specified subset number of postings, or a time interval.

The latter approach was chosen to cover a specific time frame rather than number of posts. Page owner posts were archived using the interval) January 1 – April 30, 2018). The data consisted of a total of 291page posts by the page owner (the governorate), 9897 likes, 10775 reactions, 1746 comments, and 4603 shares (see Figure 1). The data collection was executed in mid-July 2018. Coding and analysis were made possible by importing the data set into the qualitative research tool NVivo (Bazeley and Jackson 2013). Page users' posts are not available, due to not allowing to it from Al-Qalyubia governorate.

The aim of this study is to contribute to theoretical building by identifying concepts or categories in government– citizen communication on Facebook by "analytic generalization"(Yin 2009). In our analysis of the collected data, we used a qualitative interpretative content analysis approach (Krippendorff 2004), grouping the text on each page owner post into one or several categories.
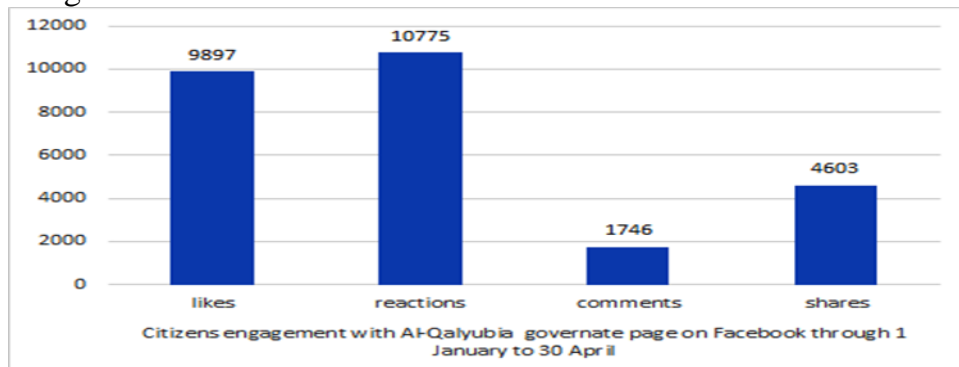

Figure 1. Citizen's engagement with Al-Qalyubia governorate page on Facebook through 1 January to 30 April

In this line, organizations that are more active on Facebook are more likely to have Facebook profiles with a high level of content Quality. In other words, they are more aware of the need to increase the level of interactivity, and thus bidirectional, participation with their stakeholders (Nah and Saxton 2013). Citizen's engagement to content can measured in "likes", comments and sharing of posts. Mergel (2013) refers that the government seems to be focusing on social media's possibilities for deeper levels of citizens' engagement. To get an indication of citizen engagement in our study, it is noted that the hits came in an advanced position. In analyzing and discussing the calculated sum, we were inspired by the work of Mergel (2013) and thus also used the parts of the presented framework that was applicable to the analysis of Facebook interactions (Mainka et al. 2014).

Most of the comments were praises in the activities and services of the governorate provided to the citizen on the Facebook page, but complaints and criticisms to the governorate were not found, which reflects the total reactions from users of the likes (see figure 2). In this respect, complaining about the governorate "and" praising the governorate "are two frames that indicates the nature of the citizen or organization's engagement with the governorate in a post (Bonsón, Royo, and Ratkai 2015).

Moreover, the study found that sad and angry reactions were not directed to governorate policy but to express feelings of hatred and anger against terrorist events and victims of the police, army, and ordinary citizens. In addition, the goals of governorate presence are informational/ developmental. These goals could be measured based on Facebook likes. Moreover, the goal of participation is engagement, the tactic is a two-way pull, and its success could be measured based on Facebook comments. Finally, the goal of collaboration is a cross-boundary action as well as two-way interactivity and, according to Mergel (2013), the number of Facebook shares is one way of measuring goal fulfillment (Bellström et al. 2016).
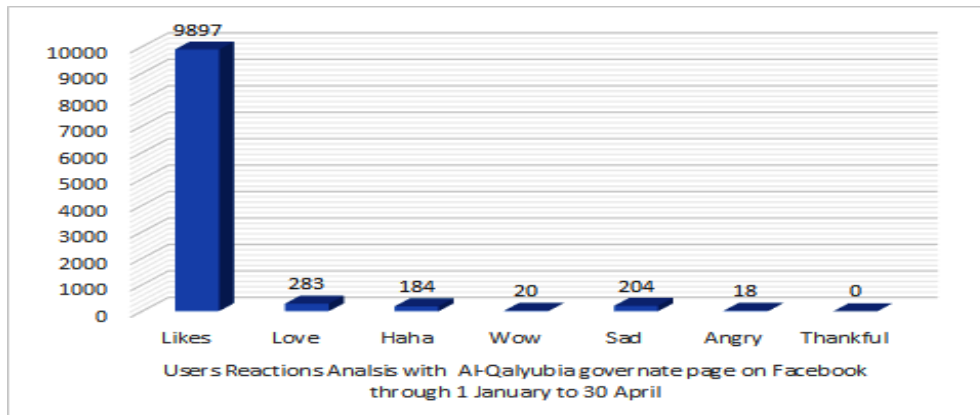
Figure 2. Users' reactions analysis with Al-Qalyubia governorate page on Facebook through January 1 to April 30

Following Miles, Huberman, Huberman, & Huberman (1994), a "start list" of codes was generated using (Magnusson, Bellström, and Thoren 2012). Prior to reading the data, and this list was gradually modified and expanded inductively as we iterated between the categories and the data (Miles et al. 1994). The initial categories for page owner posts were: "education development", "marketing events", "Presidential Elections", "marketing governorate", "marketing services", and "requesting information from citizen".

Coding and subsequent analysis were performed in three steps: first, an initial round of coding and analysis was performed by the first author of this paper using the start list and subsequent inductive modification. Second, data were subjected to a second and third round of coding to ensure reliability by a second author and as well as an additional person not affiliated with the study. Posts were coded and analyzed by the additional testers. These testers were furthermore given the task of naming the categories for page owner posts. Thirdly, a final analysis of the categories was conducted, which resulted in clarification of category names as well as the descriptive text (Table I).

Results

In this section, we present the results of the study. In doing so, we describe and discuss the identified categories for page owner posts. In total, 291-page posts were downloaded. This is explained by the fact

that the text in one post could be coded as belonging to one or more categories, resulting in a difference between the number of downloaded posts and coded posts.

Category	No. of coded Posts	Description
Education development	20	Supporting the governorate for educational activities, art exhibitions, and inventions, and visiting the governor to schools and libraries and the opening of new schools in the cities of the governorate.
Marketing events in the governorate	82	Governorate is promoting different happenings in the governorate
Marketing events outside the governorate	6	Governorate is promoting different happenings outside the governorate
Marketing services	26	Governorate is promoting the governorate as a good place to invest
Presidential Elections	42	Inviting citizens to participate positively in the presidential elections 2018
Health development	25	The governorate promoting national health campaigns and invite citizens to early detection of diseases
Agriculture development	35	The governorate promoting campaigns to product and avoid building on agriculture land, and agriculture guidelines for farmers
Social solidarity	22	The governorate solidarity with martyrs and their families of military and policemen
Requesting assistance form citizens	5	Governorate requesting information from citizens
Service maintenance information	23	Governorate informing of service breakdowns and ongoing repairs
Information about communication channels	5	Governorate Informing on how to connect via Facebook, WhatsApp, and Mobile telephone number.

Table I. Identified categories for page owner posts (governorate)

In some very rare and specific cases, the one and same sentence or a collection of sentences were coded as belonging to two categories.

After discussing this issue, we decided to keep the coded material as it was because these cases were very rare and therefore did not directly influence the frequency of each category (Figures 3), while deleting them would mean losing information.
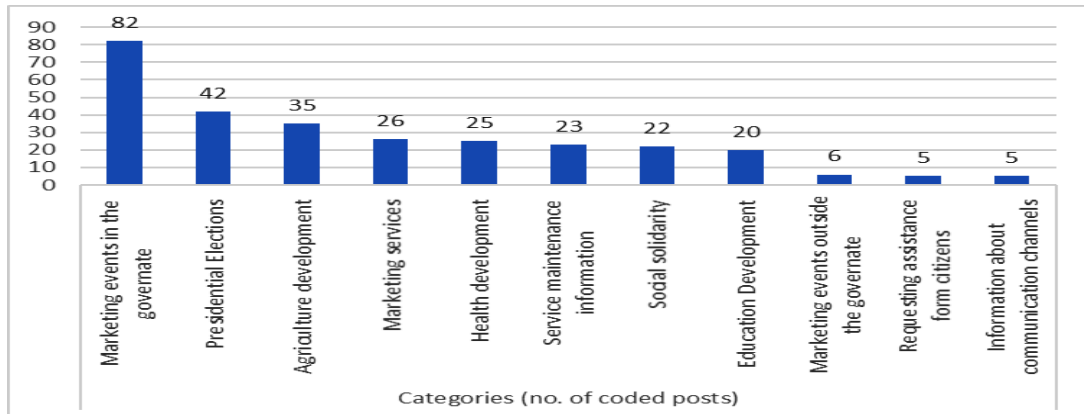

Figure 3. Frequency of page owner posts categories from (January 1-April 30, 2018)

The governorate's page posts

- *Marketing events in the governorate* was the most frequent category. This category was found in just above 28.2 percent of the coded posts. The posts contained many different events such as promoting a visit by the governor and promoting an inauguration of new services projects as follows:

  Governor of Al-Qalyubia and the President of Benha University are visiting 5 projects at the University at a cost of LE 234 million! [...]

- *Presidential Elections* followed *Marketing events* and became the second most frequent category was "Presidential Elections". This category was found in just above 14 percent of coded posts. Several page posts included a video and one or several sentences promoting the governorate such as:

  Video: Benha youth march to call for positive participation in the presidential elections.

- *Agriculture development* came as the third most frequent category. This category was found in just 12 percent of coded posts. Typically, this type of page post included information about governorate warnings from building on agricultural lands, and removal of encroachments on agricultural land such as:

    Removal of 83 cases of transgression on agricultural land in Al-Qalyubia! [...]

- *Marketing services*: The fourth most frequent category was "marketing services". In this category was found in just below 9 percent of the coded posts. In this category, the governorate was promoting governorate services such as the use of a new service such as:

    Know the bill (gas, water, electricity, telephone, and traffic) through this link: http://cutt.us/Eg8eb. Also, Government portal services through the follow link: http://cutt.us/9WuLd

- *Health development* stood as the fifth most frequent category. This category was found in 8.6 percent of the coded posts. In this category the governorate promoting national health campaigns and inviting citizens to early detection of diseases such as:

    [...] launching of the President's initiative to eliminate the C virus by 2020!

- *In "service maintenance information": was found in just below 8 percent of the coded posts. The governorate was instructing the citizens about services, apart from marketing and maintenance, such as:*

    Since the early morning ... Governor of Al-Qalyubia: Following up with the heads of centers, cities, and villages raise the accumulated water pools in the streets and main fields.

- For the category of "*Social solidarity*", it was found in just 7.6 percent of the coded posts. The governorate solidarity with martyrs and their families of military and policemen such as:

    General Secretary of Al-Qalyubia Governorate and Security Director of Al-Qalyubia participate in the funeral of Shahid

Jamjara[…] . *Also, Al-Qalyubia deposed two martyrs of the armed forces are being held in the Sinai operation*[…].

This post is a video that has 379 comments, 877 reactions, and 888 shares by users' citizens.

- *"Education development"*: The eighth most frequent category was "education development". This category was found in just below 7 percent of the coded posts. In this category, the governorate was promoting educational activities, art exhibitions, and inventions, and governor's visits to schools and libraries and the opening of new schools in the cities of the governorate:

  Governor of Al-Qalyubia attends the end of educational activities at Benha mechanical school and opens the exhibition of artistic activities and inventions.

- Regarding the category *Marketing events outside the governorate,* this category was found in just above 2 percent of the coded posts. The governorate promoting different happenings outside the governorate such as:

Governor of Al-Qalyubia participates in the conference "enhancing local development and decentralization".

Categories found in less 2 percent of the coded posts. The two categories that were least frequent in the coded posts were "requesting assistance form citizens" (1.7 percent), "Information about communication channels" (1.7 percent). In "requesting assistance from citizens", the governorate was asking citizens to provide some type of text, photo and video information about complaints, abuses, and corruption in any service via Al-Qalyubia Facebook page and WhatsApp Number. In the category *Information about communication channels,* the governorate provides information about communication channels such as E-Mail, telephone calls, and WhatsApp Number.

Word Clouds

Word clouds are useful in analyzing any type of text data, including posts or comments on Facebook pages. Word clouds produced for a collection of text can fill in as a beginning stage for a more profound

analysis. It provides a graphical representation of knowledge that allows a reader to form a quick, intuitive sense of content. The more frequently a term appears in an image collection, the larger it appears in a word cloud as appeared a follow figure 4.

Figure 4. A word cloud of Al-Qluobya governorate page on Facebook through 1 January to 30 April (Arabic Language)

A word cloud is a visualization method that shows the top number most frequent words of a text document. It helps to give a clear indication of what your local government is really thinking by concentrating on the popular keywords (Bediroglu, Yildirim, and Nisanci 2015). By analyzing the resulting word clouds (see Figure 4), we found the most frequently used word was "Al-Qalyubia القليوبية" while "governor محافظ" came in a second position. Note though that "عشماوي" and "محمود" are very highly ranked (third and fourth, respectively). These are not very helpful words that you probably don't want to show up as highly ranked as they are. By considering the data in this way, "citizens المواطنين", "participation المشاركة", and "governorate المحافظة" "terrorist الإرهاب" seem to be the most important word cloud after filtering out unhelpful words.

Our Facebook page data analyses are intended to help government and citizens of Al-Qalyubia governorate to know how and where to get useful information and critical communication in the event of a crisis or social convergence condition and monitor and make sense of the diversity of voices and information that enrich the quality of life in their communities.
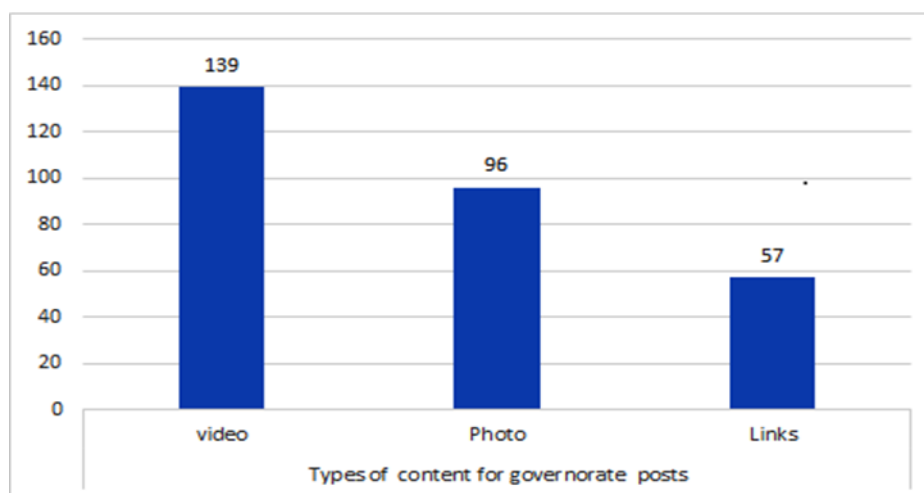

Figure 5. Types of content for governorate posts

Content Types

By analyzing the results of the types of governorate posts content, the video content was ranked first with a frequency of 139 videos. The content of the images came in the second with a frequency of 96 images. Finally, links came with a frequency of 57 links.

Conclusion And Discussion

Local government presence in social networks is often considered a symbol of modernity and responsiveness to the needs of a society that seeks engagement via the Internet (Ma 2013). In the same vein, Mergel (2013) stated that the use of social media by local authorities represents a form of interactive participation and create a new form of citizens participation that depends on many to many communications and collective Censorship and social accountability. Moreover, Facebook presence is not just a strategic opportunity, but is mandatory

in order to prevent other parties from supplanting the local government in providing information and enabling interaction communication (Agostino 2013).

Two way communication between local government and citizen through national leaders talking to people, and people to leaders and to each other and moving to many to many communication, by making the nation possible a nation-wide dialogue on national development, thus online communication by Facebook, widely used, can help to group people and create a collective awareness about local development projects and events associated with the reality of national development (Schramm 1964). Facebook and online services with user-generated content have made an enormous amount of information (and misinformation) available. Thus, local government officials seek to invest Facebook to improve online services and confidence-building with the citizens and enhance governorate reputation in society.

This does not coincide with the findings of Mergel (2013) and not supports her conclusion that one-way push tactics, serving an informational purpose, dominate the government-citizen communication in social media. This indicates that the governorate of Al-Qalyubia, succeeded to fully embrace Facebook's ability to spur collaboration, participation.

We should consider not only the advantages of the social media but also its disadvantages as well. This may also cause online interactive participation obstruct due to formal and informal constraints, such as limited Internet access (Maamari and Zein 2014; Neumayer and Raffl 2008; Sri and Melissa 2012), low technology literacy, demographic factors (Azab et al. 2015), illiberal government (Abbott, MacDonald, and Givens 2013), legal and ethical barriers, and government censorship and social media blockage (Abbott, MacDonald, and Givens 2013; Carlo Bertot, Jaeger, and Grimes 2012; Kamel 2014).

Our analysis of the type of information a local government publishes and receives through its Facebook page not only confirms earlier research but also contributes new results to the field of local government presence through its Facebook page in developing

country like Egypt. In relation to the first research question, we analyzed the type of information that a local government publishes through its Facebook page. The results were the 11 categories presented in table 1. Comparing our categories with those in studies (Abbott, MacDonald, and Givens 2013; Magnusson, Bellström, and Thoren 2012), we can conclude that not only did we identify four new categories, but we also divided one category into two more specific categories. Being a case study, our categories could be used as a basis for discussing the research gap (Mainka et al. 2015) that formulated as "what type of information is provided by the local government.

The study of frequency for issues category showed that the top four categories are found in "Marketing events in the governorate" (28.2 percent), "Presidential Elections" (14 percent), "Agriculture development" (12 percent) and "Marketing services" (9 percent). "Marketing events in the governorate" is undoubtedly the most common category found in the data. Therefore, it can be concluded that the case governorate is first of all using its Facebook page to promote different events in the governorate.

There is also a reason to show interest in the interaction following on page owner posts. To follow the interaction on a specific posting, or the postings within one of our categories, the number of likes, comments and shares can be studied (Mergel 2013). Accordingly, in our study, the number of likes, comments and shares should only be viewed as indications of interaction. The reason is that in our analysis, each post could be categorized as belonging to one or more categories. Therefore, in terms of pure statistics, it is not possible to tell which category a like or comment pertains to. One should also note that it is possible that a user comments on a comment, but actually intended to comment on a page owner post. Still, some interesting tendencies are shown when we calculated the total number of comments.

If we take a category with few postings, for example, such as "social solidarity" and look at the posts by the governorate, one event is the General Secretary of Qalyubia Governorate and Security Director of Qalyubia participate in the funeral of Shahid Jamjara, which was liked by 632 persons, commented by 378 persons and shared by 886 persons, while the other post in the same category about the Governor

of Qalyubia and Minister of Social Solidarity inaugurate 5 projects in the governorate only 9 likes, commented by 5 persons and shared by 3 persons. The relation to the governorate was in the first case that is the General Secretary of Qalyubia Governorate and Security Director of Qalyubia participate in the funeral of Shahid Jamjara, and in the second case that one of the official meetings was held in the governorate. Thus, this category in itself is not sufficient to predict citizens' interest in a posting. But from a marketing point of view, the category as such is interesting and social media departments might like to check what kinds of posts generate reactions from people in this category.

In general, governorate's posts marketing the governorate or its services, or simply giving information on services, receive most likes on an average, and comments and shares. The most frequent page owner post, "marketing events in the governorate", is the first most liked category of posts. This might be explained by the sheer number of posts; users may simply not have time to like (or comment or share) all the events marketed, and they might not even be interested in all kinds of events. Thus, even if a governorate naturally must promote any happening taking place also in non-public places, it is not reasonable to expect the highest number of reactions on posts within this category.

Acknowledgments

Funding

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