

Social Marketing, welfare indicators and SDG. Analysis of the official account of the Spanish Government @desdelamoncloa

Marketing social, indicadores de bienestar y ODS. Análisis de la cuenta oficial del gobierno de España @desdelamoncloa

PhD. Araceli Galiano Coronil is professor and researcher at Universidad de Cádiz (España) (Araceli.galiano@uca.es) (<https://orcid.org/0000-0003-2270-0924>)

PhD. Manuela Ortega Gil is professor and researcher at Universidad de Cádiz (España) (manuela.ortega@uca.es) (<https://orcid.org/0000-0001-7013-4133>)

Abstract

Social media are communication tools that facilitate citizens' awareness of social problems. Through Twitter, governments can obtain useful information and make decisions to improve the well-being of the community and raise public awareness about how to achieve the Sustainable Development Goals (SDG). This work shows how Twitter and social marketing serve as economic policy instruments and aims to know if the messages published by the official twitter account of the Spanish Government (@desdelamoncloa) talk about the SDG and well-being, as well as to analyze the impact of publications with content on these objectives. The methodology of content analysis is used from a double approach, qualitative and quantitative, examining the messages published by @desdelamoncloa during 2018, as well as its relationship with the SDG and the Sustainable Wellbeing Indicator. The results reflect that the most commented SDG (those related to gender equality and inequalities) are not the ones that have obtained the greatest impact from the public (work and economic growth). Thus far, the highly valued posts have content about the SDG included in the element of the Indicator of Sustainable Welfare called Welfare, Economy and Sustainability. Likewise, the qualitative analysis reflects that the messages published are informative with content about government actions and also, the word welfare appears in a context where the values that Spain represents stands out.

Resumen

Las redes sociales son instrumentos de comunicación que facilitan la sensibilización y concienciación de los ciudadanos ante problemas sociales. A través de Twitter, los gobiernos pueden obtener información útil y tomar de decisiones para mejorar el bienestar de la comunidad y concienciar a los ciudadanos sobre el logro de los Objetivos de Desarrollo Sostenible (ODS). Este trabajo muestra cómo Twitter y el marketing social sirven como herramienta en la política económica y pretende conocer si en los mensajes publicados por la cuenta oficial del gobierno de España (@desdelamoncloa) se hablan sobre los ODS y el bienestar, además analiza el impacto de las publicaciones con contenido sobre dichos objetivos. Para ello se utiliza la metodología del análisis de contenido desde un doble enfoque, cualitativo y cuantitativo, examinando de forma descriptiva los mensajes publicados por @desdelamoncloa durante 2018, así como su relación con los ODS y el Indicador de Bienestar Sostenible. Los resultados reflejan que los ODS más comentados (los relacionados con la igualdad de género y las desigualdades) no son los que han obtenido un mayor impacto del público (trabajo y crecimiento económico), destacando los ODS incluidos en el elemento del Indicador de Bienestar Sostenible denominado «Bienestar, Economía y Sostenibilidad». Asimismo, el análisis cualitativo refleja que los mensajes publicados son de tipo informativo sobre actuaciones del gobierno y que el término «bienestar» aparece en un contexto donde se resalta los valores que representa España.

Keywords | palabras clave

Marketing, Social, indicators, wellbeing, development, sustainable, Twitter, government.
Marketing, social, indicadores, bienestar, desarrollo, sostenible, Twitter, gobierno.

Suggested citation: Galiano Coronil, A., y Ortega Gil, M. (2019). Social Marketing, welfare indicators and SDG. Analysis of the official account of the Spanish Government @desdelamoncloa. *Retos Journal of Administration Sciences and Economics*, 9(18), 211-229. <https://doi.org/10.17163/ret.n18.2019.03>

1. Introduction

Digital social networks (DSN) are a universe with a lot of information about preferences, likes, concerns, sensitivities, hobbies, etc., of their users. They have opened up new opportunities for organizations, businesses and governments to raise awareness on the citizens about problems and needs of today's society. In the same way, DSN can influence the decisions of users by applying social marketing techniques, since this discipline is intended to influence the voluntary change of the behavior of the target audience, aiming to improve their well-being and the society (Andreasen, 1994).

Since the advent of DSN, the social marketing paradigm has changed, and efforts are now focused on ensuring that users become promoters of social causes (Hestres, 2014). In relation to these causes, it is important to point out the new international agenda - Agenda 2030 - which details the objectives of the international community in the period 2016-2030 to eradicate poverty and promote sustainable and equal development. The 2030 Agenda revolves around five central axes: Planet, people, prosperity, peace and alliances. It consists of 169 targets and 17 Sustainable Development Goals (SDGs); among them is number 3, which refers to health and well-being.

Several studies have investigated the well-being and Sustainable Development Goals from several approaches. Froding *et al.* (2007) analyzed the aspects that influence a healthy and sustainable city, others such as the Asheim (2010); Durana *et al.* (2015); Costanza *et al.* (2016); Mikulcic, Klemes and Duic (2016); Momete (2017) and Di Maria (2019) studied the relationship between well-being and sustainable development. Costanza *et al.* (2016) relate SDG to a new welfare indicator, the 'SWI', composed of three elements: Net Economic Contribution, Natural Capital and Social Capital. The first represents the economic, the second represents sustainability and the environment and the third represents well-being.

However, there are few studies investigating the effectiveness of well-being and sustainable development from the point of view of social marketing in social media such as Twitter. Among them are the work of Menéndez, Saura and Álvarez (2018), which identifies factors and feelings related to the sustainable development of the environment and public health by analyzing the hashtag #WorldEnvironmentDay. Another approach is that of Sao and Lee (2018), who analyzed the relationship between government and social welfare using the Social Media Analysis methodology on Twitter.

For this reason, this work aims to advance the lines of happiness and the economics of well-being, integrating social marketing, the welfare economy and economic policy. Specifically, this work shows how the use of Twitter, from a social marketing approach, is an instrument for advancing the study of welfare and public policies related to compliance with the SDUs. To this end, the objectives are to: to know whether the messages published by @desdelamoncloa talk about the SDG and well-being, as well as to analyze the impact of publications containing content on these objectives and on the Indicator of Sustainable Well-being.

For this purpose, the 2 587 tweets of the official account of the Government of Spain (@desdelamoncloa) published during 2018 have been analyzed, using IBM

SPSS and Nvivo 12 plus data analysis software. The methodology used has been content analysis, from a qualitative and quantitative approach, through which tweets have been codified in accordance with the Sustainable Development Goals (SDG), identifying, on the one hand, the most valued by Twitter users, and on the other hand the terms most used by the account of the organization under study. It has also been hypothesized that the impact of the published messages (measured by the sum of the likes retweets) by @desdelamoncloa depends on the SDG used.

2. Theoretical framework

Since 1952 Wiebe wondered Why is solidarity not sold as soap is sold? the question of the ineffectiveness of sellers of social causes has been studied over time, giving rise to various nuances called social marketing. The starting point is in 1969 when Kotler and Levy (1969a) suggest a new dimension of marketing that extends to the field of ideas and non-profit organizations such as churches, public schools or administrations, since they also have products to offer to customers. It is therefore evident that the “essence of marketing lies in a general idea of value exchange rather than the small thesis of market transactions” (Kotler & Levy, 1969b, p. 57).

Later, Andreassen (1995) added that “social marketing” must be able to modify behaviors in search of a higher good (individual and social); this voluntarily change in attitude or behavior has characterized the discipline in recent years.

However, the paradigm of “social marketing” has evolved since the emergence and use of social networks as communication tools. From this perspective, Hestres (2014) proposed a strategy that changed the vision of social marketing. This consists on instead of spending most of the resources on education, it is in the change in attitude and behavior that organizations should focus their efforts to understand the use of DSN. This will give the public the possibility to offer interesting content and offer more visibility of information. In this way, organizations will be able to work on how to transform their supporters into vocal promoters of their causes (Kotler, 2011; Dooley *et al.*, 2012; Bernhardt, Mays & Hall, 2012).

In this sense Twitter has been thought as an ideal tool, forming an online public space where organizations can inform and receive feedback on their contributions, as it is an interactive platform in which users and organizations share information. Various studies support their suitability as a communication tool in the public sphere and in politics such as Golbeck and Hansen (2014); McGregor and Mourao (2016); Bain and Chaban (2017), among others. Recently many research has focused on health-related issues (Chen *et al.* 2017; Pershad *et al.*, 2018; Aboelmaged, 2018; Zhang & Ahmed, 2019; Colditz *et al.*, 2019; Chua *et al.*, 2019).

Several researchers have focused their studies on the relationships between happiness, welfare status and public policies (Gerdtham & Johannesson, 2001; Easterlin, 2010; Di Tella, Haisken & MacCulloch, 2010), while looking for indicators that measure the happiness or well-being of individuals, citizens and businesses. Others have focused on happiness from a business point of view (Fisher, 2010; Blanchflower & Oswald, 2011; Ravina, Villena & Gutiérrez, 2017; Frey & Stutzer, 2018), mainly to rationally allocate scarce resources among its different alternatives,

distribute inputs and/or productive factors more efficiently and distribute goods and/or services more equitably among the communities. The theory of well-being rationally leads to minimizing levels of social inequality, and establishing a more efficient distribution of resources (Duarte & Jiménez, 2007).

Since the end of the last century, numerous indicators have been developed to measure development and well-being. Among the most commonly used are the Better Life Index (BLI), Human Development Index (HDI), Human Poverty Index (HPI), Unmet Basic Needs (UBN), Sustainable Development Index (SDI), Human Development Index Progress (DIP) and the Sustainable Welfare Index (SWI).

Environmental deterioration and its effects are causing both research and policy to focus on this problem. The Stiglitz-Sen-Fitoussi report (2008) analyses well-being and distinguishes between the assessment of current well-being and its sustainability. Today's well-being is considered multidimensional and it depends on economic factors - resources - and not economic - what citizens do and can do, how they perceive their lives and their natural environment. The sustainability of today's well-being aims to transmit to future generations the stocks that are important to our lives - physical, human, social and natural capital. In addition, it will consider that the statistical system should focus more on measuring the well-being of the citizens in a sustainable context than on measuring economic production, and it proposes 12 recommendations to improve statistics on the well-being of the population; five on material well-being, five concerning quality of life and two on the sustainability of the environment.

According to the Brundtland *Our Common Future* report, sustainable development is one that "meets the needs of the present without compromising the ability of future generations to satisfy their own" (Brundtland, 1987, p. 23). In 2000, the United Nations proclaimed the eight Millennium Development Goals (MDG): Eradicating Extreme Poverty and Hunger (1), Achieving Universal Primary Education (2), promote gender equality and women's autonomy (3), reduce child mortality (4), improve maternal health (5), combat HIV/AIDS, malaria and other diseases (6), ensure environmental sustainability (7) and promote partnership for the development (8). Subsequently, 17 Sustainable Development Goals (SDG) were developed at the 2012 United Nations Conference on Sustainable Development (RIO+20) to end poverty, protect the planet and ensure the peace and prosperity of people (see Table 1).

These objectives are a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity, and include new areas such as climate change, economic inequality, innovation, sustainable consumption and peace and justice, among others. They focus on well-being, responsible economic advancement and environmental protection. More and more authors are arguing that the development should be focused on well-being and sustainability (Coulthard, Johnson & McGregor, 2011; Rogers *et al.*, 2012; Costanza *et al.*, 2016; Rodrigo-Cano, Picó & Dimuro, 2019). According to Rogers *et al.* (2012) social and environmental sustainability require an approach based on well-being and in the human needs. For this research, objective 3 is highlighted, whose foundation is to ensure a healthy life and promote a state of well-being.

To measure social welfare, a number of indicators have been developed, such as corrected GDP, the Human Development Index or the Happy Planet Index that measure the above-mentioned aspects, with the aim of creating policies that help to increase quality of life for citizens. However, there is little literature that studies welfare and sustainable development on social media, specifically on Twitter (see gr. Fownes, Yu & Margolin, 2018; Pearce, 2014).

Costanza *et al.* (2016) have developed methods to link the SDG to global sustainable welfare measures. For them, in an interconnected world, the SDG cannot be achieved unless there is sustainable well-being on a global scale. They are based on the idea that the best system is one whose overall objective is based on a high-quality, prosperous and equitable life of its citizens that, in turn, is sustainable. In this sense, they propose a new indicator that is capable of measuring well-being and that integrates the current knowledge of ecology, economics, psychology and sociology for this purpose. This indicator is the "SWI" (Sustainable Wellbeing Index) which is a hybrid that combines three basic parts for sustainable well-being from an economic dimension, but including both society and nature. It consists of three elements: Net Economic Contribution (E) or efficient allocation (economic element), Natural Capital / Contribution to Ecosystem Services (N) or sustainable scale (environmental element) and Social Capital / Contribution Community (S) or fair distribution (element of welfare). In addition, in their work (*op. cit.*) they relate these three elements that form the Sustainable Well-being Indicator (SWI) with the 17 Sustainable Development Goals (SDG) (see Table 1).

Table 1. SWI and SDG ratio. The 17 SDG grouped into the three elements of sustainable well-being

Efficient allocation: creating a living economy (E)	
Objective 7	Ensure access to affordable, reliable, sustainable and modern energy for all.
Objective 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
Objective 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
Objective 11	Make cities and human settlements inclusive, safe, resilient and sustainable.
Objective 12	Ensure sustainable consumption and production patterns.
Sustainable scale: remain in the planetary boundaries (N)	
Objective 6	Ensure the availability and sustainable management of water and sanitation for all.
Objective 13	Take urgent action to combat climate change and its impacts.
Objective 14	Preserve and use in a sustainable way the oceans, seas and marine resources for the sustainable development.

Objective 15	Protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, stop and reverse land degradation and halt biodiversity loss.
Fair distribution: Bloom protection capabilities (S)	
Objective 1	End poverty in all its forms and everywhere.
Objective 2	To end hunger, achieve food security and improve nutrition, and promote sustainable agriculture.
Objective 3	Ensure healthy lives and promote well-being for all at all ages.
Objective 4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.
Objective 5	Achieve gender equality and empower all women and girls.
Objective 10	Reduce inequality within and between countries.
Objective 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and create effective, accountable and inclusive institutions at all levels.
Objective 17	Strengthen the means of implementation and revitalize the global partnership for the sustainable development.

Source: Costanza *et al.*, 2016.

3. Materials and methods

Content analysis has been used from both a qualitative and quantitative perspective to collect the information to be analyzed. The first allows you to check for the presence of topics, words or concepts in a content; while the second aims to measure the data and establish the frequency of occurrence of the elements considered as units of information. Krippendorff (1990) defines content analysis as “a research technique intended to formulate, on the basis of certain data, reproducible and valid inferences that can be applied to its context” (p. 28). This methodology is appropriate for this work as it adopts as a unit of analysis the message that is selected according to explicit rules (Neuendorf, 2002). The analysis has been carried out in three stages following the Bardin procedure (1983): identification of analysis units, encoding of messages and analysis of results.

In the first stage, the units of analysis have been identified in relation to the objectives to be achieved. Following these steps, user published messages -from @desdelamoncloa, the official Twitter account of the Government of Spain, during 2018 have been identified as units of study. The Twitter microblogging network has been considered for the analysis, as it is one of the most notorious and used social networks in Spain (IAB, 2018), with some 4.9 million users (SMF, 2018). In addition, it is increasingly useful for extracting information about public opinion on social media (Bernhardt, Mays and Hall, 2012).

Unlike Facebook, which offers limitations with private or semi-private profiles, Twitter facilitates open communication between users and allows them to share their opinions in a publicly accessible way. The FanPageKarma tool has been used for data extraction. With this resource, all messages issued in 2018 have been collected by @desdelamoncloa, gathering an effective total sample of 2,587 publications (information units).

In the second stage, these posts have been encoded according to three variables: objective v1 (or1... o17), v2 month (January... December) and v3 impact (likes + share). To encode messages according to variable 1, it has been taken into account that they contain words or expressions related to each SGD (see Table 2). Also, to measure the impact (variable 3) of the message, the times that these have been shared and the likes of each one have been taken into account.

Table 2. Terms and expressions related to the SDG (v1)

SDG	Terms
Objective 2	Hunger, malnutrition
Objective 3	Well-being, quality of life, health
Objective 4	Student, scholarship, education
Objective 5	Inequality, gender, men women, machism
Objective 6	Water, drinking water
Objective 7	Energy
Objective 8	Unemployment, employment, economic growth, wage
Objective 9	Development, industry, infrastructure, innovation, investigation
Objective 10	Equality, income
Objective 11	Cities, communities, sustainable
Objective 12	Consumption, production
Objective 13	Climatic change, weather, temperature
Objective 14	Marine, ocean
Objective 15	Environmental, pollution, fauna, flora, forest, river
Objective 16	Justice, NGO
Objective 17	Alliance, covenant, relationships

Source: Own elaboration

In the third stage, analysis of the results, the knowledge of the messages is deepened. The resources used have been the IBM SPSS and Nvivo 12 plus programs, which allow conducting two kinds of analysis: the first descriptive, both qualitative and quantitative to know: the most commonly used terms, the context in which the word appears, the impact of messages talking about the SDB and those related to SWI. And the second correlation is two types, one for the purpose of measuring the

relationship degree between the impact of messages (v3) and the SDG (v1), which would be carried out by the non-parametric Kruskal Wallis test in the SPSS. And another, using a cluster analysis with Pearson's correlation coefficient in the Nvivo 12 program, displaying nodes that share similar words. In addition, to show other results, resources such as tag clouds and word trees have been used.

4. Results

The analysis of the results first shows an overview of the account -@desdelamoncloa. The data for the qualitative analysis and the results for the quantitative analysis are presented. Figure 1 shows that the official Government account in Spain follows 154 users and has 591 769 followers. This data provides an insight into the account's personality, as measured by the TFF ratio (Twitter Following Follower Ratio) (Moll, 2015). In the case at hand, since the account analyzed is a public institution of recognized prestige, the value of the ratio is very high (591.769/154), which means that it is difficult to convey a sense of closeness.

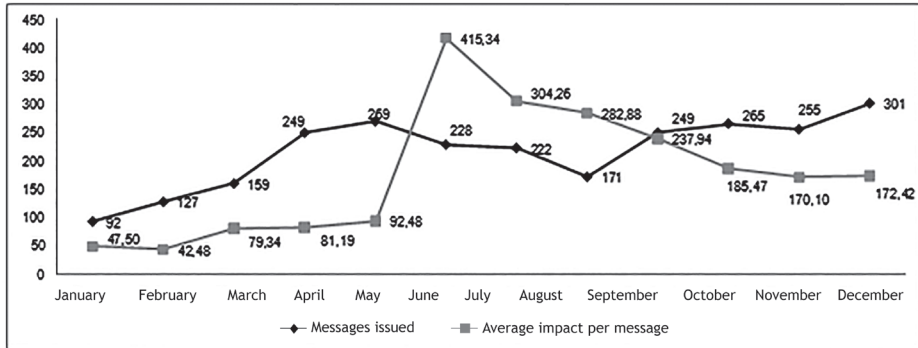
Figure 1. Twitter general data of @desdelamoncloa



Source: Obtained on 05/26/19 from @desdelamoncloa <https://bit.ly/2YVlrrC>

If observing the monthly evolution of messages issued during 2018 and the impact on the public by such posts (likes+retweets) the data of Figure 2 are obtained, showing that the largest average impact per message was achieved in the month of June. In the morning of Saturday 9 June to Sunday 10, the Aquarius ship was rescued by 629 migrants trying to reach the European coast, including 123 unaccompanied minors, 11 young children and 7 pregnant women.

Figure 2. Number of messages issued by @desdelamoncloa and average impact by message during 2018



The most impactful message in the whole year (Figure 3) deals with the host theme of the Aquarius ship, which achieved a total of 7,201 reactions (retweets+likes).

Figure 3. The most impacting message of @desdelamoncloa in 2018



Source: Obtained on 05/26/2019 from @desdelamoncloa <https://bit.ly/2YPP76r>

4.1. Results of qualitative analysis

Even though the most responsive message from the public is the one related to the Aquarius rescue, the most common in June publications are “conference” and “press” (Figure 4 and 5), which refer to appearances by members of the government to journalists. These results show the tendency to post informational messages on Twitter, especially agreements or decisions made by the government. The same is true for the rest of the year (Figure 5), in which the prominence of other important terms such as #agenda2030 is lower (it appears in 13% of messages).

Figure 4. Most published terms in June 2018



Figure 5. Most published terms in 2018



Nor do the words SDG or “Sustainable Development Goals” appear, although the word “objective” refers to specific programs related to these SDG, such as education (see Figure 6).

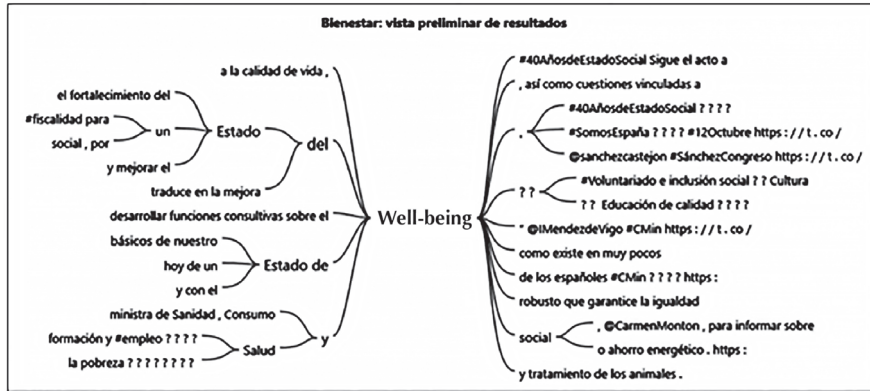
Figure 6. Tweet addressing SDA 4 “Quality Education”



Source: Obtained on 11/21/2018 from @desdelamoncloa from <https://bit.ly/2YOiB8D>

Making special emphasis to SDG 3 “Health and well-being”, one of the most outstanding and researched from a multidisciplinary approach, Figure 7 shows the context in the which “well-being” appears in the account under study. This word appears with other words such as “State” or with the hashtags #40AñosdeEstadoSocial or #SomosEspaña, which indicate the government’s concern for the values that Spain represents and for the well-being of citizens.

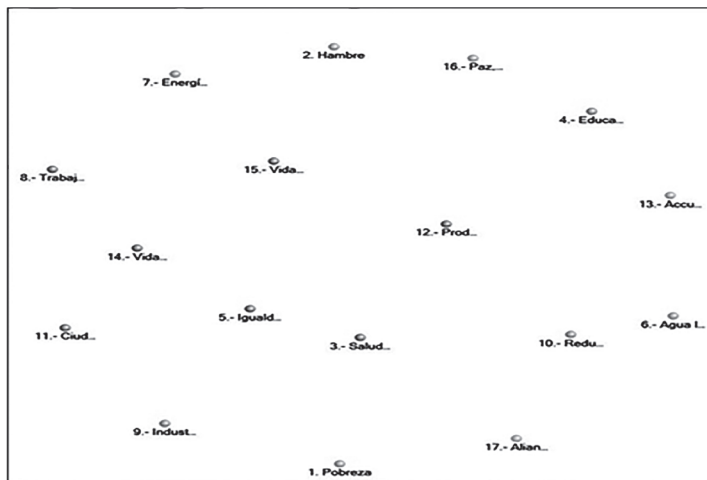
Figure 7. Context in which the term well-being appears in publications of @desdelamoncloa in 2018



Source: Own elaboration

To understand the relationship of objective 3 (welfare and health) with other SDG, a conglomerates analysis has been carried out (Figure 8), which highlights that the messages about objectives 3, 5 (Gender Equality) and 10 (reduction of inequalities) are similar in between. If looking more specifically at the messages that speak of the latter two, it points out that they have an impact of 4 831 reactions. It can be inferred that followers of @desdelamoncloa are concerned about the conditions of inequality and relate this aspect to well-being.

Figure 8. Conglomerates analysis of SDG messages by term similarity

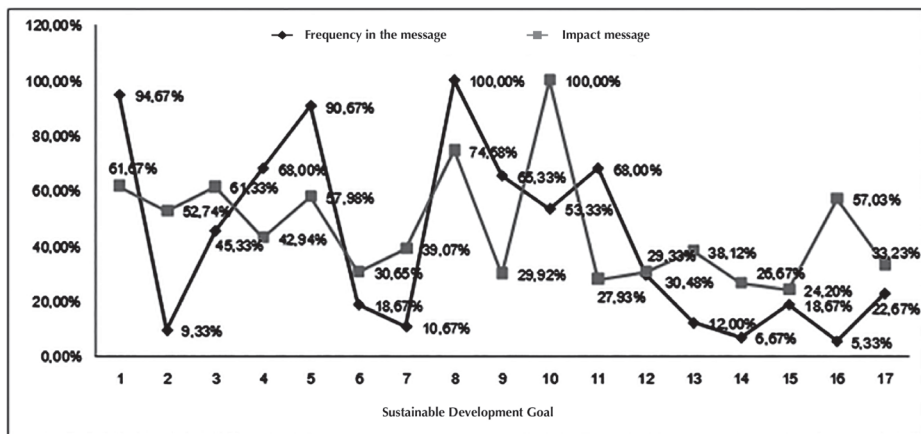


Source: Own elaboration

4.2. Results of quantitative analysis

After a first exploration of the data from a qualitative approach, the results of the quantitative analysis are presented. The first step was to analyze the number of messages in which some SDG are discussed, as well as the average impact of such publications (Figure 9).

Figure 9. Number of messages issued by SDG and impact thereof in 2018 by @desdelamoncloa



Source: Own elaboration

As can be seen in the above figure, the messages on SDG 8, i.e., “decent work and economic growth”, have had the greatest impact, but they are not the most published. The opposite is true of the messages that speak of objective 10, “reduction of inequalities”, which are the most published, but have an impact of 53.33%. On the other hand, the messages with the least impact are the ones that speak of SDS 15 and 11. Referring to the SDG of “health and well-being” (3) it emphasizes that the average impact per message is 61.33%, being one of the most important. Other targets that appear infrequently are 16 and 14.

In general, the organization’s most published SDG are not the ones that have caused the most public reaction. In this regard, it should be noted that the biggest difference is in objective 16, “Peace, justice and solid institutions” and 2, “zero hunger”. In both, there has been more public’s reaction compared to the number (n) of messages posted on them. For a more detailed view, Table 3 shows messages that address multiple objectives at once, in particular, those messages that contain more than three are displayed.

Table 3. Messages posted by @desdelamoncloa containing more than three targets in 2018

Id	Objetive	Nº of objectives	Nº of Likes	Retweets
3	1,3,4,5,7,8,10,12	8	534	300
1346	1,4,5,10,11,12	6	242	150
72	3,4,8,10,	4	2588	952
5	1,5, 13	3	180	120
66	1,4,9	3	59	36
116	1,5,10	3	51	59
397	1,2,5	3	524	320
478	1,4,9	3	48	34
479	5,10,13	3	498	250
529	1,4,9	3	39	20
803	4,5,10	3	53	27
823	8,9,10	3	211	149
1340	1,9,11	3	539	365
1423	9,11,16	3	326	213

Source: Own elaboration

At this point, it is advisable to contrast the hypothesis that “the impact of the messages published by -@desdelamoncloa depends on the SDG they mentioned”. To this end, Kruskal Wallis’ nonparametric hypothesis contrast has been carried out, obtaining a p-value lower than 0.05, so there are significant differences between the impact variable and the target variable, and it can be mentioned that the impact of the messages depends on the topic used.

Table 4. Kruskal Wallis test results

Test statistics ^{a, b}	
a.b	Impact
Chi squared	34,622
G1	16
Sig. asymptotic	,004

Source: Own elaboration

- a. Kruskal Wallis test
- b. Grouping variable: objectives

Finally, Table 5 examined the impact of the three elements of SWI according to the impact of the SDG (Costanza *et al.*, 2016).

Table 5. Impact of SWI elements based on their relationship to the SDG

Objetives	Times these appear	Likes (a)	Retweets (b)	Likes/nº message	Impact of the message
Fair distribution. Social Capital / Communitary contribution (S)					
1	71	13840	9539	194,93	329,28
2	7	1171	800	167,29	281,57
3	34	7105	4028	208,97	327,44
4	51	7286	4406	142,86	229,25
5	68	12783	8267	187,99	309,56
10	40	13268	8089	331,70	533,93
16	4	739	479	184,75	304,50
17	17	1889	1127	111,12	177,41
	275	58081	36735	1529,60	2492,94
Sustainable scale. Natural Capital / Contribution to the Ecosystem Services (N)					
6	14	1307	984	93,36	163,64
13	9	1103	729	122,56	203,56
14	5	397	315	79,40	142,40
15	14	1020	789	72,86	129,21
	42	3827	2817	368,17	638,81
Efficient allocation. Net economic contribution (E)					
7	8	971	698	121,38	208,63
8	75	17778	12088	237,04	398,21
9	49	4569	3259	93,24	159,76
11	51	4402	3203	86,31	149,12
12	22	2083	1497	94,68	162,73
	205	29803	20745	632,66	1078,44

Source: Own elaboration

Table 5 shows that the impact of Social Capital/Community Contribution (well-being element) is significantly higher (2492.94) than Natural Capital / Contribution to Ecosystem Services (environmental and sustainable element) and

to Net Economic Contribution (economic element), whose values are 638.81 and 1078.44, respectively. Therefore, in the user @desdelamoncloa the element of well-being has more impact than the environmental and economic.

5. Conclusions and discussion

This work has proved how the social network Twitter is a tool that from the point of view of social marketing can be used to obtain information about the interest of users in the SDG and contribute to the decision-making in the development and implementation of public policies, agreeing with Rodriguez and Ureña (2011) when saying that Twitter is a means that makes the demands and opinions of citizens closer to their politicians; but it is also a way by which politicians can influence citizens' opinions, making them aware of the suitability of implementing more efficient welfare policies in a more efficient way.

The results of the qualitative analysis, in particular in the analysis of the context of the term "well-being", show that this term appears with other words such as "State" or with the hashtags #40AñosdeEstadoSocial or #SomosEspaña, indicating the government's concern for the values that Spain represents and for the well-being of citizens. This issue is discussed in different studies that show the need for such responsibility, especially since the approach to the institutional economy emerged (Vergara and Ortiz, 2016). It is also noteworthy that there are considerable references in which the purpose is to speak and act when asking questions about the SDG and to encourage through the social media (Saxton & Waters, 2014).

The results of the quantitative analysis show that the messages that speak about objective 8, i.e., "decent work and economic growth", have had the greatest impact, however, they are not the most published. The opposite is true of the messages which speak about objective 10, "reduction of inequalities". On the other hand, the messages with the least reactions are the ones that speak of SDG 15 and 11. These results contradict those of @desdelamoncloa to the ones obtained by Menéndez, Saura and Alvarez (2018), Can and Atlas (2017) and Angulo (2010), concluding that the "environment" is one of the most worrying issues, as well as "health and well-being".

Furthermore, since the analysis of @desdelamoncloa on well-being and the SDG, it has been found that although compliance with the 2030 Agenda and the 17 SDG are essential for the country's future, messages dealing directly with them are not usually published.

With regard to the political implications of the analysis of objectives according to the three elements (Well-being, Economics and Sustainability), it has been found that the impact has been higher on the objectives focused on well-being and economics than on sustainability. This may lead to believe that there is little awareness of the environment deterioration and that it would be necessary to raise awareness of the environmental problem among the Spanish population in order to involve them in complying with the SDG.

In this sense, Liu *et al.* (2014) proposed the creation of a citizen observatory to enhance citizen awareness of environmental deterioration and maintain commu-

nity-based environmental governance. This proposal may be interesting, but it is not the only virtual place to collect and share data. The problem of the environment is a global problem, thus the political action should be carried out both from a global perspective and in a particular way by each of the countries (glocal). Each country's environmental citizen awareness is different, as there are countries such as Iceland and Norway where their citizens have a high awareness of the environment, so their political action would be different from that of Spain.

In short, this study has shown that Twitter provides information about the SDG that the user of the official government account in Spain considers, and the Sustainable Development Goals that are of most concern to its users. It also reveals which topic is related to well-being and provides useful information to know the line to follow for raising awareness of citizens. Further research would be desirable to help organizations advance on social marketing management through digital social media, as they provide a great opportunity for governments to communicate their projects and create long-term relationships with the community to turn them into collaborators.

References

- Aboelmaged, M. (2018). Predicting the success of Twitter in healthcare: A synthesis of perceived quality, usefulness and flow experience by healthcare professionals. *Online Information Review*, 42(6), 898-922. <https://doi.org/10.1108/OIR-01-2017-0018>
- Agencia Española de Cooperación Internacional para el Desarrollo (AECID). (2019). *La Agenda 2030. El reto de los Objetivos de Desarrollo Sostenible*, 15 de mayo del 2019. Recuperado de <https://bit.ly/29ZqPSq>
- Andreasen, A. (1994). Social Marketing: Its Definition and Domain. *Journal of Public Policy & Marketing*, 13(1), 108-114. <https://doi.org/10.1177/027074391569401300109>
- Angulo, N. (2010). Pobreza, medio ambiente y desarrollo sostenible. *Nómadas, Revista Crítica de Ciencias Sociales y Jurídicas*, 26(2), 1-11.
- Asheim, G. (2010). The relationship between welfare measures and indicators of sustainable development. En T. Aronsson & K.-G. Löfgren (Eds.), *Handbook of Environmental Accounting* (pp. 237-256). England: Edward Elgar Publishing LTD. <https://doi.org/10.4337/9781849805704>
- UN General Assembly (2015). *Transforming our world: the 2030 agenda for sustainable development*. New York, Estados Unidos: United Nations.
- Bain, J., & Chaban, N. (2017). An emerging EU strategic narrative? Twitter communication during the EU's sustainable energy week. *Comparative European Politics*, 15(1), 135-155. <https://doi.org/10.1057/cep.2016.17>
- Bernhardt, J., Mays, D., & Hall, A. (2012). Social marketing at the right place and right time with new media. *Journal of Social Marketing*, 2(2), 130-137. <https://doi.org/10.1108/20426761211243964>
- Chisholm, E., & O'Sullivan, K. (2017). Using Twitter to Explore (un)Healthy Housing: Learning from the #Characterbuildings Campaign in New Zealand. *Int. J. Environ. Res. Public Health*, 14(11), 1424. <https://dx.doi.org/10.3390/2Fijerph14111424>
- Blanchflower, D. G., & Oswald, A. J. (2011). International happiness: A new view on the measure of performance. *Academy of Management Perspectives*, 25(1), 6-22. <https://doi.org/10.5465/amp.25.1.6>
- Chen, J., Goldstein, M., Asch, S., Mackey, L., & Altman, R. (2017). Using social media to monitor mental health discussions-evidence from Twitter. *Journal of the American Medical Informatics Association*, 24(3), 496-502. <https://doi.org/10.1093/jamia/ocw133>

- Chua, H., Allem, P., Unger, J., Cruz, T., Akbarpour, M., & Kirkpatrick, M. (2019). Strategies to find audience segments on Twitter for e-cigarette education campaigns. *Addictive Behaviors*, 91, 222-226. <https://doi.org/10.1016/j.addbeh.2018.11.015>
- Colditz, J., Welling, J., Smith, N., James, A., & Primack, B. (2019). World Vaping Day: Contextualizing vaping culture in online social media. *Journal of Mixed Methods Research*, 13(2), 1-20. <https://doi.org/10.1177/1558689817702753>
- Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., Kubiszewski, I., Mortensen, L. F., & Wilkinson, R. (2016). Modelling and measuring sustainable wellbeing in connection with the UN Sustainable Development Goals. *Ecological Economics*, 130, 350-355. <http://dx.doi.org/10.1016/j.ecolecon.2016.07.009>
- Costanza, R., McGlade, J., Lovins, H., & Kubiszewski, I. (2014). An overarching goal for the UN sustainable development goals. *Solutions*, 5(4), 13-16.
- Coulthard, S., Johnson, D., & McGregor, J. A. (2011). Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Global Environmental Change*, 21(2), 453-463. <https://doi.org/10.1016/j.gloenvcha.2011.01.003>
- Di Tella, R. D., MacCulloch, R. J., & Oswald, A. J. (2003). The macroeconomics of happiness. *Review of Economics and Statistics*, 85(4), 809-827. <https://doi.org/10.1162/003465303772815745>
- Di Tella, R., Haisken-De New, J., & MacCulloch, R. (2010). Happiness adaptation to income and to status in an individual panel. *Journal of Economic Behavior & Organization*, 76(3), 834-852. <https://dx.doi.org/10.1016/j.jebo.2010.09.016>
- Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2001). Preferences over inflation and unemployment: Evidence from surveys of happiness. *American economic review*, 91(1), 335-341. <https://dx.doi.org/10.1257/aer.91.1.335>
- Diener, E., Lucas, R. E., & Scollon, C. N. (2009). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *American Psychologist*, 61(4), 305-314. <https://doi.org/10.1037/0003-066X.61.4.305>
- DiMaria, C. (2019). Sustainability, welfare and efficiency of nations. *Quality & Quantity*, 53(3), 1141-1163. <https://doi.org/10.1007/s11135-018-0809-3>
- Domegan, C., Kollins, K., Stead, M., McHugh, P., & Hughes, M. (2013). Value co-creation in social marketing: functional or fanciful. *Journal of Social Marketing*, 3(3), 239-256. <https://doi.org/10.1108/JSOCM-03-2013-0020>
- Dooley, J., Jones, S., & Iverson, D. (2012). Web 2.0: an assessment of social marketing principles. *Journal of Social Marketing*, 2(3), 207-221. <https://doi.org/10.1108/20426761211265195>
- Duarte, T., & Jiménez, R. E. (2007). Aproximación a la teoría del bienestar. *Scientia et Technica*, 13(37), 305-310. <http://dx.doi.org/10.22517/23447214.4107>
- Durana, D., Arteneau, A., Gogana, L., & Durana, V. (2015). The Objectives of Sustainable Development - Ways to Achieve Welfare. *Procedia Economics and Finance*, 26, 812-817. [https://doi.org/10.1016/S2212-5671\(15\)00852-7](https://doi.org/10.1016/S2212-5671(15)00852-7)
- Easterlin, R. A., McVey, L. A., Switek, M., Sawangfa, O., & Zweig, J. S. (2010). The happiness-income paradox revisited. *Proceedings of the National Academy of Sciences*, 107(52), 22463-22468. <https://doi.org/10.1073/pnas.1015962107>
- Fisher, C. (2010). Happiness at work. *International journal of management reviews*, 12(4), 384-412. <https://doi.org/10.1111/j.1468-2370.2009.00270.x>
- Fownes, J., Yu, C., & Margolin, D. (2018). Twitter and climate change. *Sociology Compass*, 12(6), 1-12. <https://doi.org/10.1111/soc4.12587>
- Frey, B. S., & Stutzer, A. (2018). *Economics of happiness*. Switzerland: Springer International Publishing. <https://doi.org/10.1007/978-3-319-75807-7>
- Froding, K., Eriksson, C., Elander, I., & Geidne, J. (2007). Partnership for healthy neighbourhoods: City Networking in Multilevel Context. *European Journal of Public Health* 15(4), 317-331. <https://doi.org/10.1177%2F0969776408095108>

- Gallopín, G. (2003). *Sostenibilidad y desarrollo sostenible: un enfoque sistémico*. Santiago de Chile: CEPAL.
- Gerdtham, U. G., & Johannesson, M. (2001). The relationship between happiness, health, and socio-economic factors: results based on Swedish microdata. *The Journal of Socio-Economics*, 30(6), 553-557. [https://doi.org/10.1016/S1053-5357\(01\)00118-4](https://doi.org/10.1016/S1053-5357(01)00118-4)
- Golbeck, J., & Hansen, D. (2014). A method for computing political preference among Twitter followers. *Social Networks*, 36, 177-184. <https://doi.org/10.1016/j.socnet.2013.07.004>
- Griggs, D., Stafford-Smith, M., Gaffney, O., Rockström, J., Öhman, M. C., Shyamsundar, P., ... & Noble, I. (2013). Policy: Sustainable development goals for people and planet. *Nature*, 495(7441), 305-307. <https://doi.org/10.1038/495305a>
- Hestres, L. (2014). Preaching to the choir: internet-mediated advocacy, issue public mobilization, and climate change. *New Media & Society*, 16(2), 323-339. <https://doi.org/10.1177/1461444813480361>
- IAB Spain & Elogia (2018). *VIII Estudio anual de redes sociales 2018*. Recuperado de <https://bit.ly/2J95UHe>
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, 75(4), 132-135. <https://doi.org/10.1509/jmkg.75.4.132>
- Kotler, P., & Levy, S. (1969a). Broadening the Concept of Marketing. *Journal of Marketing*, 33(1), 10-15. <https://doi.org/10.1177/002224296903300103>
- Kotler, P., & Levy, S. (1969b). A New Form of Marketing Myopia: Rejoinder to Professor Luck. *Journal of Marketing*, 33(3), 55-57. <https://doi.org/10.2307/1248483>
- Krippendorff, K. (1990). *Metodología de análisis de contenido. Teoría y práctica*. Barcelona, España: Paidós Comunicación.
- Liu, H. Y., Kobernus, M., Broday, D., & Bartonova, A. (2014). A conceptual approach to a citizens' observatory—supporting community-based environmental governance. *Environmental Health*, 13(1), 107. <https://doi.org/10.1186/1476-069X-13-107>
- Luttmer, E. F. (2005). Neighbors as negatives: Relative earnings and well-being. *The Quarterly journal of economics*, 120(3), 963-1002. <https://doi.org/10.1093/qje/120.3.963>
- McGregor, S., & Mourao, R. (2016). Talking Politics on Twitter: Gender, Elections, and Social Networks. *Social Media + Society*, 2(3), 1-14. <https://doi.org/10.1177/2056305116664218>
- Menéndez, A.; Saura, J., & Álvarez, C. (2018). Understanding #WorldEnvironmentDay User Opinions in Twitter: A Topic-Based Sentiment Analysis Approach. *International Journal of Environmental Research and Public Health*, 15(11), 2537. <https://doi.org/10.3390/ijerph15112537>
- Mikulcic, H., Klemes, J., & Duic, N. (2016). Shaping sustainable development to support human welfare. *Clean Technologies and Environmental Policy*, 18(6), 1633-1639. <https://doi.org/10.1007/s10098-016-1269-x>
- Moll de Alba, E. (2015). *Análisis comparativo de la utilización de Twitter como canal de comunicación para las principales editoriales estadounidenses y españolas* (tesis doctoral). Universidad Autónoma de Barcelona, España.
- Momete, D. (2017). Rational Development as a Sustainable Progress Welfare Vector: A Cross-Country Analysis. *Sustainable Development*, 25(3), 189-199. <https://doi.org/10.1002/sd.1645>
- Neuendorf, K. (2002). *The content analysis guidebook*. Estados Unidos: Sage.
- Pearce, W.; Holmberg, K.; Hellsten, I. y Nerlich, B. (2014). Climate change on Twitter: topics, communities and conversations about the 2013 IPCC Working Group 1 report. *PLoS One*, 9(4), 1-12. <https://doi.org/10.1371/journal.pone.0094785>
- Pershad, Y., Hangege, P., Albadawi, H., & Oklu, R. (2018). Social Medicine: Twitter in Healthcare. *Journal of Clinical Medicine*, 7(6), 1-9. <https://doi.org/10.3390/jcm7060121>
- Ravina Ripoll, R., Villena Manzanares, F., & Gutiérrez Montoya, G. A. (2017). Una aproximación teórica para mejorar los resultados de innovación en las empresas desde la perspectiva del "Happiness Management". *Retos. Revista de Ciencias de la Administración y Economía*, 7(14), 113-129. <https://doi.org/10.17163/ret.n14.2017.06>

- Rodrigo-Cano, D., Picó, M.J., & Dimuro, G. (2019). Los Objetivos de Desarrollo Sostenible como marco para la acción y la intervención social y ambiental. *Retos. Revista de Ciencias de la Administración y Economía*, 9(18), 25-36. <https://doi.org/10.17163/ret.n17.2019.02>
- Rodríguez, R., & Ureña, D. (2011). Diez razones para el uso de Twitter como herramienta en la comunicación política y electoral. *Comunicación y pluralismo*, (10), 89-116.
- Rogers, D. S., Duraipappah, A. K., Antons, D. C., Munoz, P., Bai, X., Fragkias, M., & Gutscher, H. (2012). A vision for human well-being: transition to social sustainability. *Current Opinion in Environmental Sustainability*, 4(1), 61-73. <https://doi.org/10.1016/j.cosust.2012.01.013>
- Rojas, M. (2009). Economía de la felicidad: hallazgos relevantes respecto al ingreso y el bienestar. *El trimestre económico*, 76(303), 537-573. <https://www.jstor.org/stable/20857218>
- Saxton, G., & Waters, R. (2014). What do Stakeholders Like on Facebook? Examining Public Reactions to Nonprofit Organizations' Informational, Promotional, and Community-Building Messages. *Journal of Public Relations Research*, 26(3), 280-299. <https://doi.org/10.1080/1062726X.2014.908721>
- Sammarco, P. (2018). *V informe del uso de las redes sociales en España*, Social Media Family (SMF), 20 de febrero del 2019. Recuperado de <https://bit.ly/2BR2FHL>
- Stiglitz, J., Sen, A., & Fitoussi, J. P. (2008). *Informe de la Comisión sobre la Medición del Desarrollo Económico y del Progreso Social*. Recuperado de <https://bit.ly/2v0ZJmy>
- Urbina, M., Gutiérrez, L., Ermani, R., Lozano, R., & Finkelman, J. (2017). La transición de los Objetivos de Desarrollo del Milenio a los Objetivos de Desarrollo Sostenible desde la perspectiva de los determinantes sociales de la salud y la equidad en salud. *Gac Med Mex*, 153(6), 697-730.
- Vergara, C., & Ortiz, D. (2016). Desarrollo sostenible: enfoques desde las ciencias económicas. *Apuntes del CENES*, 35(62), 15-52. <https://doi.org/10.19053/22565779.4240>
- Zhang, Z., & Ahmed, W. (2019). A comparison of information sharing behaviors across 379 health conditions on Twitter. *International Journal of Public Health*, 64(3), 431-440. <https://doi.org/10.1007/s00038-018-1192-5>