Gobierno local abierto: diagnóstico en México y Oaxaca

Open local government: diagnosis in Mexico and Oaxaca

O governo local aberto: diagnóstico no México e Oaxaca

Miguel Ángel Sánchez Ramos

ISSN: 2395-7972

Universidad Autónoma del Estado de México, México

masr35@hotmail.com

Hernán Martínez Martínez

Universidad Autónoma del Estado de México, México

hermar6@hotmail.com

Resumen

Con un enfoque centrado en el ciudadano y el uso de las tecnologías de la información y la comunicación, la expresión *gobierno abierto* ha revolucionado la administración pública. Esto ha implicado una alta deliberación, colaboración, participación y publicidad. El objetivo del presente artículo es diagnosticar los estados cuyos municipios siguen el proyecto de gobierno abierto, para lo cual se tomó como muestra a los estados de México y Oaxaca, donde se compararon los estratos de desarrollo humano muy alto y bajo. A partir de ello se formuló la hipótesis de que los gobiernos locales en México responden de forma diferente a la expresión gobierno abierto cuando este tiene que ver de manera directa y proporcional con el desarrollo humano. Es decir, los municipios con mayor desarrollo humano tuvieron también mayor nivel de gobierno abierto, mientras que los gobiernos con menor desarrollo humano alcanzaron niveles inferiores de gobierno abierto. Se estudiaron 30 municipios de ambas entidades, con diez variables a analizar mediante contraste estadístico de chi cuadrada y coeficiente de correlación r de Pearson. Los resultados demostraron que sí existe una relación entre desarrollo humano y gobierno abierto.

Palabras clave: gobierno abierto, desarrollo humano, participación, redes sociales, municipios.

Abstract

With a focus on the citizen and the use of information and communication technologies, the expression *Open Government* has revolutionized public administration. Esto ha implicado una alta deliberación, colaboración, participación y publicidad. The aim of this article is to diagnose the States whose municipalities follow the open government project, for which was taken as a sample to the States of Mexico and Oaxaca, where we have compared levels of human development very high and low. From this was formulated the hypothesis that local governments in Mexico respond differently to the expression Open Government when this has direct and proportional way with human development. In other words, the municipalities with greater human development also had higher level of Open Government, while Governments with lower human development achieved lower levels of Open Government. We studied 30 municipalities of both entities, with ten variables to analyze by statistical contrast of chi square and Pearson's r correlation coefficient. The results showed that there is a relationship between human development and Open Government.

Key words: open government, human development, participation, social networks, municipalities.

Resumo

Uma abordagem centrada no cidadão e o uso de tecnologias de informação e comunicação, a expressão aberta governo revolucionou a administração pública. Isto envolveu deliberação alta, colaboração, participação e publicidade. O objetivo deste trabalho é diagnosticar os estados cujos municípios seguem o projeto do governo aberto, para o qual foi amostrado estados de México e Oaxaca, onde os estratos de desenvolvimento humano muito alto e baixo foram comparados. Deste a hipótese de que os governos locais no México respondem de forma diferente à expressão aberta governo quando tudo isto forma directa e proporcional ao desenvolvimento humano foi formulado. Ou seja, os municípios com maior desenvolvimento humano também teve um maior nível de governo aberto, enquanto os governos com menor desenvolvimento humano alcançado níveis mais baixos de governo aberto. 30 municípios em ambas as entidades foram estudados, com dez variáveis analisadas pelo quadrado estatística de teste e coeficiente de correlação r chi de

Revista Iberoamericana de las Ciencias Sociales y Humanísticas ISSN: 2395-7972

Pearson. Os resultados mostraram que existe uma relação entre desenvolvimento humano e

governo aberto.

Palavras-chave: governo aberto, o desenvolvimento humano, participação, redes sociais, os

municípios.

Fecha recepción: Septiembre 2015

Fecha aceptación: Mayo 2016

Introduction

Open Government is the manifestation of a stage of democracy where the interaction and

coexistence between citizens and Government becomes more narrow, constant and

conversational, through the use of the technologies of Information and Communication

Technology (ICT) and collaboration, participation and transparency in the process of public

decision-making.

Open Government has been driven with ICT and the expansion of the internet as a network of

globalization, the goodness of the web 2.0 or social web and its different breakthroughs;

However, their start dates from years ago (Ramírez-Alujas, 2010, 2011, 2012 and 2013) or even

of centuries ago (Sandoval-Almazán, 2015). The great benchmark for today is the memorandum

of Obama (Orzag, 2009), although it should be recognized that this practice of the Anglo-Saxon

culture has been applied before and has been extended to the world with the mentioned

memorandum.

The Internet and the social web are a great Enhancer so that the citizen becomes the protagonist

of the social demands, at the same time it forces the Government to be transparent with the

public, providing information, enable collaboration and participation. There is a real revolution

and challenge for the Governments that the change technology and of values imposes, to not only

focus on elections as the only single reference link between Government and citizens (Calderón

Vol. 5. Núm. 10

Julio - Diciembre 2016

RICSH

and Lorenzo, 2010). Taking the approach of Open Government is equivalent to recognize that the citizen has right to communicate with its authority, knowing what, how and ask for accountability.

The rulers have accepted this project through the Open Government Partnership (OGP):

Multilateral initiative that started within in the Organization of the United Nations in September 2012, whose efforts focus on boosting transparency from Governments, increase citizen participation in the debate and the public decision making, fight corruption and take advantage of new technologies for governance and the quality of public services. The challenges for Governments are focused on the strategic axes of the OGP: 1) improve public services; 2) increase public integrity; 3) effective management of public resources; 4) create safe communities; 5) increase corporate responsibility and accountability. From these challenges and strategies each country generates its path of action (Ramírez-Alujas, 2012).

The so-called open government, establishes a new relationship and, therefore, a new code for the functioning of governments and control over them.

Open government is the top phase of e-government, it stands on the activity of this. While it is true that e-government, e-administration, e-government, are manifestations of the application of ICT to existing procedures, it is also true that this e-government has phases in which they are developed and can be Locate in five moments: 1. Dissemination of simple information; 2. Two-way communication; 3. Transactions of services and financing; 4. Integration of citizens and actors; And 5. Political participation (Moon, 2002, Sánchez, 2014). Three different paths, or phases of ICT application, can be known as e-government, government 2.0 and open government (Boughzala et al, 2015; Khan, 2015). Open government is the expression that revolutionizes the use of ICT to the public administration from a citizen-centered approach, which emphasizes deliberative democracy, which implies collaboration and participation, which together with transparency define this model.

The principles on which open government is based, which are transparency, collaboration and participation, suggest changing the concept of the role of government, where coordination becomes essential for the achievement of agreed goals. Leadership is a prime condition for pushing and sustaining the logic of open government and data openness. This is how governance becomes the edge that drives the way of doing politics and administration. It is not possible to govern alone (Ortiz, 2010), the administration must liberalize the monopoly of services so that

they can be exercised by whoever wants and can do so (Linares, 2010); Processes of transparency, effectiveness, participation, accountability, accountability, and that are understandable and controllable (Ortiz, 2010, Manchado, 2010). The interaction becomes the blood of the new government reality where citizenship is the leading role of decision-making.

The principles of open government structure the logic of: 1) an accountability government, which recognizes the citizen's right to know about the plans, programs, budgets and results that the government issues; 2) a government that uses the citizen impulse to define its agenda in a collective and consensual, debated, criticized and agreed; And 3) that builds collaborative interactions to give solutions to the approaches and needs. Therefore, the different spheres of government become necessary in the new network of logics and principles; It is not the responsibility of an arena, but of the whole government, its teams, its powers, the organizations, the private initiative, the citizen himself.

Given this situation, local governments have a major challenge to promote and make open government a reality, or failing to be the actors that stop the full exercise of citizens' right to have a more binding and decisive communication interaction with their government. The challenge includes repositioning politics and democracy, in the face of disaffection (Ortiz, 2010) and loss of confidence (Sánchez, 2013, Abal, 2010).

Problem

Global complexity has led to the development of new forms of relationship between society and government; One of the instruments that has collaborated to revolutionize culture is the internet (Oszlak, 2013). The combination of these two elements, the new way of relating and the technological development favor the capacity of the management and the emission of results. The relationship between government and society is not only exclusive to the communities that are linked, but also to the expectation of globality, a circumstance that guarantees them their belonging to the global context while impelling them to promote the local identity that strengthens them.

The philosophy of open government is not exclusive to the federal level, it is an aspiration of every government because citizens are the same and should not be differentiated in the exercise

of their rights from the sphere of government that relates them. In addition to this consideration, the importance of local space as the one that most contacts the citizen and his government becomes a priority to ensure that it is where the fullness of rights exists. Even more so when local government has a wide range of challenges and limited institutional and financial capacities.

The municipalities, specifically the governments of these, have a permanent relationship with the members of their communities, of their societies, as narrow as the same socio-political idiosyncrasy built historically and socially. In this sense, open government can be a great opportunity to promote the link and promote the principles of transparency, participation and collaboration. But this link, in terms of open government, should benefit in the arena of the internet.

But it is also true that the citizen has different opportunities from the potential of his context, therefore, the quality of his government is associated with that potential. Lipset (2007) establishes the existence of a correlation between economic development and democracy.

Therefore, local governments, such as municipalities, relate to their societies in a differentiated way where human development as a summary expression of economic development through achievements in income, education and health, are closely related to the Effectiveness of their governments. In this context, local governments do not have the same capacity to respond to open government schemes. There are not enough studies on municipal open government in Mexico (Sandoval-Almazán and Gil-García, 2012), investigations have remained at the state level (Sandoval, 2011, Pla y Bojórquez, 2015), which motivates research Of the subject in an exploratory stage, of diagnosis to understand the situation of the local open government.

Faced with these considerations, the question that has guided the research emerges: what is the reason why local governments in Mexico respond differently to the expression of open government? The tentative answer to this question that was assumed as hypothesis is that local governments in Mexico respond differently to the expression of open government given that it is associated with achievements in their human development, keeping a direct and proportional relationship; Then, municipalities with greater human development have a higher level of open government, while governments with lower human development reach lower levels of open government.

The objective of this article is to diagnose the state of the open government project in the Mexican municipalities, taking as a sample the States of Mexico and Oaxaca in 2016, contrasting very high and low human development strata (GDH).

Method

In order to verify the hypothesis, it was decided to opt for a design that would permit the contrast of degrees of human development, between the highest and lowest, while seeking to complement the comparison with the referent of two different federal entities, which are the Case of the State of Mexico and the one of Oaxaca, in which each one formed a conglomerate. Within each of these two strata were formed, the first with municipalities that have very high human development, and the second stratum with municipalities that register under human development, according to the United Nations Development Program (UNDP, 2014). The first of the UNDP Human Development Priority List (2014) was selected, taking as reference the 2010 census data, according to the inclusion criteria discussed below.

In the conglomerate of the State of Mexico there were seven municipalities in the stratum of very high human development: Metepec, Coacalco de Berriozábal, Cuautitlán Izcalli, Cuautitlán, Atizapán de Zaragoza, Tlalnepantla and Toluca; With six municipalities in the low development stratum: Ixtapan del Oro, Luvianos, Donato Guerra, Villa de Allende, Sultepec and San José del Rincón. In the conglomerate of Oaxaca there were seven municipalities in the highly developed stratum: Oaxaca de Juárez, Santa Lucía del Camino, San Juan Bautista Tuxtepec, Santo Domingo Tehuantepec, Salina Cruz, Santa Cruz Xoxocotlán, and Heroica Huajuapan de León; With ten municipalities in the low development stratum: San Baltazar Yatzachi el Bajo, Santiago Tapextla, Abejones, Yogana, Santos Reyes Yucuna, San Martín Peras, Coicoyan de las Flores, Santa Ana Ateixtlahuaca, San Simón Zahuatlán, and San Miguel Santa Flor.

The inclusion criterion for the strata consisted of: 1) taking the indices and grades of human development reported by the UNDP (2014) as being from a standardized and conventionally accepted methodology; 2) that for the first stratum of a municipality with very high human development its population was greater than 50 thousand inhabitants.

The open government, in seeking to be transparent, promote participation and collaboration, requires operationalization to facilitate its measurement, in that sense the Network of Digital Municipalities of Castilla y León (2010) developed a study to make an open city council, said methodology has served Of inspiration for this research adapting it to the Mexican reality and from there was realized the measurement of the selected municipalities.

Therefore, open government was measured through ten variables (V): V1: municipal web which in turn is constituted of six indicators, which are V1.1 social web, where we measured V1.1.1 the syndication of Content, V1.1.2 content content and publications, V1.1.3 published content, V1.14 published content, and V1.1.5 content categorization.

The V1.2 creation of forums, there are spaces for discussion on the website. V1.3 surveys, to consult citizens about plans and actions. V1.4 existence of wikis, that facilitates creation of contents on the municipal life. V1.5 maps, which contain interactive cartography that helps the location of the municipality and its important places. V1.6 existence of chat, space for two-way communication online.

The second variable V2: participation in social networks, is constituted by eight indicators, which are: V2.1 creation of municipal blogs; V2.2 creating Facebook groups; V2.3 creation of Twitter channels; V2.4 YouTube channel; V2.5 virtual communities with citizens who were talking with the city council; V2.6 existence of photos; V2.7 virtual services like Slideshare, delicious, podcasts; V2.8 virtual worlds, applications with technology or 3D scenarios.

The third variable V3: listens in social networks, composed of two indicators, among which are V3.1 response by the municipality to citizen comments; V3.2 contacts with virtual communities of the municipality, that have response interaction with these groups.

The fourth variable V4: citizen collaboration, is composed of two indicators, V4.1 proposals of the city council to be debated by citizens; V4.2 citizens present proposals.

The fifth variable V5: public data, open data, data that are made available to citizens to be able to be estimated or used to project actions. The sixth variable V6: public applications, promotion of development and use of applications.

The seventh V7: transparency, is composed of two indicators, among which are V7.1 reactive diffusion, citizens request specific information and the city provides it; V7.2 proactive diffusion, the council only publishes what he considers according to the law or necessary to make known to the public.

The eighth variable V8: collaborative work, that the different spaces of the administration and dependencies collaborate in publications and in work teams. The ninth variable V9: internal participation, that is counted in the web page an exclusive space for the officials and employees of the city council where they work systems or services.

The tenth and last variable V10: change management, which is composed of two indicators, among them V10.1 leadership, where the municipal president has a great presence in the communications of the web and social networks; V10.2 policy on open government, there are regulations and programs on how to manage open government.

The assignment of values to each variable and indicator was reduced to grant one if the condition existed in measurement and zero if there was absence. The degree of open government results from the sum of the values obtained in each variable by establishing a scale composed of three gradients, the lowest of the open government qualified with zero and constituting the Not Enough (ANS) degree, the average degree with the One and receiving the name Satisfactory (S); The highest degree of open government was assigned number two and the rank of Outstanding (SS) was set.

With the values obtained from the observation made to each municipal government through its website and its TIC, between June, July and August 2016, and assigned the degree to its level of open government, a test was applied Of association through chi square, considering the variables in the study as categorical (Pardo and San Martín, 2010) to test the hypothesis. In addition, once the existence of an association between open government and GDH was demonstrated, the coefficient of association with Somers D was tested, with its three versions: two asymmetric and one symmetric. Finally, a correlation test was performed using the Pearson correlation coefficient (Pardo and San Martín, 2010) among variables considered as quantitative, mainly GDH with average schooling, per capita income and open government.

Results

The 30 municipalities investigated (see Table I) are treated by clusters and strata. The state of Mexico has a very high GDH stratum with an average population of 470 063 inhabitants, where the less populated municipality is Cuautitlán and the most populated is Toluca; The low GDH stratum has a population average of 40 333 inhabitants, where Ixtapan del Oro is the least populated and San José del Rincón is the most populated. In the very high stratum of Oaxaca has a population average of 108 770 inhabitants, where the less populated municipality is Santa Lucía del Camino and Oaxaca capital is the most populated; The low GDH stratum of Oaxaca has an average of 3 430 inhabitants, with Santa Ana Ateixtlahuaca as a less populated municipality and San Martín Peas as the most populated. This stratum in terms of population is the one with the greatest relative dispersion throughout the research.

Table I. Population, school average, per capita income and Degree of Human Development of the municipalities of Mexico and Morelos.

municipalities of Mexico and Morelos.								
ESTADO	MUNICIPIO	POBLACIÓN	PROMEDIO DE ESCOLARIDAD	INGRESO PER CÁPITA	GDH			
	Metepec				MUY			
		227827	11.815	24030.766	ALTO			
	Coacalco De				MUY			
	Berriozábal	284462	10.477	20096.673	ALTO			
	Cuautitlán Izcalli				MUY			
		531041	10.409	19360.813	ALTO			
	Cuautitlán				MUY			
		149550	10.246	20979.826	ALTO			
0	Atizapán de Zaragoza				MUY			
México		523296	10.102	21938.22	ALTO			
Mé	Tlalnepantla				MUY			
		700734	9.958	19341.245	ALTO			
	Toluca				MUY			
		873536	10	17057.616	ALTO			
	Ixtapan del Oro	6791	4.548	4291.077	BAJO			
	Luvianos	27860	3.963	5081.9	BAJO			
	Donato Guerra	34000	4.756	4918.881	BAJO			
	Villa de Allende	52641	4.563	5202.496	BAJO			
	Sultepec	26832	4.189	4735.232	BAJO			
	San José del Rincón	93878	4.019	4018.637	BAJO			
					MUY			
	Oaxaca de Juárez	264251	10.567	22478.649	ALTO			
	Santa Lucía del	40.450	10.150	10.01.115	MUY			
	Camino	49459	10.159	19621.117	ALTO			
	San Juan Bautista	155766	0.1	10202.046	MUY			
	Tuxtepec	155766	8.1	10383.046	ALTO			
	Santo Domingo	61972	7.0	10022 014	MUY			
	Tehuantepec	61872	7.9	10823.814	ALTO MUY			
æ	Salina Cruz	82371	9	13487.533	ALTO			
Oaxaca	Santa Cruz	02371	9	13467.333	MUY			
)ax	Xoxocotlán	77833	9.7	13399.501	ALTO			
	Heroica Huajuapam	77033	7.1	13377.301	MUY			
	De Leon	69839	8.6	11555.376	ALTO			
	San Baltazar Yatzachi	0,03,	0.0	11333.370	TILIO			
	El Bajo	641	4.054	5674.006	BAJO			
	Santiago Tapextla	3208	3.349	3427.643	BAJO			
	Abejones	882	4.033	3818.757	BAJO			
	Yogana	1264	2.185	3574.633	BAJO			
	Santos Reyes Yucuna	1380	2.278	2340.21	BAJO			
	San Martín Peras	12246	1.469	2980.504	BAJO			
	~ 1.141.111.1 0140	0	1 27.107		21100			

Coicoyan de Las				
Flores	9936	1.056	2249.296	BAJO
Santa Ana				
Ateixtlahuaca	516	2.464	2462.525	BAJO
San Simón Zahuatlán	3526	1.795	2097.806	BAJO
San Miguel Santa Flor	702	1.67	3392.248	BAJO

Fuente: elaboración propia con datos de PNDU, 2014.

As for school averages, very high GDH strata oscillate between 10 and 9 for Mexico and Oaxaca, respectively, with the highest municipalities being Metepec and Oaxaca de Juárez, correspondingly; The lowest schooling within this stratum are Tlalnepantla and Heroica Huajuapan de León, respectively. In the lower GDH, the schooling average is 4 to 2, respectively in Mexico and Oaxaca.

In per capita income the averages for each stratum are: a) very high GDH of \$ 20 400 and \$ 14 535, for Mexico and Oaxaca, respectively; B) GDH low of \$ 4 708 and \$ 3201.7 respectively.

As for the municipal website, it can be seen in table II that Toluca is the only municipality with SS web because of the positive application of most of the indicators, except for the creation of forums. The municipalities with very high GDH have municipal web S, low GDH Mexican municipalities like Luvianos and Villa de Allende have their municipal website S, Donato Guerra that does not have a page, Sultepec only has the page design, Ixtapan del Oro And San José del Rincón have an ANS website. The municipalities of GDH low in Oaxaca do not have web, there is page of them.

Table II. Indicators of the municipal web by municipality and State

	Table II. Indicators of the III	umcipa	inicipal web by municipality and State					
ESTADO	MUNICIPIO	V1.1 WEB SOCIAL	V1.2 CREACIÓN DE FOROS	V1.3 ENCUESTAS	V1.4 WIKI	V1.5 MAPAS DE GOOGLE	V1.6 CHAT	V1. WEB MUNICIPAL
	Metepec	2	0	0	1	1	0	1
	Coacalco de Berriozábal	2	1	0	1	0	0	1
	Cuautitlán Izcalli	2	0	0	1	0	0	1
	Cuautitlán	2	0	0	1	0	0	1
	Atizapán de Zaragoza	2	0	0	1	1	0	1
2	Tlalnepantla	2	0	0	1	1	0	1
México	Toluca	2	0	1	1	1	1	2
X	Ixtapan del Oro	0	0	0	1	0	0	0
	Luvianos	2	0	0	1	0	0	1
	Donato Guerra	0	0	0	0	0	0	0
	Villa de Allende	2	0	0	1	0	0	1
	Sultepec	0	0	0	0	0	0	0
	San José del Rincón	0	0	0	1	0	0	0
	Oaxaca de Juárez	2	0	0	1	1	0	1
	Santa Lucía del Campo	2	0	0	1	0	0	1
	San Juan Bautista Tuxtepec	2	0	0	1	0	0	1
	Santo Domingo Tehuantepec	2	0	0	1	1	0	1
	Salina Cruz	2	0	0	1	1	0	1
	Santa Cruz Xoxocotlán	2	0	0	1	1	0	1
	Heroica Huajuapan de León	2	0	0	1	1	0	1
ငဒ	San Baltazar Yatzachi El Bajo	0	0	0	0	0	0	0
Oaxaca	Santiago Tapextla	0	0	0	0	0	0	0
Õ	Abejones	0	0	0	0	0	0	0
	Yogana	0	0	0	0	0	0	0
	Santos Reyes Yucuna	0	0	0	0	0	0	0
	San Martín Peras	0	0	0	0	0	0	0
	Coicoyan de las Flores	0	0	0	0	0	0	0
	Santa Ana Ateixtlahuaca	0	0	0	0	0	0	0
	San Simón Zahuatlán	0	0	0	0	0	0	0
	San Miguel Santa Flor	0	0	0	0	0	0	0

Fuente: elaboración propia a partir de datos recopilados en campo

The evaluation of the municipal website contemplates six indicators, the first is V1.1 social web where it is seen that in both states municipalities that have very high GDH have all the indicators and, therefore, its web is cataloged as social SS. While in the lower GDH there is difference, Oaxaca no municipality has web page, therefore, ANS its social web. Of the six Mexican municipalities of GDH bajo, two (Luvianos and Villa de Allende) have a social web site SS, the rest are ANS (see Table III).

Table III. Indicators of the social web by municipality and State

MUNICIPIO		Table III. Indicators of the social web by municipality and State							
Coacalco de Berriozábal	ESTADO	MUNICIPIO	V1.1.1 SINDICACION DE CONTENIDOS		PV1.1.3 COMENTARIOS DE PUBLICADOS	V1.1.4 COMPARTIMIENTO DE PUBLICADOS	V1.1.5 CATEGORZACIÓN DE CONTENIDOS	V1.1 WEB SOCIAL	
Coacalco de Berriozábal		Metepec	1	1	1	1	1	2	
Cuautitlán Izcalli		-	1	1	1	1	1		
Toluca Ixtapan del Oro Luvianos Donato Guerra O Villa de Allende Sultepec San José del Rincón O Caxaca d Juárez Santa Lucía del Camino San Juan Bautista Tuxtepec Santo Domingo Tehuantepec Salina Cruz Santa Cruz Santa Cruz Xoxocotlán Heroica Huajuapan de León Abejones Yogana Santos Reyes Yucuna San Martín Peras Coicoyan de Las Flores Santa Liviano O O O O O O O O O O O O O		Cuautitlán Izcalli	1	1	1	1	1		
Toluca Ixtapan del Oro Luvianos Donato Guerra O Villa de Allende Sultepec San José del Rincón O Caxaca d Juárez Santa Lucía del Camino San Juan Bautista Tuxtepec Santo Domingo Tehuantepec Salina Cruz Santa Cruz Santa Cruz Xoxocotlán Heroica Huajuapan de León Abejones Yogana Santos Reyes Yucuna San Martín Peras Coicoyan de Las Flores Santa Liviano O O O O O O O O O O O O O		Cuautitlán	1	1	1	1	1	2	
Toluca Ixtapan del Oro Luvianos Donato Guerra O Villa de Allende Sultepec San José del Rincón O Caxaca d Juárez Santa Lucía del Camino San Juan Bautista Tuxtepec Santo Domingo Tehuantepec Salina Cruz Santa Cruz Santa Cruz Xoxocotlán Heroica Huajuapan de León Abejones Yogana Santos Reyes Yucuna San Martín Peras Coicoyan de Las Flores Santa Liviano O O O O O O O O O O O O O		Atizapán de Zaragoza	1	1	1	1	1	2	
Toluca Ixtapan del Oro Luvianos Donato Guerra O Villa de Allende Sultepec San José del Rincón O Caxaca d Juárez Santa Lucía del Camino San Juan Bautista Tuxtepec Santo Domingo Tehuantepec Salina Cruz Santa Cruz Santa Cruz Xoxocotlán Heroica Huajuapan de León Abejones Yogana Santos Reyes Yucuna San Martín Peras Coicoyan de Las Flores Santa Liviano O O O O O O O O O O O O O	93		1	1	1	1	1	2	
Luvianos 0 1 1 1 1 2 Donato Guerra 0 0 0 0 0 0 Villa de Allende 0 1 1 1 1 1 2 Sultepec 0	éxi	Toluca	1	1	1	1	1	2	
Luvianos 0 1 1 1 1 2 Donato Guerra 0 0 0 0 0 0 0 Villa de Allende 0 1 1 1 1 1 2 Sultepec 0 0 0 0 0 0 0 0 San José del Rincón 0 1	M	Ixtapan del Oro	0	0	0	0	1		
Villa de Allende 0 1 1 1 1 2 Sultepec 0 0 0 0 0 0 0 San José del Rincón 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0 1 1 0 0 1			0	1	1	1	1	2	
Sultepec 0 0 0 0 0 San José del Rincón 0 0 0 0 1 0 Oaxaca d Juárez 1 1 1 1 1 1 2 Santa Lucía del Camino 0 1 1 1 1 1 2 San Juan Bautista Tuxtepec 1 1 1 1 1 1 2 Santo Domingo Tehuantepec 1 1 1 1 1 1 1 2 Salina Cruz 1 1 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2 3 3 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 </td <td></td> <td>Donato Guerra</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>		Donato Guerra	0	0	0	0	0	0	
San José del Rincón 0 0 0 1 0 Oaxaca d Juárez 1 1 1 1 1 2 Santa Lucía del Camino 0 1 1 1 1 1 2 San Juan Bautista Tuxtepec 1 1 1 1 1 1 2 Santo Domingo Tehuantepec 1 1 1 1 1 1 2 Salina Cruz 1 1 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 1 1 1 2 2 San Baltazar Yatzachi El Bajo 0		Villa de Allende	0	1	1	1	1	2	
Oaxaca d Juárez 1 1 1 1 1 2 Santa Lucía del Camino 0 1 1 1 1 2 San Juan Bautista Tuxtepec 1 1 1 1 1 1 2 Santo Domingo Tehuantepec 1 1 1 1 1 1 2 Salina Cruz 1 1 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 1 1 1 2 Heroica Huajuapan de León 1 1 1 1 1 1 1 1 1 2 San Baltazar Yatzachi El Bajo 0		Sultepec	0	0	0	0	0		
Santa Lucía del Camino 0 1 1 1 1 2 San Juan Bautista Tuxtepec 1 1 1 1 1 1 1 2 Santo Domingo Tehuantepec 1 1 1 1 1 1 1 2 Salina Cruz 1 1 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 1 1 2 Heroica Huajuapan de León 1 1 1 1 1 1 1 1 1 2 1 2 2 3 3 3 3 3 3 3 3 4 3 4 <td< td=""><td></td><td>San José del Rincón</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></td<>		San José del Rincón	0	0	0	0	1	0	
San Juan Bautista Tuxtepec 1 1 1 1 1 2 Santo Domingo Tehuantepec 1 1 1 1 1 1 2 Salina Cruz 1 1 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 1 1 2 Heroica Huajuapan de León 1 1 1 1 1 1 1 1 2 San Baltazar Yatzachi El Bajo 0		Oaxaca d Juárez	1	1	1	1	1	2	
Salina Cruz 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 2 Heroica Huajuapan de León 1 1 1 1 1 1 2 San Baltazar Yatzachi El Bajo 0 0 0 0 0 0 0 Santiago Tapextla 0 0 0 0 0 0 0 0 Abejones 0		Santa Lucía del Camino	0	1	1	1	1	2	
Salina Cruz 1 1 1 1 1 2 Santa Cruz Xoxocotlán 1 1 1 1 1 1 2 Heroica Huajuapan de León 1 1 1 1 1 1 2 San Baltazar Yatzachi El Bajo 0 0 0 0 0 0 0 Santiago Tapextla 0 0 0 0 0 0 0 0 Abejones 0		San Juan Bautista Tuxtepec	1	1	1	1	1	2	
Santa Cruz Xoxocotlán 1 1 1 1 1 2 Heroica Huajuapan de León 1 1 1 1 1 1 2 San Baltazar Yatzachi El Bajo 0 0 0 0 0 0 0 Santiago Tapextla 0 0 0 0 0 0 0 Abejones 0 0 0 0 0 0 0 Yogana 0 0 0 0 0 0 0 Santos Reyes Yucuna 0 0 0 0 0 0 San Martín Peras 0 0 0 0 0 0 Coicoyan de Las Flores 0 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0 0 0		Santo Domingo Tehuantepec	1	1	1	1	1	2	
Heroica Huajuapan de León 1		Salina Cruz	1	1	1	1	1	2	
San Baltazar Yatzachi El Bajo 0 0 0 0 0 Santiago Tapextla 0 0 0 0 0 0 Abejones 0 0 0 0 0 0 0 Yogana 0 0 0 0 0 0 0 Santos Reyes Yucuna 0 0 0 0 0 0 0 San Martín Peras 0 0 0 0 0 0 0 Coicoyan de Las Flores 0 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0 0		Santa Cruz Xoxocotlán	1	1	1	1	1		
San Baltazar Yatzachi El Bajo 0 0 0 0 0 Santiago Tapextla 0 0 0 0 0 0 Abejones 0 0 0 0 0 0 0 Yogana 0 0 0 0 0 0 0 Santos Reyes Yucuna 0 0 0 0 0 0 San Martín Peras 0 0 0 0 0 0 Coicoyan de Las Flores 0 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0 0		Heroica Huajuapan de León	1	1	1	1	1	2	
Abejones	ca		0	0	0	0	0	0	
Yogana 0 0 0 0 0 Santos Reyes Yucuna 0 0 0 0 0 San Martín Peras 0 0 0 0 0 0 Coicoyan de Las Flores 0 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0 0		Santiago Tapextla	0	0	0	0	0	0	
Santos Reyes Yucuna 0 0 0 0 0 San Martín Peras 0 0 0 0 0 Coicoyan de Las Flores 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0	Ö	Abejones	0	0	0	0	0	0	
San Martín Peras 0 0 0 0 0 Coicoyan de Las Flores 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0 0		Yogana	0	0	0	0	0	0	
Coicoyan de Las Flores 0 0 0 0 0 Santa Ana Ateixtlahuaca 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0		Santos Reyes Yucuna	0	0	0	0	0	0	
Santa Ana Ateixtlahuaca 0 0 0 0 0 0 0 San Simón Zahuatlán 0 0 0 0 0 0		San Martín Peras	0	0	0	0	0	0	
San Simón Zahuatlán 0 0 0 0 0 0		Coicoyan de Las Flores	0	0	0	0	0	0	
		Santa Ana Ateixtlahuaca	0	0	0	0	0	0	
San Miguel Santa Flor 0 0 0 0 0		San Simón Zahuatlán	0	0	0	0	0	0	
Fuento: alaboración propio a partir de detes reconiledes en compo		San Miguel Santa Flor	~	· ·				0	

Fuente: elaboración propia a partir de datos recopilados en campo.

Within the social web V1.1 five indicators are integrated, among them V1.1.1 content syndication, the municipalities of GDH very high mexican have syndication of contents, thus those of Oaxaca except for Santa Lucia del Camino. No municipality with low GHD has this indicator.

The V1.1.2 content scoring and publications, of 13 municipalities Mexiquenses seven (53.8%) allow the punctuation by the citizens in their social networks and two (15.3%: Coacalco de Berriozábal and Toluca) in page of the city council, the four (30.7%: Ixtapan del Oro, Donato Guerra, Sultepec and San José del Rincón) do not register a score. In the case of Oaxaca, of the 17 municipalities, six (35.3%) allow to punch in their social networks, one (7.6%: Heroica Huajuapan de León) in its page of the City council, the rest (58.8%) does not punte.

The V1.1.3 published comments, seven municipalities of Mexico allow them to be told in their social networks, two (Coacalco de Berriozábal and Toluca) in their pages of the city council, the rest do not have this indicator. In Oaxaca, five allow citizens to comment on their social networks, two (Oaxaca de Juárez and Heroica Huajuapan de León) allow comments to be made even on their page, in the rest of the municipalities do not have this possibility.

The V1.1.4 published compartment, nine Mexican municipalities share and allows to share their published, the remaining four (Ixtapan del Oro, Donato Guerra, Sultepec and San José del Rincón) do not allow it. In Oaxaca, the seven municipalities with very high GDH share and allow sharing, the rest of municipalities do not.

The V1.1.5 categorization of contents, 11 Mexican municipalities (84.6%) categorize their content through tags, two (16.3%: Donato Guerra and Sultepec) do not have this. The seven municipalities of Oaxaca (53.8%) with very high GDH have this categorization and those of low GDH do not have it.

Another indicator of the V1. Municipal Web is the V1.2 creation forums, Coacalco de Berriozábal is the only municipality that has these discussion forums and conversation. The V1.3 that are polls placed in the same pages to consult to the citizenship, were not located except for Toluca that includes in its portal this type of resources.

The V1.4 wiki that exists in most of the municipalities of Mexico except for Donato Guerra and Sultepec. In Oaxaca all municipalities of very high GDH have it. The V1.5 Google maps that help the location of spaces and services, is a resource that is present in most municipalities (69.2%) with very high GDH.

The V1.6 chat, is great absent in the pages of the local governments, only Toluca counts on this resource that is active and allows the instant conversation.

Table IV shows levels of V.2 participation in networks, where the municipalities with SS are Metepec, Coacalco de Berriozábal, Toluca, Oaxaca de Juárez, San Juan Bautista Tuxtepec, Salina Cruz, Santa Cruz Xoxocotlán, and Heroica Huajuapan de Leon, all of them very high GDH. The rest of the municipalities of this GDH are located in participation S. Of the municipalities with GDH under only Luvianos achieves a level S, the rest is of ANS.

The V2 participation in networks is integrated with eight indicators, the V2.1 creation of municipal blogs is present in five municipalities of the sample: Metepec, Coacalco de Berriozábal, San Juan Bautista Tuxtepec, Santa Cruz Xoxocotlán and Heroica Huajuapan de León, all of Very high GDH.

The V2.2 creation of Facebook groups, the V2.3 creation of Twitter channels and the V2.4 YouTube channel are resources of greater reach and frequency in the pages, all municipalities of very high GDH have at least three of these. In most low GDH municipalities it is an unexploited resource. The V2.5 communities are not as frequent as the previous ones. The V2.6 photos is a general resource of municipalities that have page.

In V2.7 virtual services it is observed that it is present in four municipalities of the State of Mexico and in six of the State of Oaxaca, all of GDH very high. The V2.8 virtual worlds is the great absentee, only it was located in Heroica Huajuapan of Leon.

Table IV. Indicators of Participation in networks by municipality and State

	Table IV. Indicators of Participation in networks by municipality and State									
ESTADO	MUNICIPIO	V2.1 CREACIÓN DE BLOGS MUNICIPALES	V2.2 CREACIÓN DE GRUPOS DE FACEBOOK	V2.3 CREACIÓN DE CANALES DE TWITTER	V2.4 CANAL DE YOU TUBE	V2.5 COMUNIDADES VIRTUALES	V2.6 FOTOS	V2.7 SERVICIOS VIRTUALES	V2.8 MUNDOS VIRTUALES	V2 PARTICIPACIÓN EN REDES SOCIALES
	Metepec	1	1	1	1	1	1	1	0	2
	Coacalco de Berriozábal	1	1	1	1	1	1	1	0	2
	Cuautitlán Izcalli	0	1	1	1	0	1	1	0	1
	Cuautitlán	0	1	1	1	0	1	0	0	1
	Atizapán de Zaragoza	0	1	1	1	0	1	0	0	1
00	Tlalnepantla	0	1	1	1	1	1	0	0	1
México	Toluca	0	1	1	1	1	1	1	0	2
M	Ixtapan Del Oro	0	0	0	0	0	1	0	0	0
	Luvianos	0	1	1	1	0	1	0	0	1
	Donato Guerra	0	0	0	0	0	0	0	0	0
	Villa de Allende	0	1	0	0	0	1	0	0	0
	Sultepec	0	0	0	0	0	0	0	0	0
	San José del Rincón	0	0	0	0	0	1	0	0	0
	Oaxaca de Juárez	0	1	1	1	1	1	1	0	2
	Santa Lucía del Camino	0	1	1	0	0	1	0	0	1
	San Juan Bautista Tuxtepec	1	1	1	1	1	1	1	0	2
	Santo Domingo									
	Tehuantepec	0	1	1	1	0	1	1	0	1
	Salina Cruz	0	1	1	1	1	1	1	0	2
	Santa Cruz Xoxocotlán	1	1	1	0	1	1	1	0	2
_	Heroica Huajuapan de León	1	1	1	1	1	1	1	1	2
Oaxaca	San Baltazar Yatzachi El			0	0	0		0		
ax	Bajo	0	0	0	0	0	0	0	0	0
0	Santiago Tapextla	0	0	0	0	0	0	0	0	0
	Abejones	0	0	0	0	0	0	0	0	0
	Yogana Santas Pavas Vyayna	0	0	0	0	0	0	0	0	0
	Santos Reyes Yucuna San Martín Peras	0	0	0	$\frac{0}{0}$	0	0	0	$\frac{0}{0}$	0
				0		0	0		-	0
	Coicoyan de Las Flores	0	0	0	0	0	0	0	$\frac{0}{0}$	0
	Santa Ana Ateixtlahuaca San Simón Zahuatlán	0	0	0	0	0	0	0	0	0
	San Miguel Santa Flor	0	0	0	0	0	0	0	0	0
	Fuente: elaboración	,	_		-	_		,	0	- 0

Fuente: elaboración propia a partir de datos recopilados en campo.

The results of the measurement of V.3 Listening in networks are recorded in Table V, from which it can be seen that municipalities with very high GDH, except for Santa Lucía del Camino, are monitored in SS networks. The governments of low GDH with the exception of Luvianos and Villa de Allende, result with ANS in this variable.

The V3 listens on social networks is composed of two indicators, where the V3.1 response to comments is effective in municipalities of very high GDH. In the low are only located in Luvianos and Villa de Allende.

The V3.2 contacts with communities of the municipality is a resource that is present in the municipalities with very high GDH except for Santa Lucia del Camino. In no municipality with low GDH is located.

Table V. Indicators of Listening in networks by municipality and State

able	e V. Indicators of Listening in netv	vorks by		and Stat
ESTADO	MUNICIPIO	V3.1 RESPUESTA A COMENTARIOS	3.2 CONTACTOS CON COMUNIDADES VIRTUALES DEL MUNICIPIO	V3 ESCUCHA EN REDES SOCIALES
	Metepec	1	1	2
•	Coacalco de Berriozábal	1	1	2 2 2 2 2 2 2
•	Cuautitlán Izcalli	1	1	2
•	Cuautitlán	1	1	2
•	Atizapán de Zaragoza	1	1	2
03	Tlalnepantla	1	1	2
México	Toluca	1	1	2
M	Ixtapan del Oro	0	0	0
•	Luvianos	1	0	1
•	Donato Guerra	0	0	0
•	Villa de Allende	1	0	1
•	Sultepec	0	0	0
•	San José del Rincón	0	0	0
	Oaxaca de Juárez	1	1	2
	Santa Lucía del Camino	1	0	1
	San Juan Bautista Tuxtepec	1	1	2
	Santo Domingo Tehuantepec	1	1	2 2 2
	Salina Cruz	1	1	2
	Santa Cruz Xoxocotlán	1	1	2
	Heroica Huajuapan de León	1	1	2
ca	San Baltazar Yatzachi El Bajo	0	0	0
Oaxa	Santiago Tapextla	0	0	0
0	Abejones	0	0	0
	Yogana	0	0	0
	Santos Reyes Yucuna	0	0	0
	San Martín Peras	0	0	0
	Coicoyan de Las Flores	0	0	0
	Santa Ana Ateixtlahuaca	0	0	0
	San Simón Zahuatlán	0	0	0
	Sun Simon Zun Gunta			

Fuente: elaboración propia a partir de datos recopilados en campo.

In V.4 Citizen collaboration only Toluca obtains SS having the willingness to place proposals of the city council to be debated and also citizens who present proposals. The rest of the municipalities have no progress in this variable, their levels are located in ANS.

The V5 public data is a resource that expands in municipalities with very high GDH, except for Santa Lucia del Camino. In no municipality of low GDH are located public data in the sense of open data.

The V6 public applications are not available in all municipalities, they only have them in Tlalnepantla, Toluca, Oaxaca de Juárez, Salina Cruz, Santa Cruz Xoxocotlán and Heroica Huajuapan de León.

The V.7 transparency is measured and its results are listed in Table VI, where six municipalities of very high GDH count SS, two from Mexico and four from Oaxaca. The remaining municipalities with very high GDH have a level S. Of the municipalities with low GDH have S Ixtapan del Oro, Luvianos, Villa de Allende and San José del Rincón, the rest of ANS municipalities.

The V7 transparency is composed of two indicators, the V7.1 reactive diffusion that corresponds to give attention to the requests of information that the citizens are expressing, only exists in Coacalco de Berriozábal, Atizapán of Saragossa, Oaxaca of Juárez, San Juan Bautista Tuxtepec, Salina Cruz and Heroica Huajuapan de León. While the V7.2 proactive diffusion that corresponds to the exposure of information that by law must make public the governments, is only absent in Donato Guerra, Sultepec and in those of low GDH of Oaxaca, the municipalities that do not have web page.

Table VI. Transparency Indicators by municipality and State

	ole v1. Transparency indicators by			1
ESTADO	MUNICIPIO	V7.1 DIFUSIÓN REACTIVA	V7.2 DIFUSIÓN PROACTIVA	V7 TRANSPARENCL
	Metepec	0	1	1
	Coacalco de Berriozábal	1	1	2
	Cuautitlán Izcalli	0	1	1
	Cuautitlán	0	1	1
	Atizapán de Zaragoza	1	1	2
2	Tlalnepantla	0	1	1
México	Toluca	0	1	1
Z	Ixtapan del Oro	0	1	1
	Luvianos	0	1	1
	Donato Guerra	0	0	0
	Villa de Allende	0	1	1
	Sultepec	0	0	0
	San José del Rincón	0	1	1
	Oaxaca de Juárez	1	1	2
	Santa Lucía del Camino	0	1	1
	San Juan Bautista Tuxtepec	1	1	2
	Santo Domingo Tehuantepec	0	1	1
	Salina Cruz	1	1	2
	Santa Cruz Xoxocotlán	0	1	1
	Heroica Huajuapan de León	1	1	2
g	San Baltazar Yatzachi El Bajo	0	0	0
axaca	Santiago Tapextla	0	0	0
Ö	Abejones	0	0	0
	Yogana	0	0	0
	Santos Reyes Yucuna	0	0	0
	San Martín Peras	0	0	0
	Coicoyan de Las Flores	0	0	0
	Santa Ana Ateixtlahuaca	0	0	0
	San Simón Zahuatlán	0	0	0
	San Miguel Santa Flor	0	0	0

Fuente: elaboración propia a partir de datos recopilados en campo.

The V.10 Management of change that implies leadership and the establishment of policies to promote open government, is S in municipalities with very high GDH, and in Luvianos and Villa de Allende that are GDH low, the rest of this degree has ANS. In all municipalities there are no policies or regulations that guide the management of change, no documents were found that support the positioning of the municipal government for this innovation.

Table VII summarizes the totals for each of the measured variables and, consequently, the level reached for the open government. In this way it is observed that only in the municipalities of GDH very high levels of S (57.1% of the municipalities) and SS (42.8% of the municipalities) were obtained, in the low GDH is ANS. The municipalities that achieve an open government SS are Coacalco de Berriozábal and Toluca for the State of Mexico, Oaxaca de Juárez, Salina Cruz, Santa Cruz Xoxocotlán and Heroica Huajuapan de León for the State of Oaxaca. The municipalities with level S in open government are Metepec, Cuautitlán Izcalli, Cuautitlán, Atizapán of Saragossa and Tlalnepantla in the State of Mexico; Saint Lucia, San Juan Bautista Tuxtepec and Santo Domingo Tehuantepec in Oaxaca.

Table VII. Open Government, its variables by municipality and state

	Table VII. Open Government, its variables by municipality and state											
ESTADO	MUNICIPIO	V1 WEB MUNICIPAL	V2 PARTICIPACIÓN EN REDES	V3 ESCUCHA EN PEDES	V4 COI CII	V5 DATOS PÚBLICOS	V6 APLICACIONES PÚBLICAS	>	V8 TRABAJO COLABORATIVO	V9 PARTICIPACIÓN INTERNA	V10	GOBIERNO ABIERTO
	Metepec	1	2	2	0	1	0	1	1	1	1	1
	Coacalco de Berriozábal	1	2	2	0	1	0	2	1	1	1	2
	Cuautitlán Izcalli	1	1	2	0	1	0	1	1	0	1	1
	Cuautitlán	1	1	2	0	1	0	1	1	0	1	1
	Atizapán de Zaragoza	1	1	2	0	1	0	2	1	0	1	1
00	Tlalnepantla	1	1	2	0	1	1	1	1	1	1	1
México	Toluca	2	1	2	2	1	1	1	1	1	1	2
M	Ixtapan del Oro	0	0	0	0	0	0	1	0	0	0	0
	Luvianos	1	1	1	0	0	0	1	0	0	1	0
	Donato Guerra	0	0	0	0	0	0	0	0	0	0	0
	Villa de Allende	1	0	1	0	0	0	1	1	0	1	0
	Sultepec	0	0	0	0	0	0	0	0	0	0	0
	San José del Rincón	0	0	0	0	0	0	1	0	0	0	0
	Oaxaca de Juárez	1	2	2	0	1	1	2	1	0	1	2
	Santa Lucía del Camino	1	1	1	0	0	0	1	1	0	1	1
	San Juan Bautista Tuxtepec	1	2	2	0	1	0	2	1	0	1	1
	Santo Domingo Tehuantepec	1	1	2	0	1	0	1	1	0	1	1
	Salina Cruz	1	2	2	0	1	1	2	1	1	1	2
	Santa Cruz Xoxocotlán	1	2	2	0	1	1	1	1	1	1	2
	Heroica Huajuapan de León	1	2	2	0	1	1	2	1	0	1	2
ca	San Baltazar Yatzachi El Bajo	0	0	0	0	0	0	0	0	0	0	0
Oaxaca	Santiago Tapextla	0	0	0	0	0	0	0	0	0	0	0
0	Abejones	0	0	0	0	0	0	0	0	0	0	0
	Yogana	0	0	0	0	0	0	0	0	0	0	0
	Santos Reyes Yucuna	0	0	0	0	0	0	0	0	0	0	0
	San Martín Peras	0	0	0	0	0	0	0	0	0	0	0
	Coicoyan de Las Flores	0	0	0	0	0	0	0	0	0	0	0
	Santa Ana Ateixtlahuaca	0	0	0	0	0	0	0	0	0	0	0
	San Simón Zahuatlán	0	0	0	0	0	0	0	0	0	0	0
	San Miguel Santa Flor	0	0	0	0	0	0	0	0	0	0	0
	Evantar alabamación m	-					., ,					

Fuente: elaboración propia a partir de datos recopilados en campo.

Once the levels of open government achieved by the municipalities were known, a test of association of chi square (Table VIII) was carried out, confirming the relationship between the level of open government and the GDH. The association is significant both in the partial analysis of each state as the general, in all three cases this claim can be sustained at 99% confidence.

Once verified that there is an association between these two variables, the coefficient of association with the D of Somers was tested (Table VIII), where it is observed that the intensity of the association is very high and significant, even reaching the value of one, The maximum possible in this coefficient, when the open government variable is the dependent one as it was raised in this investigation. The level of confidence can sustain this argument in 99% of cases.

Table VIII. Table of Contingency, Chi square test and D coefficient of Somers by States and total of the municipalities

	GOR		BIERTO L					
GDH	AÚN NO		SATISFACTORIO SOBRESALIE		RESALIENTE	TOTAL		
0211	SUFICIENTE	(5		(SS)		TOTAL		
MÉXICO	(ANS)	((-)		()	
BAJO	6 (46.2 %)	()		0	6 (46.2 %)		
MUY ALTO	0	5 (38	.5 %)	2	(15.4 %)	7 (53.8 %)		
TOTAL	6 (46.2 %)	5 (38	.5 %)	2	(15.4 %)	13 (100 %)		
OAXACA								
BAJO	10 (58.8 %)	()		0	10 (58.8 %)		
MUY ALTO	0	3 (17	.6 %)	4	(23.5 %)	7 (41.2 %)		
TOTAL	10 (58.8 %)	3 (17	.6 %)	4	(23.5 %)	17 (100 %)		
TOTAL DE MUN	NICIPIOS ESTUDIA	ADOS						
BAJO	16 (53.3 %)	()		0	16 (53.3 %)		
MUY ALTO	0	8 (26	.7 %)	6 (20 %)		14 (46.7 %)		
TOTAL	16 (53.3 %)	8 (26	.7 %)		6 (20 %)	30 (100 %)		
	PRU	EBA DE C	HI-CUADI	RADA				
TOTAL			VALOR	GL		INTÓTICA		
					(BILATERAL)			
	earson para Estado d		13	2		0.002		
	earson para Estado d	le Oaxaca	17	2		0.000		
	Pearson para total de		30	2	C	0.000		
municipios								
COEFICIENTE D DE SOMERS PARA EL TOTAL DE LOS MUNICIPIOS								
,		ALOR			OXIMADA			
SIMÉTRICA			.903 .824			000		
	GDH DEPENDIENTE					000		
GOBIERNO ABIE]	1.000		0.0	000			
DEPENDIENTE								

Fuente: elaboración propia a partir de datos recopilados en campo.

Another statistical test to which the results were subjected is the calculation of the correlation established between the GDH and variables that were used as is the average in schooling, per capita income and open government (Table IX). It was obtained that the GDH has very high correlation and significant with these three variables. These tests confirm the meaning of the hypothesis raised in the present study.

Table IX. Correlation of degree of human development with average schooling, per capita income and open government

VARIABLES	MÉXICO	OAXACA	TOTAL
Promedio de escolaridad	.988	.959	.946
Ingreso per cápita	.981	.888	.907
Gobierno abierto	.907	.968	.938

Fuente: elaboración propia a partir de datos recopilados en campo.

Discussion

The present investigation began with the formulation of a question: what is it that local governments in Mexico respond differently to the expression of open government? Assuming as hypothesis that local governments in Mexico respond differently to the expression of open government due to the achievements in their human development, keeping a direct and proportional relationship, then municipalities with greater human development have a higher level of open government, while Governments with lower human development reach lower levels of open government, which is positively tested for this research. Municipalities with very high human development have outstanding open and satisfactory governments, while municipalities with low human development have between zero and still enough open governments.

Contexts are important and contribute to the quality of governments and societies. Government actions, such as open government, are a social construction that is defined by the intersubjective interactions that are manifested in the local. In this way, progress in human development consolidates ways of relating between authority and its community. The transition between the use of web 1.0 and web 2.0 implies the construction of a participative, deliberative and citizencentered democratic model.

The achievement in human development opens guidelines for the achievement of other rights, as is the case of the present study where the open government is not a gift from the government, a dazzling action of the authority, but responds to full citizenship rights Of communication with its rulers. That is why it is worrying that there are municipalities that do not have access to the internet, that there are municipalities that do not have their website, this is discrimination for the citizens of those communities. These municipalities are those that have low human development: low schooling, less years of life and lower income per capita.

At the beginning of the present text it was mentioned that the principles of open government are collaboration, participation and transparency. In that sense, the findings point out that citizen collaboration is the great absentee in local government in Mexico, only one municipality identified openness and encouragement mechanisms for citizen collaboration through the same institutional websites. The collaborative work within the administrations and measured in the same sites was only locatable for the municipalities of very high GDH and their use was detected weak, not sufficiently exploited.

The role of social media centered on political participation becomes more vital to local governments since citizens feel more connected with their local authorities (Triantafillidou et al., 2016). However, in the local area it is where the relationship between authority and community becomes more complicated and complex. The present study demonstrates that institutional participation in social networks is not generalized, the conversation that is the end of open government is not a strategy that has been detected to be effective in Mexican municipal governments. In developed societies such as the United States, local governments have not effectively used the tools of social media (Norris and Reddick, 2013); In Europe social media platforms are not widely used, and from low to moderate in Greece (Bonsón et al., 2012), in the municipalities of Egypt social media have been exploited in their web pages very slowly (Abdelsalam Et al., 2013).

Facebook and Twitter are the most used networks in the world (Sobaci, 2016), the most resorted also in the case of the municipalities under study, but with a weak to moderate exploitation. In Mexico, poor levels of interactive communication were found on local government websites (Sandoval-Almazán and Gil-García, 2012). Therefore, before this evidence it is affirmed that the way for the local governments in this matter of means and social networks is a challenge. It is indisputable that the use of the networks is increasing in the municipalities under study, as well as they point to the case of the Spanish municipalities Criado and Rojas-Martín (2016). Faced with this, the challenge is to improve the relationship between authority and citizenship, to have better access to information, to develop consensus solutions and to expand democracy.

Internet, social networking and platforms improve communication; Although they are not the solution, they become an alternative to redefine civil society and its interaction with the authorities (Soto, 2012).

The real manifestation of open government responds to inertia that can be classified in a double taxonomy: 1) respond to paths of institutionalization based on clear, targeted policies, programs and budgets; And 2) be emulations that are made in contemplating some experiences known as successful. In either case, political leadership is required, but the first is focused on a state vision and the second on an electoral or ephemeral vision.

The opening of data in municipal governments in Mexico, as another pillar of open government, is embryonic, there is a wide and sustained supply of information that is easy to understand and citizen access. This situation found in the present study is confirmed by the one carried out by Sandoval-Almazán (2012). Government transparency is not distinctive of local governments, there are great resistances and attachments to opacity.

The great challenges that local governments have in the way of the open government is to focus their efforts on the principles and components of this, 1) transparency so that there is a society that has more and better knowledge of the state of its environment, transparency Passive, active, proactive, transactional and focused (Hofmann, 2016); 2) participation in favor of the conversation and the construction of consensuses; 3) collaboration involving society in the search for solutions; And 4) open data that does not have specialized language and that allows its understanding. To do this, it is necessary to take firm steps to institutionalize, through norms and programs, the actions, ways and ways of operating open government; That way you can understand and share the purpose.

Local public administrations becoming open show social platforms that promote public conversation, innovation, understanding of the internal environment in constant interaction with their external environment (Criado and Rojas-Martín, 2016). Open administrations, then, have an active and intense life in social networks that facilitates the feedback of all processes and procedures, as well as alternatives.

CONCLUSIONS

The diagnosis made to the Mexican municipalities allows to affirm that the open government in the local is subordinated to the human development, this right to have direct contact with the authorities is not guaranteed for the citizens of the municipalities with low human development. However, the issue is even more serious since it is evident that even these communities do not have the basic rights that allow them to ensure a decent living. This condition is discriminatory and violates the right of equality.

Therefore, it is essential to ensure the conditions that allow human development as the first right of a decent life and work at the same time to ensure the right to communication with its authorities, access to information and the manifestation of its options And proposals, being treated with respect and dignity. In Mexico the value of solidarity and subsidiarity is urgent so that the communities with the highest human development cooperate with those of low and very low development, this way will contain the social heterogeneity and its effects.

Open government is still a utopia that can move society and government to a more collaborative interaction where conversation is the basis.

Bibliography

- Abal, J. M. (2010). Gobierno Abierto para fortalecer a la democracia. En C. Calderón, y S. Lorenzo, *Open Government: Gobierno Abierto*. España: Algón Editores, pp. 214-250.
- Abdelsalam, H.,Reddick, C., Gamal, S. y At Shaar, A. (2013). Social media in Egyptian government websites: presence, usage, and effectiveness. *Government Information Quarterly*, 30 (4), 406-416.
- Bonsón, E., Torres, L., Royo, S. & Flores. (2012). Local e-government 2.0:Social media and corporate transparency in municipalities. *Government information Quarterly*, 29, 123-132.
- Boughzala, I.; Janssen, M.; & Assar, S. (2015). E-government 2.0: Back to Reality, a 2.0 application to vet. En I. Boughzala, M. Janssen, & S. Assar, *Case Studies in e-Government 2.0 Changing Citizen Relationships*, New York: Springer, pp. 1-14.
- Calderón, C. & Lorenzo, S. (2010). *Open Government. Gobierno Abierto*. España: Algón Editores.
- Criado, I J. y Rojas-Martín (2016). Hacia una gestión pública abierta en las administraciones locales. Análisis de las dinámicas de usos de redes sociales digitales en el caso español. En R. P. Martínez, *Gobierno Abierto para la consolidación democrática*. México: Tirant lo blanch, pp. 259-284.
- Hofmann, A. (2016). Gobierno Abierto: algunos Apuntes. Estudio Introductorio. En R. P. Martínez, Gobierno Abierto para la Consolidación Democrática. México: Tirant lo blanch, pp. 13-25.
- Khan, G. F. (2015). Social media-based government explained: utilization model, implementation scenarios, and relationships. En I. Boughzala, M. Janssen, & S. Assar, *Case Studies in e-Government 2.0 Changing Citizen Relationships*. New York: Springer.

- Lipset, S. M. (2007). Algunos requisitos sociales de la democracia: Desarrollo económico y legitimidad política. En G. Almond, R. Dahl, A. Downs, M. Duverger, D. Easton, S. Lipset, y otros, *Diez textos básicos de ciencia política*. España: Ariel, pp. 113-150.
- Llinares, J. (2010). Las 10 claves para entender la colaboración en el Modelo Open Government. En C. Calderón, y S. Lorenzo, *Open Government: Gobierno abierto*. España: Algón Editores, pp. 51-74.
- Manchado, A. (2010). Gobierno Abierto, una aproximación desde el Estado. En C. Calderón, y S. Lorenzo, *Open Government: Gobierno abierto* España: Algón Editores, pp. 104-126.
- Moon, M. J. (2002). The evolution of E-Government among municipalities: rhetoric. *Public Administration Review*, 62 (4).
- Norris, D. & Reddick, C. (2013). Local E-Government in the United States: Transformation or Incremental Change? *Public Administration Review*, 73 (1), 165-175.
- Ortiz, A. d. (2010). Fábula introductoria: una historia de Brujas. En C. Calderón, y S. Lorenzo, *Open Government: Gobierno Abierto*. España: Algón Editores, pp. 21-27.
- Orszag, P. R. (2009). *Memorandum for the heads of executive departments and agencies*.

 Recuperado el 20 de mayo de 2016, de Memorandum for the heads of executive departments

 and

 agencies:

 https://www.whitehouse.gov/sites/default/files/omb/memoranda/2016/m-16-16.pdf
- Oszlak, O. (septiembre de 2013). Gobierno abierto: hacia un nuevo paradigma de gestión pública. Recuperado el 17 de mayo de 2016, de Gobierno abierto: hacia un nuevo paradigma de gestión pública: https://www.oas.org/es/sap/dgpe/pub/coleccion5RG.pdf
- Pardo, A. y San Martín, R. (2010). *Análisis de datos en ciencias sociales y de la salud II*. España: Síntesis, S.A.
- Pla, Issa Luna; Bojórquez y Pereznieto J. (2015). Gobierno Abierto el valor social de la información pública. México: IIJ-UNAM, ITAIP.

- Programa de las Naciones Unidas para el Desarrollo (PNUD) (2014). Índice de Desarrollo Humano Municipal en México: Nueva Metodología. México: PNUD.
- Ramírez-Alujas, A. (2013). El gobierno abierto y los desafíos tecnológicos en Latinoamérica.

 Madrid: Goberna, América Latina, Instituto Universitario de la Investigación Ortega y
 Gasset.
- Ramírez-Alujas, Á. V. (2012). Gobierno abierto es la respuesta: ¿cuál era la pregunta? *Más Poder Local* (12), 14-21.
- Ramírez-Alujas, Á. V. (2011). Gobierno abierto y modernización de la gestión pública: Tendencias actuales y el (inevitable) camino que viene. Reflexiones seminales. *Enfoques: Ciencia Política y Administración Pública, IX* (15).
- Ramírez-Alujas, Á. V. (2010). Innovación en la Gestión Pública y Open Government (Gobierno Abierto): Una vieja nueva idea. *Buen Gobierno* (9).
- Red de municipios digitales de Castilla y León (3 de diciembre de 2010). Red de municipios digitales de Castilla y León. Recuperado el 16 de mayo de 2016, de Open Government. 10 ideas para hacer tu Ayuntamiento abierto: http://www.dip-badajoz.es/diputacion/delegaciones/apnt/Open_Government_10_ideas_para_hacer_tu_Ay untamiento_abierto.pdf
- Sánchez, M. Á. (2013). Géstion local: entre la confianza y la satisfacción ciudadana. En D. R. Cedillo, y M.A. Sánchez (cords.), *El capital social en el Estado de México 2000-2009.*Diagnóstico, estado y desafíos de la democracia mexiquense. Toluca: UAEM, pp. 119-134.
- Sánchez, M. Á. (2014). Gobierno electrónico en Amecameca, una oportunidad municipal. *Revista del IAPEM: El municipio a 495 años de su creación* (88), 139-160.
- Sandoval-Almazán, R. y Gil-García, R. J. (2012). Are Government internet portals evolving towards more interaction, participation, and colaboration? Revisting the rhetoric of egovernment among municipalities. *Government Information Quarterly*, 29 (1), S72-S81.

- Sandoval-Almazán & R., Gil-García, J. R., Luna-Reyes, L., Luna-Reyes, D., Diaz-Murillo, G. (2011). The use of Web 2.0 on Mexican State Websites: A Three-Year Assessment. *electronic Government*, 9 (2), 107-121.
- Sandoval-Almazán, R. (2015). Gobierno abierto y transparencia: construyendo un marco conceptual. *Convergencia. Revista de Ciencias Sociales*, 22 (68), 203-227.
- Sobaci, M. Z. (2016). Social Media and Local Governments: an overview. En M. Z. Sobaci, *Social Media and Local Governments*). New York: Springer, pp. 3-22.
- Soto, J. (2012). Open Government: A New Panorama for Governance. En R. Singh, S. B. Romero, P. Gutiérrez, E. Chiloba, F. Barrientos del Monte, M. A. Vargas, y otros, Technology and Citizen Participation in the Construction of Democracy. México: Instituto Electoral y de Participación Ciudadana de Jalisco, PNUD, pp. 175-182.
- Triantafillidou, Amalia; Lappas, Georgios; Yannas, Prodromos; Kleftodimos, Alexandros. (2016). Greek Local E-Government 2.0: Drivers and Outcomes of Social Media Adoption. En M. Z. Sobaci, *Social Media and Local Governments, theory and practice*. New York: Springer, vol. 15, pp. 153-170.